

## **ANNUAL GROUNDWATER MONITORING REPORT FOR 2020**

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### **COLORADO SPRINGS UTILITIES' CLEAR SPRING RANCH Coal Combustion Residuals Landfill El Paso County, Colorado**

**January 29, 2021**

**Prepared For:**

40 CFR Part 257.90(e)

and

Colorado Department of Public Health & Environment  
Hazardous Materials & Waste Management Division  
4300 Cherry Creek Drive South  
Denver, Colorado 80246-1530

**Attention:**

Ms. Jill Parisi

**Prepared By:**

Colorado Springs Utilities  
Environmental Services Division  
Technical Services Section

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**Facility Environmental Activities Contact**

Colorado Springs Utilities' Environmental Services  
P.O. Box 1103, Mail Code 940, Colorado Springs, CO 80947-0940

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## 1.0 EXECUTIVE SUMMARY

At the start and end of the 2020 reporting period, Colorado Springs Utilities' (Utilities') Clear Spring Ranch (CSR) Coal Combustion Residuals (CCR) Landfill was operating pursuant to the assessment monitoring program set forth in 40 CFR 257.95. The landfill entered assessment monitoring in 2018.

During 2020, the following monitoring wells were determined to have a statistically significant increase over background for the following EPA CCR Rule Appendix III constituents pursuant to 40 CFR 257.94(e):

- ▼ Boron within monitoring wells SC-11 and SC-12.
- ▼ Fluoride within monitoring well SC-12, SC-13, & SC-14.

No EPA CCR Rule Appendix IV constituents were measured at a statistically significant level exceeding the Groundwater Protection Standards (GWPS); therefore, initiating an assessment of corrective measures is not required at this time.

## 2.0 INTRODUCTION

This annual report summarizes the groundwater monitoring activities performed during 2020 in association with the CCR Landfill at Utilities' CSR, located west-southwest of the intersection of Interstate 25 and Ray Nixon Road (Exit 125) in El Paso County, Colorado.

The CCR Landfill is regulated by the U.S. Environmental Protection Agency (EPA), the Colorado Department of Public Health & Environment (CDPHE), and El Paso County. The land-use is authorized via a Certificate of Designation (CD) obtained from El Paso County (CD #004-001).

The groundwater monitoring activities were performed for compliance with the EPA's Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments (40 CFR §257.50 through §257.107) (EPA CCR Rule) and the CDPHE's Regulations Pertaining to Solid Waste Sites & Facilities (6 CCR 1007-2, Part 1, Section 2.2 - Ground Water Monitoring).

The groundwater monitoring activities were conducted in general accordance with the Professional Engineer certified and CDPHE approved<sup>1</sup> Coal Combustion Residuals Landfill Groundwater Detection Monitoring Plan.<sup>2</sup>

This report fulfills the EPA's, CDPHE's, and El Paso County's annual reporting requirements.

### 2.1 Groundwater Classification and Management

From its inception in the late 1970's, the CCR Landfill has been designed and operated to protect the Fountain Creek Alluvial Aquifer, which is the closest aquifer to the site used for drinking water purposes. The CCR Landfill is located ~0.5 mile upgradient of a Retention Dam, described below. The Fountain Creek

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<sup>1</sup> E-Mail from Jill Parisi / CDPHE to Patti Zietlow / Colorado Springs Utilities Re: Clear Spring Ranch CCR Landfill Groundwater Detection Monitoring Plan. November 14, 2017.

<sup>2</sup> AECOM. Coal Combustion Residuals Landfill Groundwater Detection Monitoring Plan, Clear Spring Ranch, El Paso County, Colorado. Revision 0. October 2017.

Alluvial Aquifer is located ~0.5 mile downgradient of the Retention Dam. There are no drinking water or agricultural wells within the CD Area, in which the CCR Landfill is located. There is no reasonable potential for future domestic or agricultural uses of groundwater within this area, as it is owned and controlled by Utilities.

Previously evaluated groundwater quality data indicates that groundwater upgradient of and underlying the CSR CD Area, in which the CCR Landfill is located, has a total dissolved solids (TDS) concentration exceeding 10,000 mg/l. The EPA, in their Guidelines for Groundwater Classification Under the EPA Groundwater Protection Strategy<sup>3</sup> (Guidelines), classifies groundwater with TDS concentrations greater than or equal to 10,000 mg/l as Class III water. Class III is defined as “groundwater not a potential source of drinking water and/or limited beneficial use.”

To protect the Fountain Creek Alluvial Aquifer, groundwater associated with the CCR Landfill is managed via a Retention Dam and pump back system. The Retention Dam was constructed downgradient of the CCR Landfill in 1978 to inhibit the off-site migration of surface water and groundwater. The dam has a bentonite core and is keyed into the underlying Pierre Shale bedrock. To improve the dam's performance, in the 1990s, Utilities installed a bentonite barrier wall along the upgradient toe of the dam, and a french drain & pump back system downgradient of the dam. The french drain captures water seepage through the dam. The drain extends for ~525 feet along the southern portion of the dam. The french drain's collection trench is gravel filled and slopes towards a sump located at the northern end of the trench. An extraction well and pump remove water collected in the sump and pump it back to the upgradient Retention Dam pond. The dam is registered with and inspected by the Office of the State Engineer - Division of Water Resources - Dam Safety Branch (Dam I.D. #100401). A site plan is presented in Appendix A.

### 3.0 GROUNDWATER FLOW ANALYSIS & GEOLOGIC PROFILE

The CCR Landfill is located within a small, west-east trending topographic depression that is underlain with, and bounded to the north and south, by Pierre Shale. An investigation of CSR involving laboratory hydraulic conductivity tests on cores of un-weathered Pierre Shale indicated that the Pierre Shale is essentially impermeable<sup>4</sup>. The surficial geology consists of ~4 to ~50 feet of alluvial sediments<sup>5</sup> deposited on top of the Pierre Shale.

A figure of the site showing the potentiometric groundwater surface, interpolated elevations of the underlying Pierre Shale bedrock, and the estimated boundary of the Fountain Creek Alluvial Aquifer is presented in Appendix A.

The groundwater surface was prepared using April 2020 groundwater elevation measurements. The bedrock elevations were obtained from historical on-site exploratory and monitoring well boring logs. To aid in the *visualization* of the aquifer boundary, wherever a groundwater contour intersects a bedrock contour at the same elevation, the groundwater contour was cut at that theoretical intersection. For example, where the groundwater contour with an elevation of 5,400 feet intersects the bedrock contour with the same elevation, the water level generally would not be higher on the ridge than 5,400 feet.

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<sup>3</sup> U.S. EPA. Guidelines for Groundwater Classification Under the EPA Groundwater Protection Strategy. Office of Groundwater Protection. June 1988.

<sup>4</sup> Haley & Aldrich. Hannah Ranch Dam Seepage Analysis Preliminary Engineering Report. April 1994.

<sup>5</sup> Layne Western. Ash Disposal Site, R.D. Nixon Power Plant. Carl Nuzman, Bruce Maxwell & Carl Larson. August 1977.

The groundwater surface data suggests that groundwater beneath the CCR Landfill generally flows in a southeasterly direction towards the Retention Dam.

## 4.0 GROUNDWATER QUALITY SAMPLING & ANALYSIS

As detailed in the CCR Landfill Groundwater Detection Monitoring Plan, the current groundwater quality monitoring well network for the CCR Landfill is comprised of five background wells (CC-1, FC-1, FC-2, FC-3A, & FC-3B), four downgradient wells (SC-10, SC-11, SC-12, & SC-13) along the eastern edge of the landfill, and one cross gradient well (SC-14) on the south side of the landfill. The locations of the monitoring wells are depicted on the figure presented in Appendix A.

Utilities' CCR Landfill migrated from Detection Monitoring to Assessment Monitoring in 2018. Assessment Monitoring is required by the EPA CCR Rule whenever a statistically significant increase over background levels has been detected for one or more of the Detection Monitoring constituents<sup>6</sup>. Assessment Monitoring must continue until concentrations of all Detection and Assessment Monitoring constituents are determined to be at or below background values using statistical procedures for two consecutive sampling events<sup>7</sup>.

Prior to 2020, the following constituents have been measured at concentrations estimated statistically as being significantly higher than background and have not been determined to be at or below background values using statistical procedures for two consecutive sampling events:

- ▼ Boron within monitoring wells SC-11 & SC-12.
- ▼ Fluoride within monitoring well SC-12, SC-13, & SC-14.

Therefore, both Detection Monitoring and Assessment Monitoring continued throughout 2020.

### 4.1 Detection Monitoring

During 2020, Utilities collected groundwater samples semi-annually from the monitoring wells listed in Section 3.0 above, and analyzed the samples using EPA and/or industry accepted methods for the Detection Monitoring constituents listed in Appendix III of the EPA CCR Rule (boron, calcium, chloride, fluoride, pH, sulfate, & total dissolved solids).

The laboratory analytical results and sampling dates are summarized in the table presented in Appendix C. Copies of the analytical reports and chain of custody documentation are presented in Appendix D. The analytical reports specify the analytical method used for each constituent.

### 4.2 Assessment Monitoring

During 2020, Utilities collected groundwater samples semi-annually from the monitoring wells listed in Section 3.0 above, and analyzed the samples using EPA and/or industry accepted methods for the Assessment Monitoring constituents listed in Appendix IV of the EPA CCR Rule (antimony, arsenic, barium,

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<sup>6</sup> EPA CCR Rule §257.95(a) "Assessment monitoring is required whenever a statistically significant increase over background levels has been detected for one or more of the constituents listed in appendix III to this part."

<sup>7</sup> EPA CCR Rule §257.95(e) "If the concentrations of all constituents listed in appendices III and IV to this part are shown to be at or below background values, using the statistical procedures in § 257.93(g), for two consecutive sampling events, the owner or operator may return to detection monitoring of the CCR unit."

beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, radium 226, radium 228, selenium, and thallium).

The laboratory analytical results and sampling dates are summarized in the table presented in Appendix C. Copies of the analytical reports and chain of custody documentation are presented in Appendix D. The analytical reports specify the analytical method used for each constituent.

### **4.3 Quality Assurance / Quality Control**

Quality assurance and quality control (QA / QC) measures were implemented to ensure the reliability and validity of field and analytical data. Appendix D contains copies of the laboratory analytical reports along with QA / QC data. The QA / QC data includes duplicate samples (identified as Well ID\_Dup), equipment / decontamination blanks (identified by Equip-Blk), method blanks (identified as LRB – Lab Reagent Blank) and laboratory control sample results.

During 2020, the sample duplicates showed consistency in the lab work performed and no significant QA / QC anomalies were found; however, the following are considered noteworthy:

- ▼ With regard to the November 16-17, 2020 field data, a quality assurance check found atypical site-wide pH levels when compared to historical measurements that were biased low. Assessment indicated the cause to be due to the water quality meter utilized. The pH levels were re-measured in the site monitoring wells on November 19, 2020 and this data is reported.
- ▼ The November 16, 2020 equipment blank was rejected by the laboratory due to sample collection uncertainties. Sampling procedures were reviewed to minimize the potential for a recurrence.

### **4.4 Monitoring Well Installation, Repair and Abandonment**

No CCR Landfill groundwater monitoring wells were installed or decommissioned during 2020.

## **5.0 STATISTICAL ANALYSIS RESULTS SUMMARY**

The methods used to statistically analyze the Detection and Assessment Monitoring groundwater data, the rationale for the analytical methods, and the results of the statistical analysis are presented in Appendix B.

The 2020 groundwater sampling results suggest that the following EPA CCR Rule Appendix III constituents continued to be present at concentrations estimated statistically as being significantly higher than background:

- ▼ Boron within monitoring wells SC-11 and SC-12.
- ▼ Fluoride within monitoring well SC-12, SC-13, & SC-14.

## 6.0 GROUNDWATER PROTECTION STANDARDS (GWPS)

GWPS were generated in accordance with §257.95(d)(2)<sup>8</sup> of the EPA CCR Rule. The Rule states in §257.95(h) that the GWPS shall be:

- (1) For constituents for which a maximum contaminant level (MCL) has been established under §141.62 and §141.66 of this title, the MCL for that constituent;
- (2) For the following constituents:
  - (i) Cobalt 6 micrograms per liter (ug/l);
  - (ii) Lead 15 ug/l;
  - (iii) Lithium 40 ug/l;
  - (iv) Molybdenum 100 ug/l.
- (3) For constituents for which the background level is higher than the levels identified under paragraphs (h)(1) and (h)(2) of this section, the background concentration.

To create the GWPS, an upper tolerance limit (UTL) was calculated for each of the EPA CCR Rule Appendix IV constituents to establish their background concentration. Each UTL was then compared to the corresponding MCL or EPA CCR Rule standard. If a UTL was greater than the MCL or standard, then the UTL was used as the GWPS.

GWPS were calculated after each of the 2020 semi-annual sampling events and are provided in Appendix B. The GWPS resulting from the second semi-annual sampling event are presented in yellow highlight in the table below:

### GROUNDWATER PROTECTION STANDARDS

Appendix IV Constituent	MCL (mg/l)	EPA CCR Rule Standard (mg/l)	Background Higher than MCL or Standard *	Upper Tolerance Limit
Antimony	0.006	-	Yes	0.008
Arsenic	0.01	-	Yes	0.01146
Barium	2	-	Yes	2.833
Beryllium	0.004	-	No	
Cadmium	0.005	-	No	
Chromium	0.1	-	No	
Cobalt	-	0.006	Yes	0.0139
Fluoride	4	-	No	
Lead	-	0.015	No	
Lithium	-	0.040	Yes	1.16
Mercury	0.002	-	No	

<sup>8</sup> 40 CFR § 257.95(d)(2) states that facilities must "establish groundwater protection standards for all constituents detected pursuant to paragraph (b) or (d) of this section."

Appendix IV Constituent	MCL (mg/l)	EPA CCR Rule Standard (mg/l)	Background Higher than MCL or Standard *	Upper Tolerance Limit
Molybdenum	-	0.100	No	
Selenium	0.05	-	Yes	0.1985
Thallium	0.002	-	Yes	0.0063
Radium 226 & 228 Combined	5 pCi/l	-	No	

\* Upper tolerance limit calculated for the constituents and compared to the MCL or the EPA CCR Rule standard. If the UTL was greater than the MCL or standard, then the UTL was used as the GWPS.

Once GWPS have been calculated, §257.95(g)(3)<sup>9</sup> requires that the owner / operator determine if any of the Appendix IV constituents are present at a statistically significant level exceeding the GWPS. To determine such, a confidence interval was calculated for each constituent and compared to the GWPS. The confidence interval calculations for each of the 2020 semi-annual sampling events are provided in Appendix B and indicate that no GWPS were exceeded at a statistically significant level.

## 7.0 SUMMARY OF FINDINGS

Comparison of the groundwater flow to those historically measured shows de minimis differences in the groundwater flow regime beneath the site. Groundwater associated with the CCR Landfill continues to flow to the southeast towards the Retention Dam, which inhibits its migration off-site.

Statistical analysis suggests that boron concentrations at downgradient groundwater monitoring wells SC-11 and SC-12 and fluoride concentrations at downgradient ground monitoring wells SC-12, SC-13, and SC-14 exhibit a statistically significant increase over background concentrations; therefore, the CCR Landfill shall continue with Assessment Monitoring<sup>10</sup>.

No EPA CCR Rule Appendix IV constituents were measured at a statistically significant level exceeding the GWPS; therefore, initiating an assessment of corrective measures is not required at this time.

The overall CCR Landfill groundwater monitoring program was reviewed, and in consideration of the complex geology and other constraints, Utilities believes that the current Professional Engineer certified and CDPHE approved<sup>11</sup> Coal Combustion Residuals Landfill Groundwater Detection Monitoring Plan.<sup>12</sup> continues to be appropriate for the site and compliant with the EPA CCR Rule.

<sup>9</sup> 40 CFR § 257.95(g)(3) Within 90 days of finding that any of the constituents listed in appendix IV to this part have been detected at a statistically significant level exceeding the groundwater protection standards, the owner or operator must either..."

<sup>10</sup> EPA CCR's Rule §257.95 (f) "If the concentrations of any constituent in appendices III and IV to this part are above background values, but all concentrations are below the groundwater protection standard established under paragraph (h) of this section, using the statistical procedures in § 257.93(g), the owner or operator must continue assessment monitoring in accordance with this section".

<sup>11</sup> E-Mail from Jill Parisi / CDPHE to Patti Zietlow / Colorado Springs Utilities Re: Clear Spring Ranch CCR Landfill Groundwater Detection Monitoring Plan. November 14, 2017.

<sup>12</sup> AECOM. Coal Combustion Residuals Landfill Groundwater Detection Monitoring Plan, Clear Spring Ranch, El Paso County, Colorado. Revision 0. October 2017.



## 7.1 **Risk**

Utilities believes that the risk posed by the CCR Landfill to human health and the environment via the groundwater exposure pathway continues to be low for the following reasons:

- ▼ Groundwater underlying the CSR CD Area (which includes the CCR Landfill) is not used for domestic or agricultural purposes. There are no drinking water or agricultural wells within the CD Area and is no reasonable potential for future domestic or agricultural uses of groundwater within this area, as it is owned and controlled by Utilities. The high TDS of groundwater upgradient of and beneath the CD Area also discourages its use for domestic or agricultural purposes.
- ▼ The CSR Retention Dam inhibits the off-site migration of stormwater and groundwater associated with the CCR Landfill; therefore, limiting the potential for exposure. The Retention Dam largely hydrologically disconnects the CCR Landfill associated groundwater from the downgradient Fountain Creek Alluvial Aquifer (i.e., the closest drinking water source).
- ▼ No EPA CCR Rule Appendix IV constituents were measured at a statistically significant level exceeding the GWPS.

## 7.2 **Activities for 2021**

For 2021, Utilities plans to continue with Detection Monitoring and Assessment Monitoring.



### **Report Distribution List:**

- ▼ Jill Parisi / Colorado Department of Public Health & Environment
- ▼ Mark Gebhart / El Paso County Planning Department
- ▼ Ian Gavin / Colorado Springs Utilities - Nixon Power Plant
- ▼ Utilities CCR Landfill Website
- ▼ EVS File: 550-688-7

## APPENDIX A

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### Site Plan & Groundwater Elevation Contours

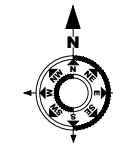


# Colorado Springs Utilities

*It's how we're all connected*

Environmental Services  
121 South Tejon Street, Fourth Floor  
Colorado Springs, Colorado 80903

### Orientation:



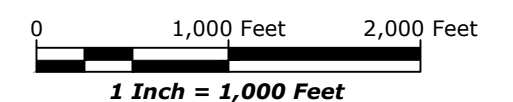
### Legend:

- Coal Combustion Residuals (CCR) Landfill
- Retention Dam
- Boundary - Clear Spring Ranch Property
- Boundary - Certificate of Designation
- Boundary - Fountain Creek Alluvial Aquifer
- Boundary - Ground Water Zone Interpolation
- Boundary - Surficial Geologic Mapping \*\*
  - Kp - Pierre Shale Bedrock
  - Qp - Piney Creek Alluvium
  - Qs - Slocum Alluvium
  - Qv - Verdos Alluvium
- Contour - Ground Water Surface Elevation \* (dashed portions are estimated)
- Contour - Bedrock Surface \*\*\*
- Contour - Elevation - Feet
- Ground Water Monitoring Well Location
- Ground Water Monitoring Well ID

### Notes:

- \* Ground Water Elevation Measurements Collected During April 2020.
- \*\* USGS Geologic Map of the Pueblo Quadrangle by Scott, Taylor, Epis, & Wobus, 1976.
- \*\*\* Interpolation Based Upon On-Site Exploratory Borehole Measurements.

### Scale:



## SITE PLAN & GROUND WATER ELEVATION CONTOURS 2020

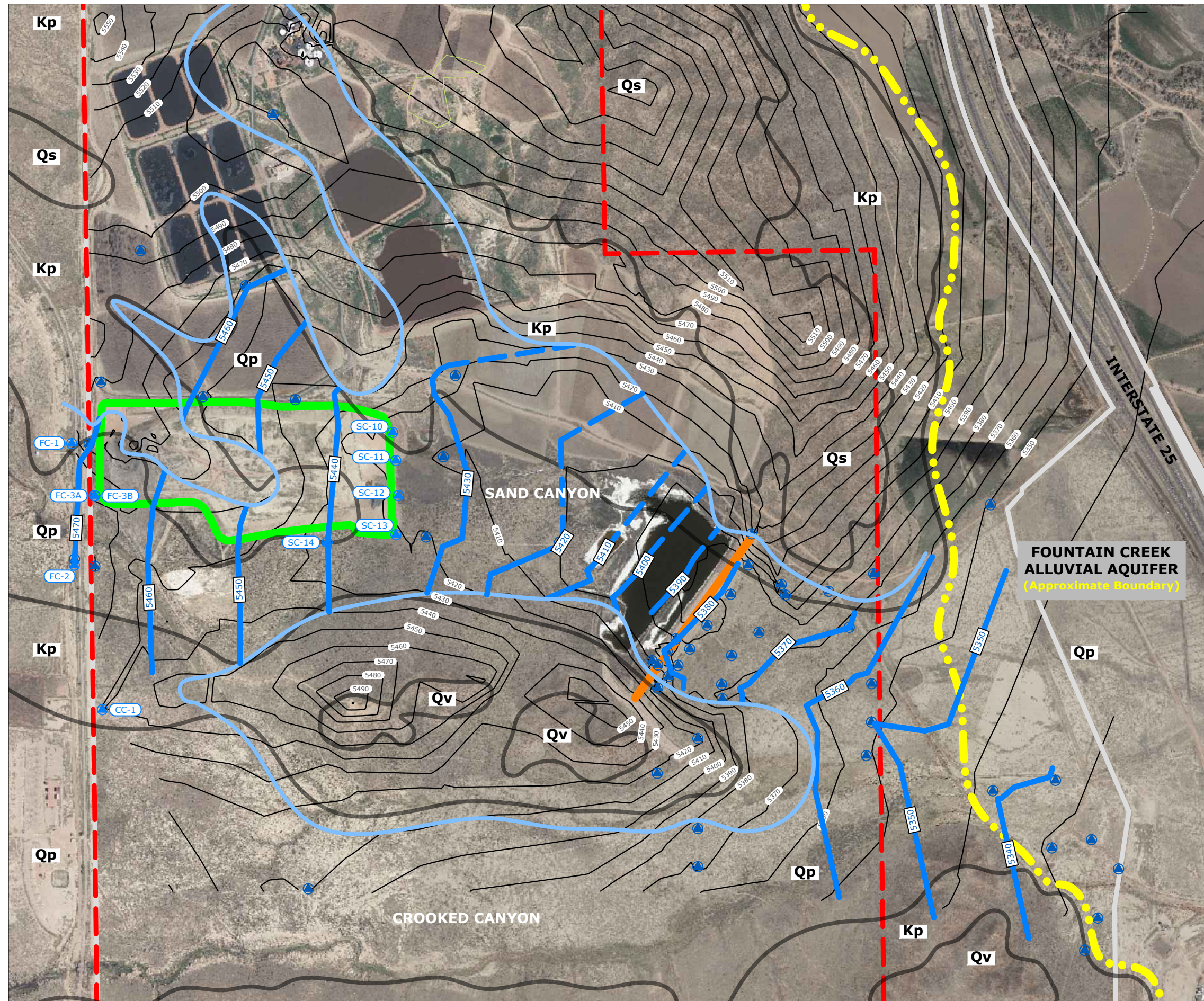
Clear Spring Ranch  
Coal Combustion Residuals Landfill  
El Paso County

Project No: 550-504-7

Prepared By: Environmental Services

Date: January 13, 2021

Figure  
Number  
1



## APPENDIX B

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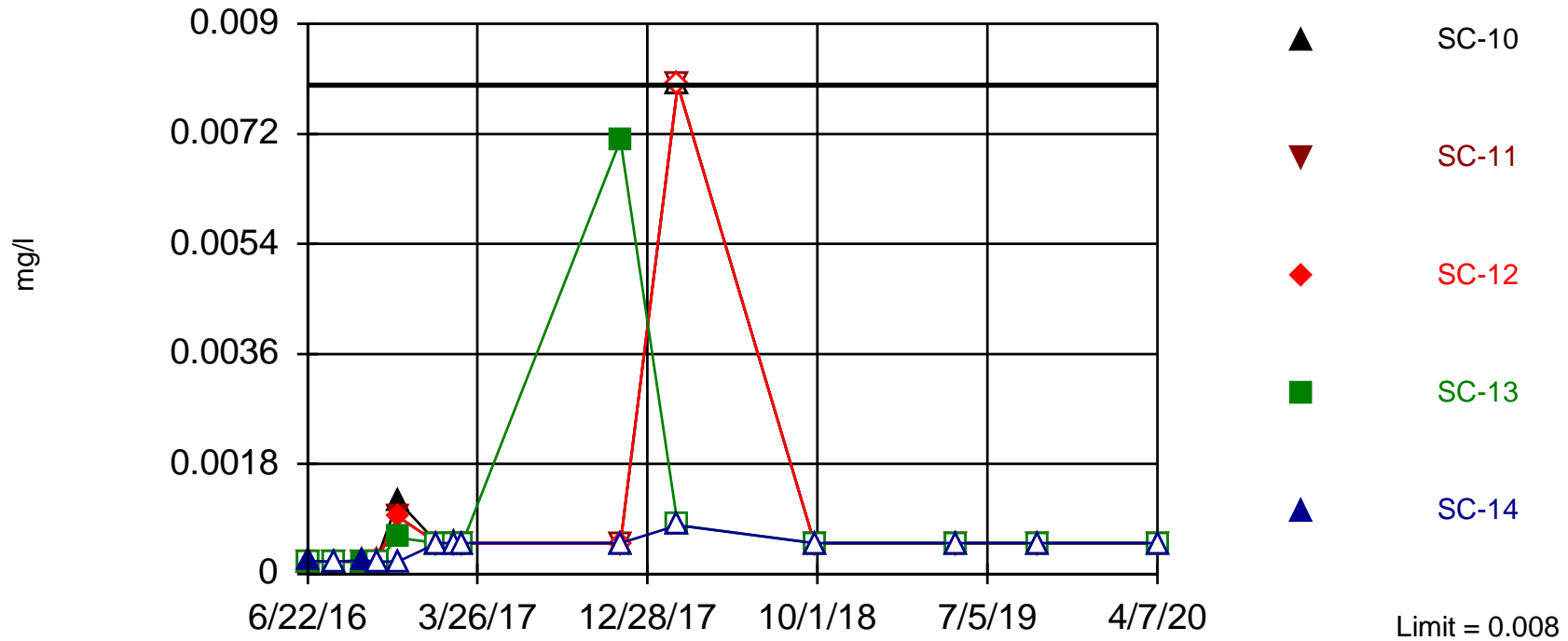
### Statistical Analysis Reports

Hollow symbols indicate censored values.

Within Limit

## Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 70 background values. 82.86% NDs. Annual per-constituent alpha = 0.003874. Individual comparison alpha = 0.0003881 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Antimony, Total (mg/l)    Analysis Run 9/11/2020 12:54 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

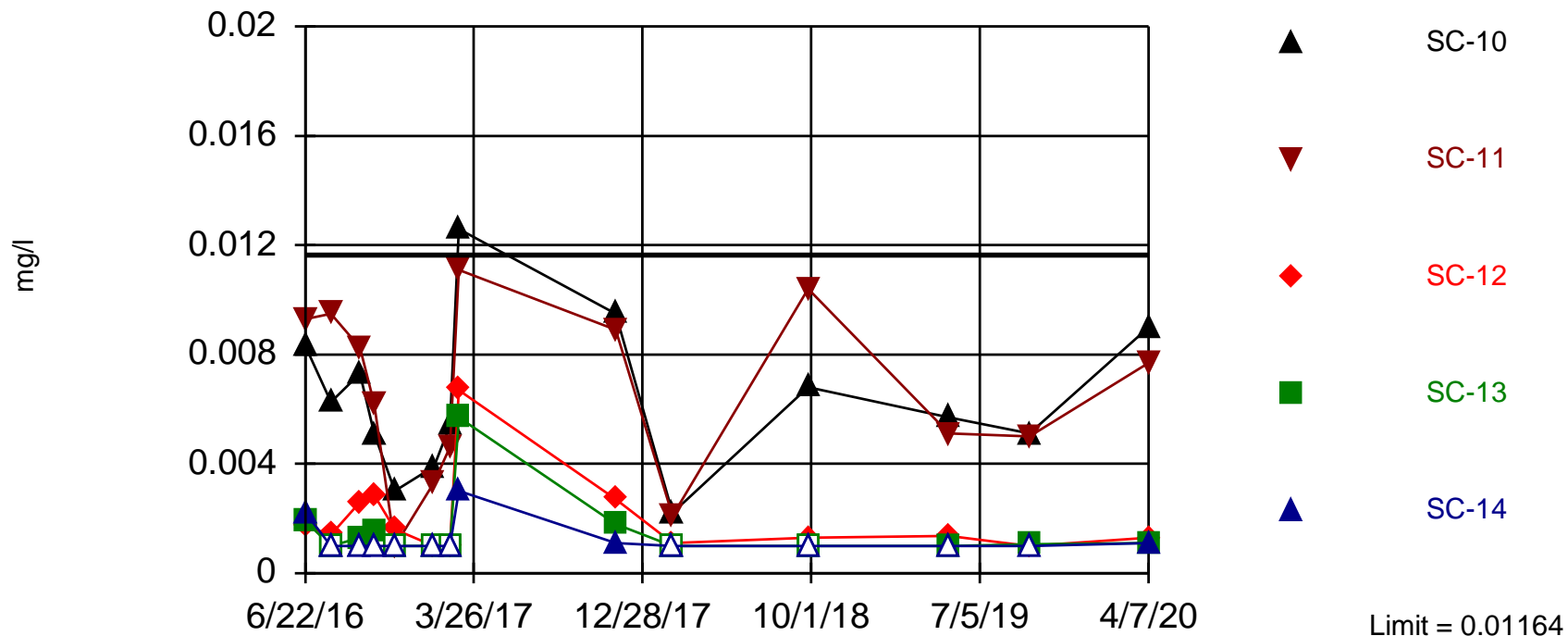
	FC-1	CC-1	SC-10	SC-11	FC-2	SC-14	SC-12	SC-13	FC-3A	FC-3B
6/22/2016	<0.0002	<0.0002 (D)	<0.0002	<0.0002	<0.0002	0.00021	<0.0002	<0.0002		
6/23/2016									0.00021	
6/27/2016										0.00065
8/2/2016	<0.0002 (D)	<0.0002			<0.0002				<0.0002	0.00061
8/3/2016			<0.0002 (D)	<0.0002		<0.0002	<0.0002	<0.0002		
9/19/2016	<0.0002 (D1)	<0.0002 (D1)			<0.0002 (D1)				<0.0002 (D1)	<0.0002 (D1)
9/20/2016			<0.0002 (D1)	<0.0002 (D1)		0.00022 (D)	<0.0002 (D1)	0.0002 (D)		
10/12/2016	<0.0002 (D1)	0.0004 (D)			<0.0002 (D1)				0.00026 (D)	0.00032 (D)
10/13/2016			0.00025 (D)	0.0002 (D)		<0.0002 (D1)	0.00023 (D)	<0.0002 (D1)		
11/15/2016	0.0016 (D)	0.0015 (D)			<0.0002 (D1)				0.0015 (D)	0.0015 (D)
11/16/2016			0.0012 (D)	0.00094 (D)		<0.0002 (D1)	0.00093 (D)	0.00059 (D)		
1/18/2017	<0.0005 (D1P)	<0.0005 (D1)			<0.0005 (D1P)				0.00055 (D)	<0.0005 (D1)
1/19/2017			<0.0005 (D1)	<0.0005 (D1)		<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)		
2/14/2017	<0.0005 (D1)	<0.0005 (D1)			<0.0005 (D1)				<0.0005 (D1)	0.00066 (D)
2/15/2017			0.00054 (D)	<0.0005 (D1)		<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)		
2/28/2017	<0.0005 (D1)	<0.0005 (D1)			<0.0005 (D1)				<0.0005 (D1)	<0.0005 (D1)
3/1/2017			<0.0005 (D1)	<0.0005 (D1)		<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)		
11/13/2017	<0.0005 (D1)	<0.0005 (D1)			<0.0005 (D1)				<0.0005 (D1)	<0.0005 (D1)
11/14/2017			<0.0005 (D1)	<0.0005 (D1)		<0.0005 (D1)	<0.0005 (D1)	0.0071 (DT)		
2/14/2018	<0.008	<0.008			<0.0008				<0.0008 (D)	<0.0008
2/15/2018			<0.008	<0.008		<0.0008	<0.008	<0.0008		
9/25/2018	<0.0005 (D)	<0.0005			<0.0005				<0.0005	<0.0005
9/26/2018			<0.0005	<0.0005		<0.0005	<0.0005	<0.0005 (D)		
5/14/2019	<0.0005 (D1D)	<0.0005 (D1D)			<0.0005 (D1D)				<0.0005 (D1D)	<0.0005 (D1D)
5/15/2019			<0.0005 (D1D)	<0.0005 (D1D)		<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)		
9/24/2019	<0.0005 (D1D)	<0.0005 (D1D)			<0.0005 (D1D)		<0.0005 (D1D)		<0.0005 (D1D)	<0.0005 (D1D)
9/25/2019			<0.0005 (D1D)	<0.0005 (D1D)		<0.0005 (D1D)		<0.0005 (D1D)		
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)			<0.0005 (DD1)				<0.0005 (DD1)	<0.0005 (DD1)
4/7/2020			<0.0005 (DD1)	<0.0005 (DD1)		<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)		

Hollow symbols indicate censored values.

Within Limit

### Prediction Limit

### Interwell Parametric



Background Data Summary (based on square root transformation): Mean=0.06117, Std. Dev.=0.02202, n=68, 13.24% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9573, critical = 0.95. Kappa = 2.121 (c=22, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.002392. Individual comparison alpha = 0.0004788. Comparing 5 points to limit.

Constituent: Arsenic, Total    Analysis Run 9/11/2020 12:51 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Prediction Limit

Constituent: Arsenic, Total (mg/l)    Analysis Run 9/11/2020 12:54 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

	FC-1	SC-14	SC-13	SC-12	SC-11	CC-1	FC-2	SC-10	FC-3A	FC-3B
6/22/2016	0.0042	0.0022	0.0019	0.0017	0.0093	0.0109 (D)	0.0025	0.0083		
6/23/2016									0.0031	
6/27/2016										0.0026
8/2/2016	0.0025 (D)					0.0105	0.0016		0.0021	0.0031
8/3/2016		<0.001	<0.001	0.0014	0.0095			0.00625 (D)		
9/19/2016	0.0094 (D)					0.0089 (D)	0.0036 (D)		0.0029 (D)	0.0051 (D)
9/20/2016		<0.001 (D1)	0.0013 (D)	0.0026 (D)	0.00825 (D)			0.0073 (D)		
10/12/2016	0.0023 (D)					0.0071 (D)	<0.001 (D1)		0.001325 (D)	0.0056 (D)
10/13/2016		<0.001 (D1)	0.0015 (D)	0.00285 (D)	0.0062 (D)			0.0051 (D)		
11/15/2016	0.0036 (D)					0.0054 (D)	<0.001 (D1)		0.0018 (D)	0.007 (D)
11/16/2016		<0.001 (D1)	<0.001 (D)	0.0016 (D)	<0.001 (D1)			0.003 (D)		
1/18/2017	0.0061 (D)					0.00255 (D)	0.0011 (D)		<0.001 (D1)	0.0057 (D)
1/19/2017		<0.001 (D1)	<0.001 (D1)	<0.001 (D1)	0.0033 (D)			0.0039 (D)		
2/14/2017	<0.001 (D1)					0.00495 (D)	<0.001 (D1)		<0.001 (D1)	0.004 (D)
2/15/2017		<0.001 (D)	<0.001 (D1)	<0.001 (D1)	0.0046 (D)			0.0054 (D)		
2/28/2017	0.00625 (D)					0.011 (D)	0.0076 (D)		0.0069 (D)	0.0081 (D)
3/1/2017		0.003 (D)	0.0057 (D)	0.0067 (D)	0.0111 (D)			0.0126 (D)		
11/13/2017	0.0041 (D)					0.008 (D)	0.0025 (D)		0.0022 (D)	0.0064 (D)
11/14/2017		0.0011 (D)	0.0018 (D)	0.0027 (D)	0.0089 (D)			0.0095 (D)		
2/14/2018	<0.002						<0.001		0.00115 (D)	0.0026
2/15/2018		<0.001	<0.001	0.0011	0.0021			0.0022		
9/25/2018	0.005 (D)					0.0115	0.0014		0.003	0.0074
9/26/2018		<0.001	<0.001 (D)	0.0013	0.0104			0.0068		
5/14/2019	0.0029					0.0072 (D)	0.0013 (D)		0.0017 (D)	0.002 (D)
5/15/2019		<0.001 (D)	0.001 (D)	0.00135 (D)	0.0051 (D)			0.0057 (D)		
9/24/2019	0.00295 (D)			<0.001 (D1D)		0.0081 (D)	<0.001 (D1D)		0.0016 (D)	0.0044 (D)
9/25/2019		<0.001 (D1D)	0.00105 (D)		0.005 (D)			0.0051 (D)		
4/6/2020	0.0034 (D)					0.00765 (D)	0.003 (D)			0.0041 (D)
4/7/2020		0.0011 (D)	0.0011 (D)	0.0013 (D)	0.0077 (D)			0.009 (D)		

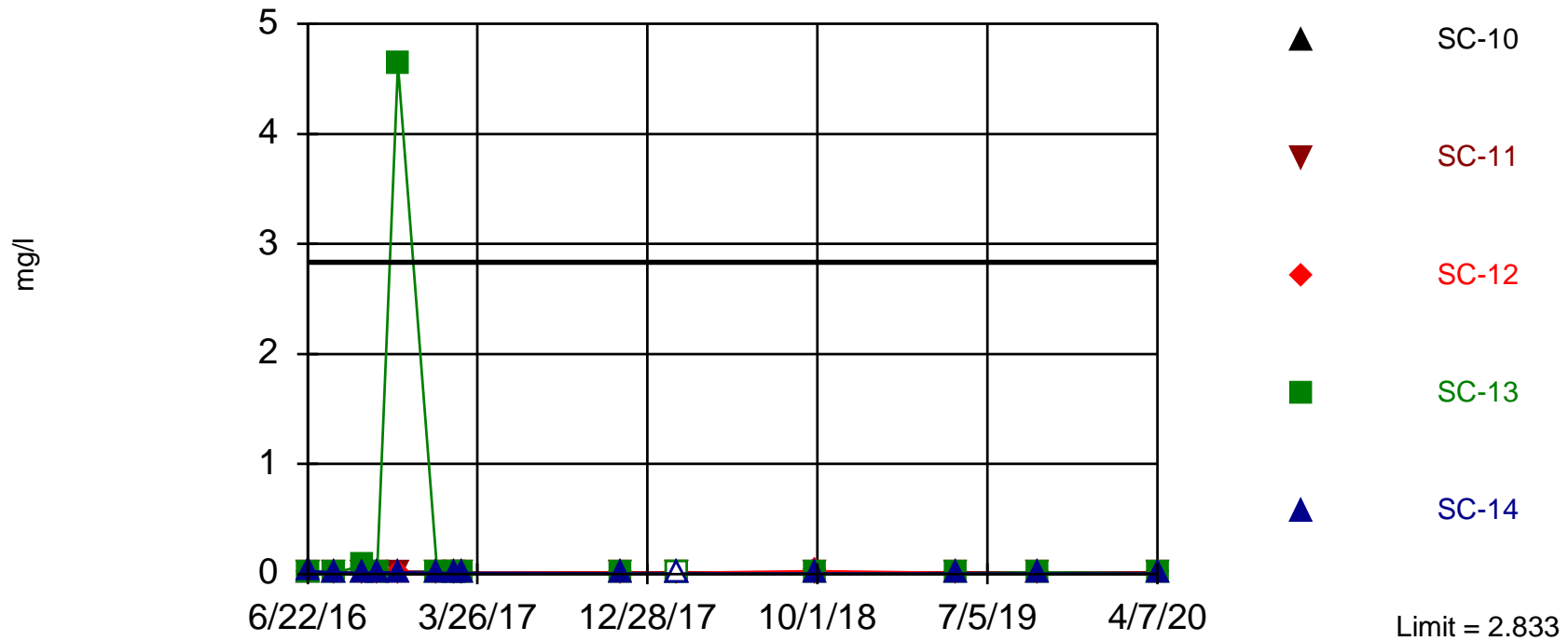


Hollow symbols indicate censored values.

Within Limit

## Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. 5.714% NDs. Annual per-constituent alpha = 0.003874. Individual comparison alpha = 0.0003881 (1 of 2). Comparing 5 points to limit.

Constituent: Barium, Total Analysis Run 9/11/2020 12:51 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Prediction Limit

Constituent: Barium, Total (mg/l)    Analysis Run 9/11/2020 12:54 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

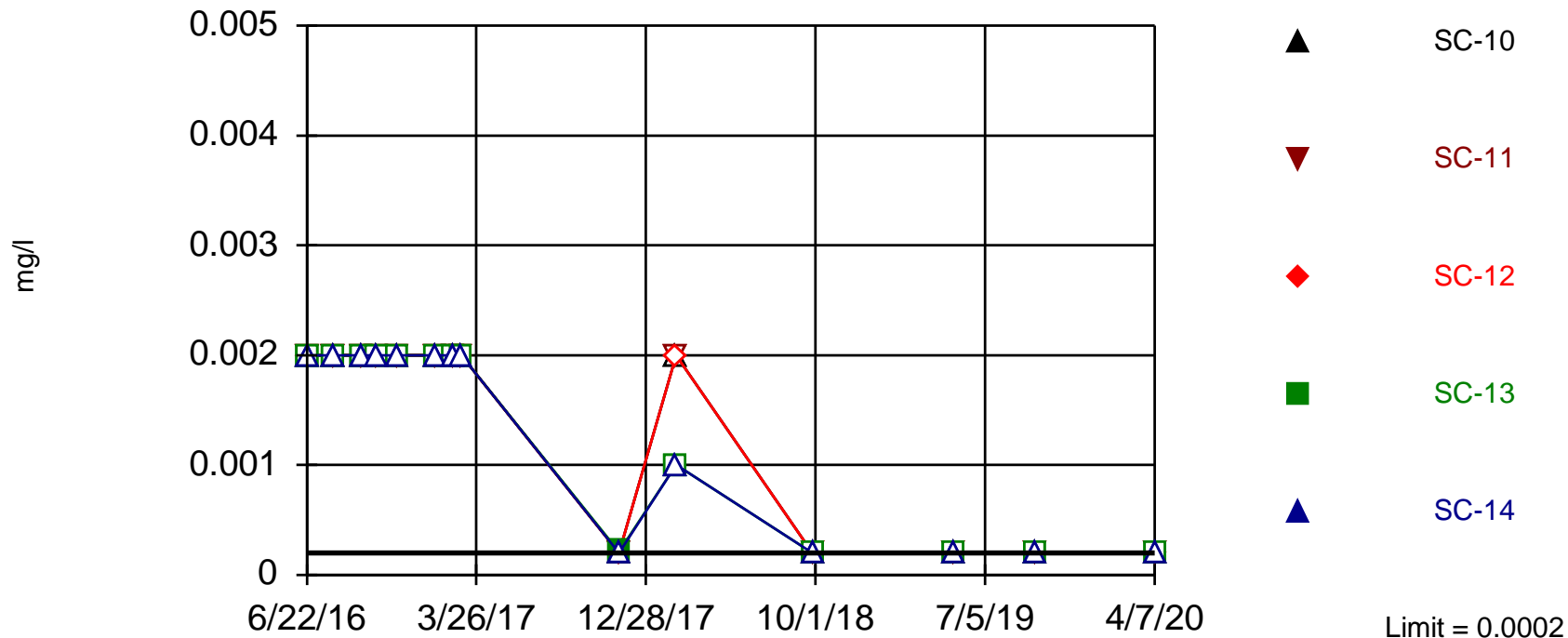
	FC-1	CC-1	SC-10	SC-11	FC-2	SC-14	SC-12	SC-13	FC-3A	FC-3B
6/22/2016	0.00954	2.83285 (D)	0.0184	0.017	0.00503	0.024	0.0112	0.00979		
6/23/2016									0.034	
6/27/2016										0.0336
8/2/2016	0.008725 (D)	0.00512			<0.005				0.0202	0.0253
8/3/2016			0.0138 (D)	0.0165		0.0131	0.0133	0.00703		
9/19/2016	0.00928	0.00542			0.00525 (D)				0.0218	0.0183
9/20/2016			0.013	0.009275 (D)		0.0109		0.0736		
10/12/2016	0.00905	0.00593			0.00536				0.03735 (D)	0.0184
10/13/2016			0.0141	0.0225		0.0163	0.01415 (D)	0.00797		
11/15/2016	0.0102	0.00608			0.00516				0.01735 (D)	0.0652
11/16/2016			0.0178	0.016		0.0136	0.0178	4.629645 (D)		
1/18/2017	0.00929	0.005675 (D)			0.00539				0.0164	0.0244
1/19/2017			0.0216	0.0117		0.00905	0.0108	0.0075		
2/14/2017	0.01	0.006005 (D)			0.00566				0.0167	0.023
2/15/2017			0.0145 (D)	0.0156		0.00766	0.0127	0.00742		
2/28/2017	0.009 (D)	<0.005			0.0054				0.0148	0.0208
3/1/2017			0.0105	0.00732		0.0063	0.00781 (D)	0.00603		
11/13/2017	0.0082 (D)	0.004 (D)			0.00435 (D)				0.0259 (D)	0.0154 (D)
11/14/2017			0.014 (D)	0.01395 (D)		0.0052 (D)	0.0063 (D)	0.006 (D)		
2/14/2018	0.0105	<0.01			<0.01				0.01205 (D)	0.0196
2/15/2018			0.0124	0.0089		<0.01	0.0079	<0.01		
9/25/2018	0.00665 (D)	0.0039			0.004				0.021	0.037
9/26/2018			0.0165	0.0099		0.0057	0.0245	0.00575 (D)		
5/14/2019	0.0073	0.0044 (D)			0.0043 (D)				0.0265 (D)	0.0146 (D)
5/15/2019			0.0168 (D)	0.0086 (D)		0.005 (D)	0.00755 (D)	0.0046 (D)		
9/24/2019	0.0073 (D)	0.0041 (D)			0.0056 (D)		0.007 (D)		0.0276 (D)	0.0268 (D)
9/25/2019			0.0124 (D)	0.0099 (D)		0.0049 (D)		0.0168 (D)		
4/6/2020	0.0068 (D)	0.0033 (D)			0.004 (D)				0.0123 (D)	0.0099 (D)
4/7/2020			0.0112 (D)	0.0119 (D)		0.0048 (D)	0.0059 (D)	0.0045 (D)		

Hollow symbols indicate censored values.

Within Limit

### Prediction Limit

#### Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 70) were censored; limit is most recent reporting limit. Annual per-constituent alpha = 0.003874. Individual comparison alpha = 0.0003881 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Beryllium, Total (mg/l) Analysis Run 9/11/2020 12:54 PM View: CCR Landfill

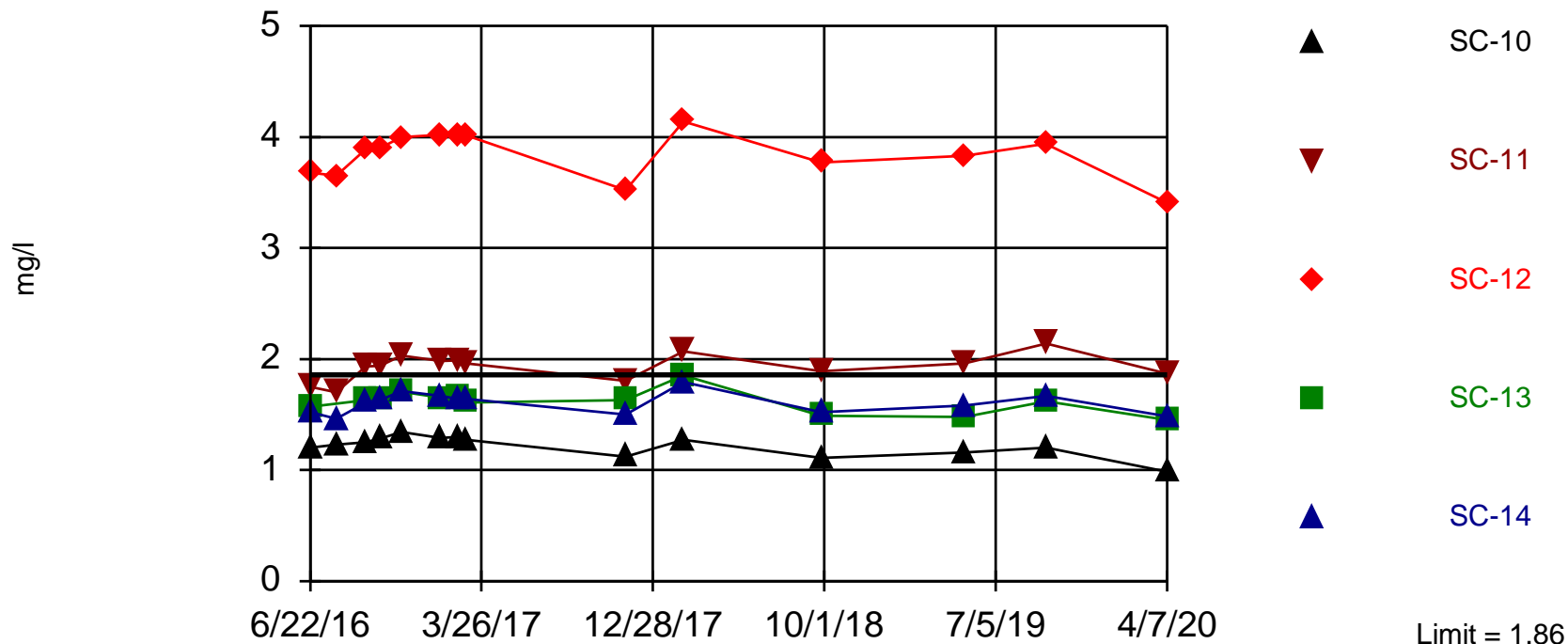
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	SC-10	SC-11	FC-2	SC-14	SC-12	SC-13	FC-3A	FC-3B
6/22/2016	<0.002	<0.002 (D)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
6/23/2016									<0.002	
6/27/2016										<0.002
8/2/2016	<0.002 (D)	<0.002			<0.002				<0.002	<0.002
8/3/2016			<0.002 (D)	<0.002		<0.002	<0.002	<0.002		
9/19/2016	<0.002	<0.002			<0.002 (D)				<0.002	<0.002
9/20/2016			<0.002	<0.002 (D)		<0.002	<0.002	<0.002		
10/12/2016	<0.002	<0.002			<0.002				<0.002 (D)	<0.002
10/13/2016			<0.002	<0.002		<0.002	<0.002 (D)	<0.002		
11/15/2016	<0.002	<0.002			<0.002				<0.002 (D)	<0.002
11/16/2016			<0.002	<0.002		<0.002	<0.002	<0.002 (D)		
1/18/2017	<0.002	<0.002 (D)			<0.002				<0.002	<0.002
1/19/2017			<0.002	<0.002		<0.002	<0.002	<0.002		
2/14/2017	<0.002	<0.002 (D)			<0.002				<0.002	<0.002
2/15/2017			<0.002 (D)	<0.002		<0.002	<0.002	<0.002		
2/28/2017	<0.002 (D)	<0.002			<0.002				<0.002	<0.002
3/1/2017			<0.002	<0.002		<0.002	<0.002 (D)	<0.002		
11/13/2017	<0.0002 (D1)	<0.0002 (D1)			<0.0002 (D1)				<0.0002 (D1)	<0.0002 (D1)
11/14/2017			<0.0002 (D1)	<0.0002 (D1)		<0.0002 (D1)	<0.0002 (D1)	0.00021 (D)		
2/14/2018	<0.001 (T)	<0.001 (T)			<0.0004 (T)				<0.0004 (TD)	<0.001 (T)
2/15/2018			<0.002	<0.002		<0.001 (T)	<0.002	<0.001 (T)		
9/25/2018	<0.0002 (D)	<0.0002			<0.0002				<0.0002	<0.0002
9/26/2018			<0.0002	<0.0002		<0.0002	<0.0002	<0.0002 (D)		
5/14/2019	<0.0002	<0.0002 (D1D)			<0.0002				<0.0002 (D1D)	<0.0002 (D1D)
5/15/2019			<0.0002 (D1D)	<0.0002 (D1D)		<0.0002 (D1D)	<0.0002 (D1D)	<0.0002 (D1D)		
9/24/2019	<0.0002 (D1D)	<0.0002 (D1D)			<0.0002 (DD1)		<0.0002 (D1D)		<0.0002 (DD1)	<0.0002 (D1D)
9/25/2019			<0.0002 (D1D)	<0.0002 (D1D)		<0.0002 (D1D)		<0.0002 (D1D)		
4/6/2020	<0.0002 (DD1)	<0.0002 (DD1)			<0.0002 (DD1)				<0.0002 (DD1)	<0.0002 (DD1)
4/7/2020			<0.0002 (DD1)	<0.0002 (DD1)		<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (DD1)		

Exceeds Limit: SC-11, SC-12

### Prediction Limit

#### Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. Annual per-constituent alpha = 0.003874. Individual comparison alpha = 0.0003881 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Boron, Total (mg/l)    Analysis Run 9/11/2020 12:54 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

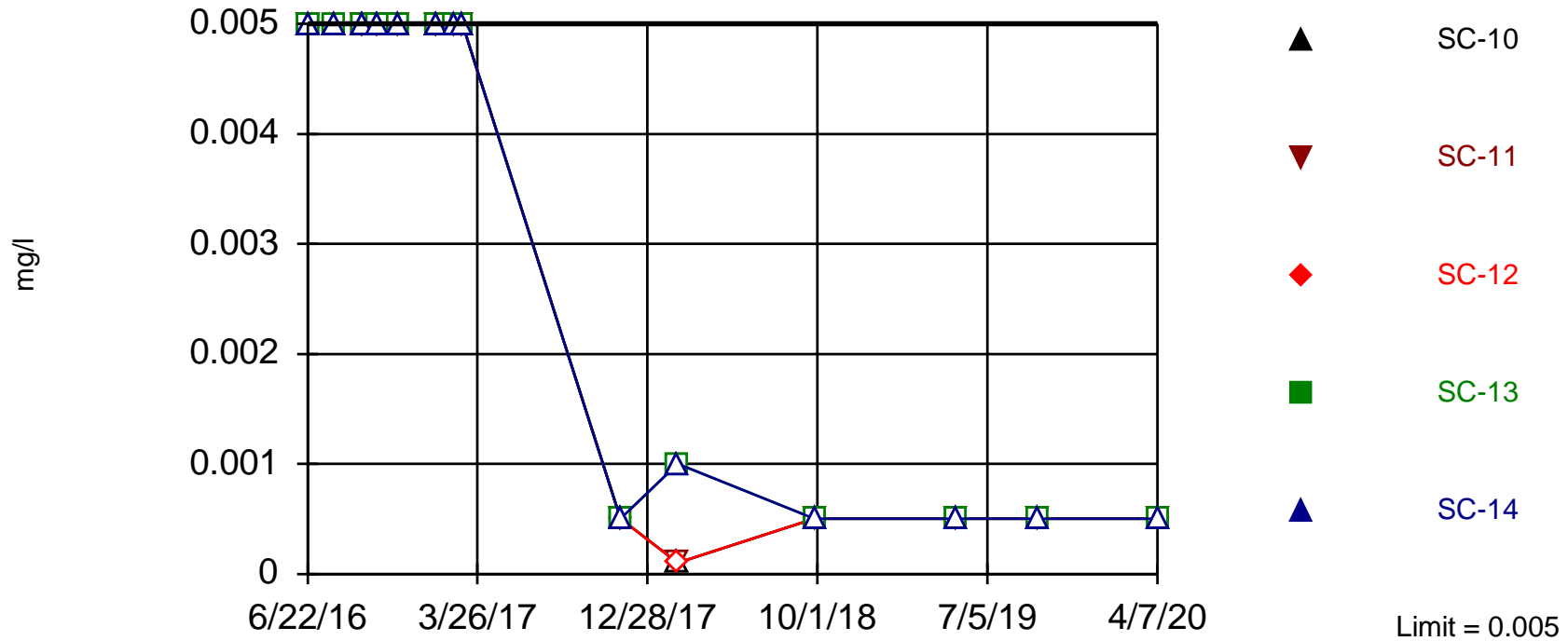
	FC-1	CC-1	SC-10	SC-11	FC-2	SC-14	SC-12	SC-13	FC-3A	FC-3B
6/22/2016	0.976 (T)	1.07 (D)	1.2	1.75	0.901 (T)	1.52	3.68	1.57		
6/23/2016									1.31	
6/27/2016										1.09
8/2/2016	0.9285 (D)	1.03			0.902				1.08	1.28
8/3/2016			1.23 (D)	1.7		1.46	3.65			
9/19/2016	0.932	1.05			0.937 (D)				1.2	1.46
9/20/2016			1.25	1.935 (D)		1.61	3.89	1.63		
10/12/2016	0.931	1.1			0.923				1.175 (D)	1.53
10/13/2016			1.28	1.94		1.63	3.9 (D)	1.63		
11/15/2016	1.03	1.12			0.936				1.185 (D)	1.68
11/16/2016			1.34	2.03		1.71	4	1.705 (D)		
1/18/2017	0.98	1.125 (D)			0.946				1.19	1.66
1/19/2017			1.29	1.98		1.67	4.02	1.65		
2/14/2017	0.972	1.115 (D)			0.934				1.14	1.59
2/15/2017			1.3 (D)	1.99		1.64	4.02	1.67		
2/28/2017	0.9495 (D)	1.03 (D)			0.956 (D)				1.14 (D)	1.73 (D)
3/1/2017			1.27 (DT1)	1.96 (DT1)		1.64 (D)	4.015 (DT1)	1.61 (DT1)		
11/13/2017	0.884	1.04			0.925 (D)				1.05	1.69
11/14/2017			1.12	1.805 (D)		1.5	3.52	1.63		
2/14/2018	1.05 (D)	1.08 (D)			0.957 (D)				1.13 (D)	1.86 (D)
2/15/2018			1.27 (DT)	2.07 (DT)		1.79 (DT)	4.14 (DT)	1.85 (DT)		
9/25/2018	0.887 (D)	1 (D)			0.887 (D)				1.03 (D)	1.73 (D)
9/26/2018			1.11 (D)	1.89 (D)		1.52 (D)	3.77 (D)	1.49 (D)		
5/14/2019	1.02	1.07			0.926				1.04 (D)	1.3
5/15/2019			1.16 (T)	1.96 (T)		1.58 (T)	3.83 (TD)	1.48 (T)		
9/24/2019	0.969 (D)	1.05			0.948		3.94		1.07	1.42
9/25/2019			1.2	2.14		1.67		1.62 (D)		
4/6/2020	0.758	0.809 (D)			0.864				0.987	1.1
4/7/2020			0.982	1.87		1.485 (D)	3.41	1.45		

Hollow symbols indicate censored values.

Within Limit

### Prediction Limit

#### Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 70 background values. 95.71% NDs. Annual per-constituent alpha = 0.003874. Individual comparison alpha = 0.0003881 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Cadmium, Total (mg/l) Analysis Run 9/11/2020 12:54 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

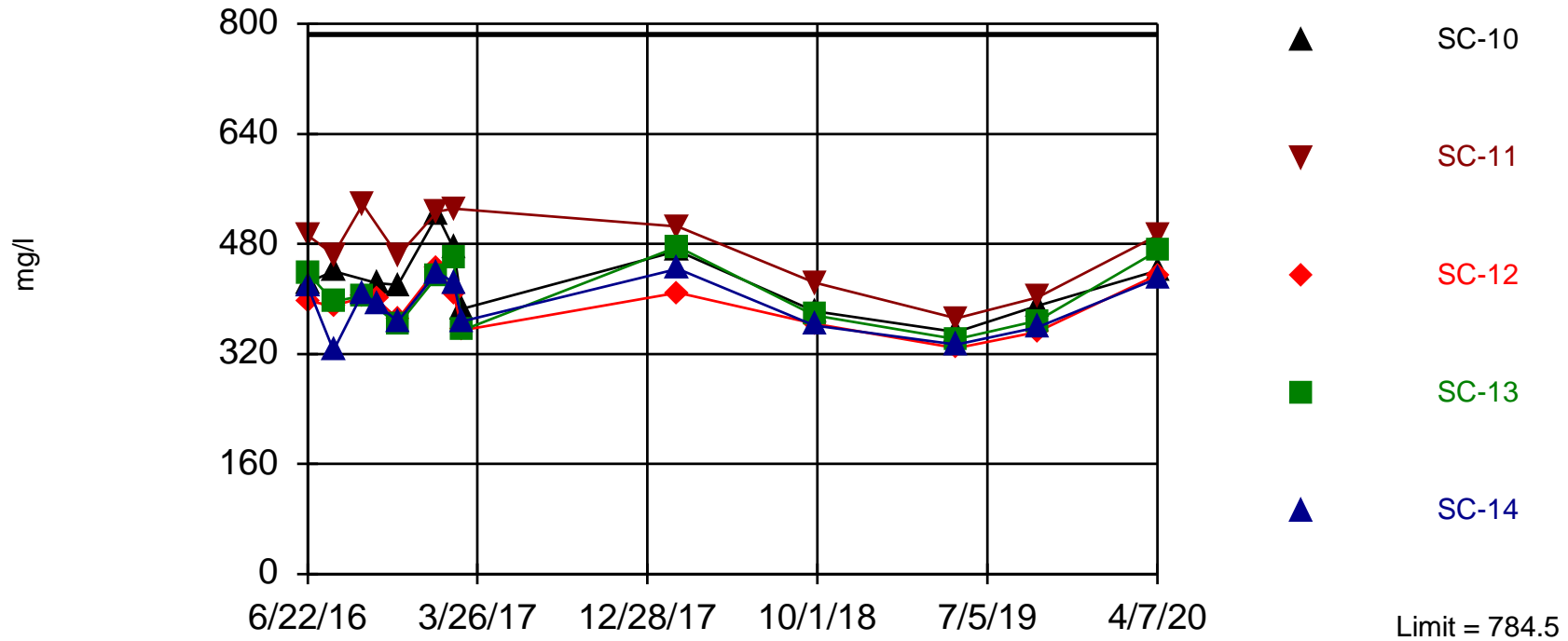
	FC-1	CC-1	SC-10	SC-11	FC-2	SC-14	SC-12	SC-13	FC-3A	FC-3B
6/22/2016	<0.005	<0.005 (D)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
6/23/2016									<0.005	
6/27/2016										<0.005
8/2/2016	<0.005 (D)	<0.005			<0.005				<0.005	<0.005
8/3/2016			<0.005 (D)			<0.005	<0.005	<0.005		
9/19/2016	<0.005	<0.005			<0.005				<0.005	<0.005
9/20/2016			<0.005	<0.005 (D)		<0.005	<0.005	<0.005		
10/12/2016	<0.005	<0.005			<0.005				<0.005 (D)	<0.005
10/13/2016			<0.005	<0.005		<0.005	<0.005 (D)	<0.005		
11/15/2016	<0.005	<0.005			<0.005				<0.005 (D)	<0.005
11/16/2016			<0.005	<0.005		<0.005	<0.005	<0.005 (D)		
1/18/2017	<0.005	<0.005 (D)			<0.005				<0.005	<0.005
1/19/2017			<0.005	<0.005		<0.005	<0.005	<0.005		
2/14/2017	<0.005	<0.005 (D)			<0.005				<0.005	<0.005
2/15/2017			<0.005 (D)	<0.005		<0.005	<0.005	<0.005		
2/28/2017	<0.005 (D)	<0.005			<0.005				<0.005	<0.005
3/1/2017			<0.005	<0.005		<0.005	<0.005 (D)	<0.005		
11/13/2017	<0.0005 (D1)	<0.0005 (D1)			<0.0005 (D1)				<0.0005 (D1)	<0.0005 (D1)
11/14/2017			<0.0005 (D1)	<0.0005 (D1)		<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)		
2/14/2018	<0.001	<0.001			0.00031				0.000365 (D)	0.00032
2/15/2018			<0.0001	<0.0001		<0.001	<0.0001	<0.001		
9/25/2018	<0.0005 (D)	<0.0005			<0.0005				<0.0005	<0.0005
9/26/2018			<0.0005	<0.0005		<0.0005	<0.0005	<0.0005 (D)		
5/14/2019	<0.0005	<0.0005 (D1D)			<0.0005 (D1D)				<0.0005 (D1D)	<0.0005 (D1D)
5/15/2019			<0.0005 (D1D)	<0.0005 (D1D)		<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)		
9/24/2019	<0.0005 (D1D)	<0.0005 (D1D)			<0.0005 (D1D)		<0.0005 (D1D)		<0.0005 (D1D)	<0.0005 (D1D)
9/25/2019			<0.0005 (D1D)	<0.0005 (D1D)		<0.0005 (D1D)		<0.0005 (D1D)		
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)			<0.0005 (DD1)				<0.0005 (DD1)	<0.0005 (DD1)
4/7/2020			<0.0005 (DD1)	<0.0005 (DD1)		<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)		



Within Limit

### Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 57 background values. Annual per-constituent alpha = 0.005874. Individual comparison alpha = 0.000589 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Calcium, Total (mg/l)    Analysis Run 9/11/2020 12:54 PM    View: CCR Landfill

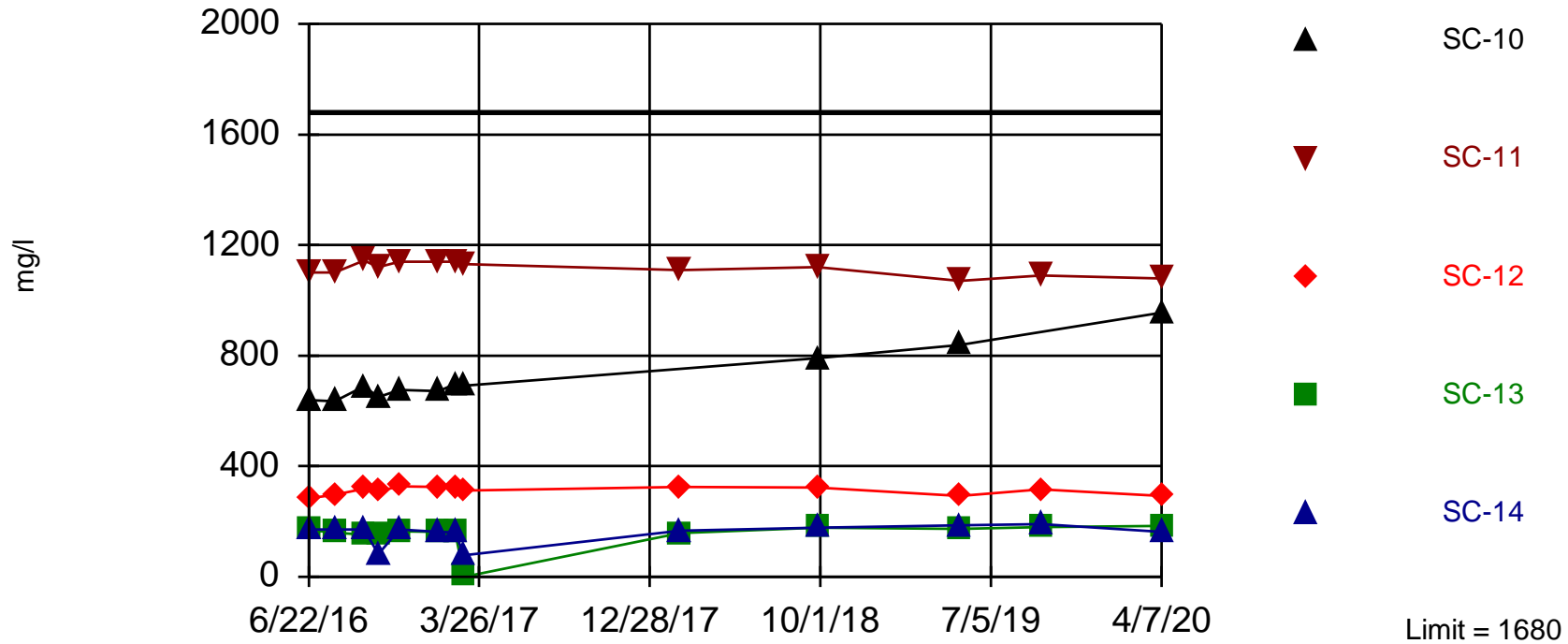
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

	FC-1	FC-2	SC-10	SC-11	SC-12	CC-1	SC-14	SC-13	FC-3A	FC-3B
6/22/2016	404	405 (T1D)	424 (DT1)	492 (DT1)	397 (DT1)	472 (DT1)	418 (DT1)	438 (DT1)		
6/23/2016									440 (DT1)	
6/27/2016										453 (DT1)
8/2/2016	410 (DT1)	440 (DT1)							417 (DT1)	412 (DT1)
8/3/2016			440 (DT1)	465 (DT1)	390 (DT1)		325	396 (DT1)		
9/19/2016	388 (DT1)	393.5 (DT1)				483 (DT1)			433 (DT1)	424 (DT1)
9/20/2016				537 (DT1)	402 (DT1)		409 (D)	405 (D)		
10/12/2016	389 (D)	390 (D)				398 (DT1)			398 (DT1)	
10/13/2016			423 (DT1)		399 (DT1)		392 (DT1)			
11/15/2016									385 (D)	331 (D)
11/16/2016			420 (DT1)	463 (DT1)	371 (DT1)		367 (DT1)	362 (DT1)		
1/18/2017	438 (T1D)	438 (T1D)							445 (DT1)	282 (DT1)
1/19/2017			522 (DT1)	527 (DT1)	445 (D)		439 (DT1)	433 (DT1)		
2/14/2017	408 (DT1)					431.5 (DT1)			420 (DT1)	296 (DT1)
2/15/2017			474.5 (DT1)	531 (DT1)	408 (DT1)		424 (DT1)	458 (DT1)		
2/28/2017	376.5 (DT1)	381 (DT1)				379 (DT1)			390 (DT1)	325 (DT1)
3/1/2017			386 (DT1)		354 (DT1)		367 (DT1)	354 (DT1)		
2/14/2018	397 (DT)	387 (DT)				392 (DT)			401 (DT)	246 (DT)
2/15/2018			470 (DT)	505 (DT)	409 (DT)		444 (DT)	476 (DT)		
9/25/2018	370 (D)	368 (D)							386 (D)	233 (D)
9/26/2018			382 (D)	424 (D)	364 (D)		361 (D)	376 (D)		
5/14/2019	337 (T1)	344				340 (T1)			353.5 (T1D)	196 (T1)
5/15/2019			352 (T1)	372 (T1)	328.5 (T1D)		334 (T1)	341 (T1)		
9/24/2019	368.5 (D)	374 (D)			352 (DT1)	400 (D)			379 (D)	201 (D)
9/25/2019			390	402 (D)			359 (DT1)	368 (DT1)		
4/6/2020	651 (DT1)	678 (DT1)				784.5 (DT1)			711 (DT1)	398 (DT1)
4/7/2020			441 (DT1)	492 (DT1)	435 (DT1)		430 (DT1)	470 (DT1)		

Within Limit

## Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 65 background values. Annual per-constituent alpha = 0.004547. Individual comparison alpha = 0.0004556 (1 of 2). Comparing 5 points to limit.

Constituent: Chloride    Analysis Run 9/11/2020 12:51 PM    View: CCR Landfill  
 Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Prediction Limit

Constituent: Chloride (mg/l) Analysis Run 9/11/2020 12:54 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

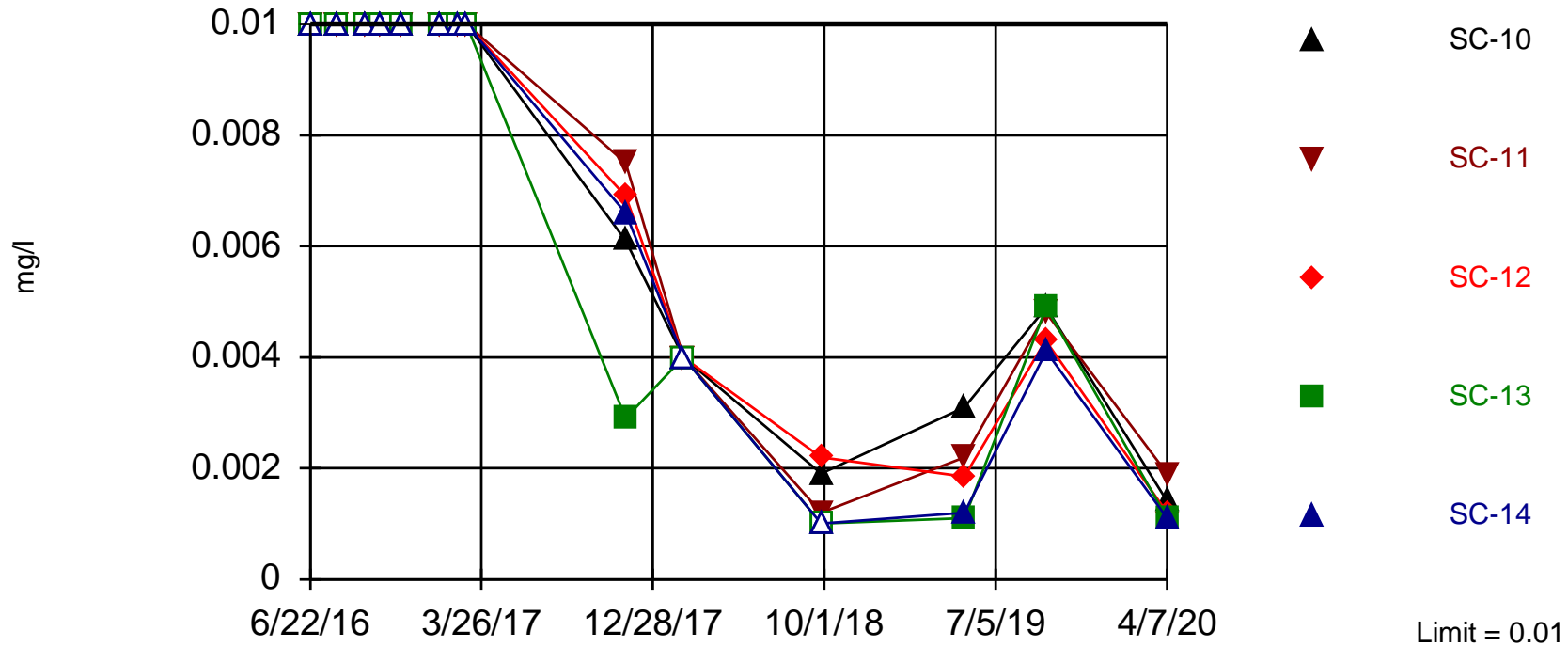
	FC-1	FC-2	SC-14	SC-11	SC-12	SC-10	SC-13	CC-1	FC-3A	FC-3B
6/22/2016	772 (D)	132 (D)	170 (D)	1100 (D)	284 (D)	638 (D)	168 (D)	1535 (D)		
6/23/2016									92.5 (D)	
6/27/2016										319 (D)
8/2/2016	761.5 (D)	128 (D)						1540 (D)	91 (D)	504 (D)
8/3/2016			171 (D)	1100 (D)	296 (D)	633.5 (D)	160 (D)			
9/19/2016	760 (D)	130 (D)						1530 (D)	96.3 (D)	594 (D)
9/20/2016			171 (D)	1145 (D)	317 (D)	688 (D)	150 (D)			
10/12/2016	750 (D)	124 (D)						1500 (D)	99.55 (D)	687 (D)
10/13/2016			81.2 (D)	1120 (D)	308.5 (D)	649 (D)	154 (D)			
11/15/2016	71.2 (D)	127 (D)						1550 (D)	101.5 (D)	676 (D)
11/16/2016			170 (D)	1140 (D)	326 (D)	675 (D)	163 (D)			
1/18/2017	741 (D)	125 (D)						1680 (D)	104 (D)	631 (D)
1/19/2017			162 (D)	1140 (D)	324 (D)	672 (D)	162 (D)			
2/14/2017	738 (D)	123 (D)						1515 (D)	107 (D)	732 (D)
2/15/2017			160 (D)	1140 (D)	320 (D)	697.5 (D)	165 (D)			
2/28/2017	769 (D)	122 (D)						1560 (D)	107 (D)	818 (D)
3/1/2017			76.5 (D)	1130 (D)	312.5 (D)	691 (D)	0.163 (D)			
2/14/2018	756 (D)	124 (D)						1530 (D)	115.5 (D)	652 (D)
2/15/2018			167 (DT)	1110 (DT)	325 (TD)		158 (DT)			
9/25/2018	783.5 (D)	118 (D)						1520 (D)	122 (D)	1210 (D)
9/26/2018			178 (D)	1120 (D)	323 (D)	790 (D)	177 (D)			
5/14/2019	782 (D)	113 (D)						1540 (D)	124 (D)	199 (D)
5/15/2019			185 (D)	1070 (D)	292 (D)	839 (D)	172 (D)			
9/24/2019	811 (D)	116 (D)			316 (D)			1580 (D)	127 (D)	220 (D)
9/25/2019			190 (D)	1090 (D)			180 (D)			
4/6/2020	0.798 (D)	112 (D)						1630 (D)	131 (D)	194 (D)
4/7/2020			162 (D)	1080 (D)	292 (D)	956 (D)	183 (D)			

Hollow symbols indicate censored values.

Within Limit

### Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 70 background values. 67.14% NDs. Annual per-constituent alpha = 0.003874. Individual comparison alpha = 0.0003881 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Chromium, Total (mg/l) Analysis Run 9/11/2020 12:54 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

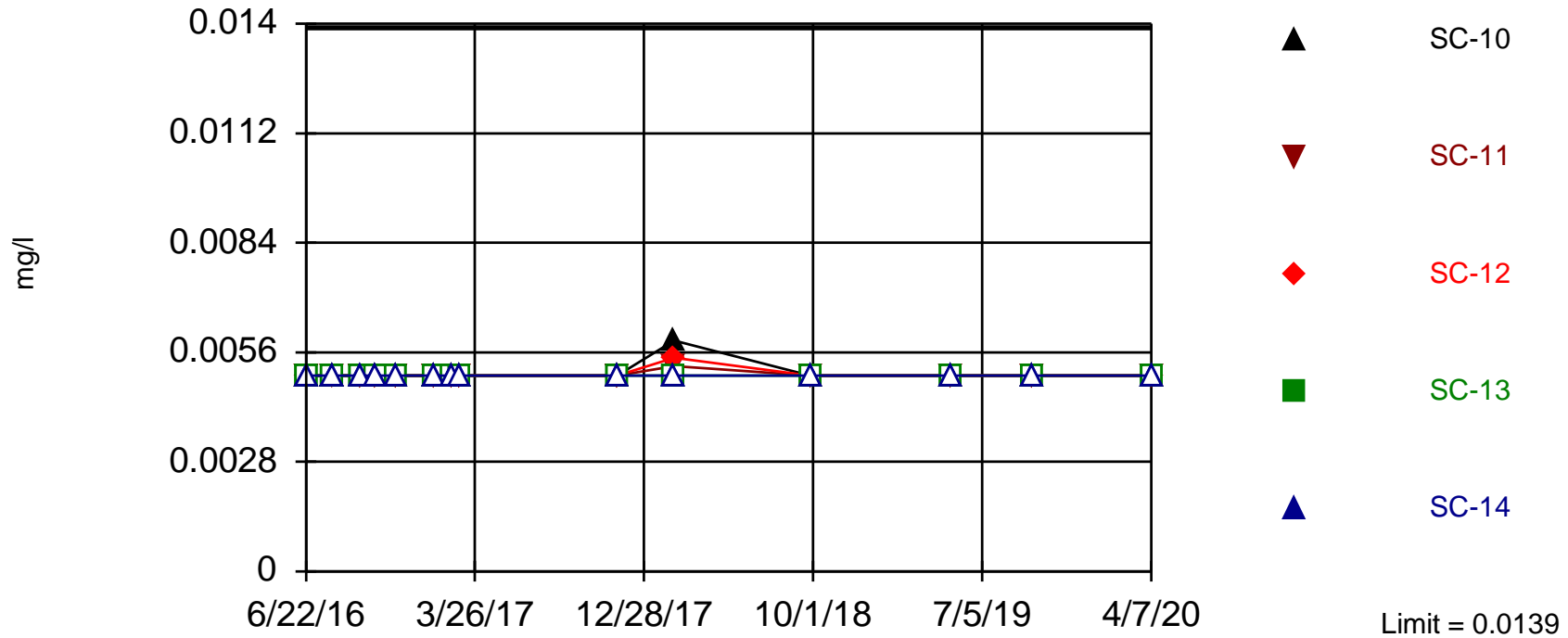
	FC-1	CC-1	SC-10	SC-11	FC-2	SC-14	SC-12	SC-13	FC-3A	FC-3B
6/22/2016	<0.01	<0.01 (D)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
6/23/2016									<0.01	
6/27/2016										<0.01
8/2/2016	<0.01 (D)	<0.01			<0.01				<0.01	<0.01
8/3/2016			<0.01 (D)	<0.01		<0.01	<0.01	<0.01		
9/19/2016	<0.01	<0.01			<0.01 (D)				<0.01	<0.01
9/20/2016			<0.01	<0.01 (D)		<0.01	<0.01	<0.01		
10/12/2016	<0.01	<0.01			<0.01				<0.01 (D)	<0.01
10/13/2016			<0.01	<0.01		<0.01	<0.01 (D)	<0.01		
11/15/2016	<0.01	<0.01			<0.01				<0.01 (D)	<0.01
11/16/2016			<0.01	<0.01		<0.01	<0.01	<0.01 (D)		
1/18/2017	<0.01	<0.01 (D)			<0.01				<0.01	<0.01
1/19/2017			<0.01	<0.01		<0.01	<0.01	<0.01		
2/14/2017	<0.01	<0.01 (D)			<0.01				<0.01	<0.01
2/15/2017			<0.01 (D)	<0.01		<0.01	<0.01	<0.01		
2/28/2017	<0.01 (D)	<0.01			<0.01				<0.01	<0.01
3/1/2017			<0.01	<0.01		<0.01	<0.01 (D)	<0.01		
11/13/2017	0.006 (D)	0.0064 (D)			0.0051 (D)				0.0062 (D)	0.0086 (D)
11/14/2017			0.0061 (D)	0.0075 (D)		0.0066 (D)	0.0069 (D)	0.0029 (D)		
2/14/2018	<0.004	<0.004			<0.004				<0.004 (D)	0.0058
2/15/2018			<0.004	<0.004		<0.004	<0.004	<0.004		
9/25/2018	0.001 (D)	0.0017			0.001				0.0025	0.0061
9/26/2018			0.0019	0.0012		<0.001	0.0022	<0.001 (D)		
5/14/2019	0.0013	0.0018 (D)			<0.001 (D)				0.0031 (D)	0.0049 (D)
5/15/2019			0.0031 (D)	0.0022 (D)		0.0012 (D)	0.00185 (D)	0.0011 (D)		
9/24/2019	0.0042 (D)	0.0036 (D)			0.0035 (D)		0.0043 (D)		0.0054 (D)	0.0089 (D)
9/25/2019			0.0049 (D)	0.0048 (D)		0.0041 (D)		0.0049 (D)		
4/6/2020	<0.001 (DD1)	0.0022 (D)			<0.001 (DD1)				0.0014 (D)	0.0039
4/7/2020			0.0014 (D)	0.0019 (D)		0.0011 (D)	0.0012 (D)	0.0011 (D)		

Hollow symbols indicate censored values.

Within Limit

### Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 68 background values. 85.29% NDs. Annual per-constituent alpha = 0.004143. Individual comparison alpha = 0.0004151 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Cobalt, Total (mg/l)    Analysis Run 9/11/2020 12:54 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

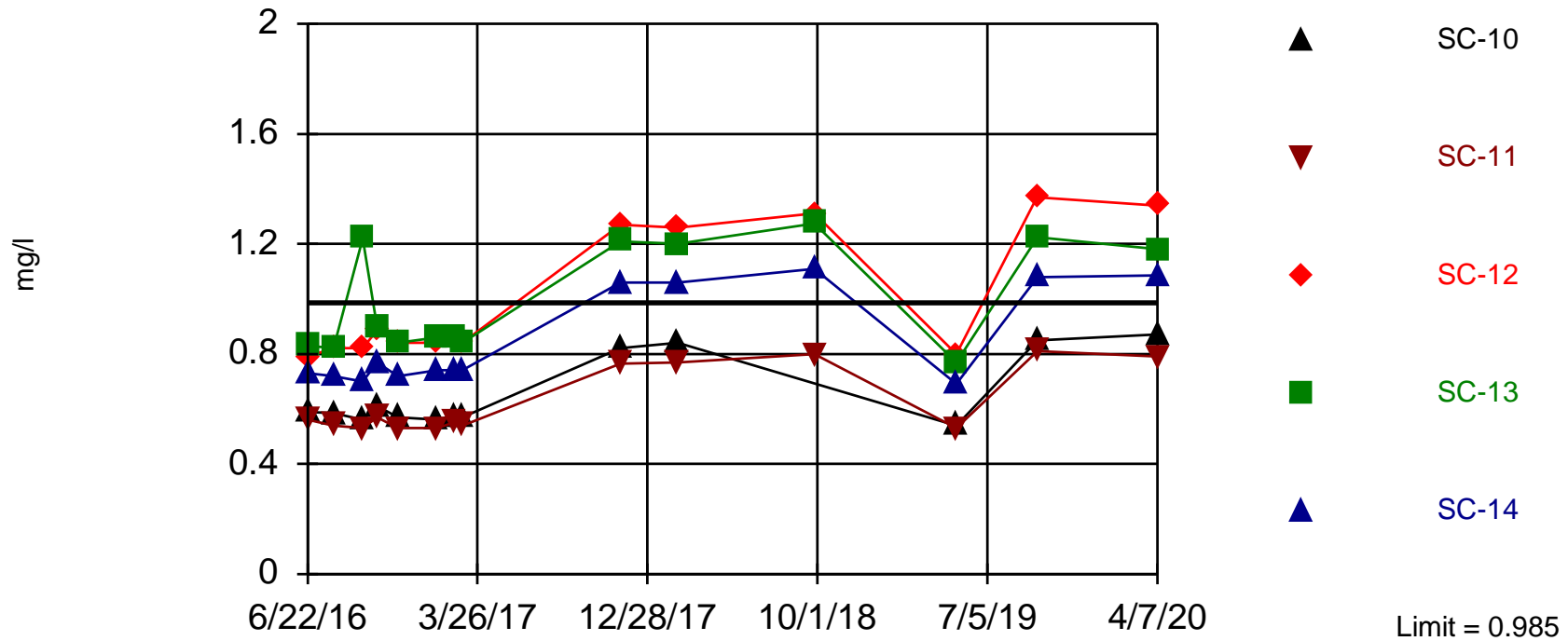
	FC-1	SC-14	SC-13	SC-12	SC-11	CC-1	FC-2	SC-10	FC-3A	FC-3B
6/22/2016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005 (D)	<0.005	<0.005		
6/23/2016									<0.005	
6/27/2016										0.0078
8/2/2016	<0.005 (D)						<0.005		<0.005	0.005
8/3/2016		<0.005	<0.005	<0.005	0.005			<0.005 (D)		
9/19/2016	<0.005					<0.005	<0.005 (D)		<0.005	<0.005
9/20/2016		<0.005	<0.005	<0.005	<0.005 (D)					
10/12/2016	<0.005					<0.005	<0.005		<0.005 (D)	<0.005
10/13/2016		<0.005	<0.005	<0.005 (D)	<0.005			<0.005		
11/15/2016	<0.005					<0.005	<0.005		<0.005 (D)	0.00736
11/16/2016		<0.005	<0.005 (D)	<0.005	<0.005			<0.005		
1/18/2017	<0.005					<0.005 (D)	<0.005		<0.005	0.00778
1/19/2017		<0.005	<0.005	<0.005	<0.005			<0.005		
2/14/2017	<0.005					<0.005 (D)	<0.005		<0.005	0.00796
2/15/2017		<0.005	<0.005	<0.005	<0.005			<0.005 (D)		
2/28/2017	<0.005 (D)					<0.005	<0.005		<0.005	0.00553
3/1/2017		<0.005	<0.005	<0.005 (D)	<0.005			<0.005		
11/13/2017	<0.005					<0.005	<0.005 (D)		<0.005	0.0118
11/14/2017		<0.005	<0.005	<0.005	<0.005 (D)			<0.005		
2/14/2018						0.00636	<0.005		<0.005 (D)	0.0139
2/15/2018		<0.005	<0.005	0.00546	0.00525			0.0059		
9/25/2018	<0.005 (DD1)					<0.005 (DD1)	<0.005 (DD1)		<0.005 (DD1)	0.0108 (D)
9/26/2018		<0.005 (DD1)	<0.005 (DD1)	<0.005 (DD1)	<0.005 (DD1)			<0.005 (DD1)		
5/14/2019	<0.005					<0.005	<0.005		<0.005 (D)	<0.005
5/15/2019		<0.005	<0.005	<0.005	<0.005			<0.005		
9/24/2019	<0.005 (D)			<0.005		<0.005	<0.005		<0.005	<0.005
9/25/2019		<0.005	<0.005 (D)		<0.005			<0.005		
4/6/2020	<0.005					<0.005 (D)	<0.005		<0.005	<0.005
4/7/2020		<0.005 (D)	<0.005	<0.005	<0.005			<0.005		



Exceeds Limit: SC-12, SC-13, SC-14

### Prediction Limit

#### Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. Annual per-constituent alpha = 0.003874. Individual comparison alpha = 0.0003881 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Fluoride, Total (mg/l) Analysis Run 9/11/2020 12:54 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

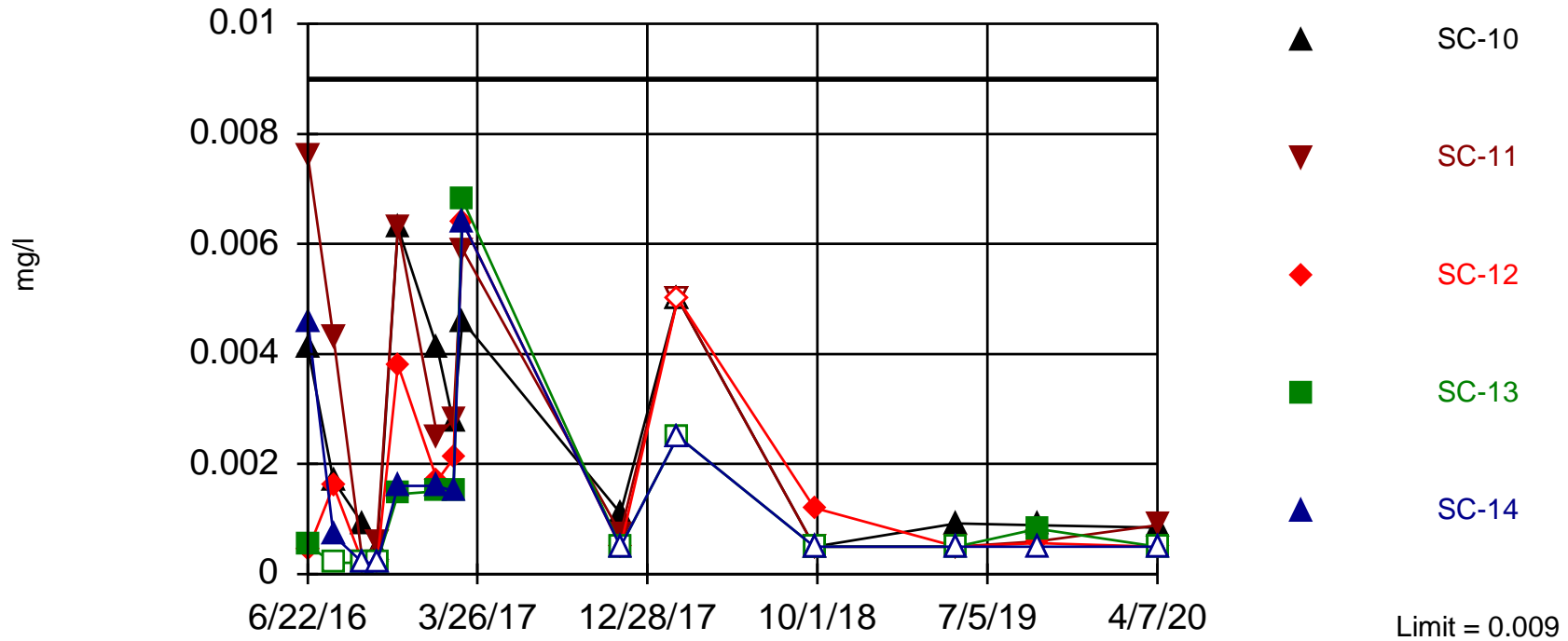
	FC-1	FC-2	SC-10	SC-14	SC-11	CC-1	SC-13	SC-12	FC-3A	FC-3B
6/22/2016	0.12 (T)	0.51 (T)	0.59 (T)	0.73 (T)	0.56 (T)	0.215 (TD)	0.83 (T)	0.79 (T)		
6/23/2016									0.46 (T)	
6/27/2016										0.55
8/2/2016	0.06006 (TD)	0.5 (T)				0.21 (T)			0.46 (T)	0.00048 (T)
8/3/2016			0.585 (TD)	0.72 (T)	0.54 (T)		0.82 (T)	0.82 (T)		
9/19/2016	0.13	0.985 (D)				0.22			0.48	0.48
9/20/2016			0.56	0.7	0.53 (D)		1.22 (D)	0.82		
10/12/2016	0.12 (T)	0.52 (T)				0.21 (T)			0.465 (TD)	0.51 (T)
10/13/2016			0.61 (T)	0.77 (T)	0.57 (T)		0.9 (T)	0.885 (TD)		
11/15/2016	0.12 (T)	0.51 (T)				0.2 (T)			0.46 (TD)	0.46 (T)
11/16/2016			0.57 (T)	0.72 (T)	0.53 (T)		0.84 (D)	0.84 (T)		
1/18/2017	0.13 (T)	0.52 (T)				0.2 (TD)			0.46 (T)	0.56 (T)
1/19/2017			0.56 (T)	0.74 (T)	0.53 (T)		0.86 (T)	0.84 (T)		
2/14/2017	0.13 (T)	0.55 (T)				0.22 (TD)			0.48 (T)	0.51 (T)
2/15/2017			0.575 (TD)	0.74 (T)	0.55 (T)		0.86 (T)			
2/28/2017	0.13 (TD)	0.53 (T)				0.22 (T)			0.47 (T)	0.42 (T)
3/1/2017			0.57 (T)	0.74 (T)	0.54 (T)		0.84 (T)	0.84 (TD)		
11/13/2017	0.2	0.7 (D)				0.45			0.56	0.48
11/14/2017			0.82	1.06	0.765 (D)		1.21	1.27		
2/14/2018	0.21	0.74				0.5			0.615 (D)	0.53
2/15/2018			0.84	1.06	0.77		1.2	1.26		
9/25/2018	0.195 (D)	0.73				0.48			0.62	0.52
9/26/2018				1.11	0.8		1.275 (D)	1.31		
5/14/2019	0.13	0.51				0.2			0.44 (D)	0.69
5/15/2019			0.54	0.69	0.53		0.77	0.8 (D)		
9/24/2019	0.195 (D)	0.72				0.53		1.37	0.59	0.72
9/25/2019			0.85	1.08	0.81		1.225 (D)			
4/6/2020	0.21	0.72				0.545 (D)			0.61	0.7
4/7/2020			0.87	1.085 (D)	0.79		1.18	1.34		

Hollow symbols indicate censored values.

Within Limit

### Prediction Limit

#### Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. 50% NDs. Annual per-constituent alpha = 0.003874. Individual comparison alpha = 0.0003881 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Lead, Total (mg/l)    Analysis Run 9/11/2020 12:54 PM    View: CCR Landfill

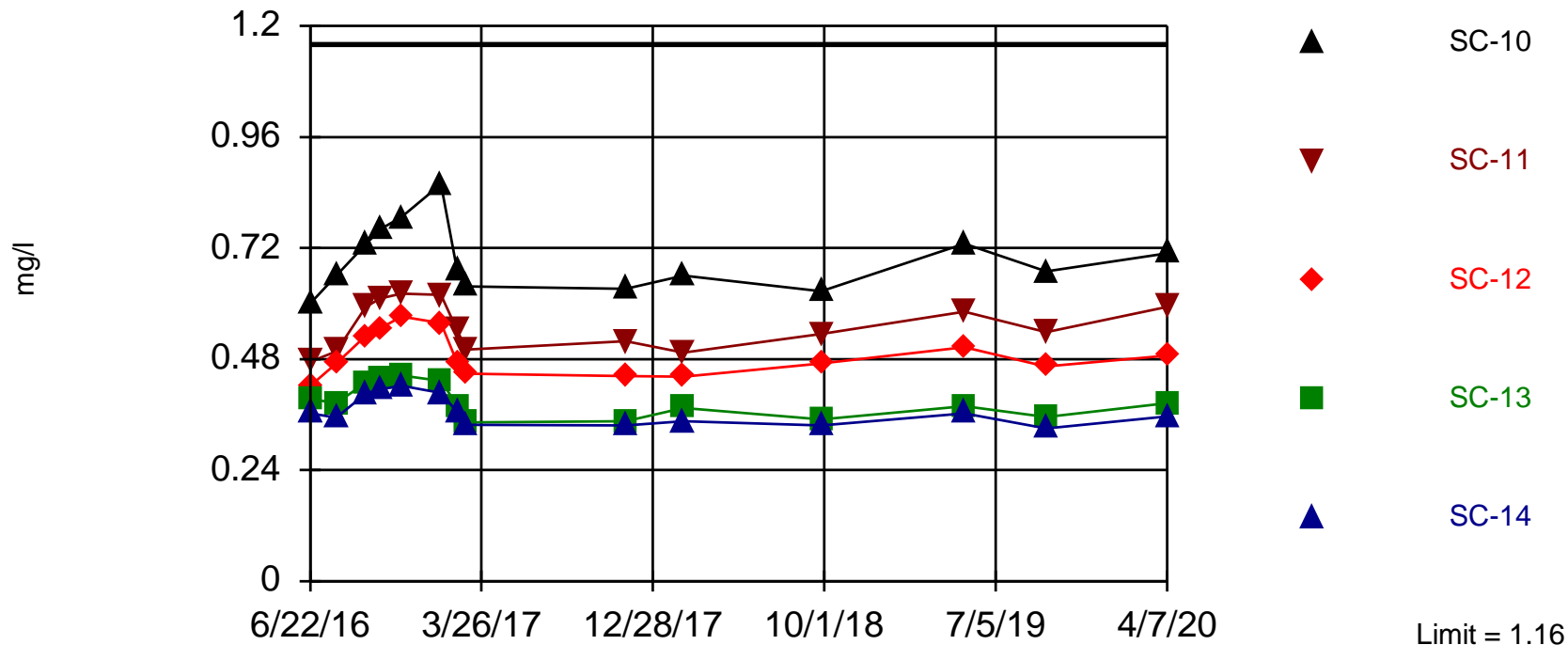
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	SC-10	SC-11	FC-2	SC-14	SC-12	SC-13	FC-3A	FC-3B
6/22/2016	<0.0002	<0.0002 (D)	0.0041	0.0076	0.0002	0.0046	0.00043	0.00052		
6/23/2016									0.0052	
6/27/2016										0.0039
8/2/2016	<0.0002 (D)	<0.0002			<0.0002				0.0015	0.0021
8/3/2016			0.0017 (D)	0.0043		0.0007	0.0016	<0.0002		
9/19/2016	0.00032 (D)	<0.0002 (D1)			<0.0002 (D1)				0.001 (D)	0.00042 (D)
9/20/2016			0.00091 (D)	<0.0002 (D1)		<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)		
10/12/2016	<0.0002 (D1)	<0.0002 (D1)			<0.0002 (D1)				0.000835 (D)	<0.0002 (D1)
10/13/2016			0.00044 (D)	0.0006 (D)		<0.0002 (D1)	<0.0002 (D)	<0.0002 (D1)		
11/15/2016	0.0037 (D)	0.0052 (D)			<0.0002 (D1)				0.0031 (D)	0.0065 (D)
11/16/2016			0.0063 (D)	0.0063 (D)		0.0016 (D)	0.0038 (D)	0.00145 (D)		
1/18/2017	<0.0005 (D1)	0.0035 (D)			<0.0005 (D1)				0.0035 (D)	0.0035 (D)
1/19/2017			0.0041 (D)	0.0025 (D)		0.0016 (D)	0.0017 (D)	0.0015 (D)		
2/14/2017	0.0027 (D)	0.0028 (D)			0.0018 (D)				0.0017 (D)	0.00099 (D)
2/15/2017			0.00275 (D)	0.0028 (D)		0.0015 (D)	0.0021 (D)	0.0015 (D)		
2/28/2017	0.0081 (D)	0.0049 (D)			0.0089 (D)				0.009	0.0089 (D)
3/1/2017			0.0046 (D)	0.0059 (D)		0.0064 (D)	0.0064 (D)	0.0068 (D)		
11/13/2017	<0.0005 (D1)	<0.0005 (D1)			<0.0005 (D1)				0.00091 (D)	<0.0005 (D1)
11/14/2017			0.0011 (D)	0.00073 (D)		<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)		
2/14/2018	<0.005	<0.005			<0.0025				<0.0025 (D)	<0.0025
2/15/2018			<0.005	<0.005		<0.0025	<0.005	<0.0025		
9/25/2018	<0.0005 (D)	<0.0005			<0.0005				0.00086	0.0046
9/26/2018			<0.0005 (D1)	<0.0005 (D1)		<0.0005	0.0012	<0.0005 (D)		
5/14/2019	<0.0005	<0.0005 (D1D)			<0.0005 (D1D)				0.0011 (D1D)	0.00073 (D1D)
5/15/2019			0.00092 (D1D)	<0.0005 (D1D)		<0.0005 (D1D)	<0.0005 (D)	<0.0005 (D1D)		
9/24/2019	<0.0005 (D1D)	0.00072 (D)			0.0014 (D)		0.00056 (D)		0.0018 (D)	0.0012 (D)
9/25/2019			0.00089 (D)	0.00059 (D)		<0.0005 (D1D)		0.000825 (D)		
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)			<0.0005 (DD1)				<0.0005 (DD1)	<0.0005 (DD1)
4/7/2020			0.00084 (D)	0.00089 (D)		<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)		

Within Limit

### Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. Annual per-constituent alpha = 0.003874. Individual comparison alpha = 0.0003881 (1 of 2). Comparing 5 points to limit.

Constituent: Lithium, Total    Analysis Run 9/11/2020 12:52 PM    View: CCR Landfill  
 Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Prediction Limit

Constituent: Lithium, Total (mg/l)    Analysis Run 9/11/2020 12:54 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

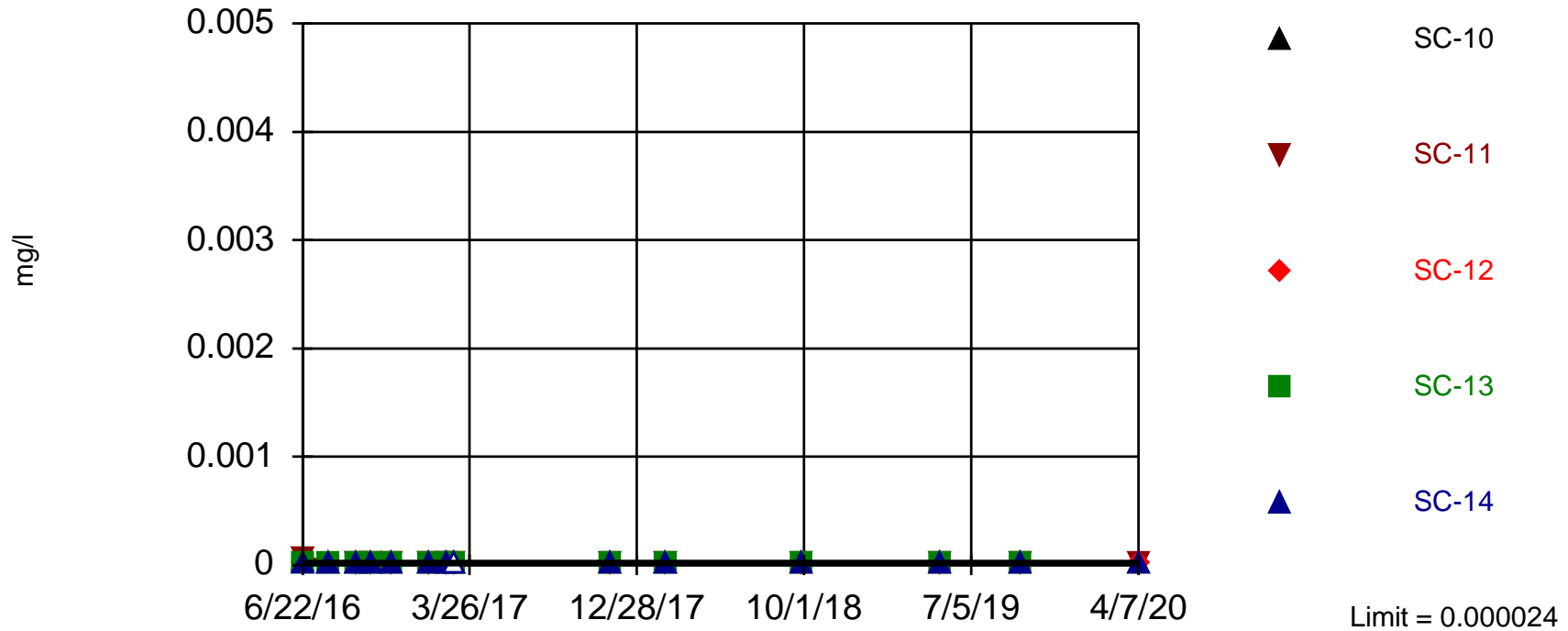
	FC-1	CC-1	SC-10	SC-11	FC-2	SC-14	SC-12	SC-13	FC-3A	FC-3B
6/22/2016	0.904	0.671 (D)	0.601	0.475	0.269	0.363	0.422	0.394		
6/23/2016									0.303	
6/27/2016										0.232
8/2/2016	0.984 (D)	0.731			0.305				0.311	0.274
8/3/2016			0.661 (D)	0.497		0.353	0.47	0.384		
9/19/2016	1.01	0.779			0.306 (D)				0.343	0.295
9/20/2016			0.728	0.593 (D)		0.406	0.53	0.429		
10/12/2016	1.03	0.825			0.307				0.3455 (D)	0.315
10/13/2016			0.761	0.611		0.415	0.546 (D)	0.437		
11/15/2016	1.16	0.822			0.325 (T)				0.3375 (D)	0.344
11/16/2016			0.786	0.622		0.422	0.572	0.4445 (D)		
1/18/2017	1.08	0.791 (D)			0.318				0.343 (D)	0.335
1/19/2017			0.858 (D)	0.619 (D)		0.407 (D)	0.558 (D)	0.433 (D)		
2/14/2017	1	0.73 (D)			0.298				0.312	0.334
2/15/2017			0.671 (D)	0.542		0.365	0.472	0.379		
2/28/2017	0.9125 (D)	0.641			0.275 (D)				0.283 (D)	0.326 (D)
3/1/2017			0.637 (D)	0.5 (D)		0.338 (D)	0.449 (D)	0.343 (D)		
11/13/2017	0.894	0.63			0.2665 (D)				0.288	0.31
11/14/2017			0.632	0.519 (D)		0.336	0.443	0.345		
2/14/2018	0.9 (D)	0.576 (D)			0.265 (D)				0.2635 (D)	0.341 (D)
2/15/2018			0.66 (D)	0.494 (D)		0.345 (D)	0.442 (D)	0.374 (D)		
9/25/2018	0.9085 (D)	0.664 (D)			0.276 (D)				0.302 (D)	0.316 (D)
9/26/2018			0.626 (D)	0.534 (D)		0.336 (D)	0.471 (D)	0.3495 (D)		
5/14/2019	1.13	0.798			0.294				0.3265 (D)	0.321
5/15/2019			0.729	0.583		0.363	0.505 (D)	0.378		
9/24/2019	0.9695 (D)	0.722 (D)			0.274 (D)		0.464 (D)		0.303 (D)	0.284 (D)
9/25/2019			0.669 (D)	0.538		0.33 (D)		0.3545 (D)		
4/6/2020	0.943	0.7435 (D)			0.274				0.295	0.284
4/7/2020			0.709	0.593		0.356 (D)	0.488	0.384		

Hollow symbols indicate censored values.

Within Limit

### Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 69 background values. Annual per-constituent alpha = 0.004009. Individual comparison alpha = 0.0004016 (1 of 2). Comparing 5 points to limit.

Constituent: Mercury, Total Analysis Run 9/11/2020 12:52 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Prediction Limit

Constituent: Mercury, Total (mg/l)    Analysis Run 9/11/2020 12:54 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

	FC-1	SC-10	CC-1	SC-11	SC-12	FC-2	SC-14	SC-13	FC-3A	FC-3B
6/22/2016	1.3E-06	3.6E-05	4.7E-06 (D)	6.7E-05	4.5E-06	2.8E-06	1.2E-05	3.6E-06		
6/23/2016									5.4E-06	
6/27/2016										1.3E-05
8/2/2016	2E-06 (D)		6E-06			4E-06			7E-06	6E-06
8/3/2016		1.05E-05 (D)			6E-06		3E-06	2E-06		
9/19/2016	2E-06		6E-06			3E-06 (D)			4E-06	3E-06
9/20/2016		1.6E-05		9.5E-06 (D)	5E-06		3E-06	3E-06		
10/12/2016	2E-06		6E-06						5E-06 (D)	3E-06
10/13/2016		1E-05		1E-05	3E-06 (D)		2E-06	2E-06		
11/15/2016	2E-06		6E-06			4E-06			2E-06 (D)	9E-06
11/16/2016		1E-05		1E-05	4E-06		2E-06	2E-06 (D)		
1/18/2017	2E-06		7.5E-06 (D)			5E-06			2E-06	8E-06
1/19/2017		1.1E-05		1E-05	4E-06		2E-06	3E-06		
2/14/2017	2E-06		6E-06 (D)			4E-06			2E-06	4E-06
2/15/2017		9E-06 (D)		8E-06	3E-06		2E-06	2E-06		
2/28/2017	2E-06 (D)		6E-06			4E-06			2E-06	5E-06
3/1/2017		9E-06		9E-06	3E-06 (D)		<2E-06	3E-06		
11/13/2017	2E-06 (T)		6E-06 (T)			3.5E-06 (TD)			4E-06 (T)	7E-06 (T)
11/14/2017		1E-05		7.5E-06 (D)	4E-06		2E-06	2E-06		
2/14/2018	2E-06		5E-06			3E-06			2E-06 (D)	5E-06
2/15/2018		1.1E-05		1.3E-05	4E-06		2E-06	2E-06		
9/25/2018	2.5E-06 (D)		5E-06			3E-06			3E-06	2.4E-05
9/26/2018		9E-06		8E-06	5E-06		2E-06	2E-06 (D)		
5/14/2019	2E-06		6E-06			3E-06			7.5E-06 (D)	3E-06
5/15/2019		1E-05		9E-06	4E-06 (D)		2E-06	2E-06		
9/24/2019	2E-06 (D)		5E-06		4E-06	5E-06			8E-06	5E-06
9/25/2019		1E-05		9E-06			2E-06	4E-06 (D)		
4/6/2020	2E-06		6E-06 (D)			4E-06			2E-06	2E-06
4/7/2020		9E-06		1.1E-05	4E-06		2E-06			

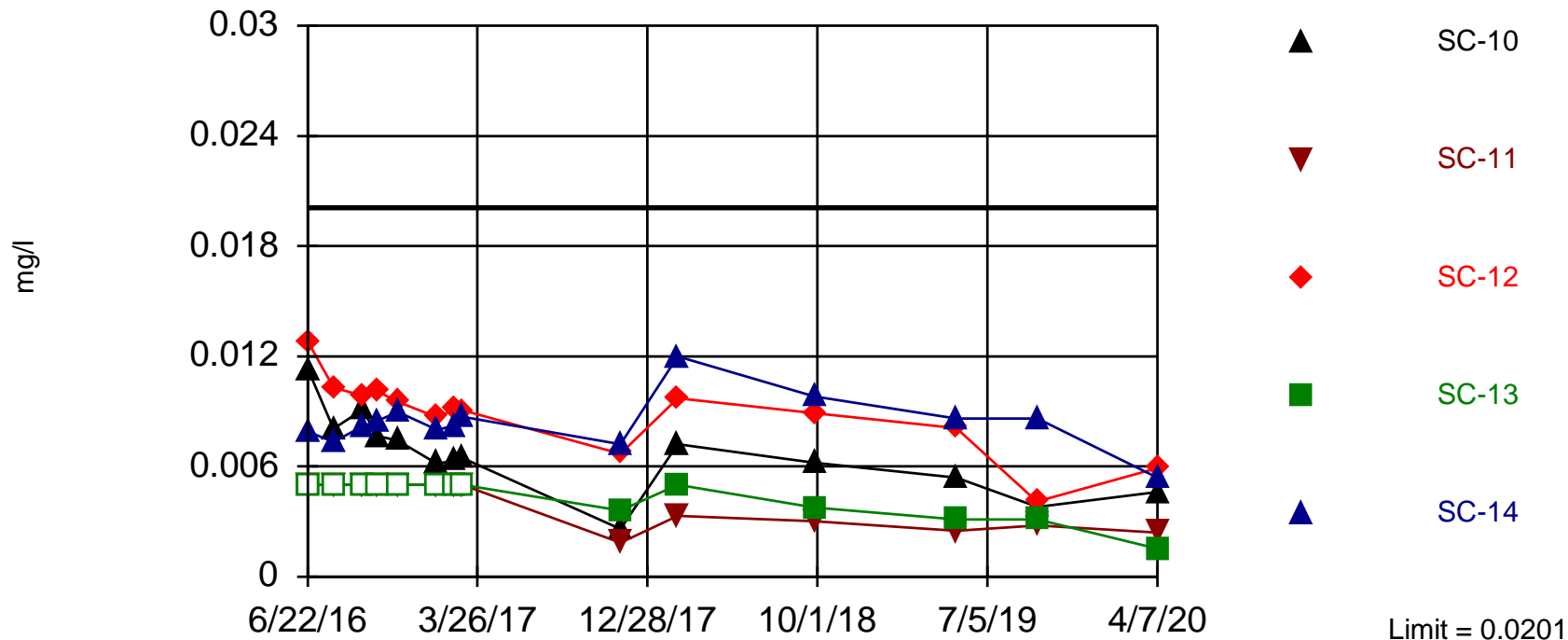


Hollow symbols indicate censored values.

Within Limit

## Prediction Limit

### Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. 40% NDs. Annual per-constituent alpha = 0.003874. Individual comparison alpha = 0.0003881 (1 of 2). Comparing 5 points to limit.

Constituent: Molybdenum, Total Analysis Run 9/11/2020 12:52 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Prediction Limit

Constituent: Molybdenum, Total (mg/l)    Analysis Run 9/11/2020 12:55 PM    View: CCR Landfill

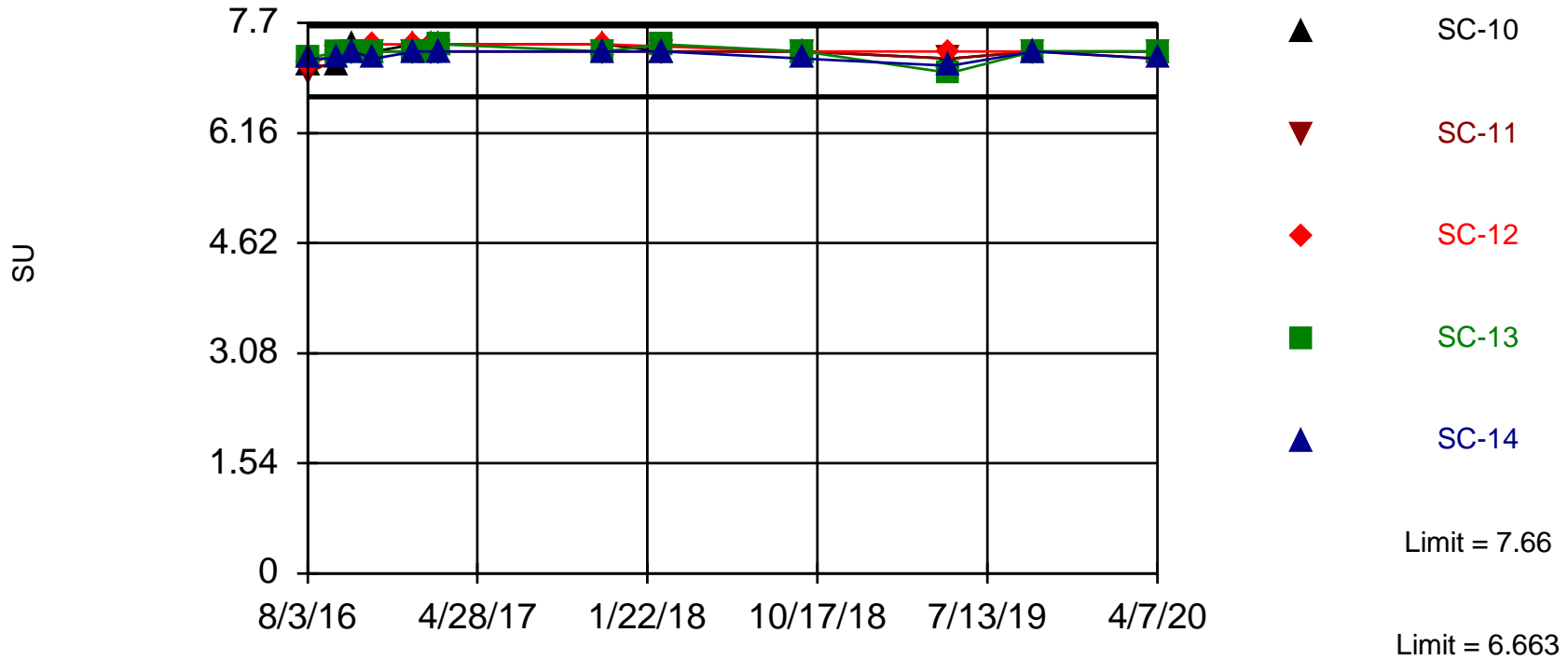
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	SC-10	SC-11	FC-2	SC-14	SC-12	SC-13	FC-3A	FC-3B
6/22/2016	<0.005	<0.005 (D)	0.0113	<0.005	<0.005	0.0079	0.0128	<0.005		
6/23/2016									<0.005	
6/27/2016										0.0201
8/2/2016	<0.005 (D)	<0.005			<0.005				0.00838	0.0198
8/3/2016			0.008055 (D)	<0.005		0.00734	0.0103	<0.005		
9/19/2016	<0.005	<0.005			<0.005 (D)				0.0122	0.00609
9/20/2016			0.00911	<0.005 (D)		0.00819	0.00983	<0.005		
10/12/2016	<0.005	<0.005			0.001252 (D)				0.009175 (D)	0.00525
10/13/2016			0.00767	<0.005		0.00848	0.0101 (D)	<0.005		
11/15/2016	<0.005	<0.005			<0.005				0.01065 (D)	0.0117
11/16/2016			0.0074	<0.005		0.00897	0.00951	<0.005 (D)		
1/18/2017	<0.005	<0.005 (D)			<0.005				0.00969	<0.005
1/19/2017			0.00614	<0.005		0.00798	0.00866	<0.005		
2/14/2017	<0.005	<0.005 (D)			<0.005				0.0104	0.00716
2/15/2017			0.006325 (D)	<0.005		0.00821	0.00909	<0.005		
2/28/2017	<0.005 (D)	<0.005			<0.005				0.0109	0.00842
3/1/2017			0.00646	<0.005		0.00869	0.00905 (D)	<0.005		
11/13/2017	0.0015 (D)	<0.0002 (D1)			0.0014 (D)				0.005 (D)	0.0042 (D)
11/14/2017			0.0026 (D)	0.00185 (D)		0.0072 (D)	0.0067 (D)	0.0036 (D)		
2/14/2018	<0.01	<0.01			0.003				0.0112 (D)	0.0055
2/15/2018			0.0072	0.0033		0.012	0.0097	0.005		
9/25/2018	0.0015 (D)	0.0006			0.002				0.0086	0.0027
9/26/2018			0.0062	0.003		0.0098	0.0089	0.00375 (D)		
5/14/2019	0.0018	0.00068 (D)			0.002 (D)				0.0069 (D)	0.0014 (D)
5/15/2019			0.0054 (D)	0.0025 (D)		0.0086 (D)	0.0081 (D)	0.0031 (D)		
9/24/2019	0.00165 (D)	0.00067 (D)			0.0021 (D)		0.0041 (D)		0.0066 (D)	0.002 (D)
9/25/2019			0.0038 (D)	0.0028 (D)		0.0086 (D)		0.0031 (D)		
4/6/2020	0.0013 (D)	0.000275 (D)			0.0016 (D)				0.0073 (D)	0.00057 (D)
4/7/2020			0.0046 (D)	0.0024		0.005401 (D)	0.0059 (D)	0.0015015 (D)		

Within Limits

### Prediction Limit

### Interwell Parametric



Background Data Summary: Mean=7.162, Std. Dev.=0.2343, n=65. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9637, critical = 0.948. Kappa = 2.127 (c=22, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.002392. Individual comparison alpha = 0.0002394. Comparing 5 points to limit.

Constituent: pH Analysis Run 9/11/2020 12:52 PM View: CCR Landfill  
 Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Prediction Limit

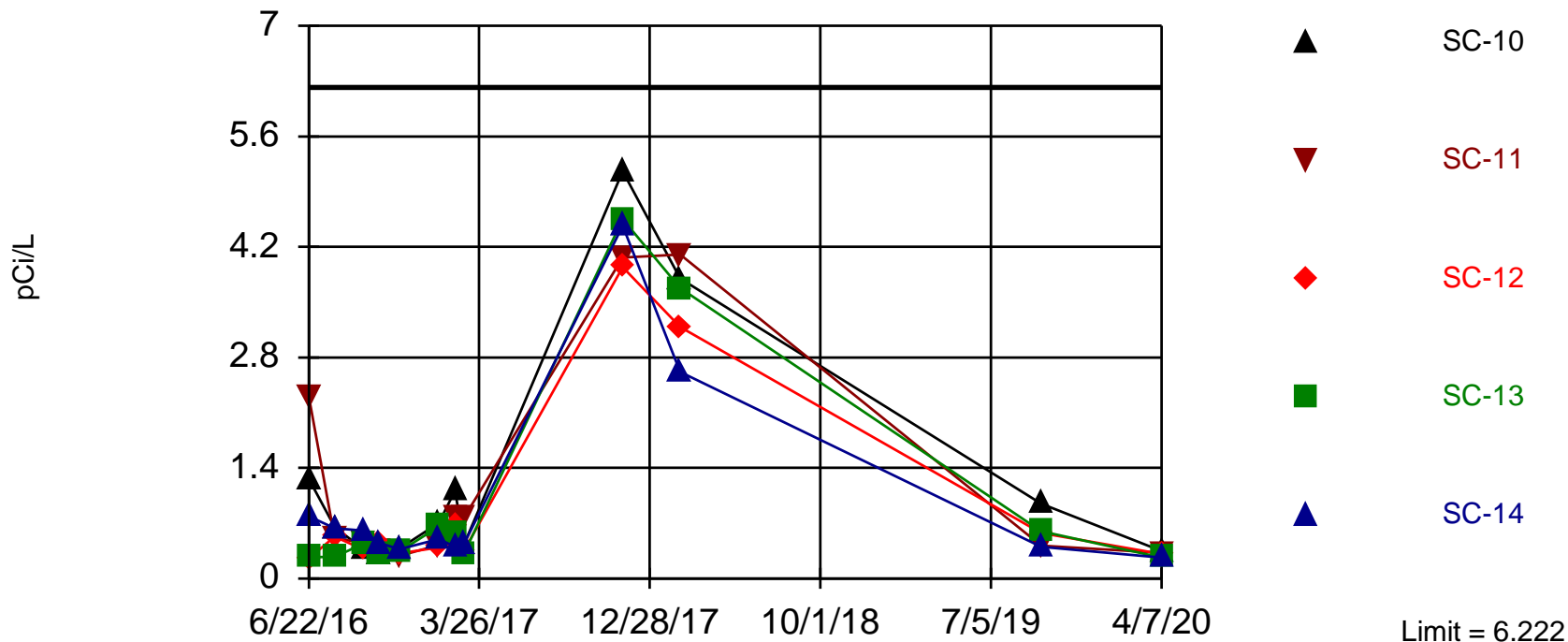
Constituent: pH (SU) Analysis Run 9/11/2020 12:55 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	FC-3B	FC-3A	CC-1	FC-2	SC-13	SC-12	SC-11	SC-10	SC-14
8/2/2016	7 (D)	7.2	7.5	6.8	7.2					
8/3/2016						7.2	7.1	7	7.1 (D)	7.2
9/19/2016	7.1	6.9	7.5	6.7	7.2					
9/20/2016						7.3	7.3	7.2	7.1	7.2
10/12/2016	7.1	7	7.5	6.9	7.2					
10/13/2016						7.3	7.3	7.3	7.4	7.3
11/15/2016	7.1	7	7.6	6.9	7.3					
11/16/2016						7.3	7.4	7.3	7.3	7.2
1/18/2017	7.1	7	7.6	6.9	7.3					
1/19/2017						7.3	7.4	7.3	7.4	7.3
2/14/2017	7.1	7	7.6	6.9	7.3					
2/15/2017						7.3	7.4	7.3	7.4	
2/28/2017	7.2	7	7.5	6.9	7.3					
3/1/2017						7.4	7.4	7.3	7.4	7.3
11/13/2017	7.2	7	7.6	7	7.3					
11/14/2017						7.3	7.4	7.3	7.4	7.3
2/14/2018	7.1	6.8	7.6	6.9	7.3					
2/15/2018						7.4		7.3	7.3	7.3
9/25/2018	7	7.1	7.3	6.8	7.3					
9/26/2018						7.3	7.3	7.3	7.3	7.2
5/14/2019	7.1	7.2	7.5	6.8	7.2					
5/15/2019						7	7.3	7.2	7.2	7.1
9/24/2019	7.1	7.1	7.4	7	7.3		7.3			
9/25/2019						7.3		7.3	7.3	7.3
4/6/2020	7.1	7.3	7.5	6.9	7.3					
4/7/2020						7.3	7.2	7.3	7.3	7.2

Within Limit

### Prediction Limit

### Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=0.09126, Std. Dev.=0.8128, n=60.  
 Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9651, critical = 0.945. Kappa = 2.137 (c=22, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.002392. Individual comparison alpha = 0.0004788. Comparing 5 points to limit.

Constituent: Rad 226+228 Analysis Run 9/11/2020 12:52 PM View: CCR Landfill  
 Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Prediction Limit

Constituent: Rad 226+228 (pCi/L) Analysis Run 9/11/2020 12:55 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

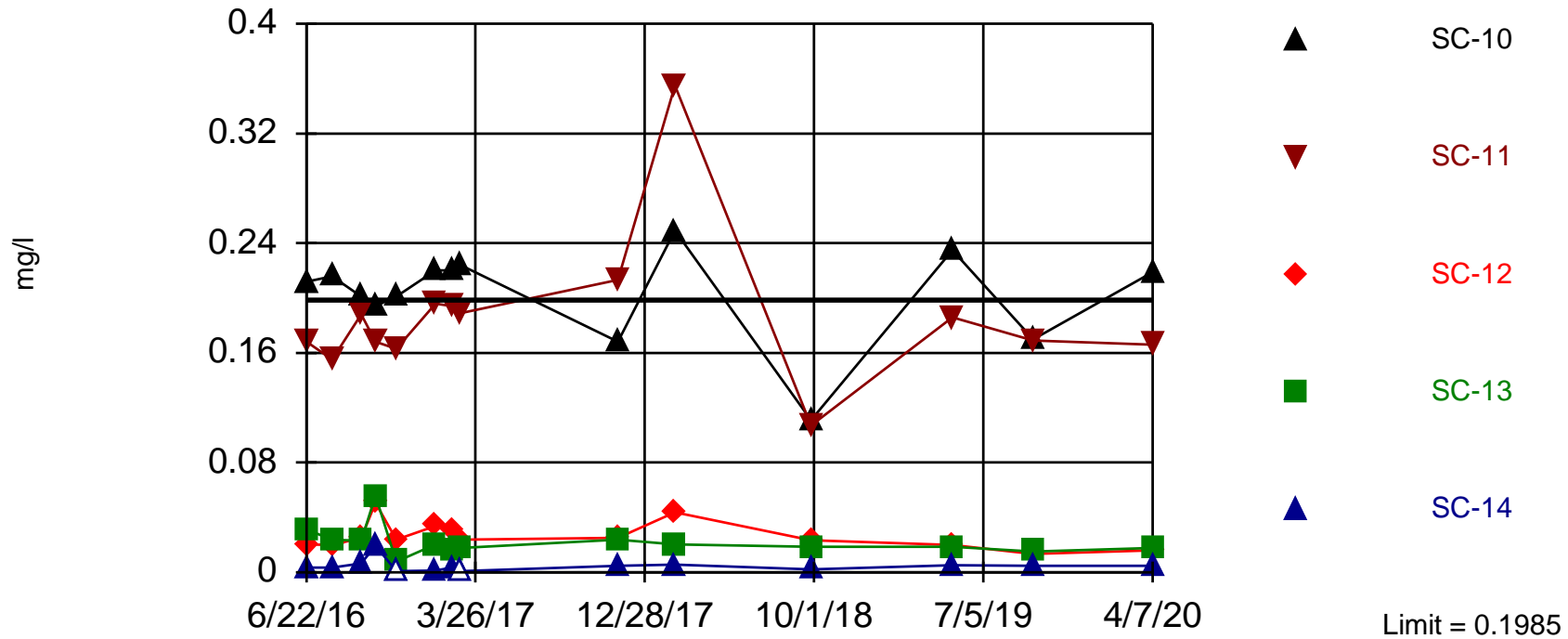
	FC-1	FC-2	SC-14	SC-11	SC-12	SC-10	SC-13	CC-1	FC-3A	FC-3B
6/22/2016	1.475	0.3375	0.786	2.295	0.253	1.257	0.2705	1.317 (D)		
6/23/2016									1.321	
6/27/2016										1.111
8/2/2016	1.38	0.295						0.412	0.3135	1.7775
8/3/2016			0.6375	0.508	0.528	0.646	0.2735			
9/19/2016	2.136	0.363						0.6405	0.3795	0.496
9/20/2016			0.603	0.4555	0.3585	0.361	0.448			
10/12/2016	1.913	0.3475						1.404	0.616	0.4955
10/13/2016			0.4535	0.3365	0.437	0.324	0.305			
11/15/2016	2.128	0.854						1.354	0.395	0.6865
11/16/2016			0.3695	0.286	0.3135	0.3775	0.341			
1/18/2017	1.874	0.471						1.494 (D)	0.617	0.6095
1/19/2017			0.497	0.4185	0.393	0.704	0.661			
2/14/2017	2.31 (D)	0.7225						1.841	2.636	1.366
2/15/2017			0.3975	0.751	0.6565	1.114	0.581			
2/28/2017	1.628	0.446						1.59325 (D)	1.8245	0.414
3/1/2017			0.4345	0.7725	0.355	0.432	0.318			
11/13/2017	6.445	4.255						5.16	3.575	2.225
11/14/2017			4.465	4.0675 (D)	3.94	5.16	4.55			
2/14/2018	5.23	2.1715						3.22	2.23025 (D)	2.79
2/15/2018			2.612	4.1	3.1875 (D)	3.8	3.677			
9/24/2019	1.628	0.4605						1.444	0.548	0.69
9/25/2019			0.4	0.418	0.5735	0.949	0.596 (D)			
4/6/2020	2.368	0.428						0.826 (D)	0.466	0.762
4/7/2020			0.26225 (D)	0.3205	0.3116	0.345	0.2665			

Hollow symbols indicate censored values.

Exceeds Limit: SC-10

## Prediction Limit

### Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. 1.429% NDs. Annual per-constituent alpha = 0.003874. Individual comparison alpha = 0.0003881 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Selenium, Total (mg/l)    Analysis Run 9/11/2020 12:55 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

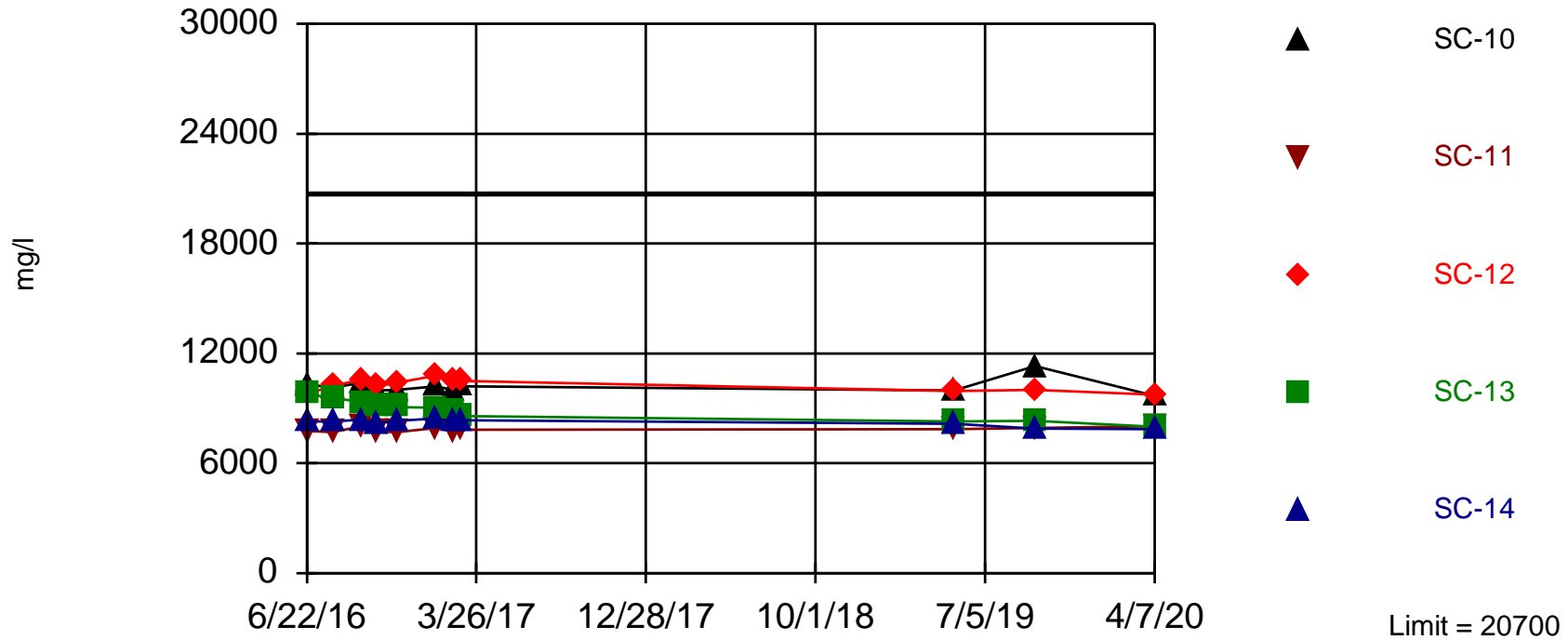
	FC-1	CC-1	SC-10	SC-11	FC-2	SC-14	SC-12	SC-13	FC-3A	FC-3B
6/22/2016	0.016	0.1985 (D)	0.212	0.168	0.0471	0.0031	0.0203	0.0311		
6/23/2016									0.0393	
6/27/2016										0.0057
8/2/2016	0.0098 (D)	0.186			0.0412				0.0382	0.0069
8/3/2016			0.216 (D)	0.155		0.0035	0.0197	0.0236		
9/19/2016	0.028 (D)	0.157 (D)			0.04895 (D)				0.0364 (D)	0.0112 (D)
9/20/2016			0.201 (D)	0.188 (D)		0.0062 (D)	0.0252 (D)	0.0228 (D)		
10/12/2016	0.0167 (D)	0.138 (D)			<0.001 (D1)				0.04245 (D)	0.0115 (D)
10/13/2016			0.194 (D)	0.168 (D)		0.0192 (D)	0.05055 (D)	0.0558 (D)		
11/15/2016	0.0136	0.145 (D)			0.0356 (D)				0.0355 (D)	0.0106 (D)
11/16/2016			0.201 (DP1)	0.163 (DP1)		<0.001 (D1P)	0.0237 (DP1)	0.00765 (D)		
1/18/2017	0.0254 (D)	0.1385 (D)			0.0452 (D)				0.039 (D)	0.0067 (D)
1/19/2017			0.22 (D)	0.196 (D)		0.0013 (D)	0.0337 (D)	0.0202 (D)		
2/14/2017	0.0141 (DT)	0.1415 (D)			0.0388 (DT)				0.0352 (DT)	0.0092 (D)
2/15/2017			0.22 (D)	0.194 (D)		0.0033 (D)	0.03 (D)	0.0164 (D)		
2/28/2017	0.00375 (D)	0.143 (D)			0.0367 (D)				0.0263 (D)	0.0011 (D)
3/1/2017			0.224 (D)	0.189 (D)		<0.001 (D1)	0.02355 (D)	0.0177 (D)		
11/13/2017	0.015 (D)	0.135 (D)			0.0381 (D)				0.0552 (D)	0.0107 (D)
11/14/2017			0.168 (D)	0.213 (D)		0.0046 (D)	0.0252 (D)	0.0236 (D)		
2/14/2018	0.0068	0.169			0.044				0.0543 (D)	0.0036
2/15/2018			0.249	0.355		0.0055	0.0437	0.0204		
9/25/2018	0.02165 (D)	0.17			0.0371				0.0512	0.0142
9/26/2018			0.111 (D)	0.107 (D)		0.002	0.0231	0.01845 (D)		
5/14/2019	0.0178 (D)	0.188 (D)			0.0402 (D)				0.04725 (D)	0.005 (D)
5/15/2019			0.235 (D)	0.186 (D)		0.005 (D)	0.0198 (D)	0.0185 (D)		
9/24/2019	0.01665 (D)	0.19 (D)			0.0376 (D)		0.0134 (D)		0.0399 (D)	0.0115 (D)
9/25/2019			0.17 (D)	0.169 (D)		0.0045 (D)		0.015 (D)		
4/6/2020	0.0156 (D)	0.1455 (D)			0.038 (D)				0.0394 (D)	0.0043 (D)
4/7/2020			0.219 (D)	0.166 (D)		0.00475 (D)	0.0159 (D)	0.0177 (D)		



Within Limit

## Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 55 background values. Annual per-constituent alpha = 0.006311. Individual comparison alpha = 0.0006329 (1 of 2). Comparing 5 points to limit.

Constituent: Sulfate    Analysis Run 9/11/2020 12:52 PM    View: CCR Landfill  
 Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Prediction Limit

Constituent: Sulfate (mg/l) Analysis Run 9/11/2020 12:55 PM View: CCR Landfill

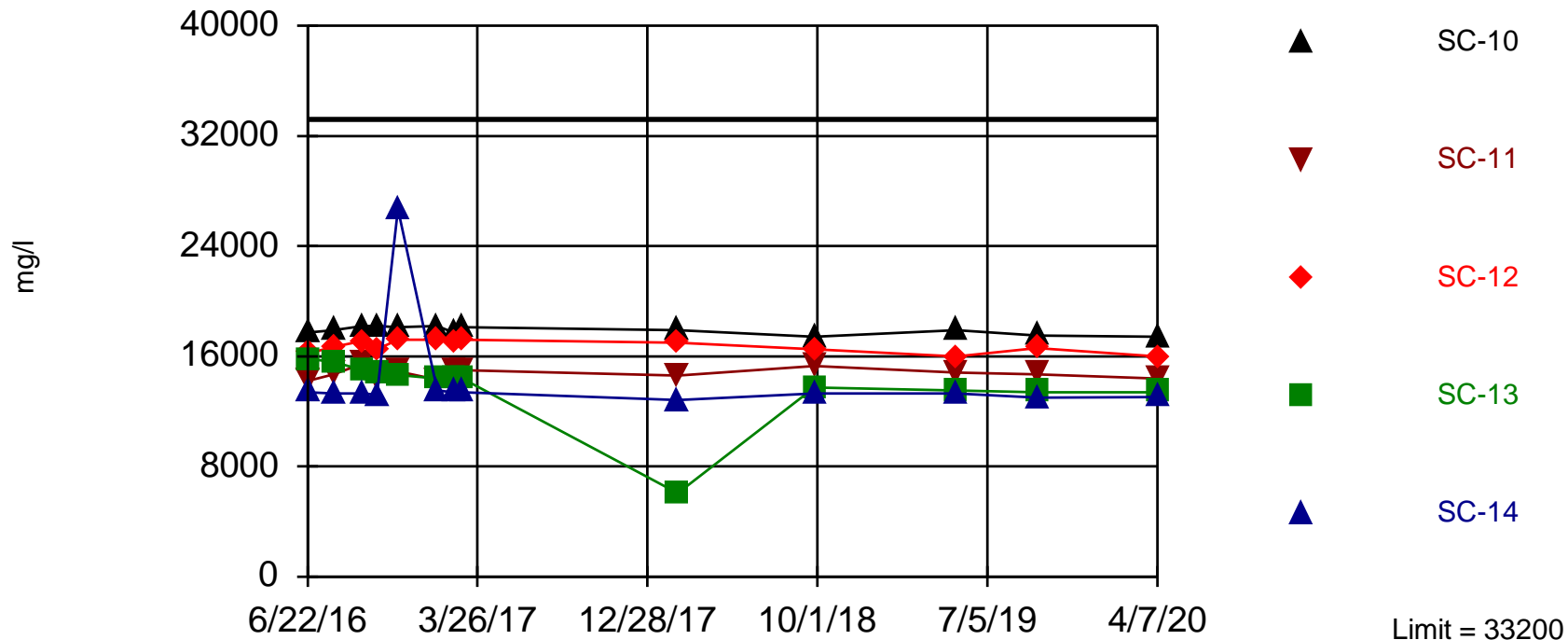
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	SC-13	SC-12	SC-11	SC-10	CC-1	FC-2	SC-14	FC-3A	FC-3B
6/22/2016	13200 (D)	9790 (D)	9800 (D)	7770 (D)	10300 (D)	17200 (D)	7080 (D)	8290 (D)		
6/23/2016									5870 (D)	
6/27/2016										4820 (D)
8/2/2016	13000 (D)					17200 (D)	7000 (D)		5650 (D)	5240 (D)
8/3/2016		9560 (D)	10200 (D)	7690 (D)	10150 (D)			8270 (D)		
9/19/2016	13000 (D)					17300 (D)	7030 (D)		5800 (D)	5380 (D)
9/20/2016		9340 (D)	10600 (D)	8035 (D)	10400 (D)			8370 (D)		
10/12/2016	12800 (D)					16600 (D)	6910 (D)		5635 (D)	4940 (D)
10/13/2016		9080 (D)	10200 (D)	7730 (D)	9980 (D)			8180 (D)		
11/15/2016	13600 (D)					17400 (D)	6910		5735 (D)	5370 (D)
11/16/2016		9070 (D)	10400 (D)	7710 (D)	10000 (D)			8330 (D)		
1/18/2017	13700 (D)					17550 (D)	7040 (D)		5880 (D)	4590 (D)
1/19/2017		9020 (D)	10800 (D)	7910 (D)	10200 (D)			8450 (D)		
2/14/2017	13200 (D)					16800 (D)	6840 (D)		5720 (D)	4470 (D)
2/15/2017		8840 (D)	10500 (D)	7730 (D)	10020 (D)			8270 (D)		
2/28/2017	13100 (D)					17400 (D)	6940 (D)		5820 (D)	4640 (D)
3/1/2017		8570 (D)	10500 (D)	7820 (D)	10200 (D)			8360 (D)		
5/14/2019	13200 (D)					18300 (D)	6660 (D)		5725 (D)	4250 (D)
5/15/2019		8290 (D)	9955 (D)	7860 (D)	9980 (D)			8160 (D)		
9/24/2019	13250 (D)		10000 (D)			20700 (D)	7130 (D)		5770 (D)	4440 (D)
9/25/2019		8315 (D)		7930 (D)	11300 (D)			7890 (D)		
4/6/2020	13000 (D)					19250 (D)	6750 (D)		5930 (D)	4480 (D)
4/7/2020		8000 (D)	9760 (D)	8010 (D)	9690 (D)			7875 (D)		

Within Limit

### Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 65 background values. Annual per-constituent alpha = 0.004547. Individual comparison alpha = 0.0004556 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: TDS (mg/l)    Analysis Run 9/11/2020 12:55 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

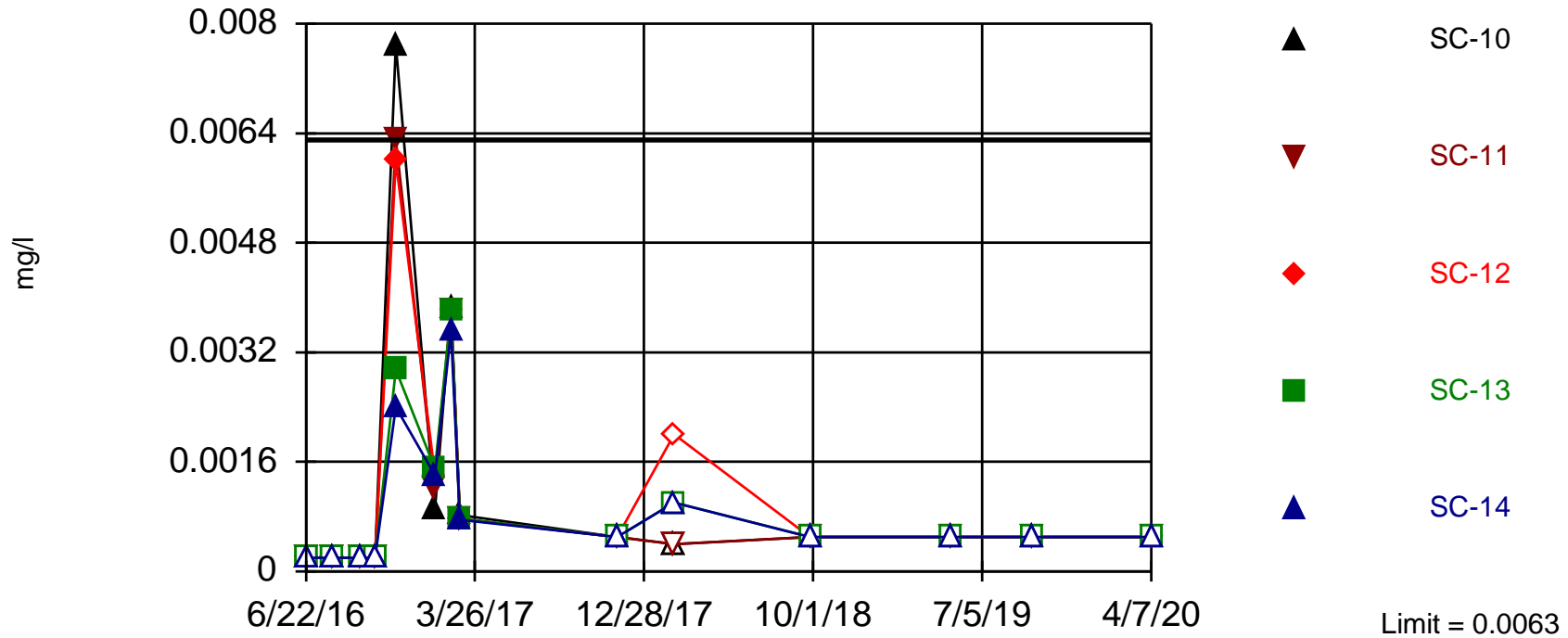
	FC-1	CC-1	SC-14	SC-13	SC-10	SC-12	FC-2	SC-11	FC-3A	FC-3B
6/22/2016	22300	30950 (D)	13400	15800	17700	16200	11200	14200		
6/23/2016									9460	
6/27/2016										7770
8/2/2016	22000 (D)	2.1					10900		9140	9200
8/3/2016			13300	15600	17900 (D)	16700		14700		
9/19/2016	21900	30500					11250 (D)		9320	9410
9/20/2016			13300	15000	18200	17100		15450 (D)		
10/12/2016	23200	31400					11600		9470 (D)	9450
10/13/2016			13200	14700	18200	16500 (D)		14400		
11/15/2016	22100	30600					11300		9320 (D)	9630
11/16/2016			26700	14650 (D)	18100	17200		14900		
1/18/2017	22200	31200 (D)					11200		9180	9250
1/19/2017			13500	14400	18200	17200		14300		
2/14/2017	22100	30450 (D)					11200		9310	9350
2/15/2017			13400	14400	17700 (D)	17000		15000		
2/28/2017	22100 (D)	30800					11300		9490	9410
3/1/2017			13400	14400	18100	17200 (D)		15000		
2/14/2018	22300	32500					11000		9400 (D)	9040
2/15/2018			12800	6040	17900	17000		14600		
9/25/2018	21800 (D)	31400					10900		9700	8970
9/26/2018			13300	13750 (D)	17400	16500		15300		
5/14/2019	22300	32700					10800		9280 (D)	7890
5/15/2019			13300	13500	17900	16000 (D)		14800		
9/24/2019	22200 (D)	33200				16600	10600		9220	7860
9/25/2019			13000	13400 (D)	17500			14700		
4/6/2020	22600	18820 (D)					10900		9540	7880
4/7/2020			13050 (D)	13400	17400	16000		14400		

Hollow symbols indicate censored values.

Within Limit

### Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 70 background values. 68.57% NDs. Annual per-constituent alpha = 0.003874. Individual comparison alpha = 0.0003881 (1 of 2). Comparing 5 points to limit.

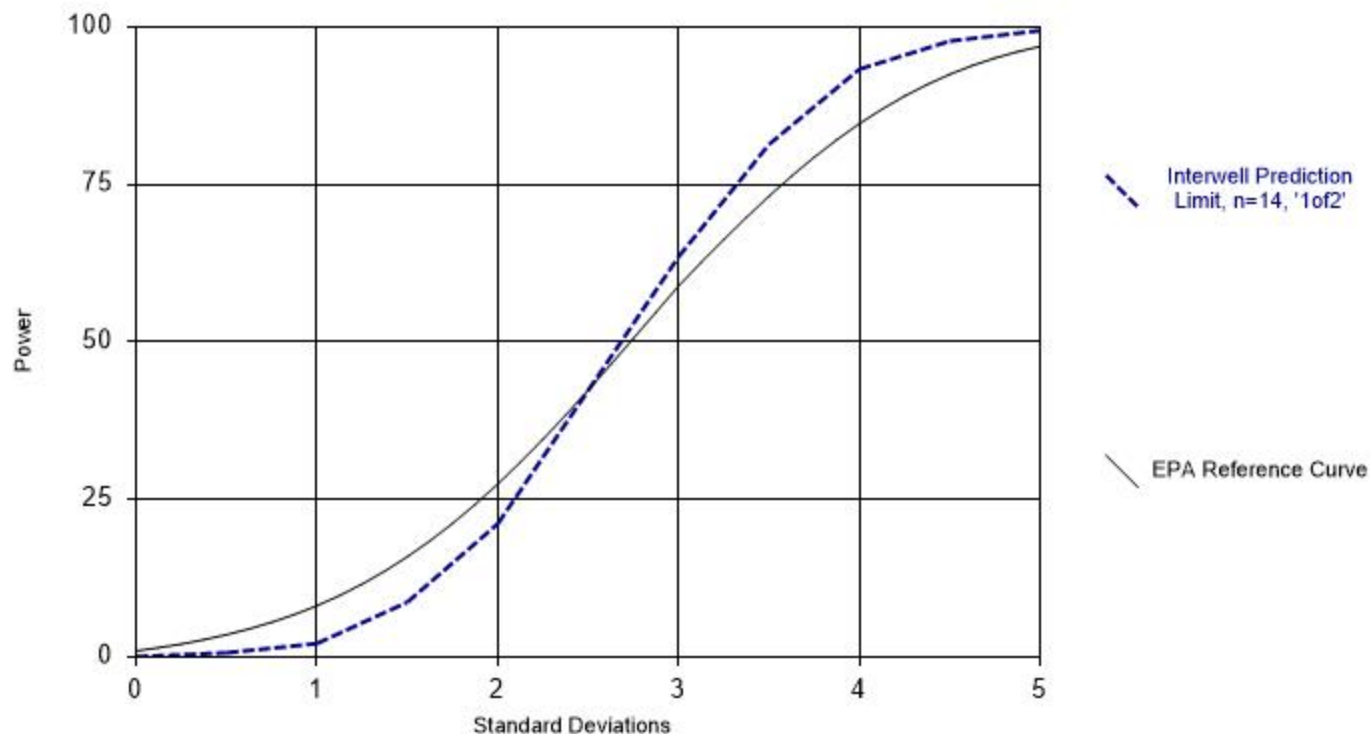
# Prediction Limit

Constituent: Thallium, Total (mg/l) Analysis Run 9/11/2020 12:55 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	SC-10	SC-11	FC-2	SC-14	SC-12	SC-13	FC-3A	FC-3B
6/22/2016	0.0002	0.000455 (D)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
6/23/2016									<0.0002	
6/27/2016										<0.0002
8/2/2016	<0.0002 (D)	0.00045			<0.0002				<0.0002	<0.0002
8/3/2016			<0.0002 (D)	<0.0002		<0.0002	<0.0002	<0.0002		
9/19/2016	0.00027 (D)	<0.0002 (D1)			0.000545 (D)				<0.0002 (D1)	<0.0002 (D1)
9/20/2016			<0.0002 (D1)	<0.0002 (D)		<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)		
10/12/2016	<0.0002 (D1)	<0.0002 (D1)			<0.0002 (D1)				<0.0002 (D)	<0.0002 (D1)
10/13/2016			<0.0002 (D1)	<0.0002 (D1)		<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)		
11/15/2016	0.0061 (D)	0.0063 (D)			<0.0002 (D1)				0.0057 (D)	0.0056 (D)
11/16/2016			0.0077 (D)	0.0063 (D)		0.0024 (D)	0.006 (D)	0.00295 (D)		
1/18/2017	<0.0005 (D1)	0.0014 (D)			<0.0005 (D1)				0.00069 (D)	0.00098 (D)
1/19/2017			0.00091 (D)	0.0012 (D)		0.0014 (D)	0.0014 (D)	0.0015 (D)		
2/14/2017	0.0037 (D)	0.00385 (D)			0.0036 (D)				0.0034 (D)	0.0062 (D)
2/15/2017			0.00385 (D)	0.0038 (D)		0.0035 (D)	0.0038 (D)	0.0038 (D)		
2/28/2017	0.0011 (D)	0.0014 (D)			0.0011 (D)				0.0011 (D)	0.00091 (D)
3/1/2017			0.00082 (D)	0.00077 (D)		0.00075 (D)	0.00076 (D)	0.00077 (D)		
11/13/2017	<0.0005 (D1)	<0.0005 (D1)			<0.0005 (D1)				<0.0005 (D1)	<0.0005 (D1)
11/14/2017			<0.0005 (D1)	<0.0005 (D1)		<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)		
2/14/2018	<0.002	<0.002			<0.001				<0.001 (D)	<0.001
2/15/2018			<0.0004	<0.0004		<0.001	<0.002	<0.001		
9/25/2018	<0.0005 (D)	<0.0005			<0.0005				<0.0005	<0.0005
9/26/2018			<0.0005 (D1)	<0.0005 (D1)		<0.0005	<0.0005	<0.0005 (D)		
5/14/2019	<0.0005	<0.0005 (D1D)			<0.0005 (D1D)				<0.0005 (D1D)	<0.0005 (D1D)
5/15/2019			<0.0005 (D1D)	<0.0005 (D1D)		<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)		
9/24/2019	<0.0005 (D1D)	<0.0005 (D1D)			<0.0005 (D1D)		<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
9/25/2019			<0.0005 (D1D)	<0.0005 (D1D)		<0.0005		<0.0005 (D1D)		
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)			<0.0005 (DD1)				<0.0005 (DD1)	<0.0005 (DD1)
4/7/2020			<0.0005 (DD1)	<0.0005 (D)		<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)		

## Power Curve



Kappa = 2.668, based on 5 compliance wells and 22 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 9/11/2020 12:00 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 70 background values. 82.86% NDs. 93.55% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02758.

Constituent: Antimony, Total    Analysis Run 9/11/2020 12:16 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database



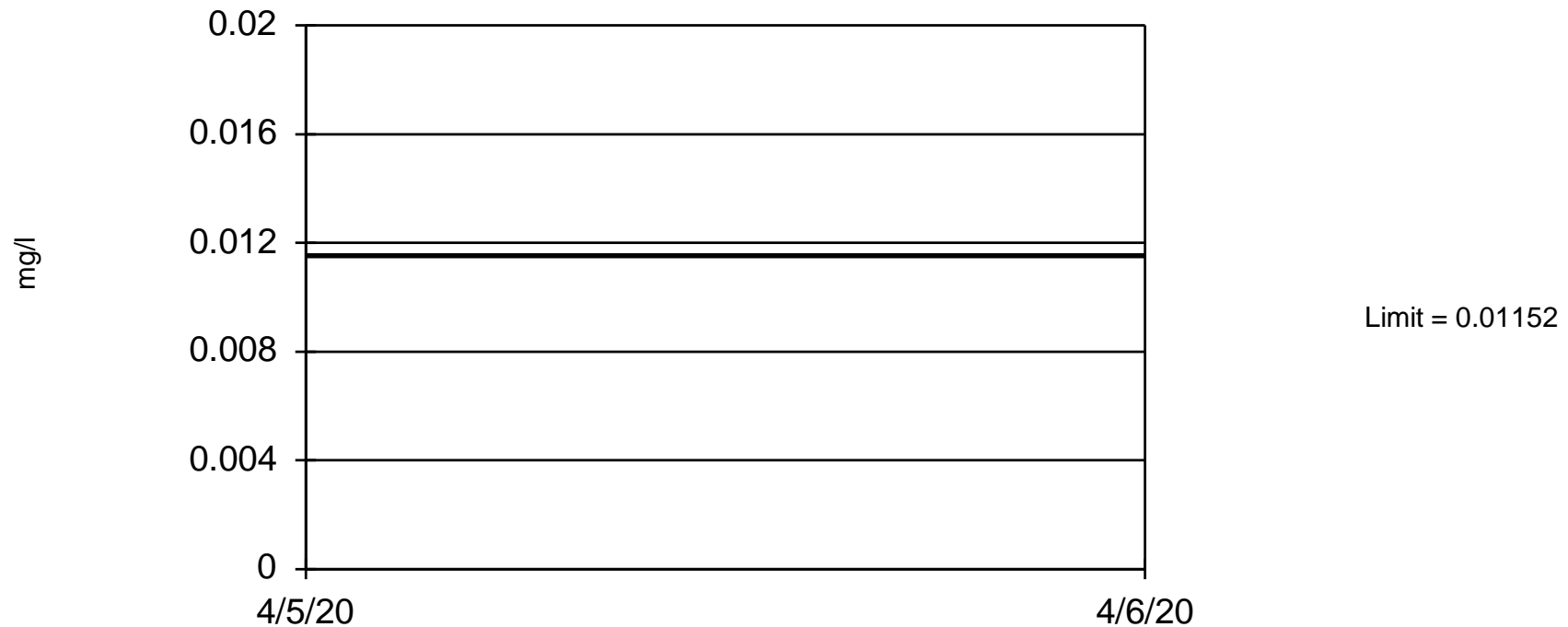
# Tolerance Limit

Constituent: Antimony, Total (mg/l) Analysis Run 9/11/2020 12:19 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	<0.0002	<0.0002 (D)	<0.0002		
6/23/2016				0.00021	
6/27/2016					0.00065
8/2/2016	<0.0002 (D)	<0.0002	<0.0002	<0.0002	0.00061
9/19/2016	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)
10/12/2016	<0.0002 (D1)	0.0004 (D)	<0.0002 (D1)	0.00026 (D)	0.00032 (D)
11/15/2016	0.0016 (D)	0.0015 (D)	<0.0002 (D1)	0.0015 (D)	0.0015 (D)
1/18/2017	<0.0005 (D1P)	<0.0005 (D1)	<0.0005 (D1P)	0.00055 (D)	<0.0005 (D1)
2/14/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	0.00066 (D)
2/28/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
11/13/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
2/14/2018	<0.008	<0.008	<0.0008	<0.0008 (D)	<0.0008
9/25/2018	<0.0005 (D)	<0.0005	<0.0005	<0.0005	<0.0005
5/14/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
9/24/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)

## Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary (based on square root transformation): Mean=0.05989, Std. Dev.=0.02383, n=68, 13.24% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.977, critical = 0.95. Report alpha = 0.05.

Constituent: Arsenic, Total    Analysis Run 9/11/2020 12:16 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Tolerance Limit

Constituent: Arsenic, Total (mg/l) Analysis Run 9/11/2020 12:19 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	FC-2	CC-1	FC-3A	FC-3B
6/22/2016	0.0042	0.0025	0.0109 (D)		
6/23/2016				0.0031	
6/27/2016					0.0026
8/2/2016	0.0025 (D)	0.0016	0.0105	0.0021	0.0031
9/19/2016	0.0094 (D)	0.0036 (D)	0.0089 (D)	0.0029 (D)	0.0051 (D)
10/12/2016	0.0023 (D)	<0.001 (D1)	0.0071 (D)	0.001325 (D)	0.0056 (D)
11/15/2016	0.0036 (D)	<0.001 (D1)	0.0054 (D)	0.0018 (D)	0.007 (D)
1/18/2017	0.0061 (D)	0.0011 (D)	0.00255 (D)	<0.001 (D1)	0.0057 (D)
2/14/2017	<0.001 (D1)	<0.001 (D1)	0.00495 (D)	<0.001 (D1)	0.004 (D)
2/28/2017	0.00625 (D)	0.0076 (D)	0.011 (D)	0.0069 (D)	0.0081 (D)
11/13/2017	0.0041 (D)	0.0025 (D)	0.008 (D)	0.0022 (D)	0.0064 (D)
2/14/2018	<0.002	<0.001		0.00115 (D)	0.0026
9/25/2018	0.005 (D)	0.0014	0.0115	0.003	0.0074
5/14/2019	0.0029	0.0013 (D)	0.0072 (D)	0.0017 (D)	0.002 (D)
9/24/2019	0.00295 (D)	<0.001 (D1D)	0.0081 (D)	0.0016 (D)	0.0044 (D)
4/6/2020	0.0034 (D)	0.003 (D)	0.00765 (D)		0.0041 (D)

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. 5.714% NDs. 93.55% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02758.

Constituent: Barium, Total    Analysis Run 9/11/2020 12:16 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

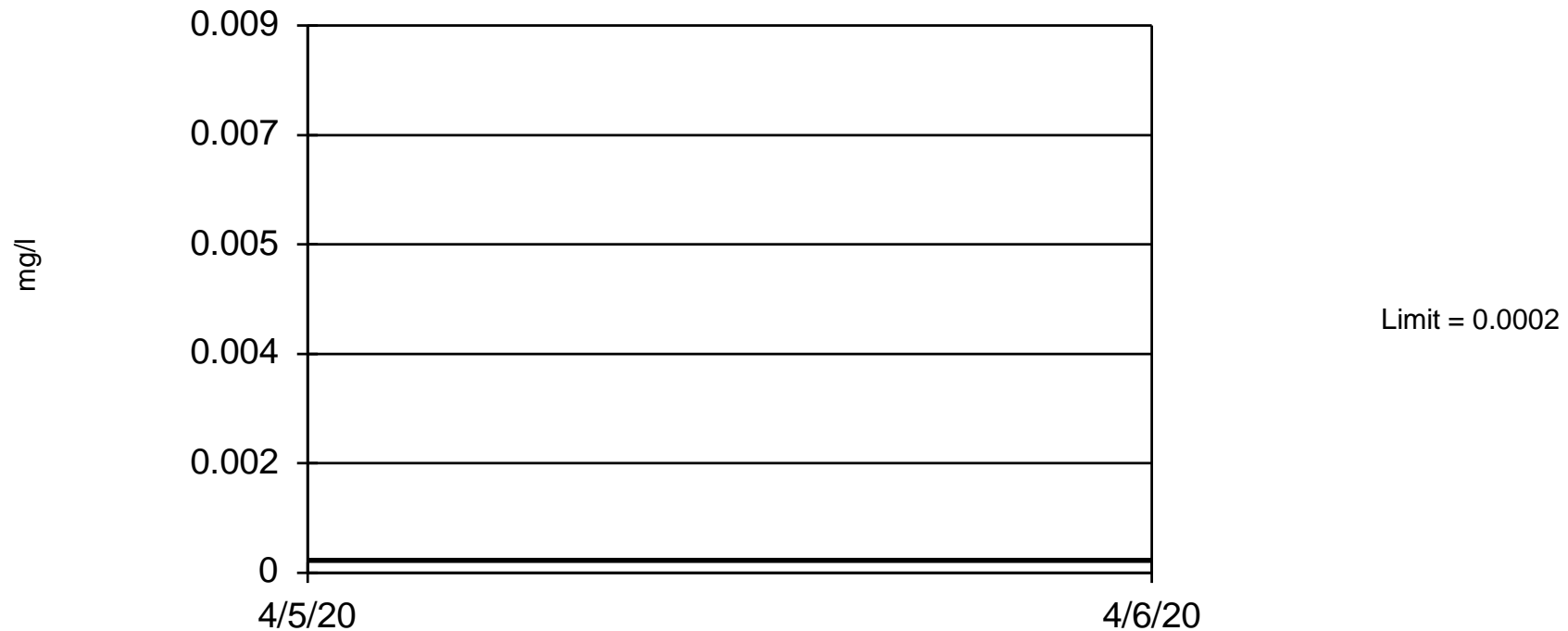
# Tolerance Limit

Constituent: Barium, Total (mg/l) Analysis Run 9/11/2020 12:19 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	0.00954	2.83285 (D)	0.00503		
6/23/2016				0.034	
6/27/2016					0.0336
8/2/2016	0.008725 (D)	0.00512	<0.005	0.0202	0.0253
9/19/2016	0.00928	0.00542	0.00525 (D)	0.0218	0.0183
10/12/2016	0.00905	0.00593	0.00536	0.03735 (D)	0.0184
11/15/2016	0.0102	0.00608	0.00516	0.01735 (D)	0.0652
1/18/2017	0.00929	0.005675 (D)	0.00539	0.0164	0.0244
2/14/2017	0.01	0.006005 (D)	0.00566	0.0167	0.023
2/28/2017	0.009 (D)	<0.005	0.0054	0.0148	0.0208
11/13/2017	0.0082 (D)	0.004 (D)	0.00435 (D)	0.0259 (D)	0.0154 (D)
2/14/2018	0.0105	<0.01	<0.01	0.01205 (D)	0.0196
9/25/2018	0.00665 (D)	0.0039	0.004	0.021	0.037
5/14/2019	0.0073	0.0044 (D)	0.0043 (D)	0.0265 (D)	0.0146 (D)
9/24/2019	0.0073 (D)	0.0041 (D)	0.0056 (D)	0.0276 (D)	0.0268 (D)
4/6/2020	0.0068 (D)	0.0033 (D)	0.004 (D)	0.0123 (D)	0.0099 (D)

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 93.55% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02758.

Constituent: Beryllium, Total    Analysis Run 9/11/2020 12:16 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Tolerance Limit

Constituent: Beryllium, Total (mg/l) Analysis Run 9/11/2020 12:19 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	<0.002	<0.002 (D)	<0.002		
6/23/2016				<0.002	
6/27/2016					<0.002
8/2/2016	<0.002 (D)	<0.002	<0.002	<0.002	<0.002
9/19/2016	<0.002	<0.002	<0.002 (D)	<0.002	<0.002
10/12/2016	<0.002	<0.002	<0.002	<0.002 (D)	<0.002
11/15/2016	<0.002	<0.002	<0.002	<0.002 (D)	<0.002
1/18/2017	<0.002	<0.002 (D)	<0.002	<0.002	<0.002
2/14/2017	<0.002	<0.002 (D)	<0.002	<0.002	<0.002
2/28/2017	<0.002 (D)	<0.002	<0.002	<0.002	<0.002
11/13/2017	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)
2/14/2018	<0.001 (T)	<0.001 (T)	<0.0004 (T)	<0.0004 (TD)	<0.001 (T)
9/25/2018	<0.0002 (D)	<0.0002	<0.0002	<0.0002	<0.0002
5/14/2019	<0.0002	<0.0002 (D1D)	<0.0002	<0.0002 (D1D)	<0.0002 (D1D)
9/24/2019	<0.0002 (D1D)	<0.0002 (D1D)	<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (D1D)
4/6/2020	<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (DD1)

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 70 background values. 95.71% NDs. 93.55% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02758.

Constituent: Cadmium, Total    Analysis Run 9/11/2020 12:16 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database



# Tolerance Limit

Constituent: Cadmium, Total (mg/l) Analysis Run 9/11/2020 12:19 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	<0.005	<0.005 (D)	<0.005		
6/23/2016				<0.005	
6/27/2016					<0.005
8/2/2016	<0.005 (D)	<0.005	<0.005	<0.005	<0.005
9/19/2016	<0.005	<0.005	<0.005	<0.005	<0.005
10/12/2016	<0.005	<0.005	<0.005	<0.005 (D)	<0.005
11/15/2016	<0.005	<0.005	<0.005	<0.005 (D)	<0.005
1/18/2017	<0.005	<0.005 (D)	<0.005	<0.005	<0.005
2/14/2017	<0.005	<0.005 (D)	<0.005	<0.005	<0.005
2/28/2017	<0.005 (D)	<0.005	<0.005	<0.005	<0.005
11/13/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
2/14/2018	<0.001	<0.001	0.00031	0.000365 (D)	0.00032
9/25/2018	<0.0005 (D)	<0.0005	<0.0005	<0.0005	<0.0005
5/14/2019	<0.0005	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
9/24/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 70 background values. 67.14% NDs. 93.55% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02758.

Constituent: Chromium, Total    Analysis Run 9/11/2020 12:17 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

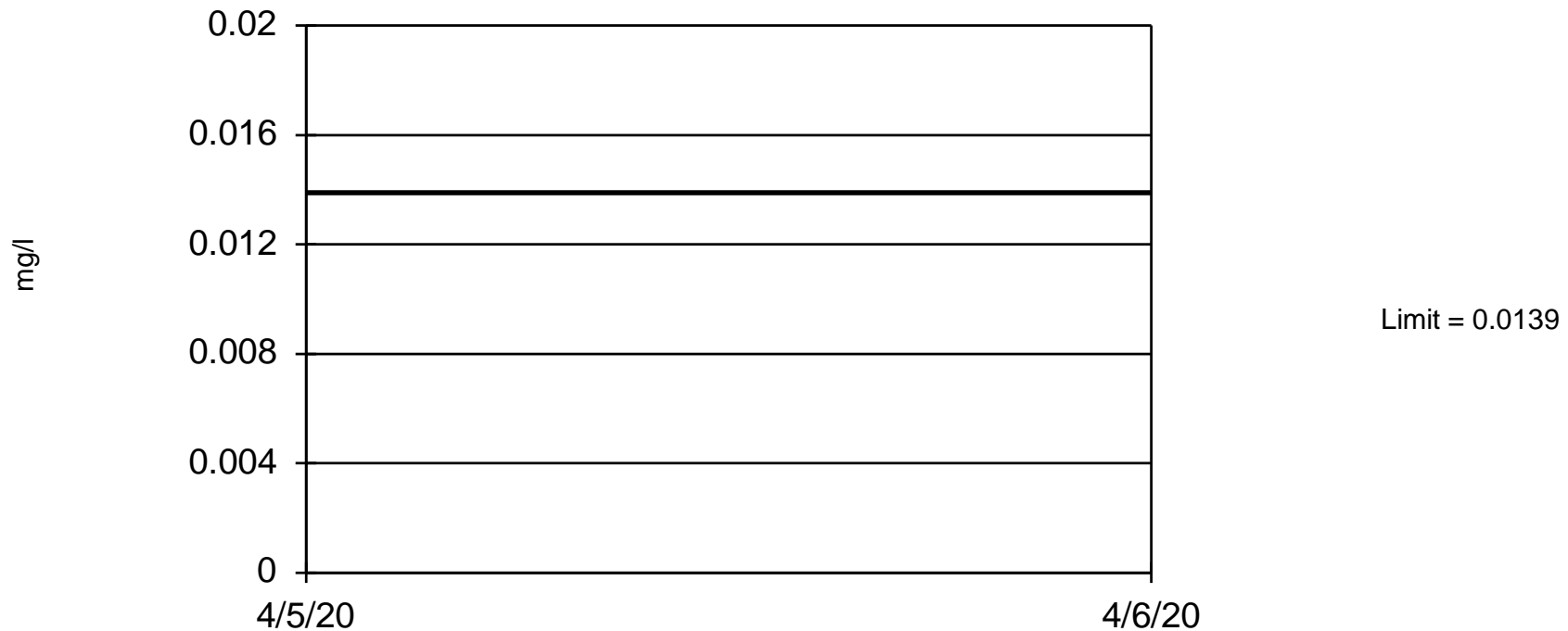
# Tolerance Limit

Constituent: Chromium, Total (mg/l) Analysis Run 9/11/2020 12:19 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	<0.01	<0.01 (D)	<0.01		
6/23/2016				<0.01	
6/27/2016					<0.01
8/2/2016	<0.01 (D)	<0.01	<0.01	<0.01	<0.01
9/19/2016	<0.01	<0.01	<0.01 (D)	<0.01	<0.01
10/12/2016	<0.01	<0.01	<0.01	<0.01 (D)	<0.01
11/15/2016	<0.01	<0.01	<0.01	<0.01 (D)	<0.01
1/18/2017	<0.01	<0.01 (D)	<0.01	<0.01	<0.01
2/14/2017	<0.01	<0.01 (D)	<0.01	<0.01	<0.01
2/28/2017	<0.01 (D)	<0.01	<0.01	<0.01	<0.01
11/13/2017	0.006 (D)	0.0064 (D)	0.0051 (D)	0.0062 (D)	0.0086 (D)
2/14/2018	<0.004	<0.004	<0.004	<0.004 (D)	0.0058
9/25/2018	0.001 (D)	0.0017	0.001	0.0025	0.0061
5/14/2019	0.0013	0.0018 (D)	<0.001 (D)	0.0031 (D)	0.0049 (D)
9/24/2019	0.0042 (D)	0.0036 (D)	0.0035 (D)	0.0054 (D)	0.0089 (D)
4/6/2020	<0.001 (DD1)	0.0022 (D)	<0.001 (DD1)	0.0014 (D)	0.0039

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 68 background values. 85.29% NDs. 93.55% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03056.

Constituent: Cobalt, Total    Analysis Run 9/11/2020 12:17 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Tolerance Limit

Constituent: Cobalt, Total (mg/l) Analysis Run 9/11/2020 12:19 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	<0.005	<0.005 (D)	<0.005		
6/23/2016				<0.005	
6/27/2016					0.0078
8/2/2016	<0.005 (D)		<0.005	<0.005	0.005
9/19/2016	<0.005	<0.005	<0.005 (D)	<0.005	<0.005
10/12/2016	<0.005	<0.005	<0.005	<0.005 (D)	<0.005
11/15/2016	<0.005	<0.005	<0.005	<0.005 (D)	0.00736
1/18/2017	<0.005	<0.005 (D)	<0.005	<0.005	0.00778
2/14/2017	<0.005	<0.005 (D)	<0.005	<0.005	0.00796
2/28/2017	<0.005 (D)	<0.005	<0.005	<0.005	0.00553
11/13/2017	<0.005	<0.005	<0.005 (D)	<0.005	0.0118
2/14/2018		0.00636	<0.005	<0.005 (D)	0.0139
9/25/2018	<0.005 (DD1)	<0.005 (DD1)	<0.005 (DD1)	<0.005 (DD1)	0.0108 (D)
5/14/2019	<0.005	<0.005	<0.005	<0.005 (D)	<0.005
9/24/2019	<0.005 (D)	<0.005	<0.005	<0.005	<0.005
4/6/2020	<0.005	<0.005 (D)	<0.005	<0.005	<0.005

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. 93.55% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02758.

Constituent: Fluoride, Total    Analysis Run 9/11/2020 12:17 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Tolerance Limit

Constituent: Fluoride, Total (mg/l) Analysis Run 9/11/2020 12:19 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	0.12 (T)	0.215 (TD)	0.51 (T)		
6/23/2016				0.46 (T)	
6/27/2016					0.55
8/2/2016	0.06006 (TD)	0.21 (T)	0.5 (T)	0.46 (T)	0.00048 (T)
9/19/2016	0.13	0.22	0.985 (D)	0.48	0.48
10/12/2016	0.12 (T)	0.21 (T)	0.52 (T)	0.465 (TD)	0.51 (T)
11/15/2016	0.12 (T)	0.2 (T)	0.51 (T)	0.46 (TD)	0.46 (T)
1/18/2017	0.13 (T)	0.2 (TD)	0.52 (T)	0.46 (T)	0.56 (T)
2/14/2017	0.13 (T)	0.22 (TD)	0.55 (T)	0.48 (T)	0.51 (T)
2/28/2017	0.13 (TD)	0.22 (T)	0.53 (T)	0.47 (T)	0.42 (T)
11/13/2017	0.2	0.45	0.7 (D)	0.56	0.48
2/14/2018	0.21	0.5	0.74	0.615 (D)	0.53
9/25/2018	0.195 (D)	0.48	0.73	0.62	0.52
5/14/2019	0.13	0.2	0.51	0.44 (D)	0.69
9/24/2019	0.195 (D)	0.53	0.72	0.59	0.72
4/6/2020	0.21	0.545 (D)	0.72	0.61	0.7

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. 50% NDs. 93.55% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02758.

Constituent: Lead, Total    Analysis Run 9/11/2020 12:17 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database



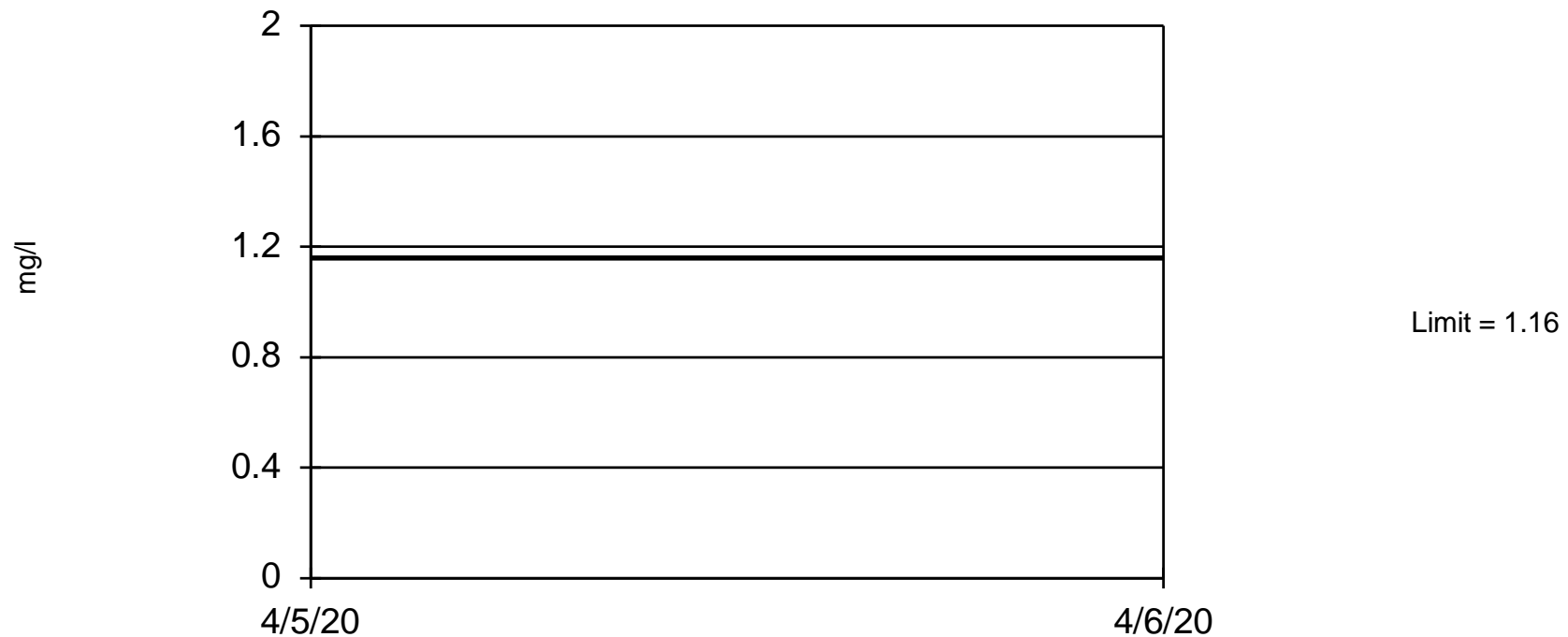
# Tolerance Limit

Constituent: Lead, Total (mg/l) Analysis Run 9/11/2020 12:19 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	<0.0002	<0.0002 (D)	0.0002		
6/23/2016				0.0052	
6/27/2016					0.0039
8/2/2016	<0.0002 (D)	<0.0002	<0.0002	0.0015	0.0021
9/19/2016	0.00032 (D)	<0.0002 (D1)	<0.0002 (D1)	0.001 (D)	0.00042 (D)
10/12/2016	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	0.000835 (D)	<0.0002 (D1)
11/15/2016	0.0037 (D)	0.0052 (D)	<0.0002 (D1)	0.0031 (D)	0.0065 (D)
1/18/2017	<0.0005 (D1)	0.0035 (D)	<0.0005 (D1)	0.0035 (D)	0.0035 (D)
2/14/2017	0.0027 (D)	0.0028 (D)	0.0018 (D)	0.0017 (D)	0.00099 (D)
2/28/2017	0.0081 (D)	0.0049 (D)	0.0089 (D)	0.009	0.0089 (D)
11/13/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	0.00091 (D)	<0.0005 (D1)
2/14/2018	<0.005	<0.005	<0.0025	<0.0025 (D)	<0.0025
9/25/2018	<0.0005 (D)	<0.0005	<0.0005	0.00086	0.0046
5/14/2019	<0.0005	<0.0005 (D1D)	<0.0005 (D1D)	0.0011 (D1D)	0.00073 (D1D)
9/24/2019	<0.0005 (D1D)	0.00072 (D)	0.0014 (D)	0.0018 (D)	0.0012 (D)
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. 93.55% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02758.

Constituent: Lithium, Total    Analysis Run 9/11/2020 12:17 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

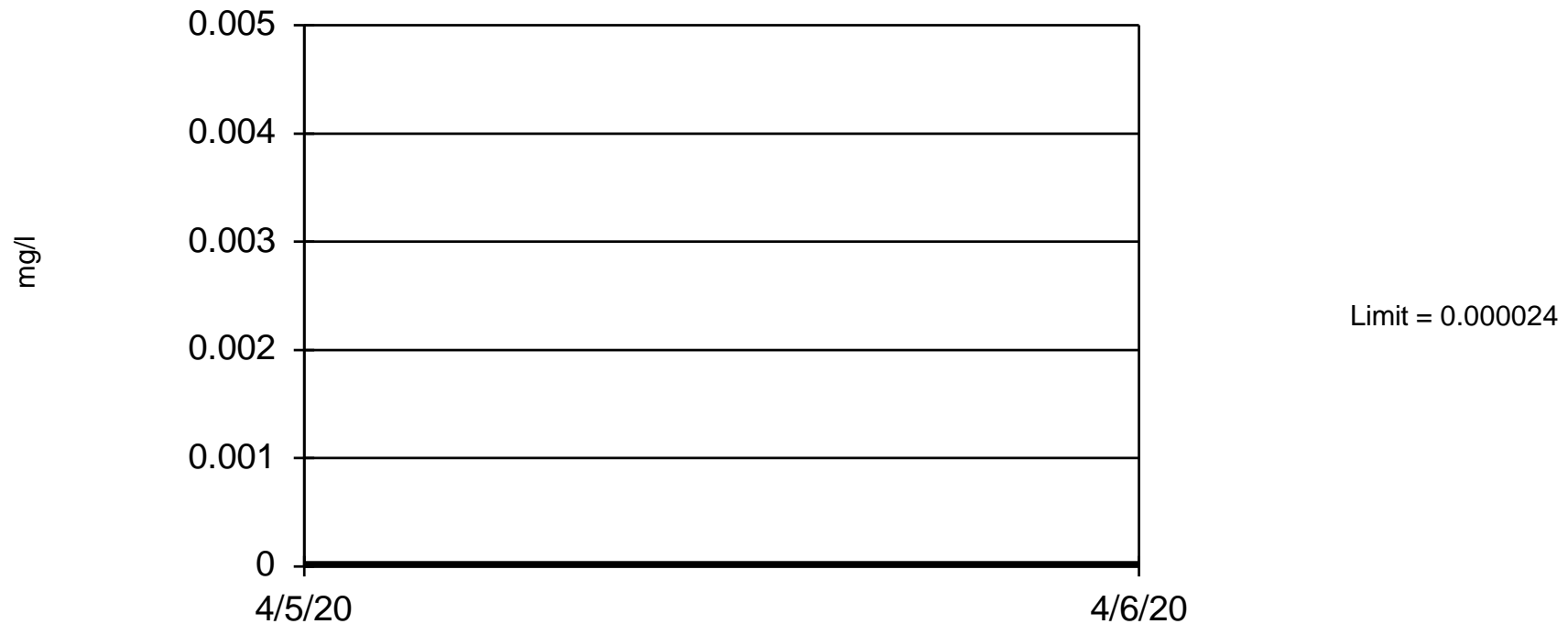
# Tolerance Limit

Constituent: Lithium, Total (mg/l) Analysis Run 9/11/2020 12:19 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	0.904	0.671 (D)	0.269		
6/23/2016				0.303	
6/27/2016					0.232
8/2/2016	0.984 (D)	0.731	0.305	0.311	0.274
9/19/2016	1.01	0.779	0.306 (D)	0.343	0.295
10/12/2016	1.03	0.825	0.307	0.3455 (D)	0.315
11/15/2016	1.16	0.822	0.325 (T)	0.3375 (D)	0.344
1/18/2017	1.08	0.791 (D)	0.318	0.343 (D)	0.335
2/14/2017	1	0.73 (D)	0.298	0.312	0.334
2/28/2017	0.9125 (D)	0.641	0.275 (D)	0.283 (D)	0.326 (D)
11/13/2017	0.894	0.63	0.2665 (D)	0.288	0.31
2/14/2018	0.9 (D)	0.576 (D)	0.265 (D)	0.2635 (D)	0.341 (D)
9/25/2018	0.9085 (D)	0.664 (D)	0.276 (D)	0.302 (D)	0.316 (D)
5/14/2019	1.13	0.798	0.294	0.3265 (D)	0.321
9/24/2019	0.9695 (D)	0.722 (D)	0.274 (D)	0.303 (D)	0.284 (D)
4/6/2020	0.943	0.7435 (D)	0.274	0.295	0.284

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 69 background values. 93.55% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02904.

Constituent: Mercury, Total    Analysis Run 9/11/2020 12:17 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

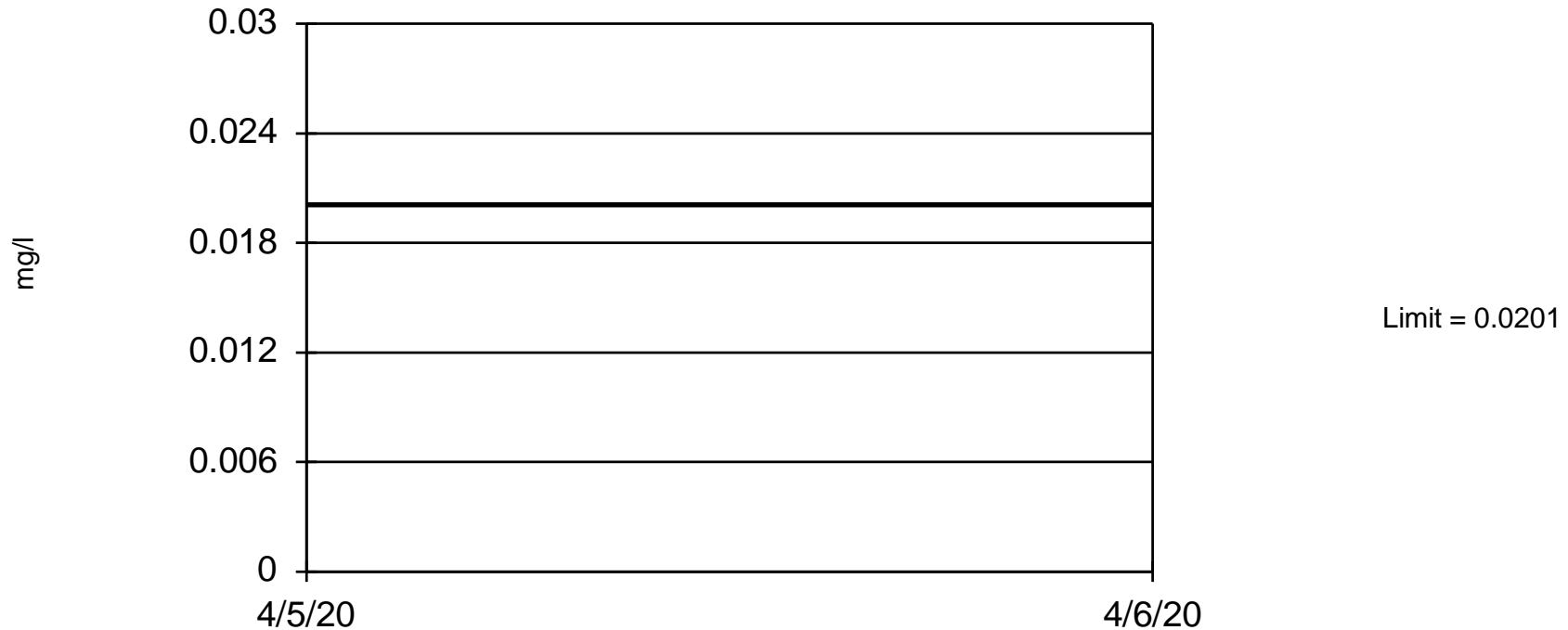
# Tolerance Limit

Constituent: Mercury, Total (mg/l) Analysis Run 9/11/2020 12:19 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	1.3E-06	4.7E-06 (D)	2.8E-06		
6/23/2016				5.4E-06	
6/27/2016					1.3E-05
8/2/2016	2E-06 (D)	6E-06	4E-06	7E-06	6E-06
9/19/2016	2E-06	6E-06	3E-06 (D)	4E-06	3E-06
10/12/2016	2E-06	6E-06		5E-06 (D)	3E-06
11/15/2016	2E-06	6E-06	4E-06	2E-06 (D)	9E-06
1/18/2017	2E-06	7.5E-06 (D)	5E-06	2E-06	8E-06
2/14/2017	2E-06	6E-06 (D)	4E-06	2E-06	4E-06
2/28/2017	2E-06 (D)	6E-06	4E-06	2E-06	5E-06
11/13/2017	2E-06 (T)	6E-06 (T)	3.5E-06 (TD)	4E-06 (T)	7E-06 (T)
2/14/2018	2E-06	5E-06	3E-06	2E-06 (D)	5E-06
9/25/2018	2.5E-06 (D)	5E-06	3E-06	3E-06	2.4E-05
5/14/2019	2E-06	6E-06	3E-06	7.5E-06 (D)	3E-06
9/24/2019	2E-06 (D)	5E-06	5E-06	8E-06	5E-06
4/6/2020	2E-06	6E-06 (D)	4E-06	2E-06	2E-06

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. 40% NDs. 93.55% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02758.

Constituent: Molybdenum, Total    Analysis Run 9/11/2020 12:17 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

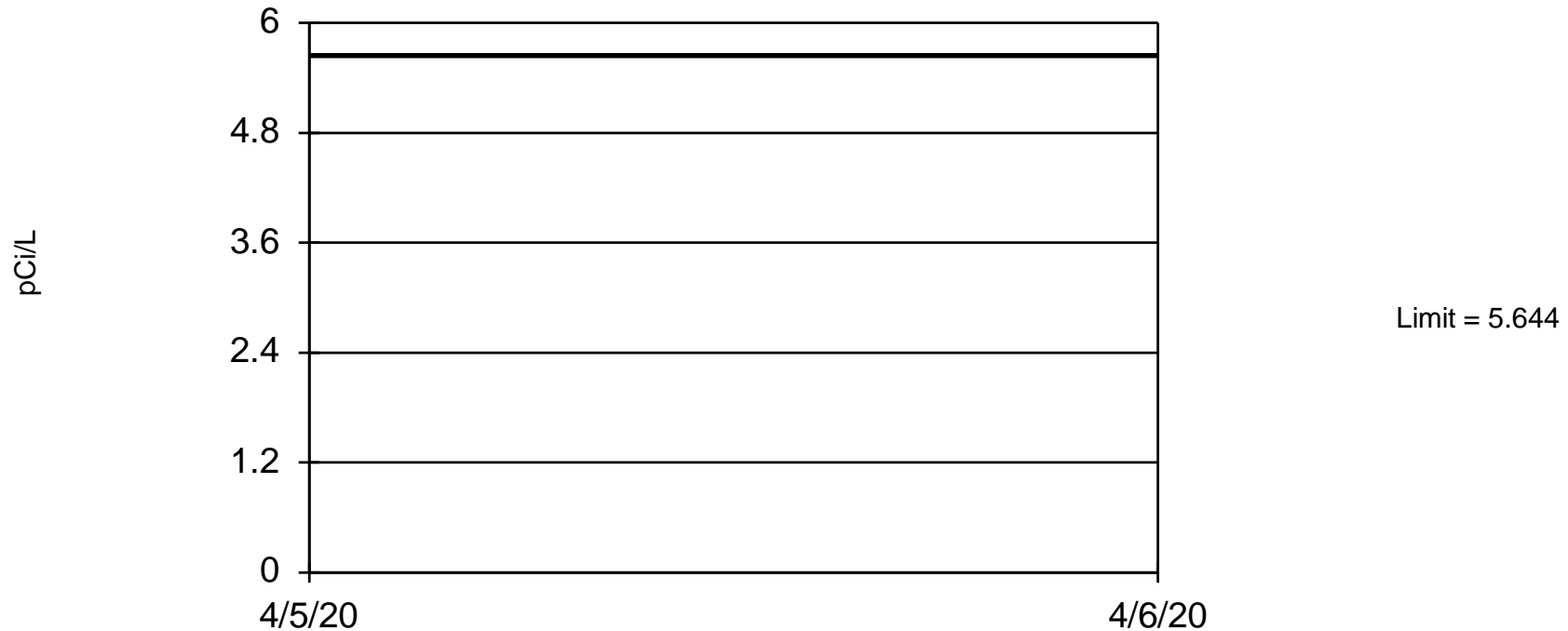
# Tolerance Limit

Constituent: Molybdenum, Total (mg/l) Analysis Run 9/11/2020 12:19 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	<0.005	<0.005 (D)	<0.005		
6/23/2016				<0.005	
6/27/2016					0.0201
8/2/2016	<0.005 (D)	<0.005	<0.005	0.00838	0.0198
9/19/2016	<0.005	<0.005	<0.005 (D)	0.0122	0.00609
10/12/2016	<0.005	<0.005	0.002502 (D)	0.009175 (D)	0.00525
11/15/2016	<0.005	<0.005	<0.005	0.01065 (D)	0.0117
1/18/2017	<0.005	<0.005 (D)	<0.005	0.00969	<0.005
2/14/2017	<0.005	<0.005 (D)	<0.005	0.0104	0.00716
2/28/2017	<0.005 (D)	<0.005	<0.005	0.0109	0.00842
11/13/2017	0.0015 (D)	<0.0002 (D1)	0.0014 (D)	0.005 (D)	0.0042 (D)
2/14/2018	<0.01	<0.01	0.003	0.0112 (D)	0.0055
9/25/2018	0.0015 (D)	0.0006	0.002	0.0086	0.0027
5/14/2019	0.0018	0.00068 (D)	0.002 (D)	0.0069 (D)	0.0014 (D)
9/24/2019	0.00165 (D)	0.00067 (D)	0.0021 (D)	0.0066 (D)	0.002 (D)
4/6/2020	0.0013 (D)	0.000275 (D)	0.0016 (D)	0.0073 (D)	0.00057 (D)

## Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary (based on natural log transformation): Mean=0.09126, Std. Dev.=0.8128, n=60. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9651, critical = 0.945. Report alpha = 0.05.

Constituent: Rad 226+228 Analysis Run 9/11/2020 12:17 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database



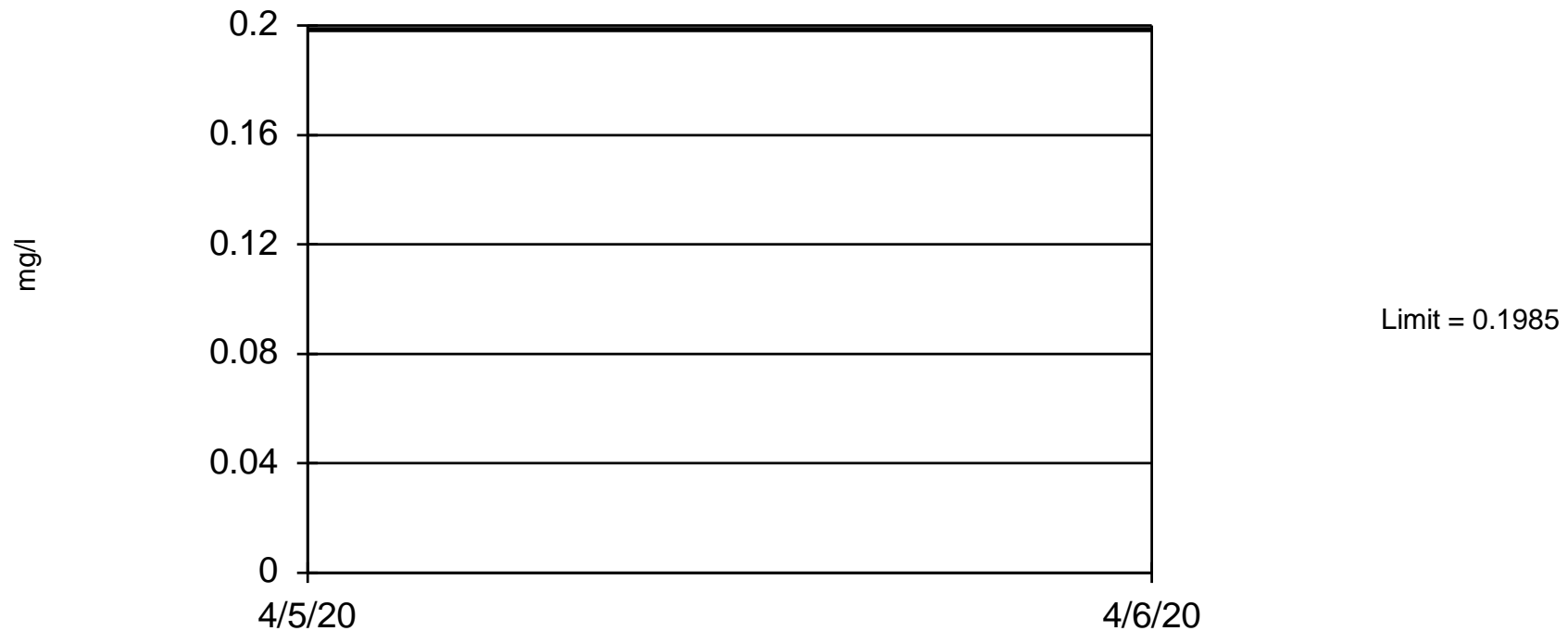
# Tolerance Limit

Constituent: Rad 226+228 (pCi/L) Analysis Run 9/11/2020 12:19 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	1.475	1.317 (D)	0.3375		
6/23/2016				1.321	
6/27/2016					1.111
8/2/2016	1.38	0.412	0.295	0.3135	1.7775
9/19/2016	2.136	0.6405	0.363	0.3795	0.496
10/12/2016	1.913	1.404	0.3475	0.616	0.4955
11/15/2016	2.128	1.354	0.854	0.395	0.6865
1/18/2017	1.874	1.494 (D)	0.471	0.617	0.6095
2/14/2017	2.31 (D)	1.841	0.7225	2.636	1.366
2/28/2017	1.628	1.59325 (D)	0.446	1.8245	0.414
11/13/2017	6.445	5.16	4.255	3.575	2.225
2/14/2018	5.23	3.22	2.1715	2.23025 (D)	2.79
9/24/2019	1.628	1.444	0.4605	0.548	0.69
4/6/2020	2.368	0.826 (D)	0.428	0.466	0.762

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. 1.429% NDs. 93.55% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02758.

Constituent: Selenium, Total    Analysis Run 9/11/2020 12:17 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Tolerance Limit

Constituent: Selenium, Total (mg/l) Analysis Run 9/11/2020 12:19 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	0.016	0.1985 (D)	0.0471		
6/23/2016				0.0393	
6/27/2016					0.0057
8/2/2016	0.0098 (D)	0.186	0.0412	0.0382	0.0069
9/19/2016	0.028 (D)	0.157 (D)	0.04895 (D)	0.0364 (D)	0.0112 (D)
10/12/2016	0.0167 (D)	0.138 (D)	<0.001 (D1)	0.04245 (D)	0.0115 (D)
11/15/2016	0.0136	0.145 (D)	0.0356 (D)	0.0355 (D)	0.0106 (D)
1/18/2017	0.0254 (D)	0.1385 (D)	0.0452 (D)	0.039 (D)	0.0067 (D)
2/14/2017	0.0141 (DT)	0.1415 (D)	0.0388 (DT)	0.0352 (DT)	0.0092 (D)
2/28/2017	0.00375 (D)	0.143 (D)	0.0367 (D)	0.0263 (D)	0.0011 (D)
11/13/2017	0.015 (D)	0.135 (D)	0.0381 (D)	0.0552 (D)	0.0107 (D)
2/14/2018	0.0068	0.169	0.044	0.0543 (D)	0.0036
9/25/2018	0.02165 (D)	0.17	0.0371	0.0512	0.0142
5/14/2019	0.0178 (D)	0.188 (D)	0.0402 (D)	0.04725 (D)	0.005 (D)
9/24/2019	0.01665 (D)	0.19 (D)	0.0376 (D)	0.0399 (D)	0.0115 (D)
4/6/2020	0.0156 (D)	0.1455 (D)	0.038 (D)	0.0394 (D)	0.0043 (D)

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 70 background values. 68.57% NDs. 93.55% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02758.

Constituent: Thallium, Total    Analysis Run 9/11/2020 12:17 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Tolerance Limit

Constituent: Thallium, Total (mg/l) Analysis Run 9/11/2020 12:19 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	0.0002	0.000455 (D)	<0.0002		
6/23/2016				<0.0002	
6/27/2016					<0.0002
8/2/2016	<0.0002 (D)	0.00045	<0.0002	<0.0002	<0.0002
9/19/2016	0.00027 (D)	<0.0002 (D1)	0.000545 (D)	<0.0002 (D1)	<0.0002 (D1)
10/12/2016	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D)	<0.0002 (D1)
11/15/2016	0.0061 (D)	0.0063 (D)	<0.0002 (D1)	0.0057 (D)	0.0056 (D)
1/18/2017	<0.0005 (D1)	0.0014 (D)	<0.0005 (D1)	0.00069 (D)	0.00098 (D)
2/14/2017	0.0037 (D)	0.00385 (D)	0.0036 (D)	0.0034 (D)	0.0062 (D)
2/28/2017	0.0011 (D)	0.0014 (D)	0.0011 (D)	0.0011 (D)	0.00091 (D)
11/13/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
2/14/2018	<0.002	<0.002	<0.001	<0.001 (D)	<0.001
9/25/2018	<0.0005 (D)	<0.0005	<0.0005	<0.0005	<0.0005
5/14/2019	<0.0005	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
9/24/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)

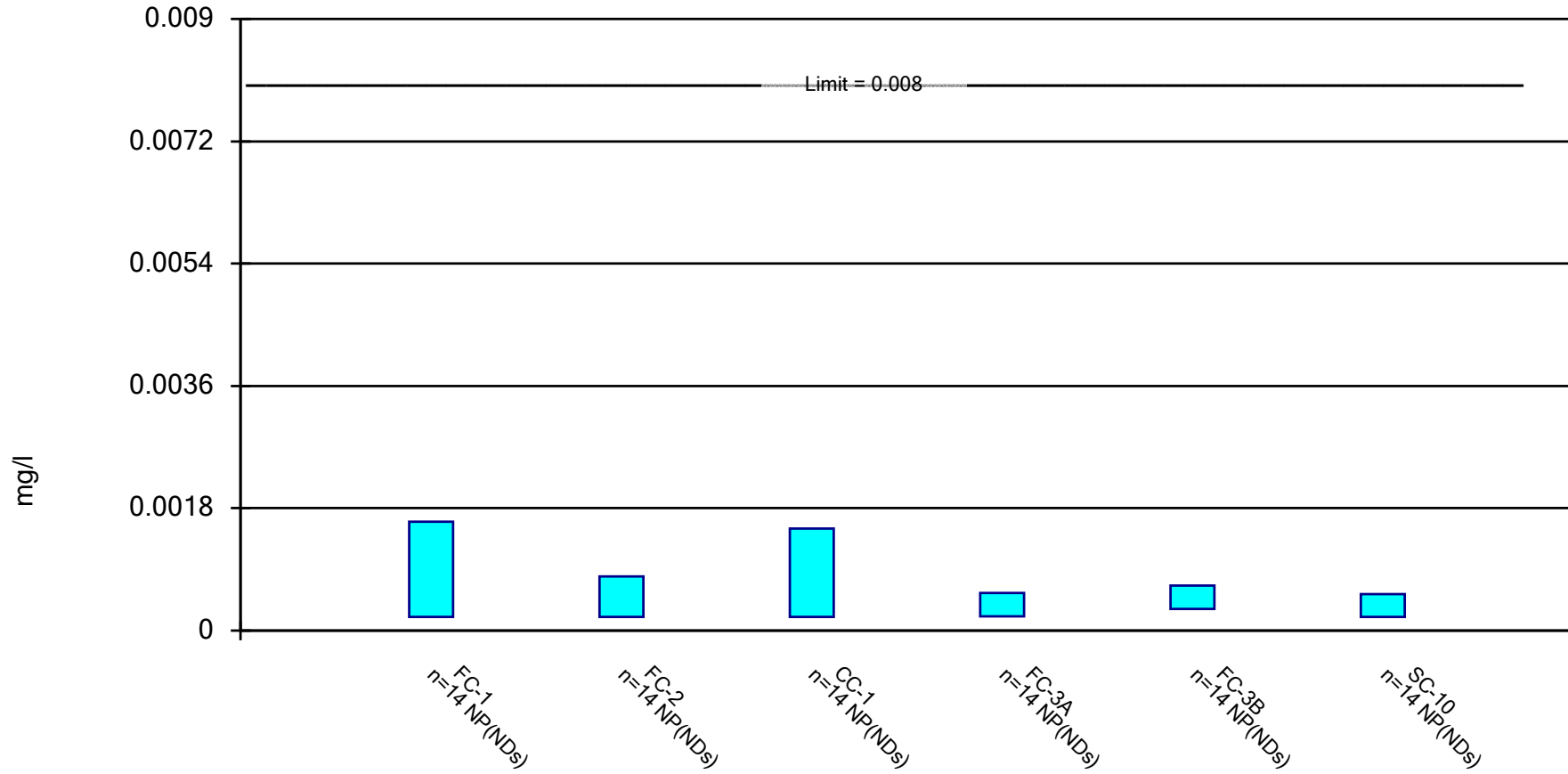
# Tolerance Limit

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database Printed 9/11/2020, 12:19 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bq N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony, Total (mg/l)	n/a	0.008	n/a	n/a	n/a	70	82.86	n/a	0.02758	NP Inter(NDs)
Arsenic, Total (mg/l)	n/a	0.01152	n/a	n/a	n/a	68	13.24	sqrt(x)	0.05	Inter
Barium, Total (mg/l)	n/a	2.833	n/a	n/a	n/a	70	5.714	n/a	0.02758	NP Inter(normal...
Beryllium, Total (mg/l)	n/a	0.0002	n/a	n/a	n/a	70	100	n/a	0.02758	NP Inter(NDs)
Cadmium, Total (mg/l)	n/a	0.005	n/a	n/a	n/a	70	95.71	n/a	0.02758	NP Inter(NDs)
Chromium, Total (mg/l)	n/a	0.01	n/a	n/a	n/a	70	67.14	n/a	0.02758	NP Inter(NDs)
Cobalt, Total (mg/l)	n/a	0.0139	n/a	n/a	n/a	68	85.29	n/a	0.03056	NP Inter(NDs)
Fluoride, Total (mg/l)	n/a	0.985	n/a	n/a	n/a	70	0	n/a	0.02758	NP Inter(normal...
Lead, Total (mg/l)	n/a	0.009	n/a	n/a	n/a	70	50	n/a	0.02758	NP Inter(normal...
Lithium, Total (mg/l)	n/a	1.16	n/a	n/a	n/a	70	0	n/a	0.02758	NP Inter(normal...
Mercury, Total (mg/l)	n/a	0.000024	n/a	n/a	n/a	69	0	n/a	0.02904	NP Inter(normal...
Molybdenum, Total (mg/l)	n/a	0.0201	n/a	n/a	n/a	70	40	n/a	0.02758	NP Inter(normal...
Rad 226+228 (pCi/L)	n/a	5.644	n/a	n/a	n/a	60	0	ln(x)	0.05	Inter
Selenium, Total (mg/l)	n/a	0.1985	n/a	n/a	n/a	70	1.429	n/a	0.02758	NP Inter(normal...
Thallium, Total (mg/l)	n/a	0.0063	n/a	n/a	n/a	70	68.57	n/a	0.02758	NP Inter(NDs)

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony, Total    Analysis Run 9/11/2020 12:39 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Confidence Interval

Constituent: Antimony, Total (mg/l)    Analysis Run 9/11/2020 12:45 PM    View: CCR Landfill

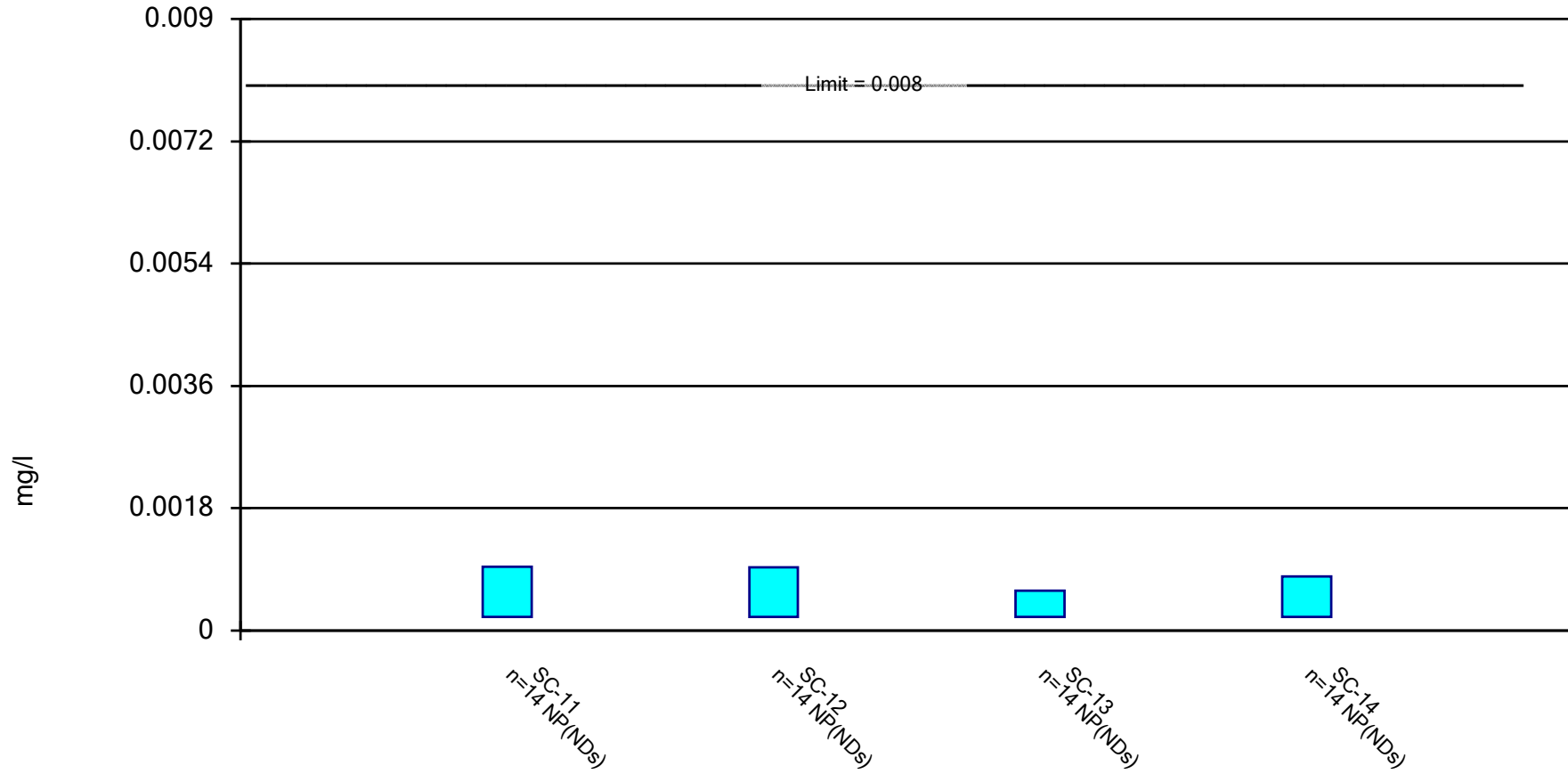
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	<0.0002	<0.0002	<0.0002 (D)			<0.0002
6/23/2016				0.00021		
6/27/2016					0.00065	
8/2/2016	<0.0002 (D)	<0.0002	<0.0002	<0.0002	0.00061	
8/3/2016						<0.0002 (D)
9/19/2016	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	
9/20/2016						<0.0002 (D1)
10/12/2016	<0.0002 (D1)	<0.0002 (D1)	0.0004 (D)	0.00026 (D)	0.00032 (D)	
10/13/2016						0.00025 (D)
11/15/2016	0.0016 (D)	<0.0002 (D1)	0.0015 (D)	0.0015 (D)	0.0015 (D)	
11/16/2016						0.0012 (D)
1/18/2017	<0.0005 (D1P)	<0.0005 (D1P)	<0.0005 (D1)	0.00055 (D)	<0.0005 (D1)	
1/19/2017						<0.0005 (D1)
2/14/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	0.00066 (D)	
2/15/2017						0.00054 (D)
2/28/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	
3/1/2017						<0.0005 (D1)
11/13/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	
11/14/2017						<0.0005 (D1)
2/14/2018	<0.008	<0.0008	<0.008	<0.0008 (D)	<0.0008	
2/15/2018						<0.008
9/25/2018	<0.0005 (D)	<0.0005	<0.0005	<0.0005	<0.0005	
9/26/2018						<0.0005
5/14/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	
5/15/2019						<0.0005 (D1D)
9/24/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	
9/25/2019						<0.0005 (D1D)
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	
4/7/2020						<0.0005 (DD1)
<b>Mean</b>	0.001029	0.0004143	0.001036	0.0005157	0.0005886	0.001006
<b>Std. Dev.</b>	0.002036	0.0001834	0.002029	0.0003294	0.0002991	0.002028
<b>Upper Lim.</b>	0.0016	0.0008	0.0015	0.00055	0.00066	0.00054
<b>Lower Lim.</b>	0.0002	0.0002	0.0002	0.00021	0.00032	0.0002



## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony, Total Analysis Run 9/11/2020 12:39 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Confidence Interval

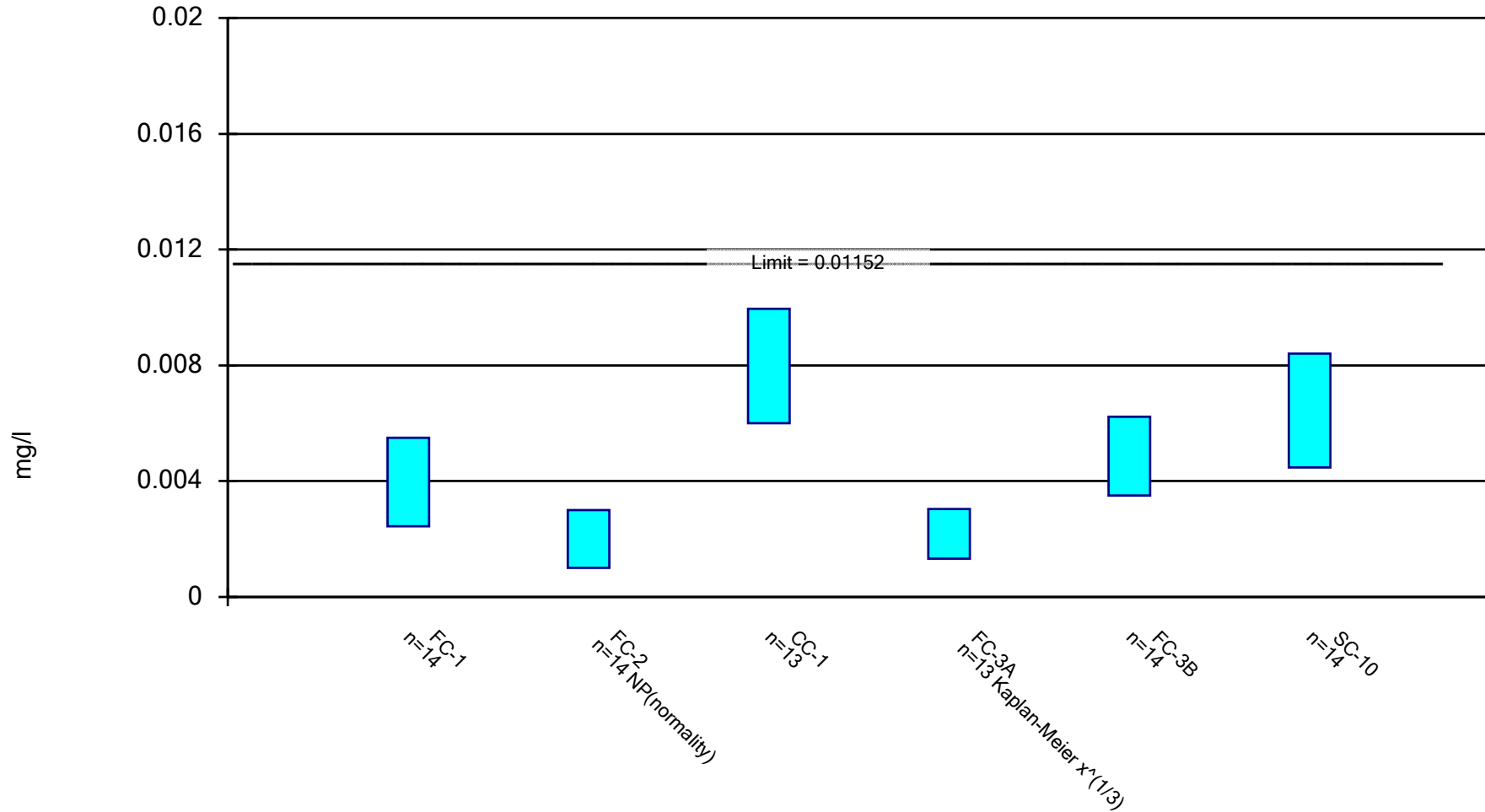
Constituent: Antimony, Total (mg/l) Analysis Run 9/11/2020 12:45 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	SC-11	SC-12	SC-13	SC-14
6/22/2016	<0.0002	<0.0002	<0.0002	0.00021
8/3/2016	<0.0002	<0.0002	<0.0002	<0.0002
9/20/2016	<0.0002 (D1)	<0.0002 (D1)	0.0002 (D)	0.00022 (D)
10/13/2016	0.0002 (D)	0.00023 (D)	<0.0002 (D1)	<0.0002 (D1)
11/16/2016	0.00094 (D)	0.00093 (D)	0.00059 (D)	<0.0002 (D1)
1/19/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
2/15/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
3/1/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
11/14/2017	<0.0005 (D1)	<0.0005 (D1)	0.0071 (DT)	<0.0005 (D1)
2/15/2018	<0.008	<0.008	<0.0008	<0.0008
9/26/2018	<0.0005	<0.0005	<0.0005 (D)	<0.0005
5/15/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
9/24/2019		<0.0005 (D1D)		
9/25/2019	<0.0005 (D1D)		<0.0005 (D1D)	<0.0005 (D1D)
4/7/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
<b>Mean</b>	0.0009814	0.0009829	0.0009136	0.0004164
<b>Std. Dev.</b>	0.00203	0.002029	0.001789	0.0001808
<b>Upper Lim.</b>	0.00094	0.00093	0.00059	0.0008
<b>Lower Lim.</b>	0.0002	0.0002	0.0002	0.0002

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic, Total Analysis Run 9/11/2020 12:39 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Confidence Interval

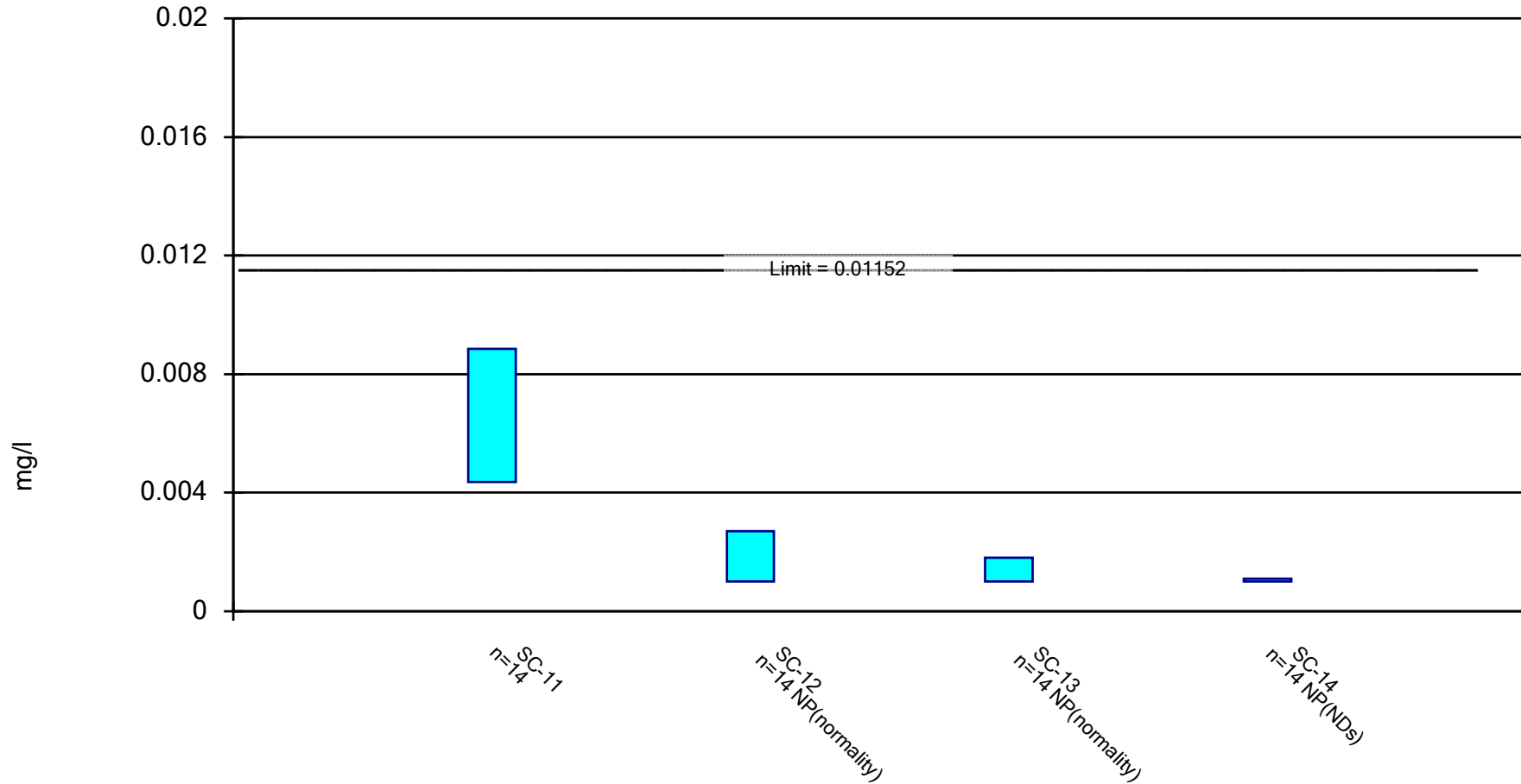
Constituent: Arsenic, Total (mg/l)    Analysis Run 9/11/2020 12:45 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	0.0042	0.0025	0.0109 (D)			0.0083
6/23/2016				0.0031		
6/27/2016					0.0026	
8/2/2016	0.0025 (D)	0.0016	0.0105	0.0021	0.0031	
8/3/2016						0.00625 (D)
9/19/2016	0.0094 (D)	0.0036 (D)	0.0089 (D)	0.0029 (D)	0.0051 (D)	
9/20/2016						0.0073 (D)
10/12/2016	0.0023 (D)	<0.001 (D1)	0.0071 (D)	0.001325 (D)	0.0056 (D)	
10/13/2016						0.0051 (D)
11/15/2016	0.0036 (D)	<0.001 (D1)	0.0054 (D)	0.0018 (D)	0.007 (D)	
11/16/2016						0.003 (D)
1/18/2017	0.0061 (D)	0.0011 (D)	0.00255 (D)	<0.001 (D1)	0.0057 (D)	
1/19/2017						0.0039 (D)
2/14/2017	<0.001 (D1)	<0.001 (D1)	0.00495 (D)	<0.001 (D1)	0.004 (D)	
2/15/2017						0.0054 (D)
2/28/2017	0.00625 (D)	0.0076 (D)	0.011 (D)	0.0069 (D)	0.0081 (D)	
3/1/2017						0.0126 (D)
11/13/2017	0.0041 (D)	0.0025 (D)	0.008 (D)	0.0022 (D)	0.0064 (D)	
11/14/2017						0.0095 (D)
2/14/2018	<0.002	<0.001		0.00115 (D)	0.0026	
2/15/2018						0.0022
9/25/2018	0.005 (D)	0.0014	0.0115	0.003	0.0074	
9/26/2018						0.0068
5/14/2019	0.0029	0.0013 (D)	0.0072 (D)	0.0017 (D)	0.002 (D)	
5/15/2019						0.0057 (D)
9/24/2019	0.00295 (D)	<0.001 (D1D)	0.0081 (D)	0.0016 (D)	0.0044 (D)	
9/25/2019						0.0051 (D)
4/6/2020	0.0034 (D)	0.003 (D)	0.00765 (D)		0.0041 (D)	
4/7/2020						0.009 (D)
<b>Mean</b>	0.003979	0.002114	0.007981	0.00229	0.004864	0.006439
<b>Std. Dev.</b>	0.00216	0.001799	0.002647	0.001567	0.001926	0.002769
<b>Upper Lim.</b>	0.005509	0.003	0.009949	0.003042	0.006229	0.008401
<b>Lower Lim.</b>	0.002449	0.001	0.006013	0.001314	0.0035	0.004478

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic, Total Analysis Run 9/11/2020 12:39 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Confidence Interval

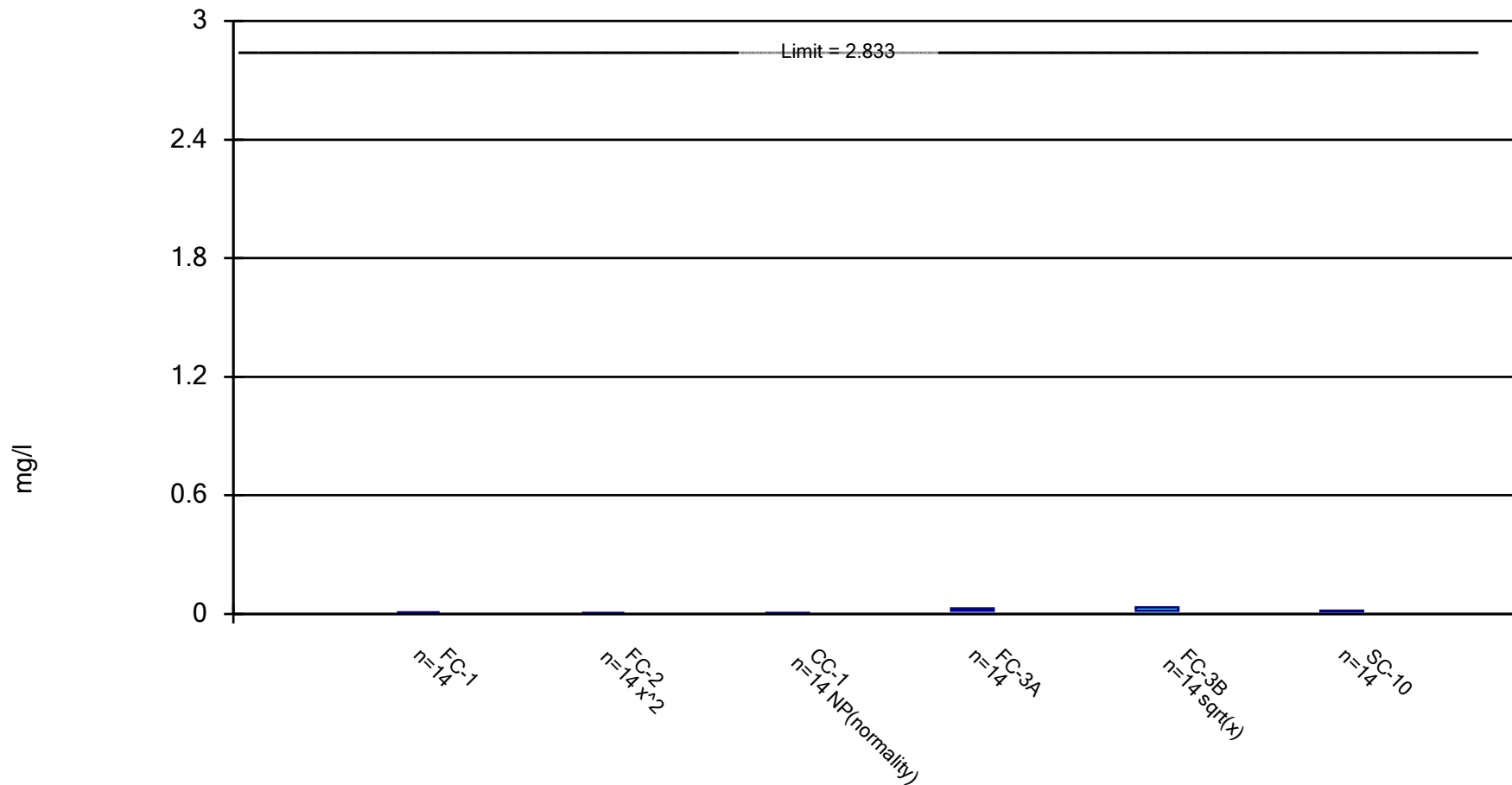
Constituent: Arsenic, Total (mg/l) Analysis Run 9/11/2020 12:45 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	SC-11	SC-12	SC-13	SC-14
6/22/2016	0.0093	0.0017	0.0019	0.0022
8/3/2016	0.0095	0.0014	<0.001	<0.001
9/20/2016	0.00825 (D)	0.0026 (D)	0.0013 (D)	<0.001 (D1)
10/13/2016	0.0062 (D)	0.00285 (D)	0.0015 (D)	<0.001 (D1)
11/16/2016	<0.001 (D1)	0.0016 (D)	<0.001 (D)	<0.001 (D1)
1/19/2017	0.0033 (D)	<0.001 (D1)	<0.001 (D1)	<0.001 (D1)
2/15/2017	0.0046 (D)	<0.001 (D1)	<0.001 (D1)	<0.001 (D)
3/1/2017	0.0111 (D)	0.0067 (D)	0.0057 (D)	0.003 (D)
11/14/2017	0.0089 (D)	0.0027 (D)	0.0018 (D)	0.0011 (D)
2/15/2018	0.0021	0.0011	<0.001	<0.001
9/26/2018	0.0104	0.0013	<0.001 (D)	<0.001
5/15/2019	0.0051 (D)	0.00135 (D)	0.001 (D)	<0.001 (D)
9/24/2019		<0.001 (D1D)		
9/25/2019	0.005 (D)		0.00105 (D)	<0.001 (D1D)
4/7/2020	0.0077 (D)	0.0013 (D)	0.0011 (D)	0.0011 (D)
<b>Mean</b>	0.006604	0.001971	0.001525	0.001243
<b>Std. Dev.</b>	0.003175	0.001506	0.001241	0.0005971
<b>Upper Lim.</b>	0.008853	0.0027	0.0018	0.0011
<b>Lower Lim.</b>	0.004354	0.001	0.001	0.001

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium, Total    Analysis Run 9/11/2020 12:39 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Confidence Interval

Constituent: Barium, Total (mg/l)    Analysis Run 9/11/2020 12:45 PM    View: CCR Landfill

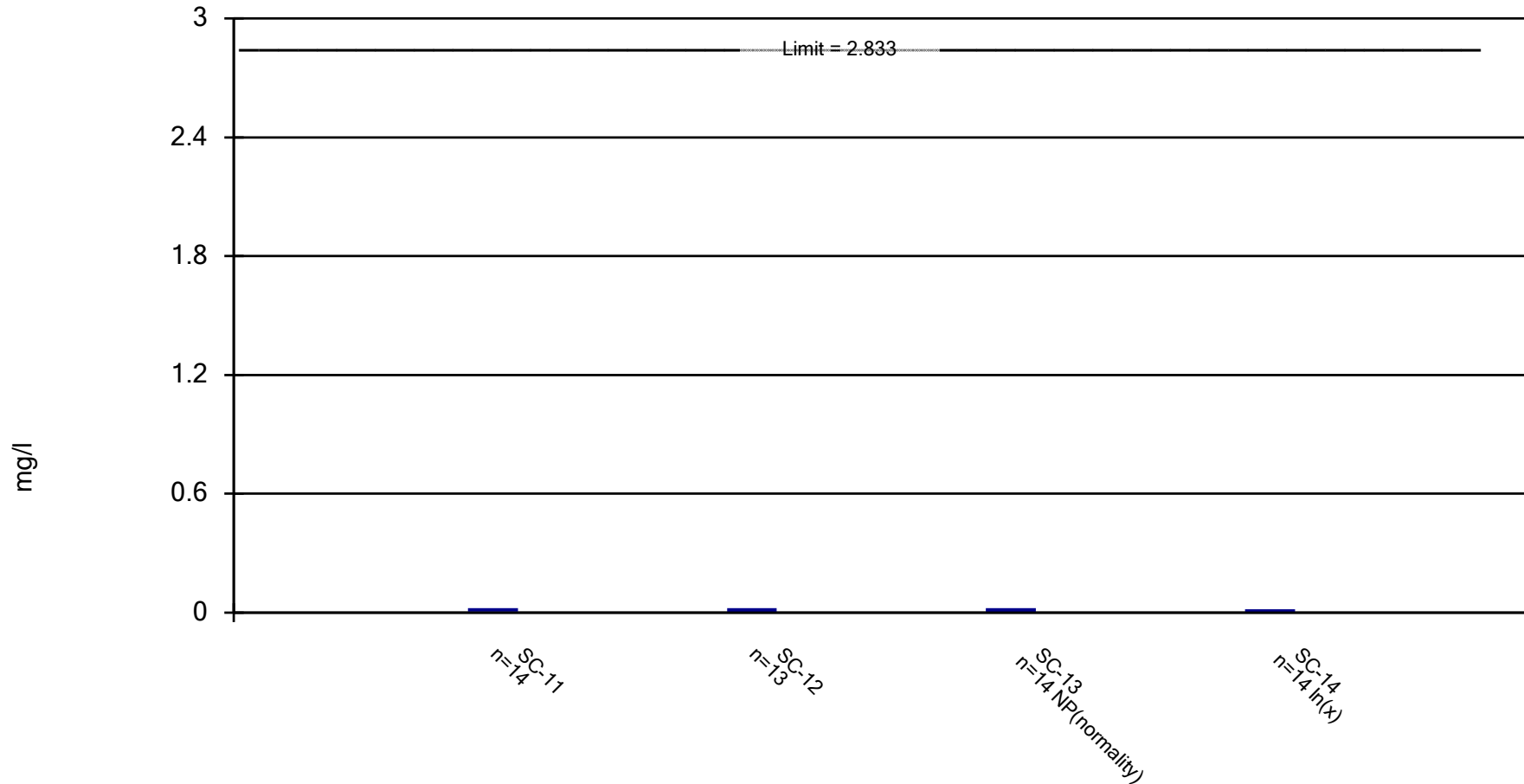
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	0.00954	0.00503	2.83285 (D)			0.0184
6/23/2016				0.034		
6/27/2016					0.0336	
8/2/2016	0.008725 (D)	<0.005	0.00512	0.0202	0.0253	
8/3/2016						0.0138 (D)
9/19/2016	0.00928	0.00525 (D)	0.00542	0.0218	0.0183	
9/20/2016						0.013
10/12/2016	0.00905	0.00536	0.00593	0.03735 (D)	0.0184	
10/13/2016						0.0141
11/15/2016	0.0102	0.00516	0.00608	0.01735 (D)	0.0652	
11/16/2016						0.0178
1/18/2017	0.00929	0.00539	0.005675 (D)	0.0164	0.0244	
1/19/2017						0.0216
2/14/2017	0.01	0.00566	0.006005 (D)	0.0167	0.023	
2/15/2017						0.0145 (D)
2/28/2017	0.009 (D)	0.0054	<0.005	0.0148	0.0208	
3/1/2017						0.0105
11/13/2017	0.0082 (D)	0.00435 (D)	0.004 (D)	0.0259 (D)	0.0154 (D)	
11/14/2017						0.014 (D)
2/14/2018	0.0105	<0.01	<0.01	0.01205 (D)	0.0196	
2/15/2018						0.0124
9/25/2018	0.00665 (D)	0.004	0.0039	0.021	0.037	
9/26/2018						0.0165
5/14/2019	0.0073	0.0043 (D)	0.0044 (D)	0.0265 (D)	0.0146 (D)	
5/15/2019						0.0168 (D)
9/24/2019	0.0073 (D)	0.0056 (D)	0.0041 (D)	0.0276 (D)	0.0268 (D)	
9/25/2019						0.0124 (D)
4/6/2020	0.0068 (D)	0.004 (D)	0.0033 (D)	0.0123 (D)	0.0099 (D)	
4/7/2020						0.0112 (D)
<b>Mean</b>	0.008703	0.004786	0.2067	0.02171	0.02516	0.01479
<b>Std. Dev.</b>	0.001264	0.0008703	0.7558	0.007724	0.0136	0.003082
<b>Upper Lim.</b>	0.009598	0.005371	0.006005	0.02718	0.03284	0.01697
<b>Lower Lim.</b>	0.007807	0.004285	0.0039	0.01624	0.01626	0.0126



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium, Total Analysis Run 9/11/2020 12:39 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Confidence Interval

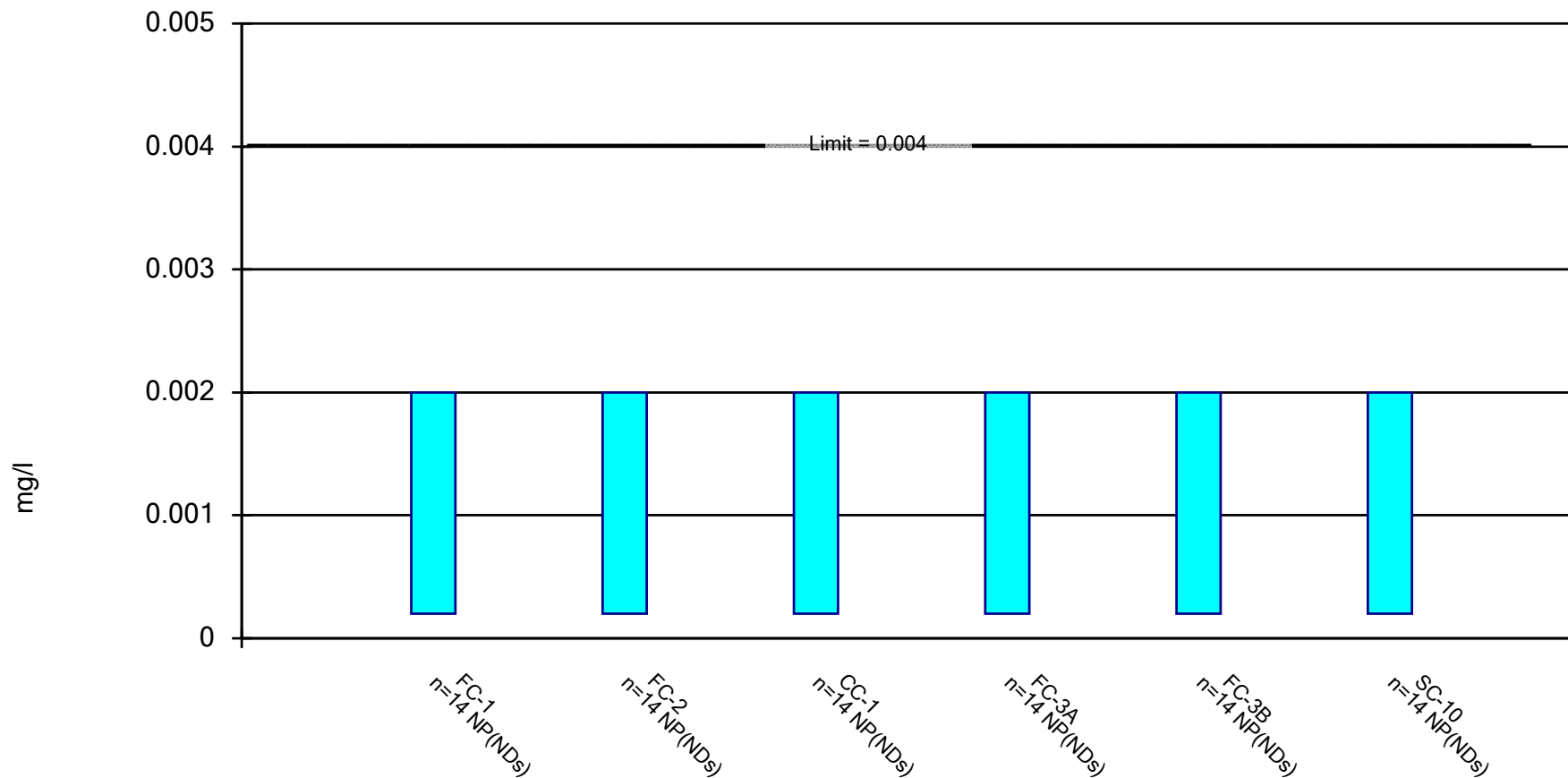
Constituent: Barium, Total (mg/l) Analysis Run 9/11/2020 12:45 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	SC-11	SC-12	SC-13	SC-14
6/22/2016	0.017	0.0112	0.00979	0.024
8/3/2016	0.0165	0.0133	0.00703	0.0131
9/20/2016	0.009275 (D)		0.0736	0.0109
10/13/2016	0.0225	0.01415 (D)	0.00797	0.0163
11/16/2016	0.016	0.0178	4.629645 (D)	0.0136
1/19/2017	0.0117	0.0108	0.0075	0.00905
2/15/2017	0.0156	0.0127	0.00742	0.00766
3/1/2017	0.00732	0.00781 (D)	0.00603	0.0063
11/14/2017	0.01395 (D)	0.0063 (D)	0.006 (D)	0.0052 (D)
2/15/2018	0.0089	0.0079	<0.01	<0.01
9/26/2018	0.0099	0.0245	0.00575 (D)	0.0057
5/15/2019	0.0086 (D)	0.00755 (D)	0.0046 (D)	0.005 (D)
9/24/2019		0.007 (D)		
9/25/2019	0.0099 (D)		0.0168 (D)	0.0049 (D)
4/7/2020	0.0119 (D)	0.0059 (D)	0.0045 (D)	0.0048 (D)
<b>Mean</b>	0.01279	0.0113	0.3423	0.009394
<b>Std. Dev.</b>	0.004287	0.005333	1.234	0.005674
<b>Upper Lim.</b>	0.01583	0.01527	0.0168	0.01187
<b>Lower Lim.</b>	0.009752	0.007335	0.005	0.005606

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

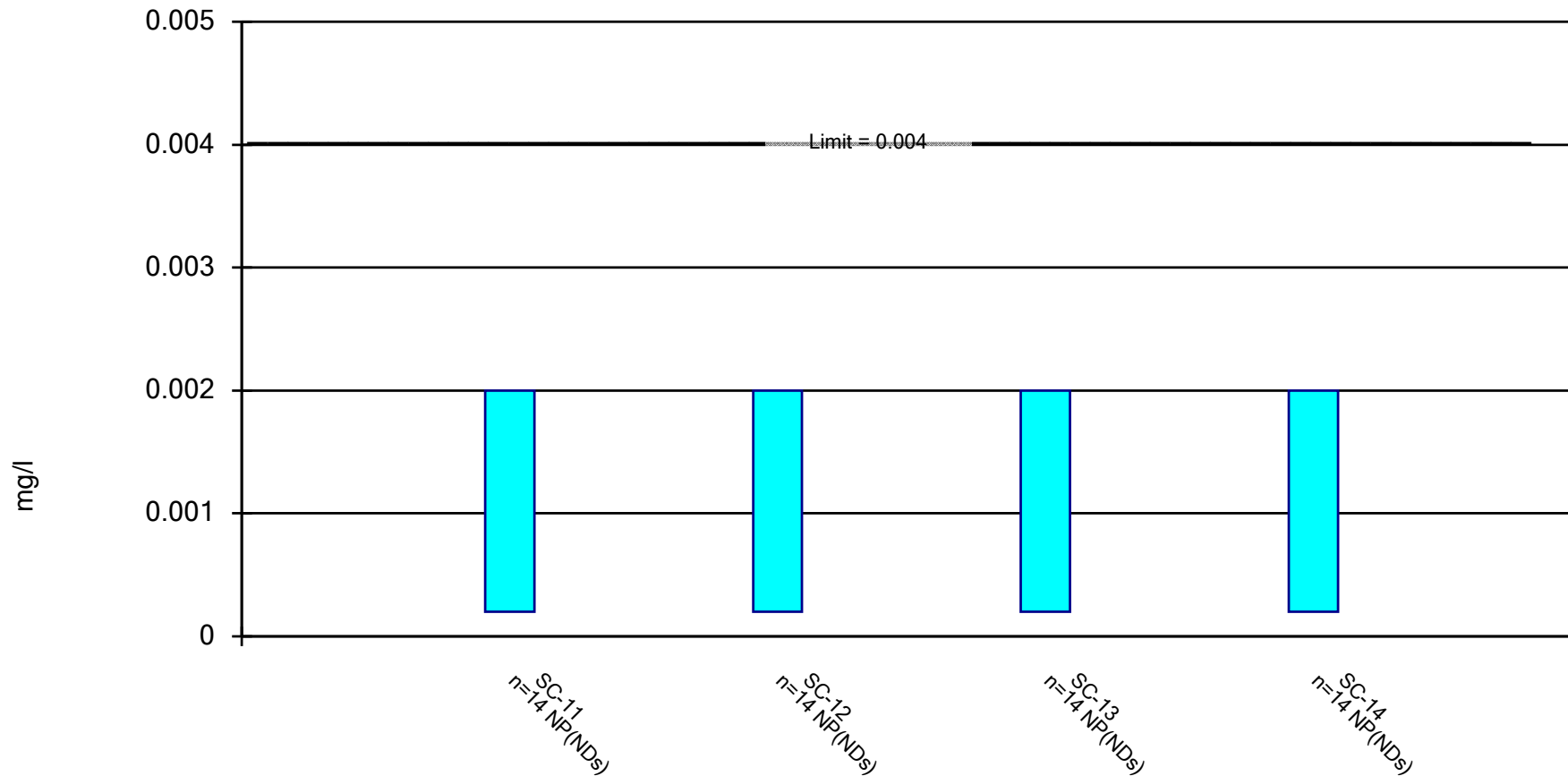


Constituent: Beryllium, Total    Analysis Run 9/11/2020 12:39 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database



## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Beryllium, Total Analysis Run 9/11/2020 12:39 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Confidence Interval

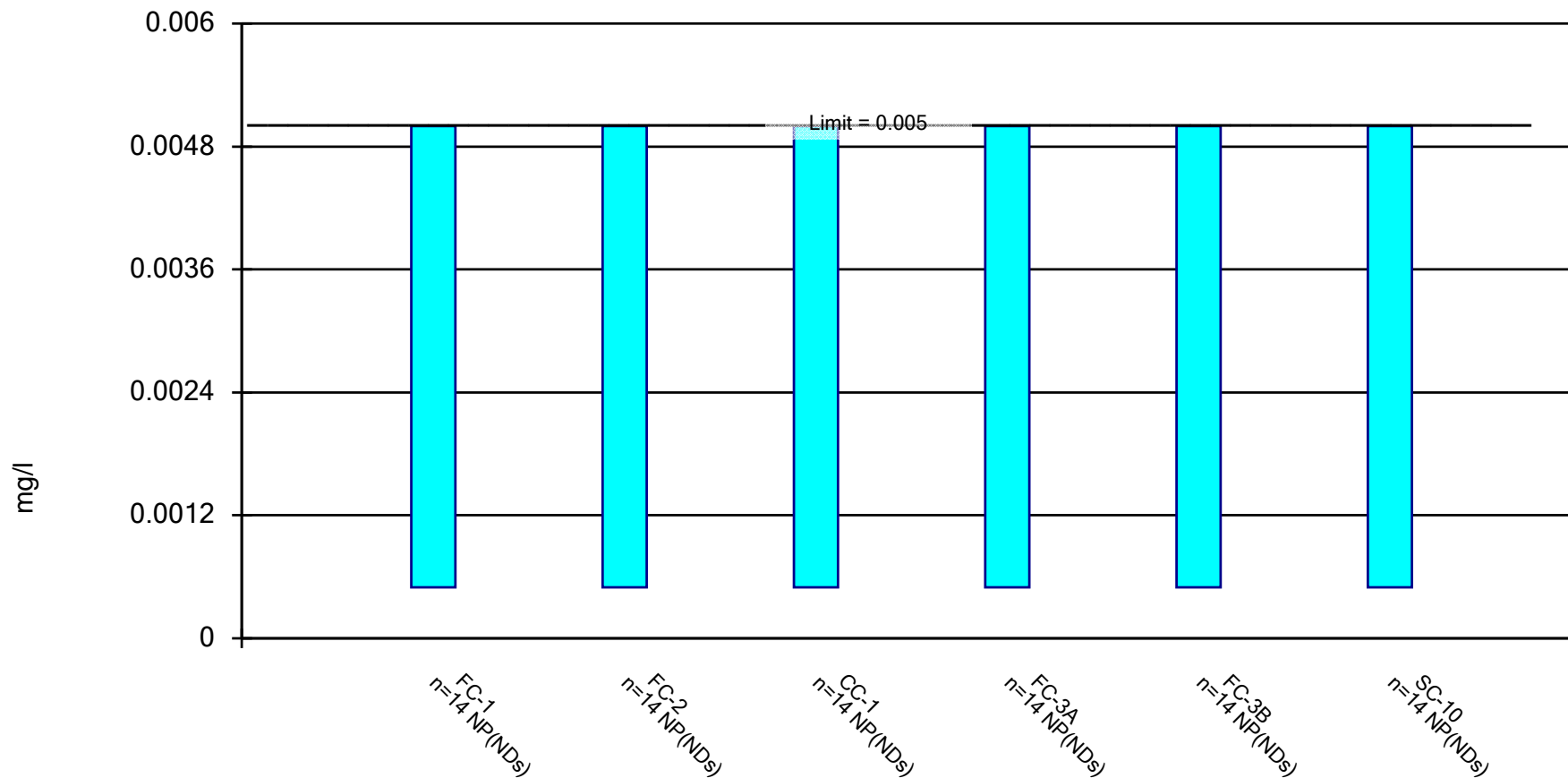
Constituent: Beryllium, Total (mg/l) Analysis Run 9/11/2020 12:45 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	SC-11	SC-12	SC-13	SC-14
6/22/2016	<0.002	<0.002	<0.002	<0.002
8/3/2016	<0.002	<0.002	<0.002	<0.002
9/20/2016	<0.002 (D)	<0.002	<0.002	<0.002
10/13/2016	<0.002	<0.002 (D)	<0.002	<0.002
11/16/2016	<0.002	<0.002	<0.002 (D)	<0.002
1/19/2017	<0.002	<0.002	<0.002	<0.002
2/15/2017	<0.002	<0.002	<0.002	<0.002
3/1/2017	<0.002	<0.002 (D)	<0.002	<0.002
11/14/2017	<0.0002 (D1)	<0.0002 (D1)	0.00021 (D)	<0.0002 (D1)
2/15/2018	<0.002	<0.002	<0.001 (T)	<0.001 (T)
9/26/2018	<0.0002	<0.0002	<0.0002 (D)	<0.0002
5/15/2019	<0.0002 (D1D)	<0.0002 (D1D)	<0.0002 (D1D)	<0.0002 (D1D)
9/24/2019		<0.0002 (D1D)		
9/25/2019	<0.0002 (D1D)		<0.0002 (D1D)	<0.0002 (D1D)
4/7/2020	<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (DD1)
<b>Mean</b>	0.001357	0.001357	0.001286	0.001286
<b>Std. Dev.</b>	0.000895	0.000895	0.0008786	0.0008796
<b>Upper Lim.</b>	0.002	0.002	0.002	0.002
<b>Lower Lim.</b>	0.0002	0.0002	0.0002	0.0002

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



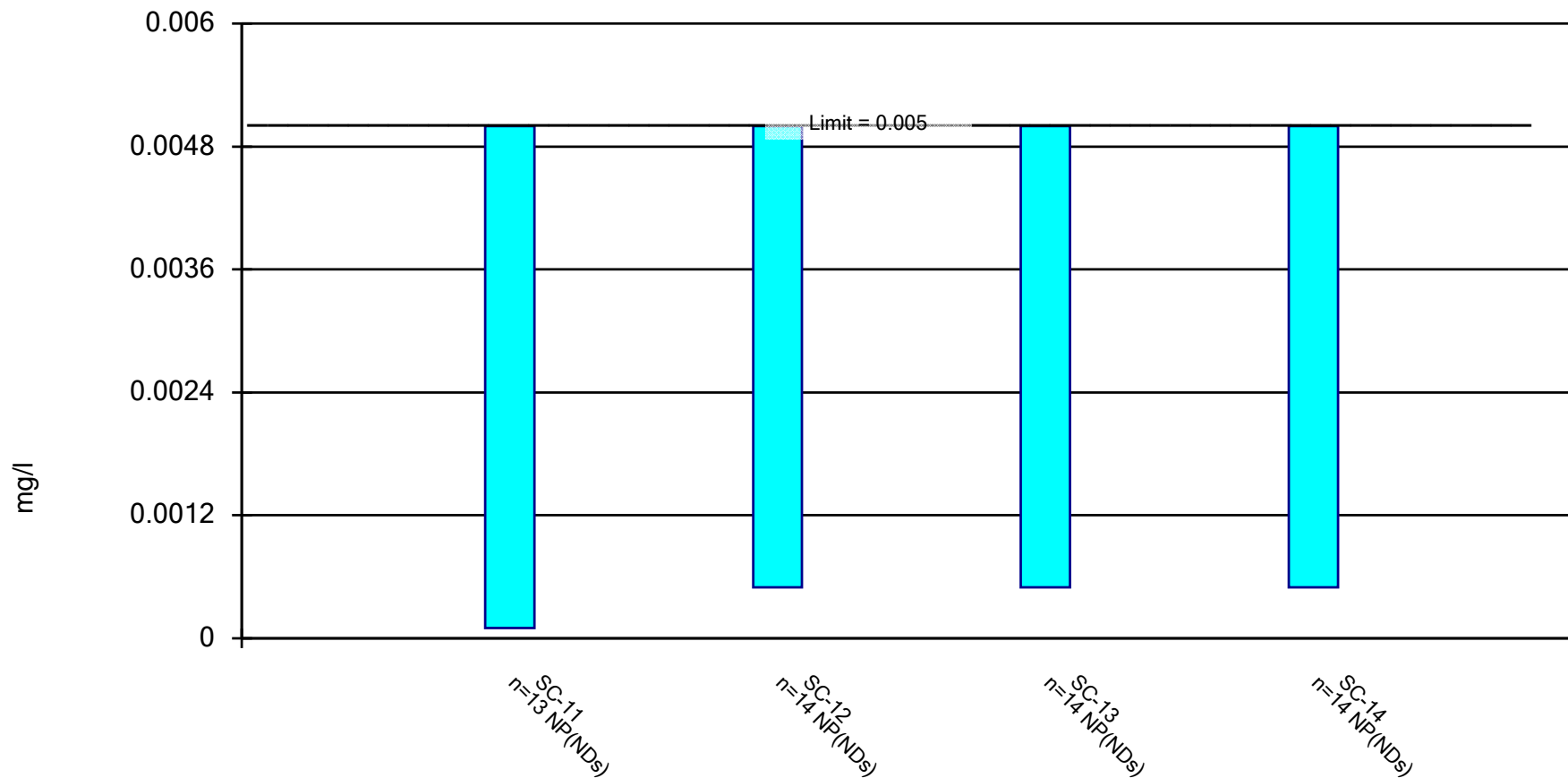
Constituent: Cadmium, Total Analysis Run 9/11/2020 12:40 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database





# Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cadmium, Total Analysis Run 9/11/2020 12:40 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Confidence Interval

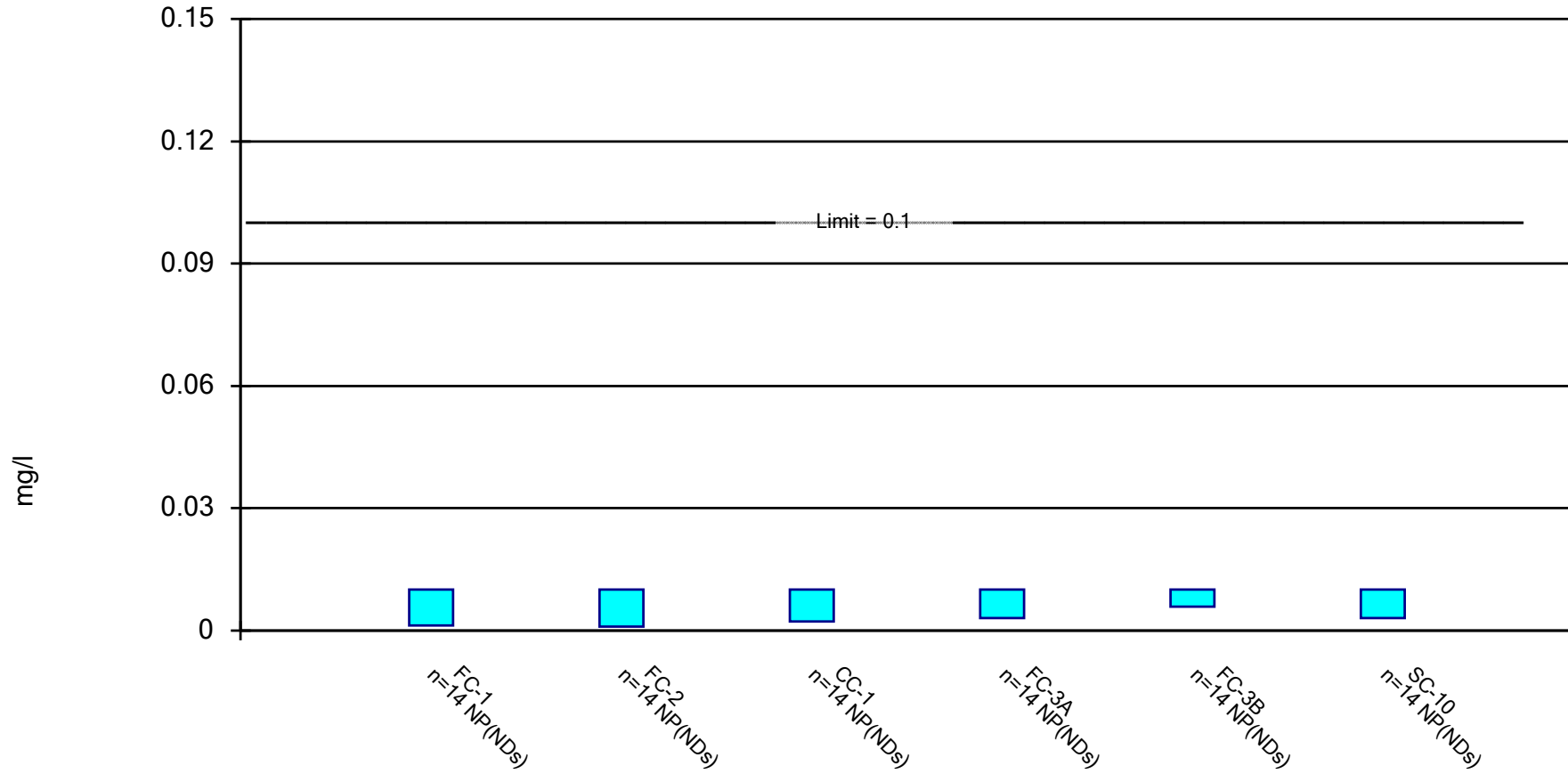
Constituent: Cadmium, Total (mg/l) Analysis Run 9/11/2020 12:45 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	SC-11	SC-12	SC-13	SC-14
6/22/2016	<0.005	<0.005	<0.005	<0.005
8/3/2016		<0.005	<0.005	<0.005
9/20/2016	<0.005 (D)	<0.005	<0.005	<0.005
10/13/2016	<0.005	<0.005 (D)	<0.005	<0.005
11/16/2016	<0.005	<0.005	<0.005 (D)	<0.005
1/19/2017	<0.005	<0.005	<0.005	<0.005
2/15/2017	<0.005	<0.005	<0.005	<0.005
3/1/2017	<0.005	<0.005 (D)	<0.005	<0.005
11/14/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
2/15/2018	<0.0001	<0.0001	<0.001	<0.001
9/26/2018	<0.0005	<0.0005	<0.0005 (D)	<0.0005
5/15/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
9/24/2019		<0.0005 (D1D)		
9/25/2019	<0.0005 (D1D)		<0.0005 (D1D)	<0.0005 (D1D)
4/7/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
<b>Mean</b>	0.002892	0.003043	0.003107	0.003107
<b>Std. Dev.</b>	0.002372	0.002347	0.002272	0.002272
<b>Upper Lim.</b>	0.005	0.005	0.005	0.005
<b>Lower Lim.</b>	0.0001	0.0005	0.0005	0.0005

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium, Total    Analysis Run 9/11/2020 12:40 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Confidence Interval

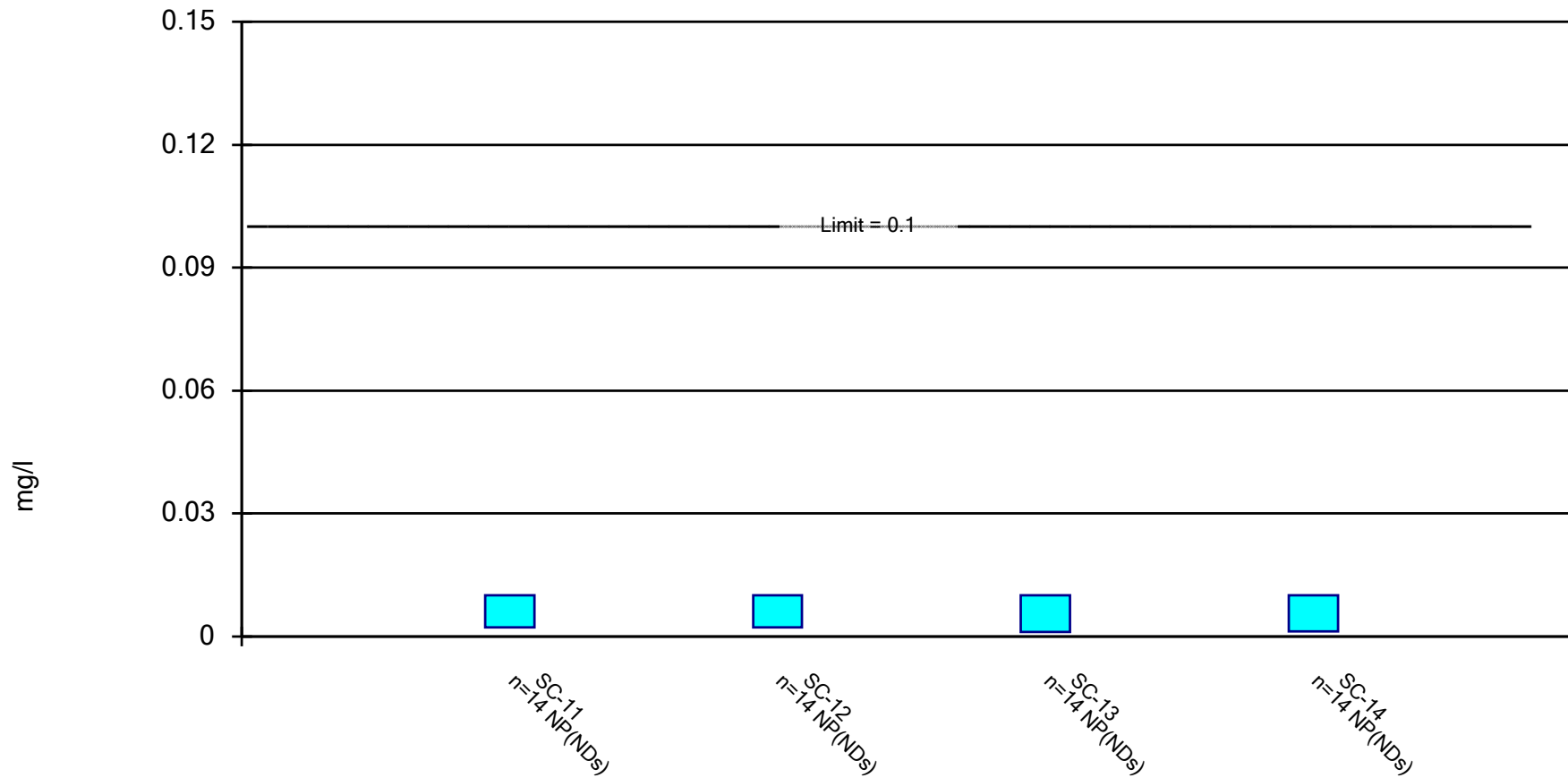
Constituent: Chromium, Total (mg/l)    Analysis Run 9/11/2020 12:45 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	<0.01	<0.01	<0.01 (D)			<0.01
6/23/2016				<0.01		
6/27/2016					<0.01	
8/2/2016	<0.01 (D)	<0.01	<0.01	<0.01	<0.01	
8/3/2016						<0.01 (D)
9/19/2016	<0.01	<0.01 (D)	<0.01	<0.01	<0.01	
9/20/2016						<0.01
10/12/2016	<0.01	<0.01	<0.01	<0.01 (D)	<0.01	
10/13/2016						<0.01
11/15/2016	<0.01	<0.01	<0.01	<0.01 (D)	<0.01	
11/16/2016						<0.01
1/18/2017	<0.01	<0.01	<0.01 (D)	<0.01	<0.01	
1/19/2017						<0.01
2/14/2017	<0.01	<0.01	<0.01 (D)	<0.01	<0.01	
2/15/2017						<0.01 (D)
2/28/2017	<0.01 (D)	<0.01	<0.01	<0.01	<0.01	
3/1/2017						<0.01
11/13/2017	0.006 (D)	0.0051 (D)	0.0064 (D)	0.0062 (D)	0.0086 (D)	
11/14/2017						0.0061 (D)
2/14/2018	<0.004	<0.004	<0.004	<0.004 (D)	0.0058	
2/15/2018						<0.004
9/25/2018	0.001 (D)	0.001	0.0017	0.0025	0.0061	
9/26/2018						0.0019
5/14/2019	0.0013	<0.001 (D)	0.0018 (D)	0.0031 (D)	0.0049 (D)	
5/15/2019						0.0031 (D)
9/24/2019	0.0042 (D)	0.0035 (D)	0.0036 (D)	0.0054 (D)	0.0089 (D)	
9/25/2019						0.0049 (D)
4/6/2020	<0.001 (DD1)	<0.001 (DD1)	0.0022 (D)	0.0014 (D)	0.0039	
4/7/2020						0.0014 (D)
<b>Mean</b>	0.006964	0.006829	0.007121	0.007329	0.008443	0.007243
<b>Std. Dev.</b>	0.003866	0.003966	0.003626	0.003391	0.002241	0.003486
<b>Upper Lim.</b>	0.01	0.01	0.01	0.01	0.01	0.01
<b>Lower Lim.</b>	0.0013	0.001	0.0022	0.0031	0.0058	0.0031

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium, Total    Analysis Run 9/11/2020 12:40 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Confidence Interval

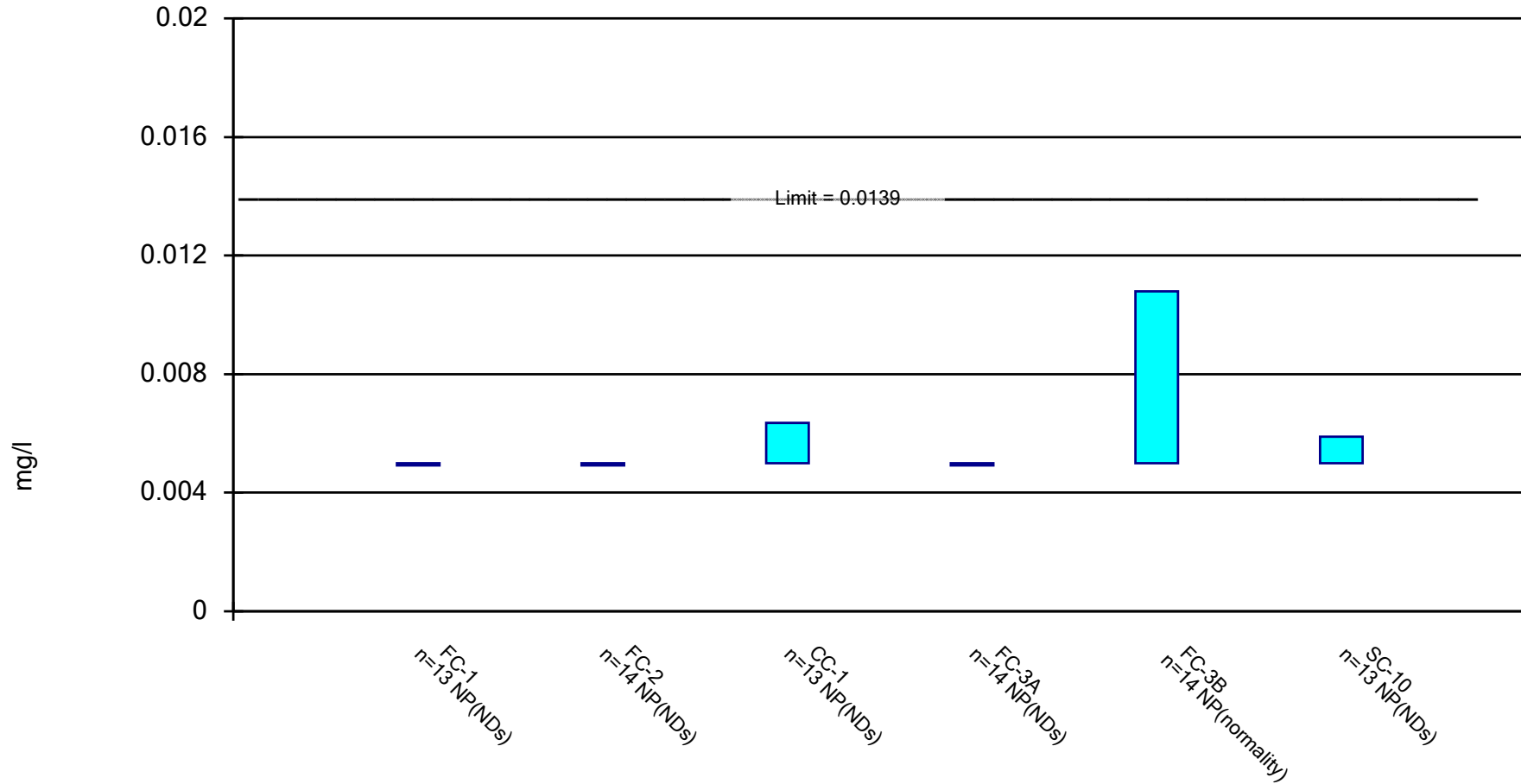
Constituent: Chromium, Total (mg/l) Analysis Run 9/11/2020 12:45 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	SC-11	SC-12	SC-13	SC-14
6/22/2016	<0.01	<0.01	<0.01	<0.01
8/3/2016	<0.01	<0.01	<0.01	<0.01
9/20/2016	<0.01 (D)	<0.01	<0.01	<0.01
10/13/2016	<0.01	<0.01 (D)	<0.01	<0.01
11/16/2016	<0.01	<0.01	<0.01 (D)	<0.01
1/19/2017	<0.01	<0.01	<0.01	<0.01
2/15/2017	<0.01	<0.01	<0.01	<0.01
3/1/2017	<0.01	<0.01 (D)	<0.01	<0.01
11/14/2017	0.0075 (D)	0.0069 (D)	0.0029 (D)	0.0066 (D)
2/15/2018	<0.004	<0.004	<0.004	<0.004
9/26/2018	0.0012	0.0022	<0.001 (D)	<0.001
5/15/2019	0.0022 (D)	0.00185 (D)	0.0011 (D)	0.0012 (D)
9/24/2019		0.0043 (D)		
9/25/2019	0.0048 (D)		0.0049 (D)	0.0041 (D)
4/7/2020	0.0019 (D)	0.0012 (D)	0.0011 (D)	0.0011 (D)
<b>Mean</b>	0.007257	0.007175	0.006786	0.007
<b>Std. Dev.</b>	0.003593	0.003628	0.003992	0.003863
<b>Upper Lim.</b>	0.01	0.01	0.01	0.01
<b>Lower Lim.</b>	0.0022	0.0022	0.0011	0.0012

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



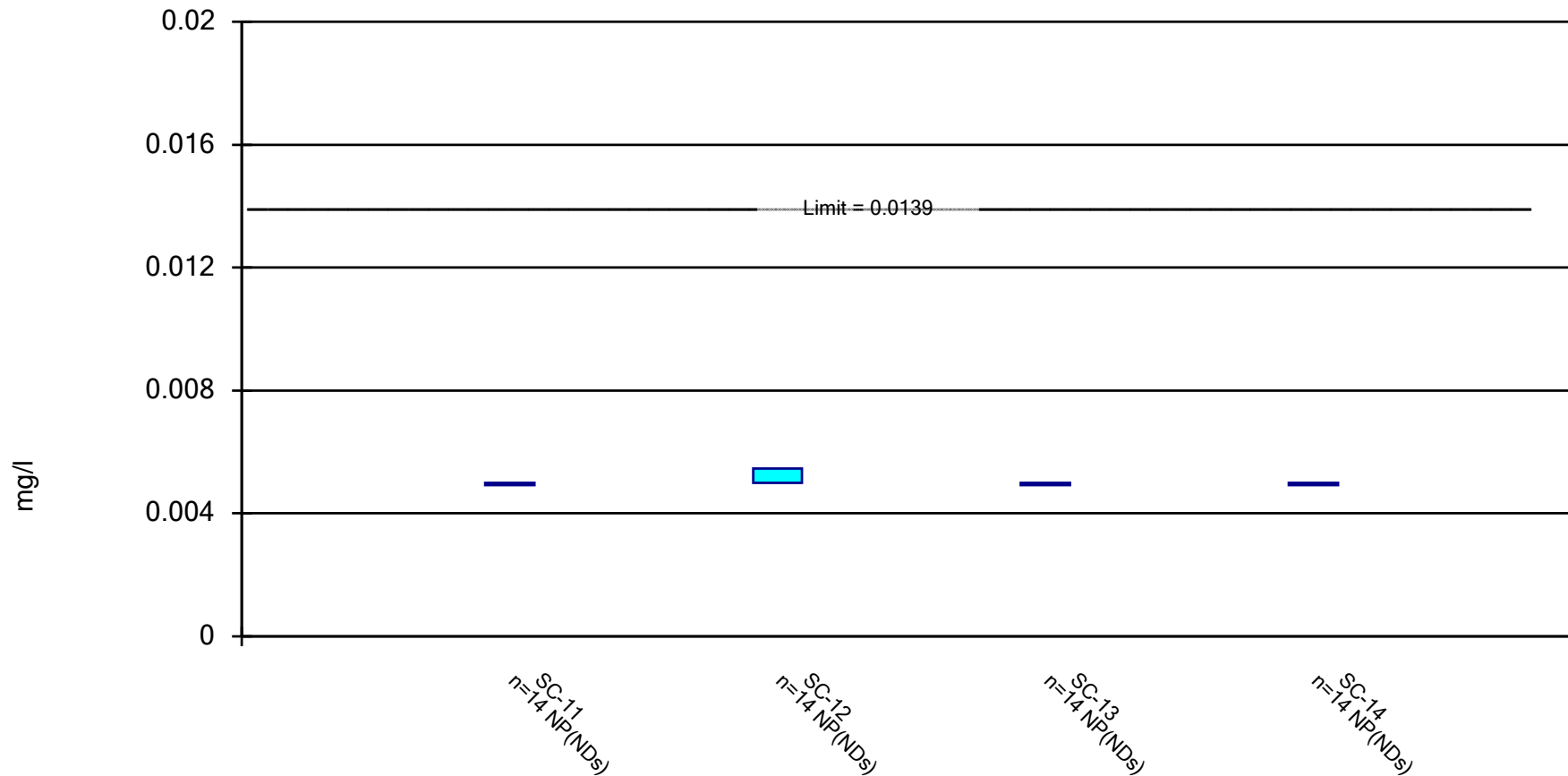
Constituent: Cobalt, Total    Analysis Run 9/11/2020 12:40 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database





# Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cobalt, Total    Analysis Run 9/11/2020 12:40 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Confidence Interval

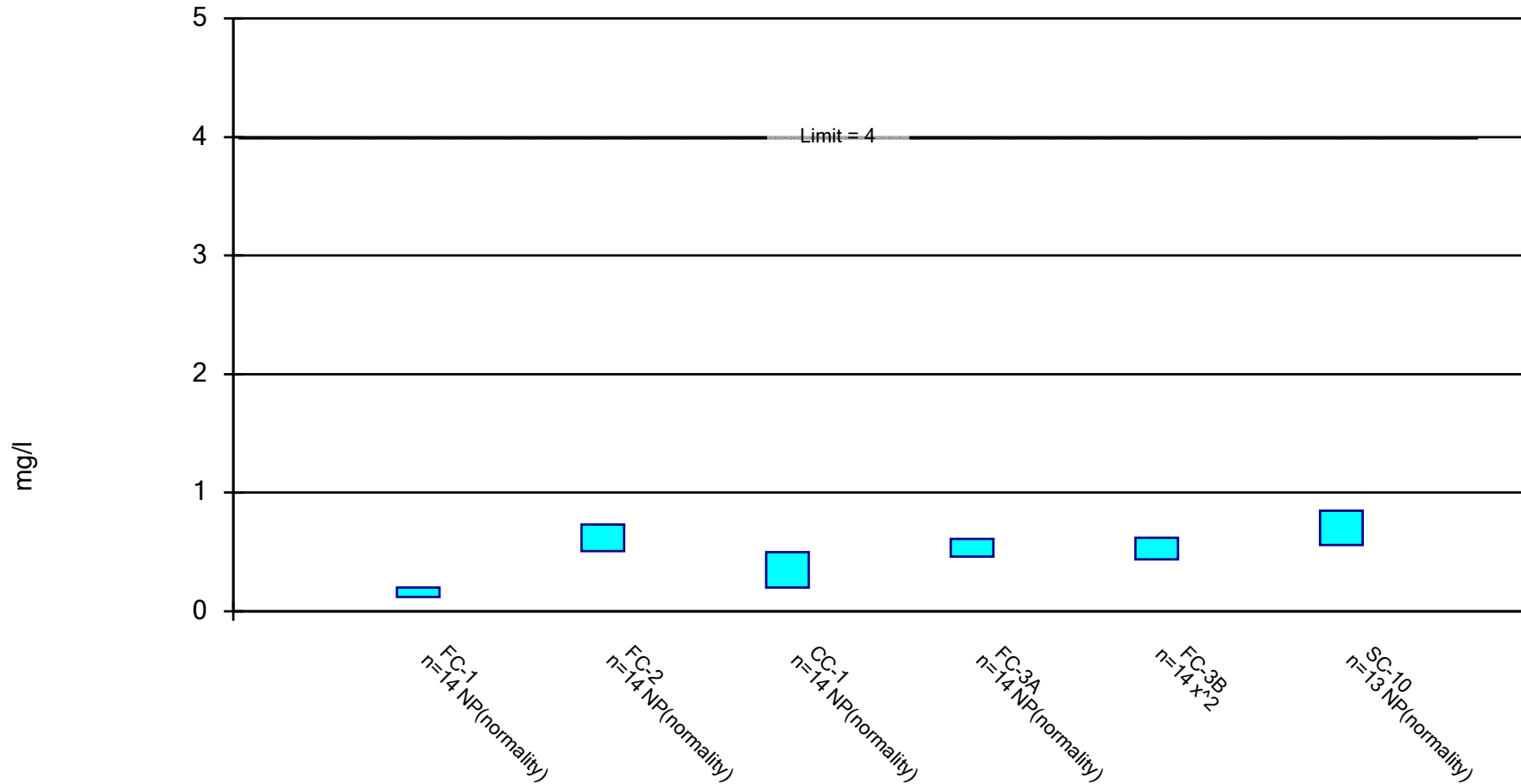
Constituent: Cobalt, Total (mg/l) Analysis Run 9/11/2020 12:46 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	SC-11	SC-12	SC-13	SC-14
6/22/2016	<0.005	<0.005	<0.005	<0.005
8/3/2016	0.005	<0.005	<0.005	<0.005
9/20/2016	<0.005 (D)	<0.005	<0.005	<0.005
10/13/2016	<0.005	<0.005 (D)	<0.005	<0.005
11/16/2016	<0.005	<0.005	<0.005 (D)	<0.005
1/19/2017	<0.005	<0.005	<0.005	<0.005
2/15/2017	<0.005	<0.005	<0.005	<0.005
3/1/2017	<0.005	<0.005 (D)	<0.005	<0.005
11/14/2017	<0.005 (D)	<0.005	<0.005	<0.005
2/15/2018	0.00525	0.00546	<0.005	<0.005
9/26/2018	<0.005 (DD1)	<0.005 (DD1)	<0.005 (DD1)	<0.005 (DD1)
5/15/2019	<0.005	<0.005	<0.005	<0.005
9/24/2019		<0.005		
9/25/2019	<0.005		<0.005 (D)	<0.005
4/7/2020	<0.005	<0.005	<0.005	<0.005 (D)
<b>Mean</b>	0.005018	0.005033	0.005	0.005
<b>Std. Dev.</b>	6.682E-05	0.0001229	0	0
<b>Upper Lim.</b>	0.005	0.00546	0.005	0.005
<b>Lower Lim.</b>	0.005	0.005	0.005	0.005

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride, Total    Analysis Run 9/11/2020 12:40 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Confidence Interval

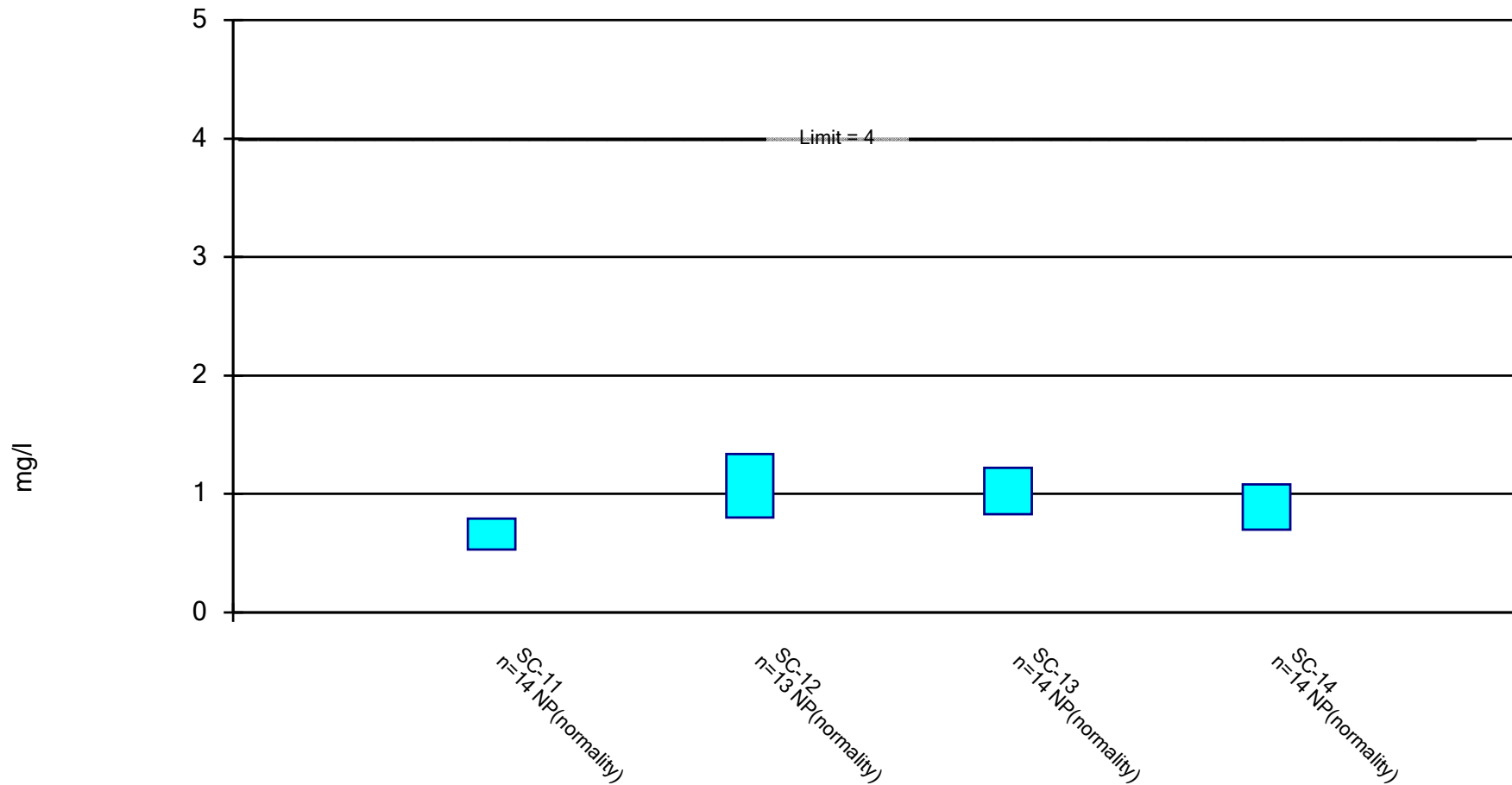
Constituent: Fluoride, Total (mg/l)    Analysis Run 9/11/2020 12:46 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	0.12 (T)	0.51 (T)	0.215 (TD)			0.59 (T)
6/23/2016				0.46 (T)		
6/27/2016					0.55	
8/2/2016	0.06006 (TD)	0.5 (T)	0.21 (T)	0.46 (T)	0.00048 (T)	
8/3/2016						0.585 (TD)
9/19/2016	0.13	0.985 (D)	0.22	0.48	0.48	
9/20/2016						0.56
10/12/2016	0.12 (T)	0.52 (T)	0.21 (T)	0.465 (TD)	0.51 (T)	
10/13/2016						0.61 (T)
11/15/2016	0.12 (T)	0.51 (T)	0.2 (T)	0.46 (TD)	0.46 (T)	
11/16/2016						0.57 (T)
1/18/2017	0.13 (T)	0.52 (T)	0.2 (TD)	0.46 (T)	0.56 (T)	
1/19/2017						0.56 (T)
2/14/2017	0.13 (T)	0.55 (T)	0.22 (TD)	0.48 (T)	0.51 (T)	
2/15/2017						0.575 (TD)
2/28/2017	0.13 (TD)	0.53 (T)	0.22 (T)	0.47 (T)	0.42 (T)	
3/1/2017						0.57 (T)
11/13/2017	0.2	0.7 (D)	0.45	0.56	0.48	
11/14/2017						0.82
2/14/2018	0.21	0.74	0.5	0.615 (D)	0.53	
2/15/2018						0.84
9/25/2018	0.195 (D)	0.73	0.48	0.62	0.52	
5/14/2019	0.13	0.51	0.2	0.44 (D)	0.69	
5/15/2019						0.54
9/24/2019	0.195 (D)	0.72	0.53	0.59	0.72	
9/25/2019						0.85
4/6/2020	0.21	0.72	0.545 (D)	0.61	0.7	
4/7/2020						0.87
<b>Mean</b>	0.1486	0.6246	0.3143	0.5121	0.5093	0.6569
<b>Std. Dev.</b>	0.04516	0.144	0.1461	0.06922	0.173	0.1319
<b>Upper Lim.</b>	0.2	0.73	0.5	0.61	0.6192	0.85
<b>Lower Lim.</b>	0.12	0.51	0.2	0.46	0.437	0.56

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Fluoride, Total Analysis Run 9/11/2020 12:40 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Confidence Interval

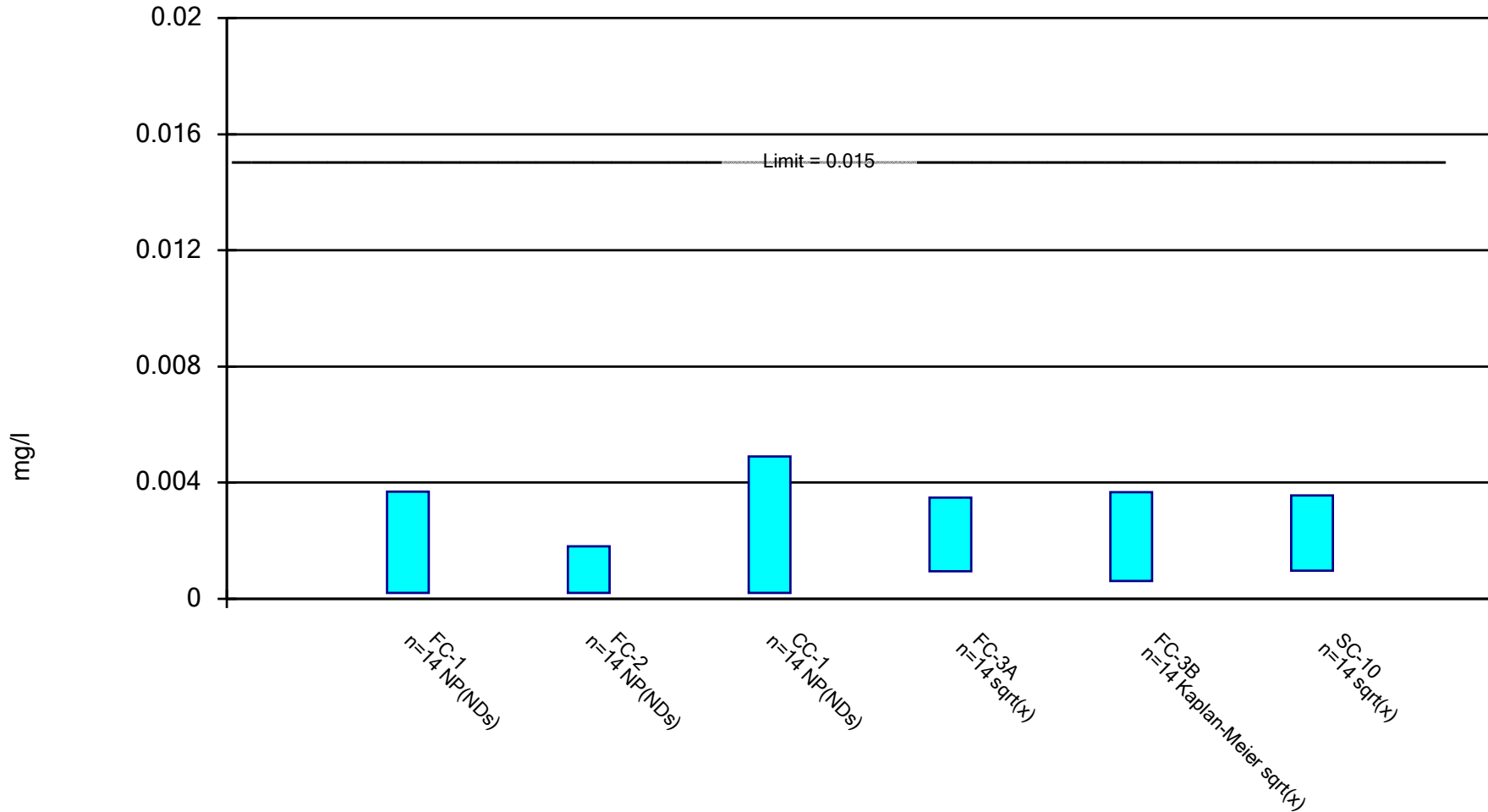
Constituent: Fluoride, Total (mg/l) Analysis Run 9/11/2020 12:46 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	SC-11	SC-12	SC-13	SC-14
6/22/2016	0.56 (T)	0.79 (T)	0.83 (T)	0.73 (T)
8/3/2016	0.54 (T)	0.82 (T)	0.82 (T)	0.72 (T)
9/20/2016	0.53 (D)	0.82	1.22 (D)	0.7
10/13/2016	0.57 (T)	0.885 (TD)	0.9 (T)	0.77 (T)
11/16/2016	0.53 (T)	0.84 (T)	0.84 (D)	0.72 (T)
1/19/2017	0.53 (T)	0.84 (T)	0.86 (T)	0.74 (T)
2/15/2017	0.55 (T)		0.86 (T)	0.74 (T)
3/1/2017	0.54 (T)	0.84 (TD)	0.84 (T)	0.74 (T)
11/14/2017	0.765 (D)	1.27	1.21	1.06
2/15/2018	0.77	1.26	1.2	1.06
9/26/2018	0.8	1.31	1.275 (D)	1.11
5/15/2019	0.53	0.8 (D)	0.77	0.69
9/24/2019		1.37		
9/25/2019	0.81		1.225 (D)	1.08
4/7/2020	0.79	1.34	1.18	1.085 (D)
<b>Mean</b>	0.6296	1.014	1.002	0.8532
<b>Std. Dev.</b>	0.1227	0.2459	0.1972	0.176
<b>Upper Lim.</b>	0.79	1.34	1.22	1.08
<b>Lower Lim.</b>	0.53	0.8	0.83	0.7

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead, Total    Analysis Run 9/11/2020 12:40 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Confidence Interval

Constituent: Lead, Total (mg/l)    Analysis Run 9/11/2020 12:46 PM    View: CCR Landfill

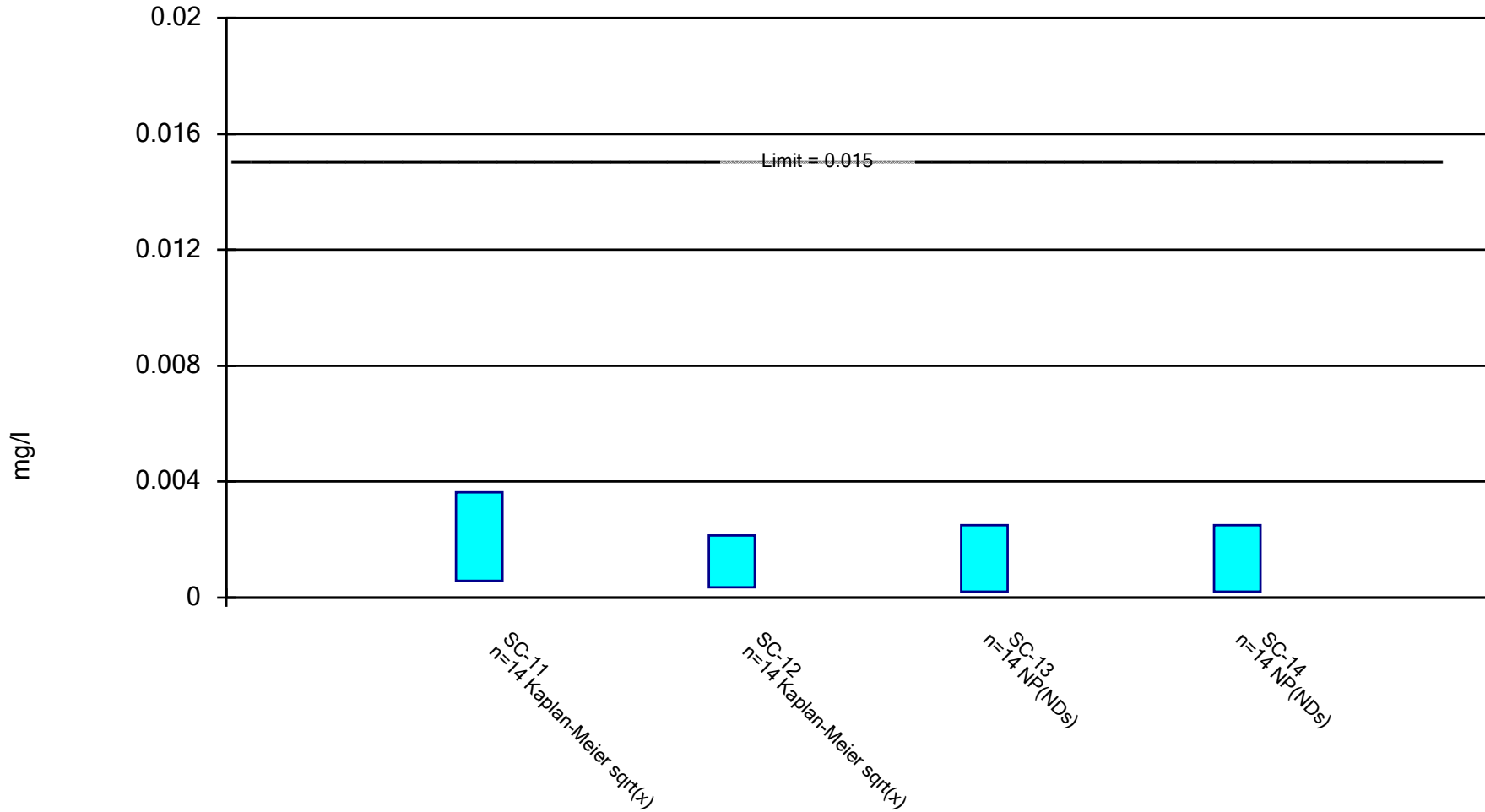
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	<0.0002	0.0002	<0.0002 (D)			0.0041
6/23/2016				0.0052		
6/27/2016					0.0039	
8/2/2016	<0.0002 (D)	<0.0002	<0.0002	0.0015	0.0021	
8/3/2016						0.0017 (D)
9/19/2016	0.00032 (D)	<0.0002 (D1)	<0.0002 (D1)	0.001 (D)	0.00042 (D)	
9/20/2016						0.00091 (D)
10/12/2016	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	0.000835 (D)	<0.0002 (D1)	
10/13/2016						0.00044 (D)
11/15/2016	0.0037 (D)	<0.0002 (D1)	0.0052 (D)	0.0031 (D)	0.0065 (D)	
11/16/2016						0.0063 (D)
1/18/2017	<0.0005 (D1)	<0.0005 (D1)	0.0035 (D)	0.0035 (D)	0.0035 (D)	
1/19/2017						0.0041 (D)
2/14/2017	0.0027 (D)	0.0018 (D)	0.0028 (D)	0.0017 (D)	0.00099 (D)	
2/15/2017						0.00275 (D)
2/28/2017	0.0081 (D)	0.0089 (D)	0.0049 (D)	0.009	0.0089 (D)	
3/1/2017						0.0046 (D)
11/13/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	0.00091 (D)	<0.0005 (D1)	
11/14/2017						0.0011 (D)
2/14/2018	<0.005	<0.0025	<0.005	<0.0025 (D)	<0.0025	
2/15/2018						<0.005
9/25/2018	<0.0005 (D)	<0.0005	<0.0005	0.00086	0.0046	
9/26/2018						<0.0005 (D1)
5/14/2019	<0.0005	<0.0005 (D1D)	<0.0005 (D1D)	0.0011 (D1D)	0.00073 (D1D)	
5/15/2019						0.00092 (D1D)
9/24/2019	<0.0005 (D1D)	0.0014 (D)	0.00072 (D)	0.0018 (D)	0.0012 (D)	
9/25/2019						0.00089 (D)
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	
4/7/2020						0.00084 (D)
<b>Mean</b>	0.001673	0.001293	0.00178	0.002393	0.00261	0.002439
<b>Std. Dev.</b>	0.002388	0.002299	0.002028	0.002305	0.002617	0.001989
<b>Upper Lim.</b>	0.0037	0.0018	0.0049	0.003495	0.003668	0.003564
<b>Lower Lim.</b>	0.0002	0.0002	0.0002	0.0009514	0.0006229	0.0009659



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead, Total    Analysis Run 9/11/2020 12:40 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Confidence Interval

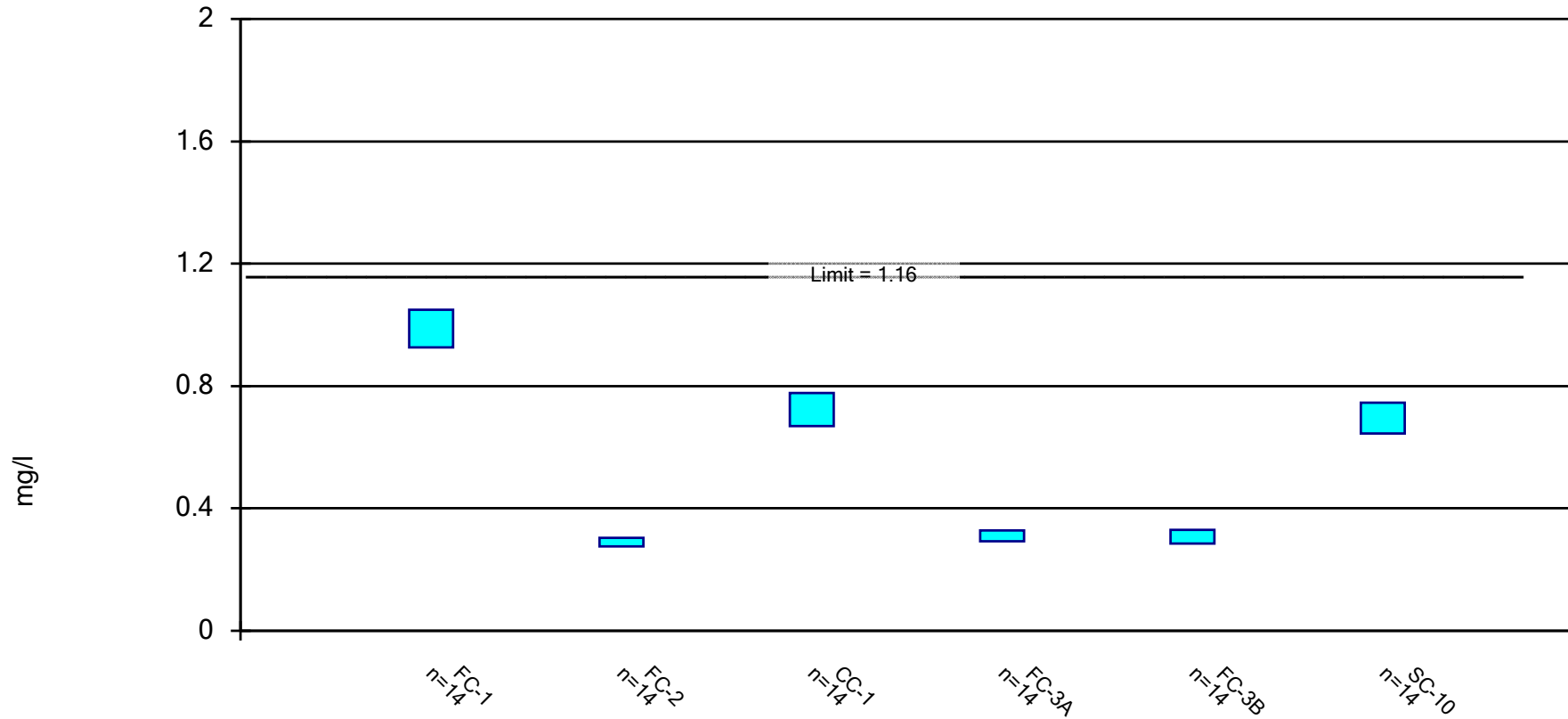
Constituent: Lead, Total (mg/l) Analysis Run 9/11/2020 12:46 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	SC-11	SC-12	SC-13	SC-14
6/22/2016	0.0076	0.00043	0.00052	0.0046
8/3/2016	0.0043	0.0016	<0.0002	0.0007
9/20/2016	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)
10/13/2016	0.0006 (D)	<0.0002 (D)	<0.0002 (D1)	<0.0002 (D1)
11/16/2016	0.0063 (D)	0.0038 (D)	0.00145 (D)	0.0016 (D)
1/19/2017	0.0025 (D)	0.0017 (D)	0.0015 (D)	0.0016 (D)
2/15/2017	0.0028 (D)	0.0021 (D)	0.0015 (D)	0.0015 (D)
3/1/2017	0.0059 (D)	0.0064 (D)	0.0068 (D)	0.0064 (D)
11/14/2017	0.00073 (D)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
2/15/2018	<0.005	<0.005	<0.0025	<0.0025
9/26/2018	<0.0005 (D1)	0.0012	<0.0005 (D)	<0.0005
5/15/2019	<0.0005 (D1D)	<0.0005 (D)	<0.0005 (D1D)	<0.0005 (D1D)
9/24/2019		0.00056 (D)		
9/25/2019	0.00059 (D)		0.000825 (D)	<0.0005 (D1D)
4/7/2020	0.00089 (D)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
<b>Mean</b>	0.002744	0.001764	0.001264	0.001557
<b>Std. Dev.</b>	0.002587	0.001951	0.001728	0.001832
<b>Upper Lim.</b>	0.003639	0.002142	0.0025	0.0025
<b>Lower Lim.</b>	0.0005848	0.0003442	0.0002	0.0002

## Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium, Total Analysis Run 9/11/2020 12:40 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Confidence Interval

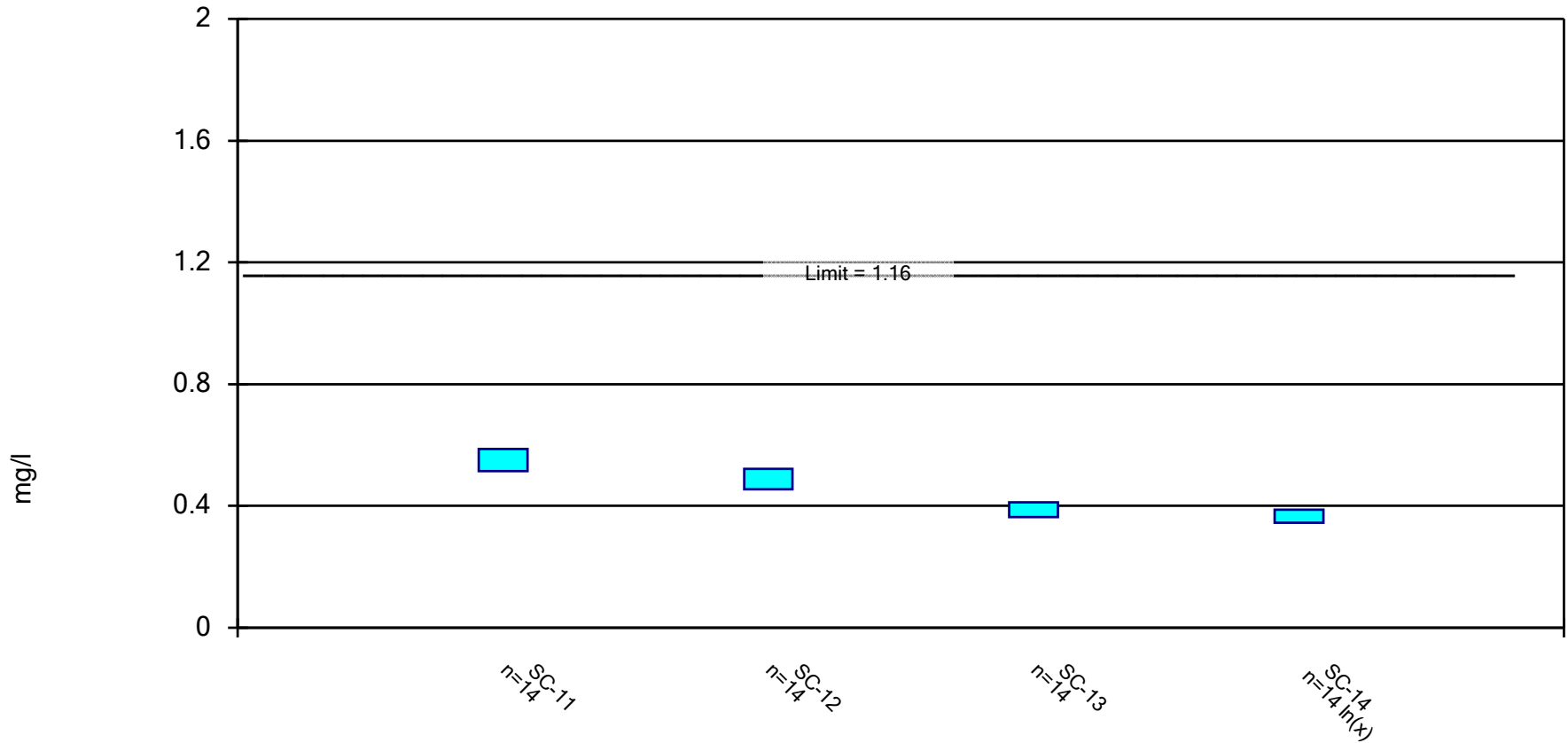
Constituent: Lithium, Total (mg/l)    Analysis Run 9/11/2020 12:46 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	0.904	0.269	0.671 (D)			0.601
6/23/2016				0.303		
6/27/2016					0.232	
8/2/2016	0.984 (D)	0.305	0.731	0.311	0.274	
8/3/2016						0.661 (D)
9/19/2016	1.01	0.306 (D)	0.779	0.343	0.295	
9/20/2016						0.728
10/12/2016	1.03	0.307	0.825	0.3455 (D)	0.315	
10/13/2016						0.761
11/15/2016	1.16	0.325 (T)	0.822	0.3375 (D)	0.344	
11/16/2016						0.786
1/18/2017	1.08	0.318	0.791 (D)	0.343 (D)	0.335	
1/19/2017						0.858 (D)
2/14/2017	1	0.298	0.73 (D)	0.312	0.334	
2/15/2017						0.671 (D)
2/28/2017	0.9125 (D)	0.275 (D)	0.641	0.283 (D)	0.326 (D)	
3/1/2017						0.637 (D)
11/13/2017	0.894	0.2665 (D)	0.63	0.288	0.31	
11/14/2017						0.632
2/14/2018	0.9 (D)	0.265 (D)	0.576 (D)	0.2635 (D)	0.341 (D)	
2/15/2018						0.66 (D)
9/25/2018	0.9085 (D)	0.276 (D)	0.664 (D)	0.302 (D)	0.316 (D)	
9/26/2018						0.626 (D)
5/14/2019	1.13	0.294	0.798	0.3265 (D)	0.321	
5/15/2019						0.729
9/24/2019	0.9695 (D)	0.274 (D)	0.722 (D)	0.303 (D)	0.284 (D)	
9/25/2019						0.669 (D)
4/6/2020	0.943	0.274	0.7435 (D)	0.295	0.284	
4/7/2020						0.709
<b>Mean</b>	0.9875	0.2895	0.7231	0.3111	0.3079	0.6949
<b>Std. Dev.</b>	0.08711	0.02039	0.07711	0.02514	0.0312	0.07137
<b>Upper Lim.</b>	1.049	0.3039	0.7777	0.3289	0.33	0.7454
<b>Lower Lim.</b>	0.9258	0.275	0.6685	0.2933	0.2858	0.6443

## Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium, Total Analysis Run 9/11/2020 12:40 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Confidence Interval

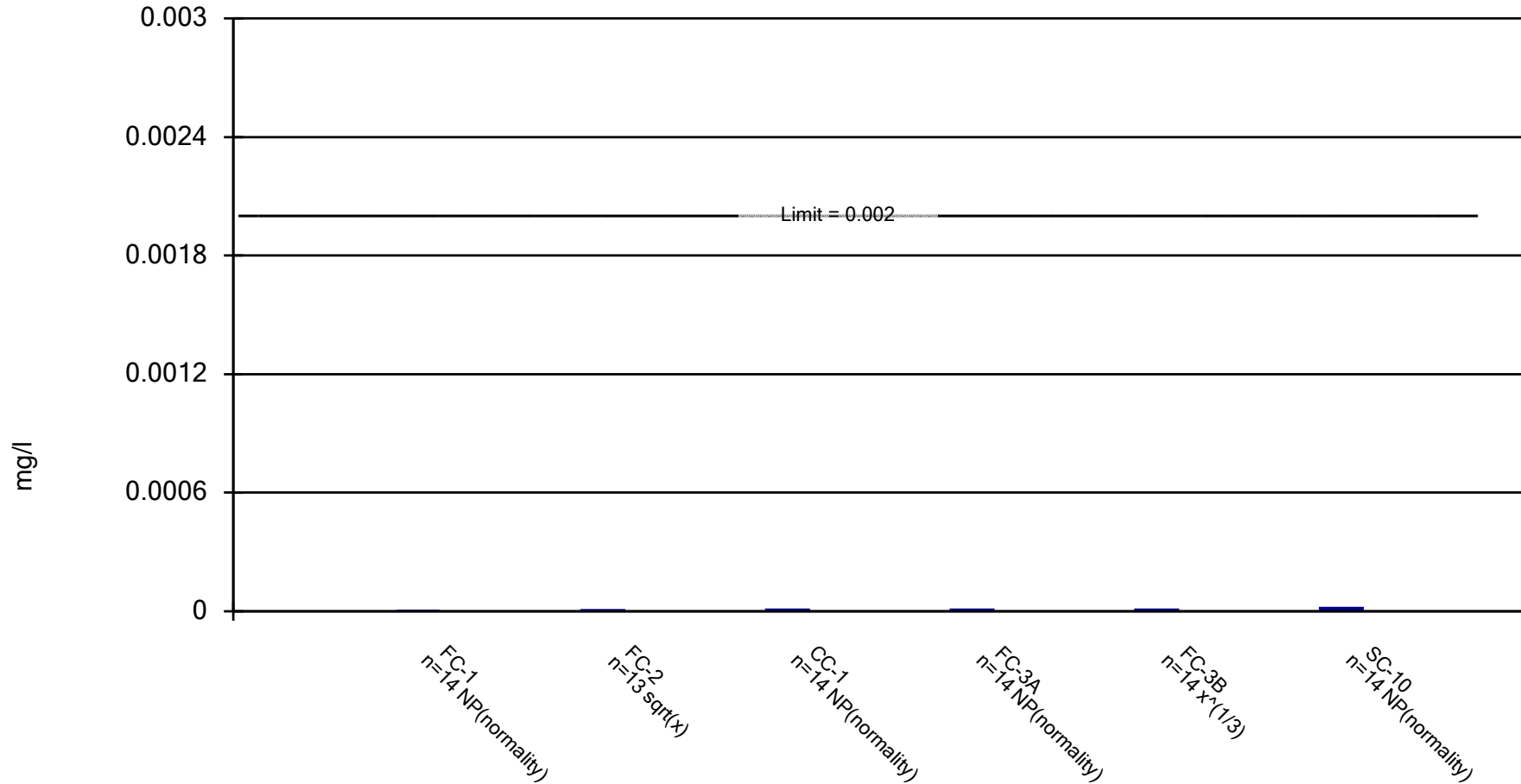
Constituent: Lithium, Total (mg/l) Analysis Run 9/11/2020 12:46 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	SC-11	SC-12	SC-13	SC-14
6/22/2016	0.475	0.422	0.394	0.363
8/3/2016	0.497	0.47	0.384	0.353
9/20/2016	0.593 (D)	0.53	0.429	0.406
10/13/2016	0.611	0.546 (D)	0.437	0.415
11/16/2016	0.622	0.572	0.4445 (D)	0.422
1/19/2017	0.619 (D)	0.558 (D)	0.433 (D)	0.407 (D)
2/15/2017	0.542	0.472	0.379	0.365
3/1/2017	0.5 (D)	0.449 (D)	0.343 (D)	0.338 (D)
11/14/2017	0.519 (D)	0.443	0.345	0.336
2/15/2018	0.494 (D)	0.442 (D)	0.374 (D)	0.345 (D)
9/26/2018	0.534 (D)	0.471 (D)	0.3495 (D)	0.336 (D)
5/15/2019	0.583	0.505 (D)	0.378	0.363
9/24/2019		0.464 (D)		
9/25/2019	0.538		0.3545 (D)	0.33 (D)
4/7/2020	0.593	0.488	0.384	0.356 (D)
<b>Mean</b>	0.5514	0.488	0.3878	0.3668
<b>Std. Dev.</b>	0.05108	0.0471	0.03532	0.03213
<b>Upper Lim.</b>	0.5876	0.5214	0.4128	0.3884
<b>Lower Lim.</b>	0.5152	0.4546	0.3627	0.344

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury, Total    Analysis Run 9/11/2020 12:40 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Confidence Interval

Constituent: Mercury, Total (mg/l)    Analysis Run 9/11/2020 12:46 PM    View: CCR Landfill

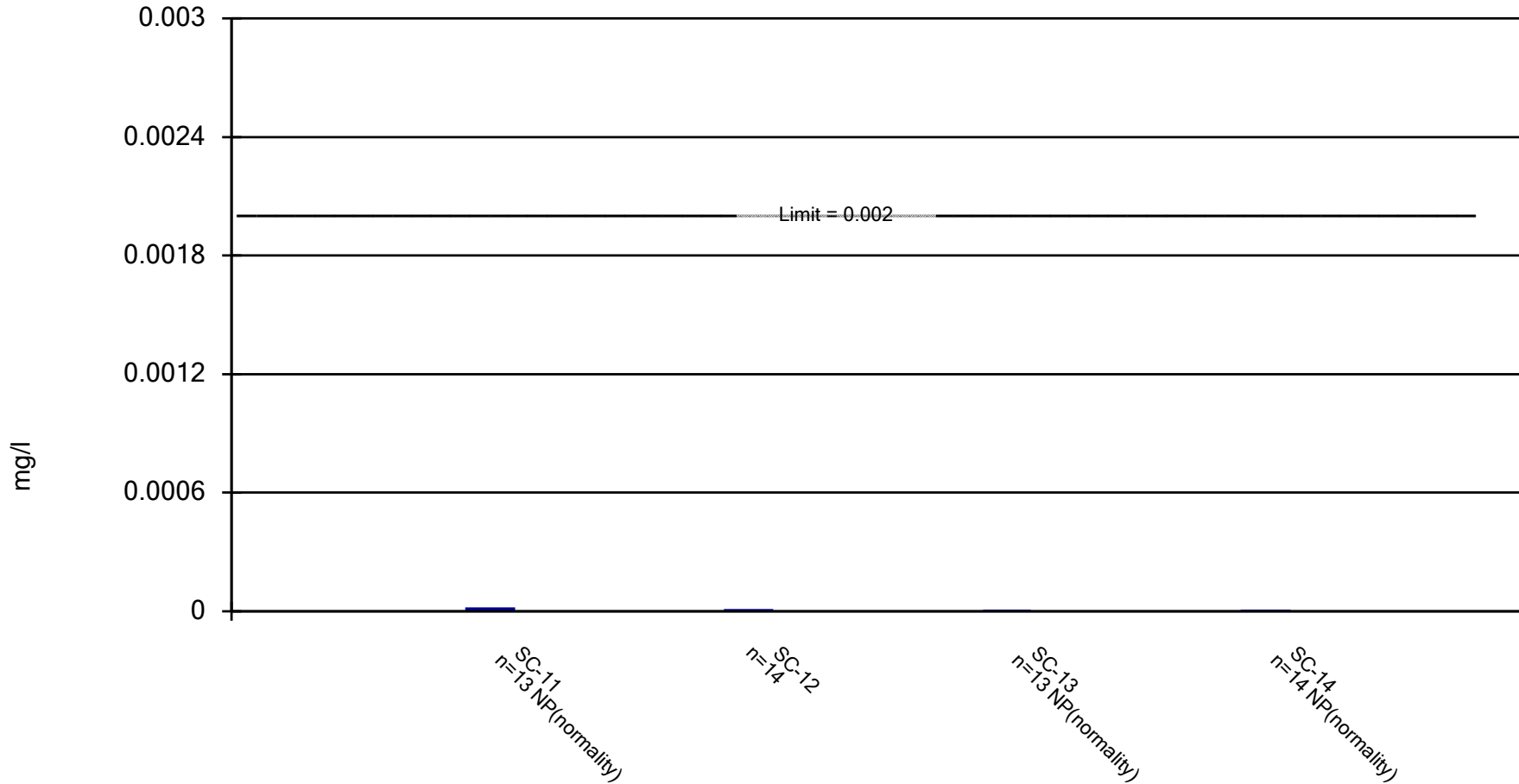
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	1.3E-06	2.8E-06	4.7E-06 (D)			3.6E-05
6/23/2016				5.4E-06		
6/27/2016					1.3E-05	
8/2/2016	2E-06 (D)	4E-06	6E-06	7E-06	6E-06	
8/3/2016						1.05E-05 (D)
9/19/2016	2E-06	3E-06 (D)	6E-06	4E-06	3E-06	
9/20/2016						1.6E-05
10/12/2016	2E-06		6E-06	5E-06 (D)	3E-06	
10/13/2016						1E-05
11/15/2016	2E-06	4E-06	6E-06	2E-06 (D)	9E-06	
11/16/2016						1E-05
1/18/2017	2E-06	5E-06	7.5E-06 (D)	2E-06	8E-06	
1/19/2017						1.1E-05
2/14/2017	2E-06	4E-06	6E-06 (D)	2E-06	4E-06	
2/15/2017						9E-06 (D)
2/28/2017	2E-06 (D)	4E-06	6E-06	2E-06	5E-06	
3/1/2017						9E-06
11/13/2017	2E-06 (T)	3.5E-06 (TD)	6E-06 (T)	4E-06 (T)	7E-06 (T)	
11/14/2017						1E-05
2/14/2018	2E-06	3E-06	5E-06	2E-06 (D)	5E-06	
2/15/2018						1.1E-05
9/25/2018	2.5E-06 (D)	3E-06	5E-06	3E-06	2.4E-05	
9/26/2018						9E-06
5/14/2019	2E-06	3E-06	6E-06	7.5E-06 (D)	3E-06	
5/15/2019						1E-05
9/24/2019	2E-06 (D)	5E-06	5E-06	8E-06	5E-06	
9/25/2019						1E-05
4/6/2020	2E-06	4E-06	6E-06 (D)	2E-06	2E-06	
4/7/2020						9E-06
<b>Mean</b>	1.986E-06	3.715E-06	5.8E-06	3.993E-06	6.929E-06	1.218E-05
<b>Std. Dev.</b>	2.4E-07	7.4E-07	7E-07	2.24E-06	5.717E-06	7.081E-06
<b>Upper Lim.</b>	2.5E-06	4.246E-06	7.5E-06	7E-06	9.423E-06	1.6E-05
<b>Lower Lim.</b>	1.3E-06	3.158E-06	5E-06	2E-06	3.438E-06	9E-06



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury, Total Analysis Run 9/11/2020 12:41 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Confidence Interval

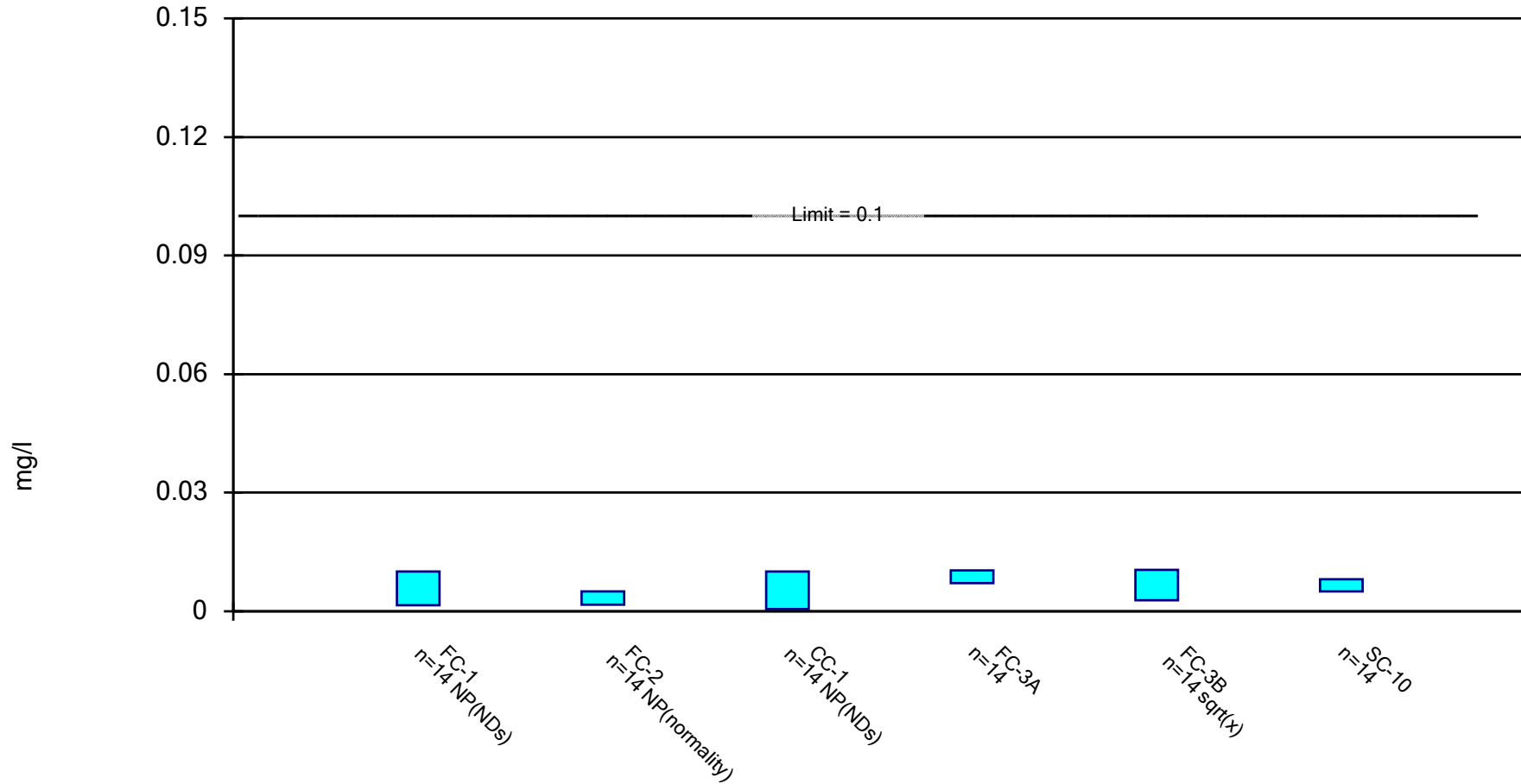
Constituent: Mercury, Total (mg/l) Analysis Run 9/11/2020 12:46 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	SC-11	SC-12	SC-13	SC-14
6/22/2016	6.7E-05	4.5E-06	3.6E-06	1.2E-05
8/3/2016		6E-06	2E-06	3E-06
9/20/2016	9.5E-06 (D)	5E-06	3E-06	3E-06
10/13/2016	1E-05	3E-06 (D)	2E-06	2E-06
11/16/2016	1E-05	4E-06	2E-06 (D)	2E-06
1/19/2017	1E-05	4E-06	3E-06	2E-06
2/15/2017	8E-06	3E-06	2E-06	2E-06
3/1/2017	9E-06	3E-06 (D)	3E-06	<2E-06
11/14/2017	7.5E-06 (D)	4E-06	2E-06	2E-06
2/15/2018	1.3E-05	4E-06	2E-06	2E-06
9/26/2018	8E-06	5E-06	2E-06 (D)	2E-06
5/15/2019	9E-06	4E-06 (D)	2E-06	2E-06
9/24/2019		4E-06		
9/25/2019	9E-06		4E-06 (D)	2E-06
4/7/2020	1.1E-05	4E-06		2E-06
<b>Mean</b>	1.392E-05	4.107E-06	2.508E-06	2.786E-06
<b>Std. Dev.</b>	1.601E-05	8.4E-07	7.2E-07	2.694E-06
<b>Upper Lim.</b>	1.3E-05	4.699E-06	3.6E-06	3E-06
<b>Lower Lim.</b>	8E-06	3.515E-06	2E-06	1E-06

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum, Total    Analysis Run 9/11/2020 12:41 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Confidence Interval

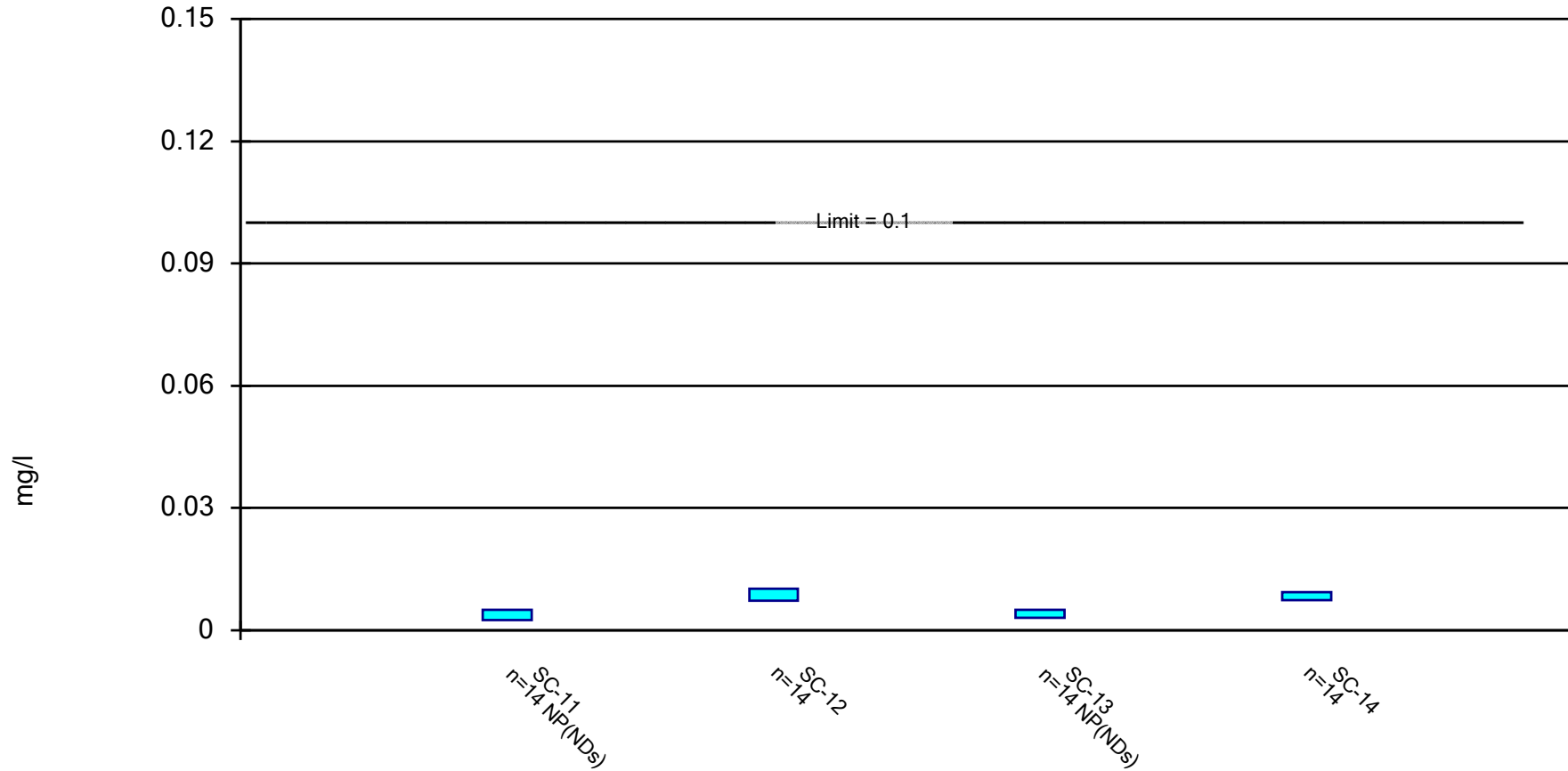
Constituent: Molybdenum, Total (mg/l)    Analysis Run 9/11/2020 12:46 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	<0.005	<0.005	<0.005 (D)			0.0113
6/23/2016				<0.005		
6/27/2016					0.0201	
8/2/2016	<0.005 (D)	<0.005	<0.005	0.00838	0.0198	
8/3/2016						0.008055 (D)
9/19/2016	<0.005	<0.005 (D)	<0.005	0.0122	0.00609	
9/20/2016						0.00911
10/12/2016	<0.005	0.001252 (D)	<0.005	0.009175 (D)	0.00525	
10/13/2016						0.00767
11/15/2016	<0.005	<0.005	<0.005	0.01065 (D)	0.0117	
11/16/2016						0.0074
1/18/2017	<0.005	<0.005	<0.005 (D)	0.00969	<0.005	
1/19/2017						0.00614
2/14/2017	<0.005	<0.005	<0.005 (D)	0.0104	0.00716	
2/15/2017						0.006325 (D)
2/28/2017	<0.005 (D)	<0.005	<0.005	0.0109	0.00842	
3/1/2017						0.00646
11/13/2017	0.0015 (D)	0.0014 (D)	<0.0002 (D1)	0.005 (D)	0.0042 (D)	
11/14/2017						0.0026 (D)
2/14/2018	<0.01	0.003	<0.01	0.0112 (D)	0.0055	
2/15/2018						0.0072
9/25/2018	0.0015 (D)	0.002	0.0006	0.0086	0.0027	
9/26/2018						0.0062
5/14/2019	0.0018	0.002 (D)	0.00068 (D)	0.0069 (D)	0.0014 (D)	
5/15/2019						0.0054 (D)
9/24/2019	0.00165 (D)	0.0021 (D)	0.00067 (D)	0.0066 (D)	0.002 (D)	
9/25/2019						0.0038 (D)
4/6/2020	0.0013 (D)	0.0016 (D)	0.000275 (D)	0.0073 (D)	0.00057 (D)	
4/7/2020						0.0046 (D)
<b>Mean</b>	0.004125	0.003454	0.003745	0.008714	0.007135	0.00659
<b>Std. Dev.</b>	0.002385	0.001653	0.002843	0.002293	0.006161	0.002191
<b>Upper Lim.</b>	0.01	0.005	0.01	0.01034	0.01044	0.008142
<b>Lower Lim.</b>	0.0015	0.0016	0.0006	0.00709	0.002792	0.005038

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum, Total Analysis Run 9/11/2020 12:41 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Confidence Interval

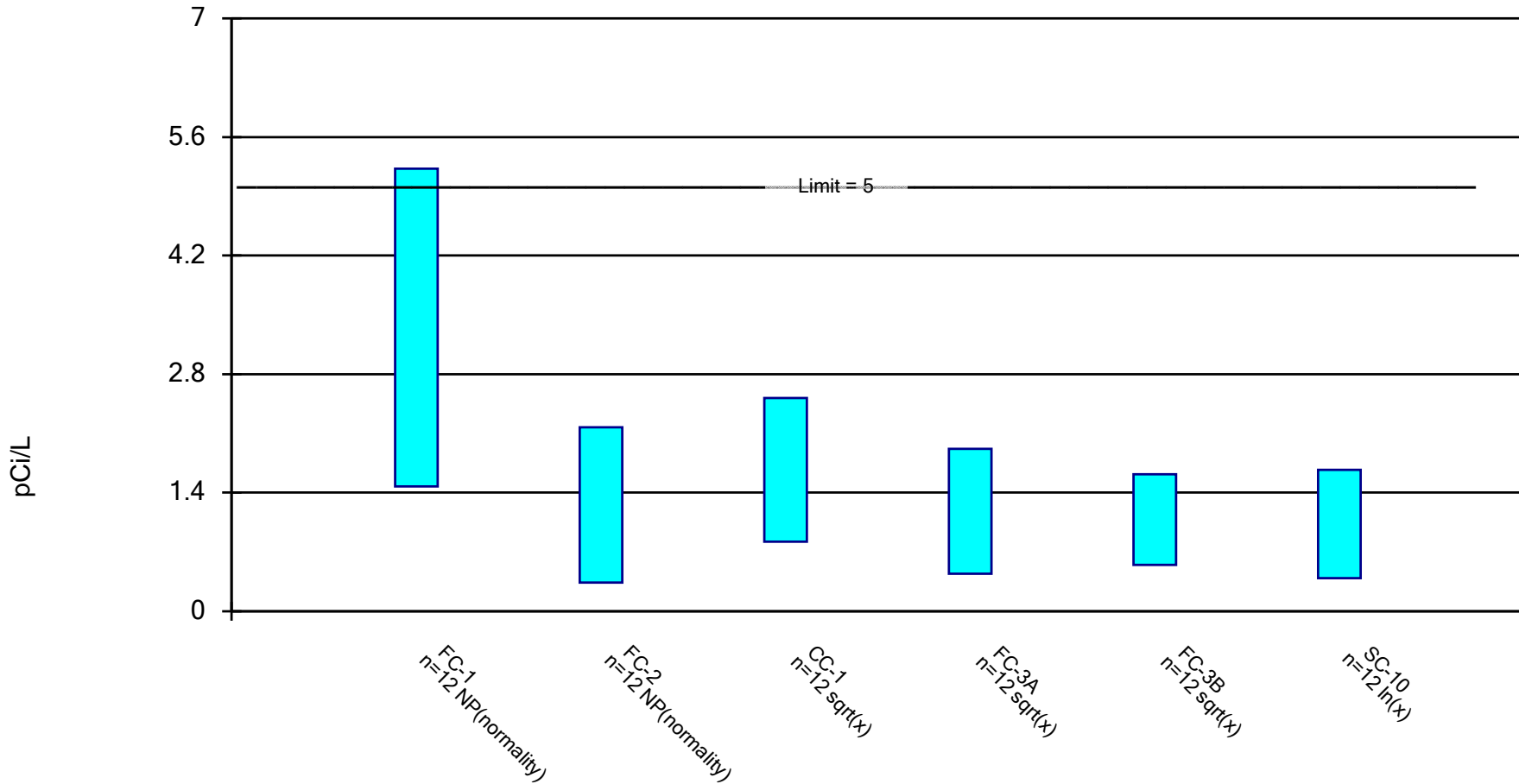
Constituent: Molybdenum, Total (mg/l) Analysis Run 9/11/2020 12:46 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	SC-11	SC-12	SC-13	SC-14
6/22/2016	<0.005	0.0128	<0.005	0.0079
8/3/2016	<0.005	0.0103	<0.005	0.00734
9/20/2016	<0.005 (D)	0.00983	<0.005	0.00819
10/13/2016	<0.005	0.0101 (D)	<0.005	0.00848
11/16/2016	<0.005	0.00951	<0.005 (D)	0.00897
1/19/2017	<0.005	0.00866	<0.005	0.00798
2/15/2017	<0.005	0.00909	<0.005	0.00821
3/1/2017	<0.005	0.00905 (D)	<0.005	0.00869
11/14/2017	0.00185 (D)	0.0067 (D)	0.0036 (D)	0.0072 (D)
2/15/2018	0.0033	0.0097	0.005	0.012
9/26/2018	0.003	0.0089	0.00375 (D)	0.0098
5/15/2019	0.0025 (D)	0.0081 (D)	0.0031 (D)	0.0086 (D)
9/24/2019		0.0041 (D)		
9/25/2019	0.0028 (D)		0.0031 (D)	0.0086 (D)
4/7/2020	0.0024	0.0059 (D)	0.0015015 (D)	0.005401 (D)
<b>Mean</b>	0.003989	0.008767	0.004289	0.008383
<b>Std. Dev.</b>	0.001251	0.00211	0.001106	0.001454
<b>Upper Lim.</b>	0.005	0.01026	0.005	0.009413
<b>Lower Lim.</b>	0.0025	0.007273	0.0031	0.007353

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Rad 226+228 Analysis Run 9/11/2020 12:41 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Confidence Interval

Constituent: Rad 226+228 (pCi/L) Analysis Run 9/11/2020 12:46 PM View: CCR Landfill

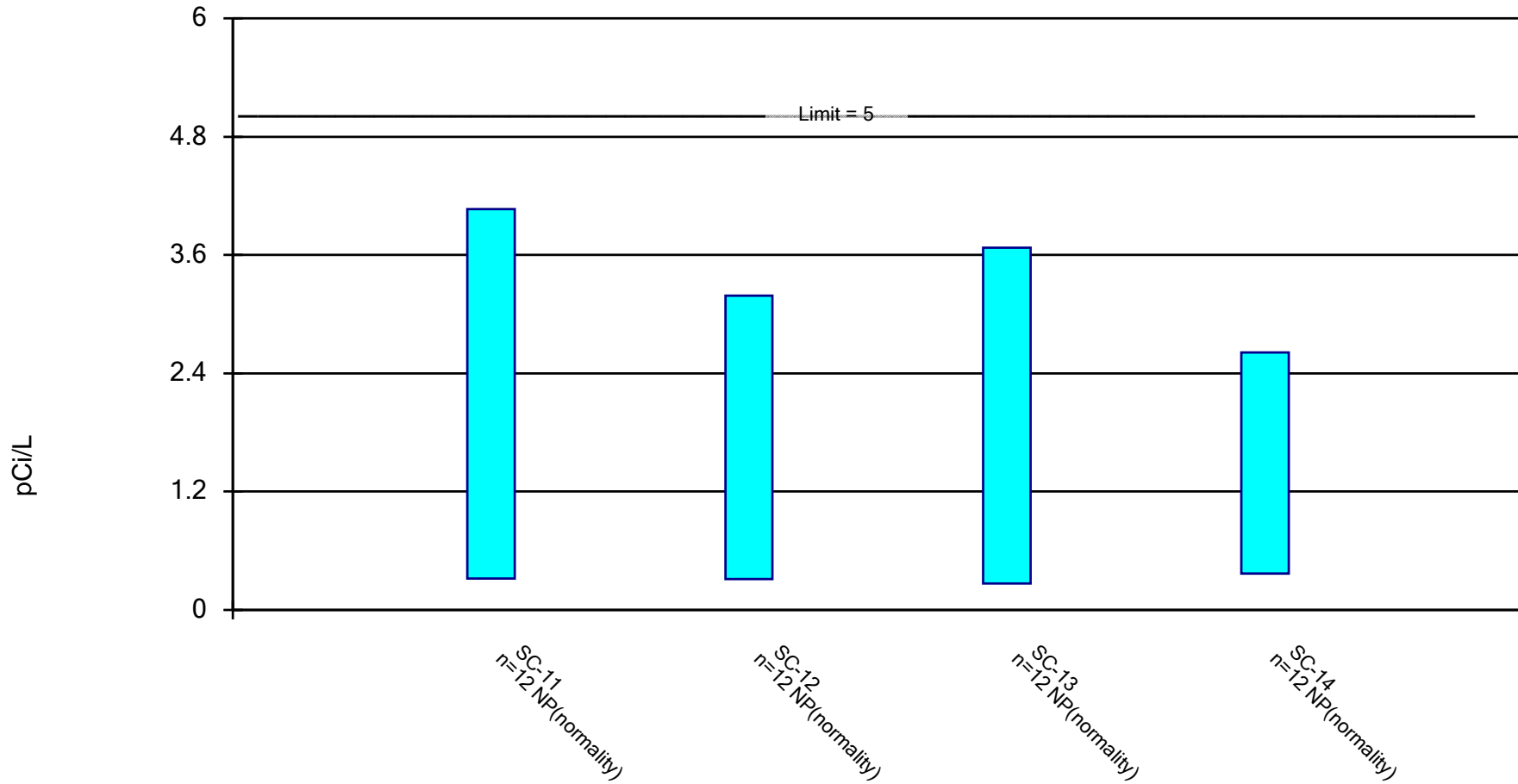
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	1.475	0.3375	1.317 (D)			1.257
6/23/2016				1.321		
6/27/2016					1.111	
8/2/2016	1.38	0.295	0.412	0.3135	1.7775	
8/3/2016						0.646
9/19/2016	2.136	0.363	0.6405	0.3795	0.496	
9/20/2016						0.361
10/12/2016	1.913	0.3475	1.404	0.616	0.4955	
10/13/2016						0.324
11/15/2016	2.128	0.854	1.354	0.395	0.6865	
11/16/2016						0.3775
1/18/2017	1.874	0.471	1.494 (D)	0.617	0.6095	
1/19/2017						0.704
2/14/2017	2.31 (D)	0.7225	1.841	2.636	1.366	
2/15/2017						1.114
2/28/2017	1.628	0.446	1.59325 (D)	1.8245	0.414	
3/1/2017						0.432
11/13/2017	6.445	4.255	5.16	3.575	2.225	
11/14/2017						5.16
2/14/2018	5.23	2.1715	3.22	2.23025 (D)	2.79	
2/15/2018						3.8
9/24/2019	1.628	0.4605	1.444	0.548	0.69	
9/25/2019						0.949
4/6/2020	2.368	0.428	0.826 (D)	0.466	0.762	
4/7/2020						0.345
<b>Mean</b>	2.543	0.9293	1.725	1.243	1.119	1.289
<b>Std. Dev.</b>	1.592	1.167	1.29	1.083	0.7712	1.55
<b>Upper Lim.</b>	5.23	2.172	2.516	1.917	1.618	1.67
<b>Lower Lim.</b>	1.475	0.3375	0.8215	0.4441	0.5499	0.3913



## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Rad 226+228 Analysis Run 9/11/2020 12:41 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Confidence Interval

Constituent: Rad 226+228 (pCi/L) Analysis Run 9/11/2020 12:46 PM View: CCR Landfill

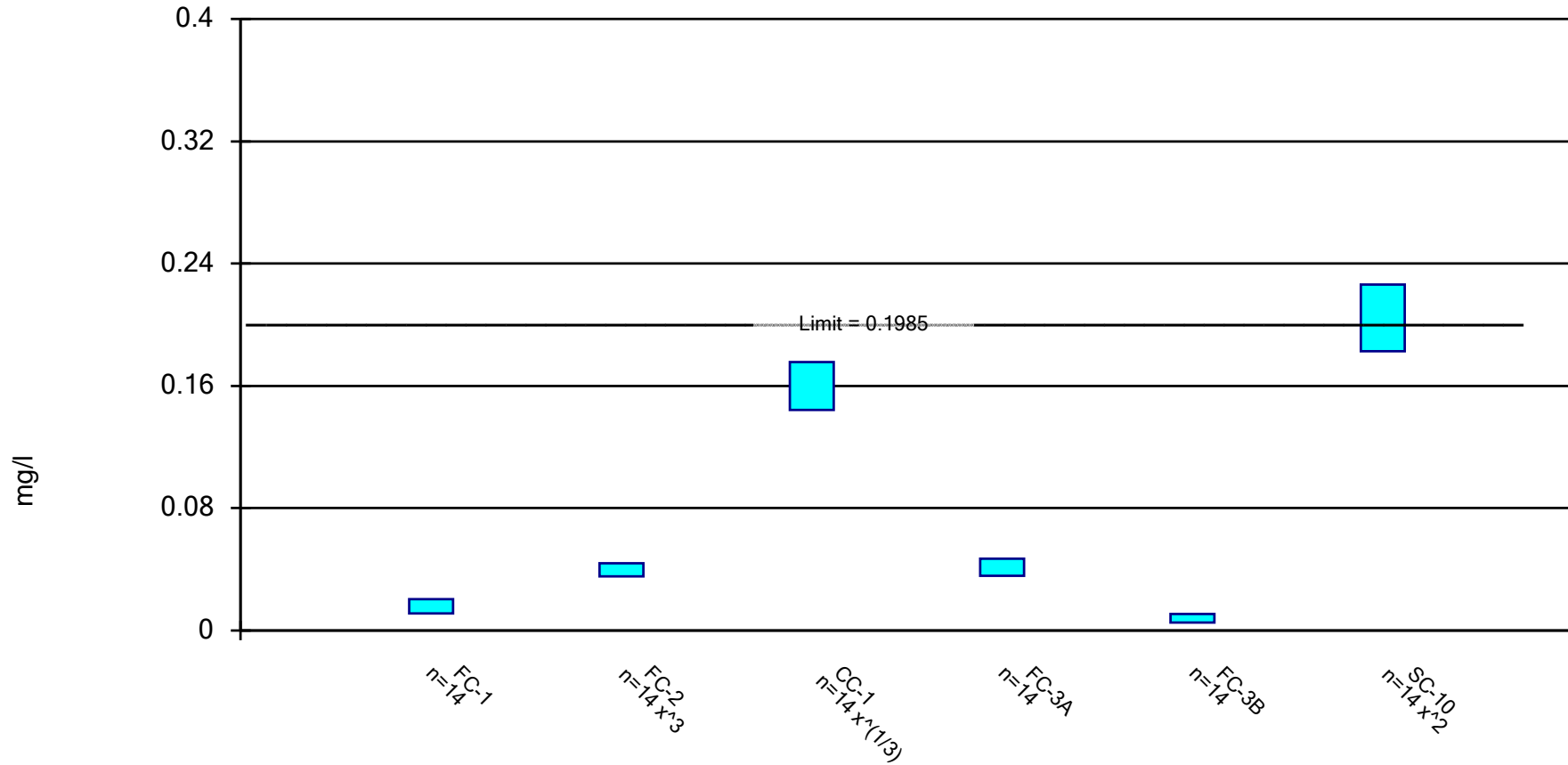
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

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	SC-11	SC-12	SC-13	SC-14
6/22/2016	2.295	0.253	0.2705	0.786
8/3/2016	0.508	0.528	0.2735	0.6375
9/20/2016	0.4555	0.3585	0.448	0.603
10/13/2016	0.3365	0.437	0.305	0.4535
11/16/2016	0.286	0.3135	0.341	0.3695
1/19/2017	0.4185	0.393	0.661	0.497
2/15/2017	0.751	0.6565	0.581	0.3975
3/1/2017	0.7725	0.355	0.318	0.4345
11/14/2017	4.0675 (D)	3.94	4.55	4.465
2/15/2018	4.1	3.1875 (D)	3.677	2.612
9/25/2019	0.418	0.5735	0.596 (D)	0.4
4/7/2020	0.3205	0.3116	0.2665	0.26225 (D)
<b>Mean</b>	1.227	0.9423	1.024	0.9931
<b>Std. Dev.</b>	1.44	1.241	1.462	1.26
<b>Upper Lim.</b>	4.068	3.188	3.677	2.612
<b>Lower Lim.</b>	0.3205	0.3116	0.2705	0.3695

## Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium, Total Analysis Run 9/11/2020 12:41 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Confidence Interval

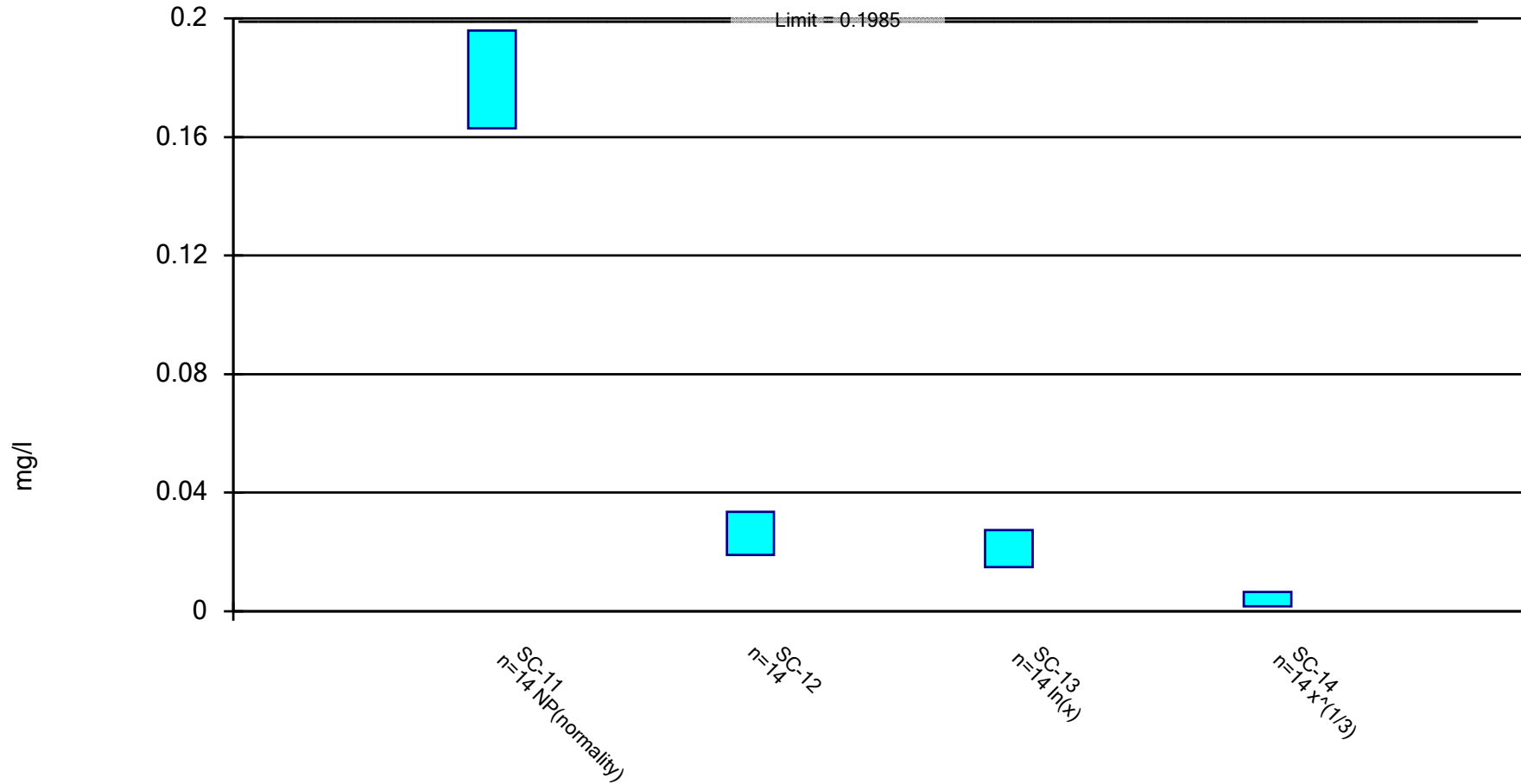
Constituent: Selenium, Total (mg/l)    Analysis Run 9/11/2020 12:46 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	0.016	0.0471	0.1985 (D)			0.212
6/23/2016				0.0393		
6/27/2016					0.0057	
8/2/2016	0.0098 (D)	0.0412	0.186	0.0382	0.0069	
8/3/2016						0.216 (D)
9/19/2016	0.028 (D)	0.04895 (D)	0.157 (D)	0.0364 (D)	0.0112 (D)	
9/20/2016						0.201 (D)
10/12/2016	0.0167 (D)	<0.001 (D1)	0.138 (D)	0.04245 (D)	0.0115 (D)	
10/13/2016						0.194 (D)
11/15/2016	0.0136	0.0356 (D)	0.145 (D)	0.0355 (D)	0.0106 (D)	
11/16/2016						0.201 (DP1)
1/18/2017	0.0254 (D)	0.0452 (D)	0.1385 (D)	0.039 (D)	0.0067 (D)	
1/19/2017						0.22 (D)
2/14/2017	0.0141 (DT)	0.0388 (DT)	0.1415 (D)	0.0352 (DT)	0.0092 (D)	
2/15/2017						0.22 (D)
2/28/2017	0.00375 (D)	0.0367 (D)	0.143 (D)	0.0263 (D)	0.0011 (D)	
3/1/2017						0.224 (D)
11/13/2017	0.015 (D)	0.0381 (D)	0.135 (D)	0.0552 (D)	0.0107 (D)	
11/14/2017						0.168 (D)
2/14/2018	0.0068	0.044	0.169	0.0543 (D)	0.0036	
2/15/2018						0.249
9/25/2018	0.02165 (D)	0.0371	0.17	0.0512	0.0142	
9/26/2018						0.111 (D)
5/14/2019	0.0178 (D)	0.0402 (D)	0.188 (D)	0.04725 (D)	0.005 (D)	
5/15/2019						0.235 (D)
9/24/2019	0.01665 (D)	0.0376 (D)	0.19 (D)	0.0399 (D)	0.0115 (D)	
9/25/2019						0.17 (D)
4/6/2020	0.0156 (D)	0.038 (D)	0.1455 (D)	0.0394 (D)	0.0043 (D)	
4/7/2020						0.219 (D)
<b>Mean</b>	0.01578	0.03779	0.1604	0.0414	0.008014	0.2029
<b>Std. Dev.</b>	0.006513	0.0115	0.02265	0.008044	0.003788	0.03457
<b>Upper Lim.</b>	0.02039	0.04395	0.1757	0.0471	0.0107	0.2262
<b>Lower Lim.</b>	0.01116	0.03527	0.1442	0.0357	0.005331	0.1826

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium, Total Analysis Run 9/11/2020 12:41 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

# Confidence Interval

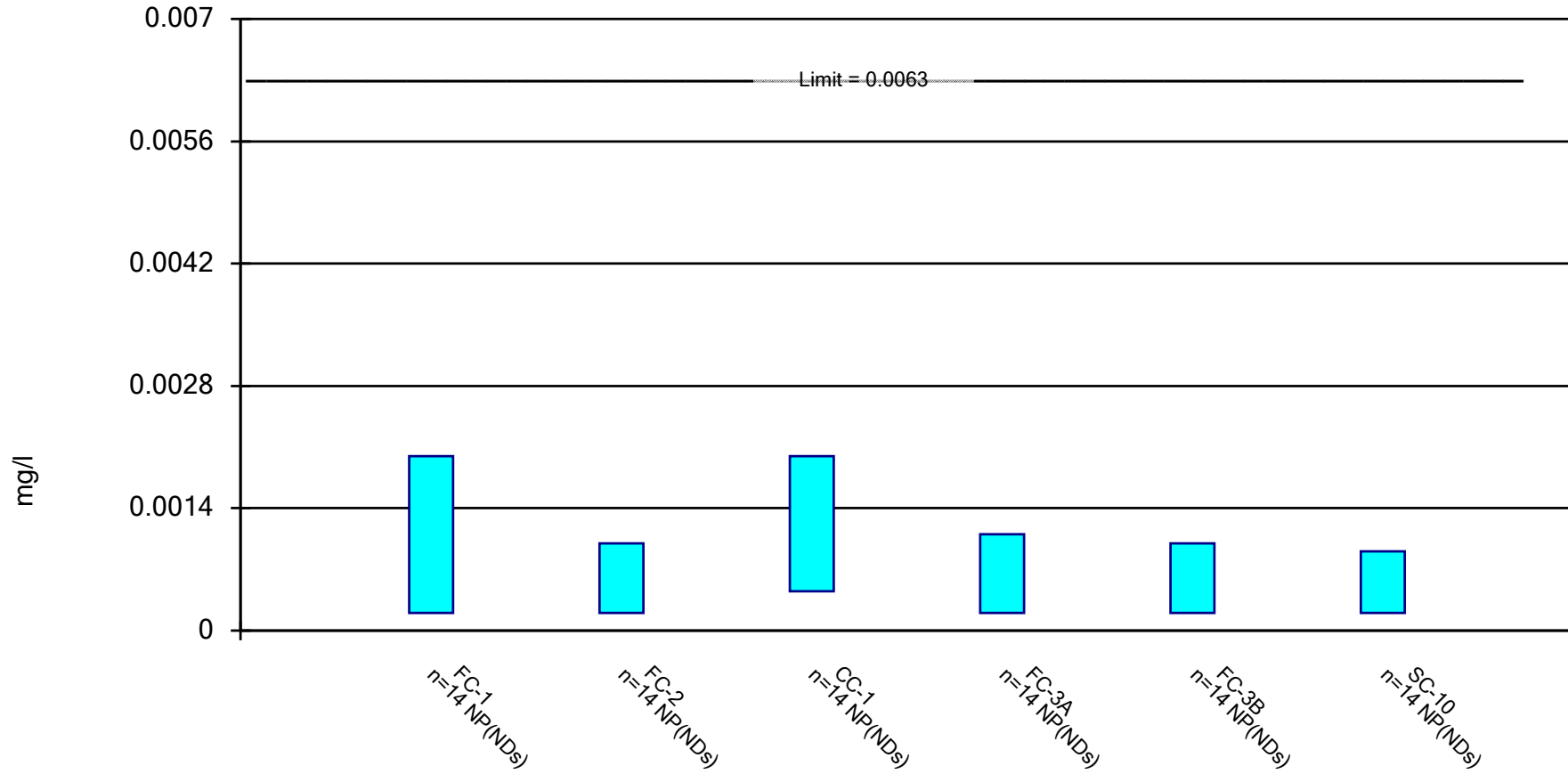
Constituent: Selenium, Total (mg/l) Analysis Run 9/11/2020 12:46 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

	SC-11	SC-12	SC-13	SC-14
6/22/2016	0.168	0.0203	0.0311	0.0031
8/3/2016	0.155	0.0197	0.0236	0.0035
9/20/2016	0.188 (D)	0.0252 (D)	0.0228 (D)	0.0062 (D)
10/13/2016	0.168 (D)	0.05055 (D)	0.0558 (D)	0.0192 (D)
11/16/2016	0.163 (DP1)	0.0237 (DP1)	0.00765 (D)	<0.001 (D1P)
1/19/2017	0.196 (D)	0.0337 (D)	0.0202 (D)	0.0013 (D)
2/15/2017	0.194 (D)	0.03 (D)	0.0164 (D)	0.0033 (D)
3/1/2017	0.189 (D)	0.02355 (D)	0.0177 (D)	<0.001 (D1)
11/14/2017	0.213 (D)	0.0252 (D)	0.0236 (D)	0.0046 (D)
2/15/2018	0.355	0.0437	0.0204	0.0055
9/26/2018	0.107 (D)	0.0231	0.01845 (D)	0.002
5/15/2019	0.186 (D)	0.0198 (D)	0.0185 (D)	0.005 (D)
9/24/2019		0.0134 (D)		
9/25/2019	0.169 (D)		0.015 (D)	0.0045 (D)
4/7/2020	0.166 (D)	0.0159 (D)	0.0177 (D)	0.00475 (D)
<b>Mean</b>	0.1869	0.02627	0.02206	0.004568
<b>Std. Dev.</b>	0.05444	0.01031	0.01104	0.004584
<b>Upper Lim.</b>	0.196	0.03358	0.02734	0.006466
<b>Lower Lim.</b>	0.163	0.01897	0.01486	0.001696

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium, Total    Analysis Run 9/11/2020 12:41 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Confidence Interval

Constituent: Thallium, Total (mg/l)    Analysis Run 9/11/2020 12:46 PM    View: CCR Landfill

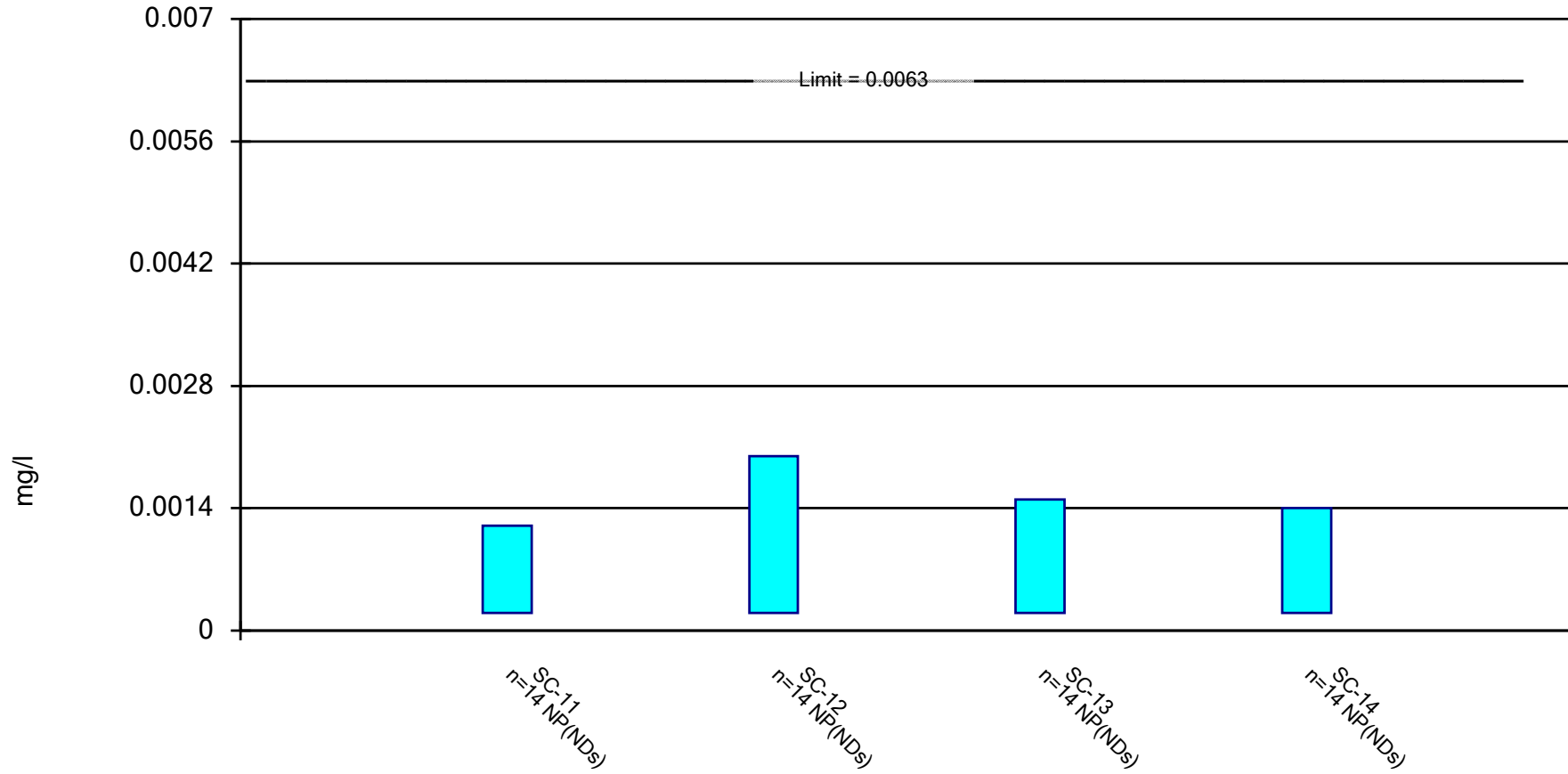
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	0.0002	<0.0002	0.000455 (D)			<0.0002
6/23/2016				<0.0002		
6/27/2016					<0.0002	
8/2/2016	<0.0002 (D)	<0.0002	0.00045	<0.0002	<0.0002	
8/3/2016						<0.0002 (D)
9/19/2016	0.00027 (D)	0.000545 (D)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	
9/20/2016						<0.0002 (D1)
10/12/2016	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D)	<0.0002 (D1)	
10/13/2016						<0.0002 (D1)
11/15/2016	0.0061 (D)	<0.0002 (D1)	0.0063 (D)	0.0057 (D)	0.0056 (D)	
11/16/2016						0.0077 (D)
1/18/2017	<0.0005 (D1)	<0.0005 (D1)	0.0014 (D)	0.00069 (D)	0.00098 (D)	
1/19/2017						0.00091 (D)
2/14/2017	0.0037 (D)	0.0036 (D)	0.00385 (D)	0.0034 (D)	0.0062 (D)	
2/15/2017						0.00385 (D)
2/28/2017	0.0011 (D)	0.0011 (D)	0.0014 (D)	0.0011 (D)	0.00091 (D)	
3/1/2017						0.00082 (D)
11/13/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	
11/14/2017						<0.0005 (D1)
2/14/2018	<0.002	<0.001	<0.002	<0.001 (D)	<0.001	
2/15/2018						<0.0004
9/25/2018	<0.0005 (D)	<0.0005	<0.0005	<0.0005	<0.0005	
9/26/2018						<0.0005 (D1)
5/14/2019	<0.0005	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	
5/15/2019						<0.0005 (D1D)
9/24/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	
9/25/2019						<0.0005 (D1D)
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	
4/7/2020						<0.0005 (DD1)
<b>Mean</b>	0.001198	0.0007175	0.00134	0.001085	0.001285	0.001213
<b>Std. Dev.</b>	0.001703	0.0008735	0.001733	0.001561	0.001978	0.002086
<b>Upper Lim.</b>	0.002	0.001	0.002	0.0011	0.001	0.00091
<b>Lower Lim.</b>	0.0002	0.0002	0.00045	0.0002	0.0002	0.0002



## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium, Total    Analysis Run 9/11/2020 12:41 PM    View: CCR Landfill  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database

# Confidence Interval

Constituent: Thallium, Total (mg/l) Analysis Run 9/11/2020 12:46 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database

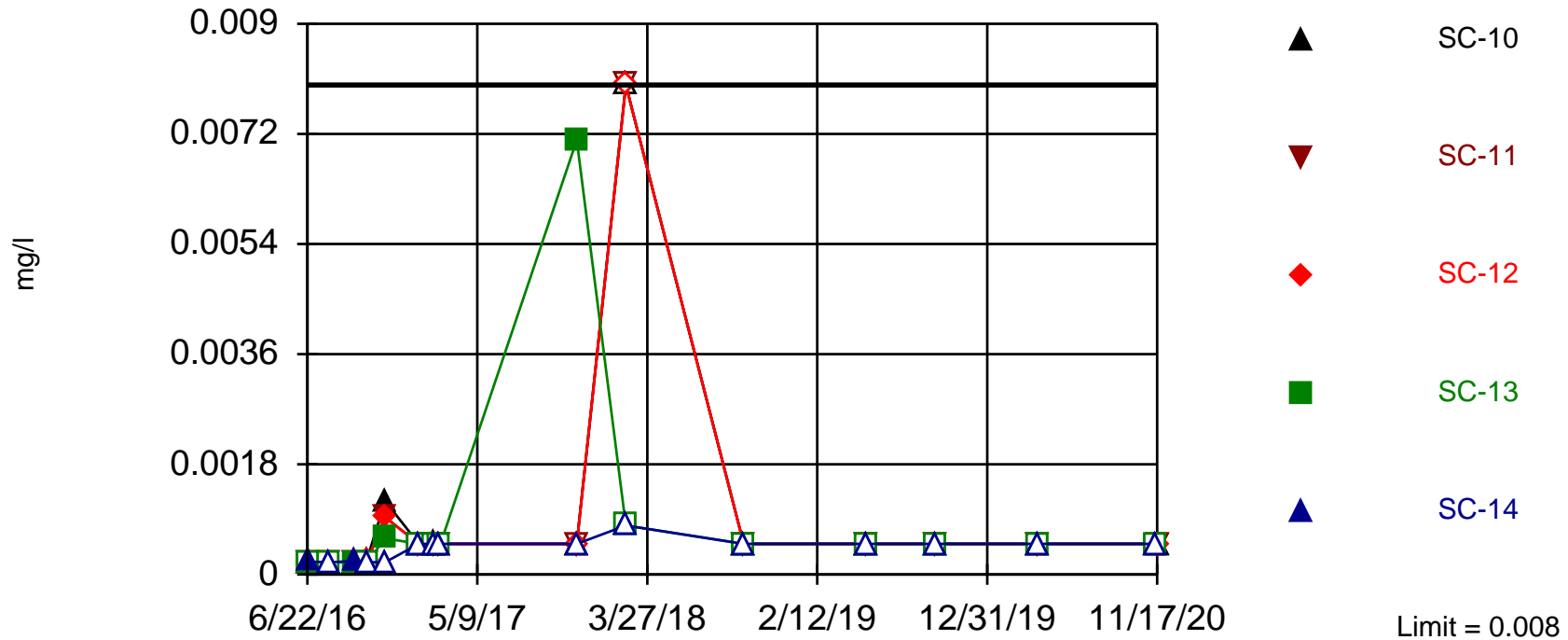
	SC-11	SC-12	SC-13	SC-14
6/22/2016	<0.0002	<0.0002	<0.0002	<0.0002
8/3/2016	<0.0002	<0.0002	<0.0002	<0.0002
9/20/2016	<0.0002 (D)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)
10/13/2016	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)
11/16/2016	0.0063 (D)	0.006 (D)	0.0029 (D)	0.0024 (D)
1/19/2017	0.0012 (D)	0.0014 (D)	0.0015 (D)	0.0014 (D)
2/15/2017	0.0038 (D)	0.0038 (D)	0.0038 (D)	0.0035 (D)
3/1/2017	0.00077 (D)	0.00076 (D)	0.00077 (D)	0.00075 (D)
11/14/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
2/15/2018	<0.0004	<0.002	<0.001	<0.001
9/26/2018	<0.0005 (D1)	<0.0005	<0.0005 (D)	<0.0005
5/15/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
9/24/2019		<0.0005 (D1D)		
9/25/2019	<0.0005 (D1D)		<0.0005 (D1D)	<0.0005
4/7/2020	<0.0005 (D)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
<b>Mean</b>	0.001126	0.001233	0.0009479	0.0008821
<b>Std. Dev.</b>	0.001753	0.00169	0.001093	0.0009627
<b>Upper Lim.</b>	0.0012	0.002	0.0015	0.0014
<b>Lower Lim.</b>	0.0002	0.0002	0.0002	0.0002

Hollow symbols indicate censored values.

Within Limit

### Prediction Limit

#### Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 75 background values. 84% NDs. Annual per-constituent alpha = 0.003431. Individual comparison alpha = 0.0003436 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Antimony, Total (mg/l)    Analysis Run 1/27/2021 2:50 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

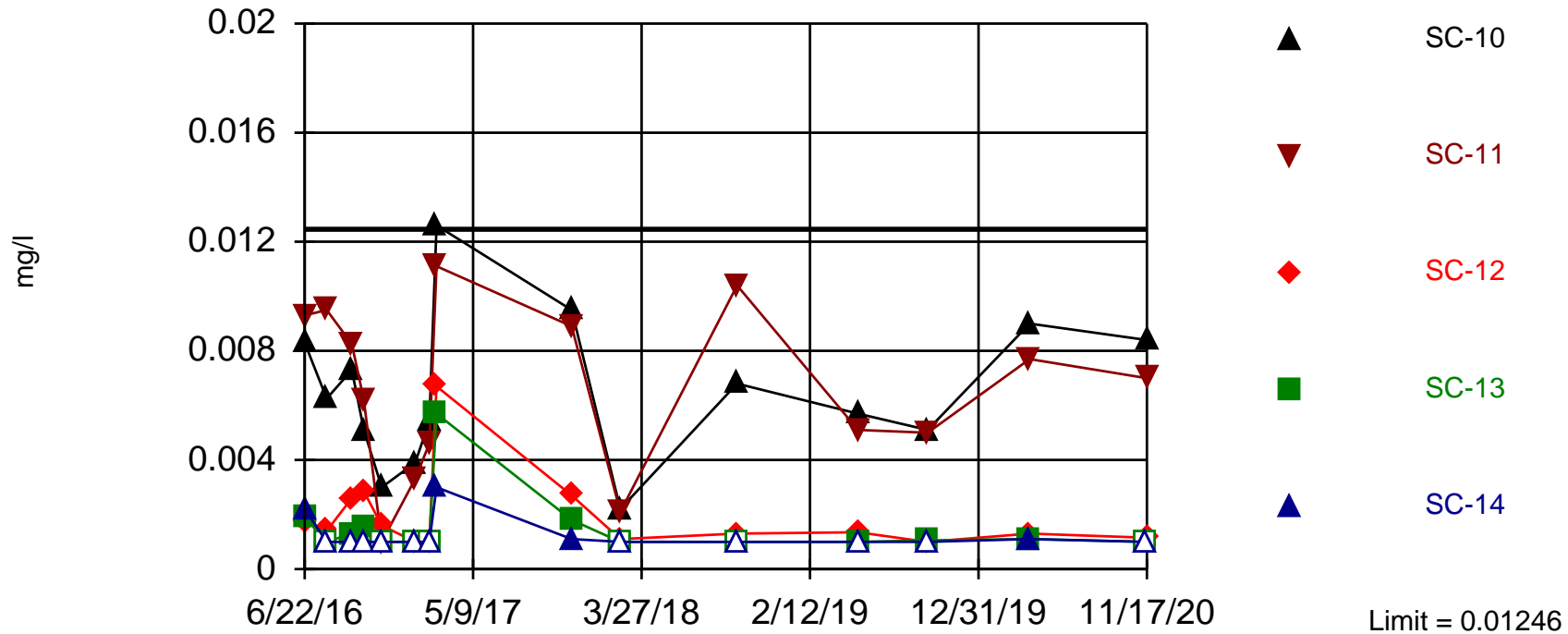
	FC-1	SC-11	SC-12	SC-10	CC-1	SC-13	SC-14	FC-2	FC-3A	FC-3B
6/22/2016	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002 (D)	<0.0002	0.00021	<0.0002		
6/23/2016									0.00021	
6/27/2016										0.00065
8/2/2016	<0.0002 (D)				<0.0002			<0.0002	<0.0002	0.00061
8/3/2016		<0.0002	<0.0002	<0.0002 (D)		<0.0002	<0.0002			
9/19/2016	<0.0002 (D1)				<0.0002 (D1)			<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)
9/20/2016		<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)		0.0002 (D)	0.00022 (D)			
10/12/2016	<0.0002 (D1)				0.0004 (D)			<0.0002 (D1)	0.00026 (D)	0.00032 (D)
10/13/2016		0.0002 (D)	0.00023 (D)	0.00025 (D)		<0.0002 (D1)	<0.0002 (D1)			
11/15/2016	0.0016 (D)				0.0015 (D)			<0.0002 (D1)	0.0015 (D)	0.0015 (D)
11/16/2016		0.00094 (D)	0.00093 (D)	0.0012 (D)		0.00059 (D)	<0.0002 (D1)			
1/18/2017	<0.0005 (D1P)				<0.0005 (D1)			<0.0005 (D1P)	0.00055 (D)	<0.0005 (D1)
1/19/2017		<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)		<0.0005 (D1)	<0.0005 (D1)			
2/14/2017	<0.0005 (D1)				<0.0005 (D1)			<0.0005 (D1)	<0.0005 (D1)	0.00066 (D)
2/15/2017		<0.0005 (D1)	<0.0005 (D1)	0.00054 (D)		<0.0005 (D1)	<0.0005 (D1)			
2/28/2017	<0.0005 (D1)				<0.0005 (D1)			<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
3/1/2017		<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)		<0.0005 (D1)	<0.0005 (D1)			
11/13/2017	<0.0005 (D1)				<0.0005 (D1)			<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
11/14/2017		<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)		0.0071 (DT)	<0.0005 (D1)			
2/14/2018	<0.008				<0.008			<0.0008	<0.0008 (D)	<0.0008
2/15/2018		<0.008	<0.008	<0.008		<0.0008	<0.0008			
9/25/2018	<0.0005 (D)				<0.0005			<0.0005	<0.0005	<0.0005
9/26/2018		<0.0005	<0.0005	<0.0005		<0.0005 (D)	<0.0005			
5/14/2019	<0.0005 (D1D)				<0.0005 (D1D)			<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
5/15/2019		<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)		<0.0005 (D1D)	<0.0005 (D1D)			
9/24/2019	<0.0005 (D1D)		<0.0005 (D1D)		<0.0005 (D1D)			<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
9/25/2019		<0.0005 (D1D)		<0.0005 (D1D)		<0.0005 (D1D)	<0.0005 (D1D)			
4/6/2020	<0.0005 (DD1)				<0.0005 (DD1)			<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
4/7/2020		<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)		<0.0005 (DD1)	<0.0005 (DD1)			
11/16/2020					<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)		<0.0005 (DD1)	<0.0005 (DD1)
11/17/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (D)	<0.0005				<0.0005 (DD1)		

Hollow symbols indicate censored values.

Within Limit

## Prediction Limit

### Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=0.1527, Std. Dev.=0.03744, n=73, 12.33% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9622, critical = 0.956. Kappa = 2.113 (c=22, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.002392. Individual comparison alpha = 0.0004788. Comparing 5 points to limit.

# Prediction Limit

Constituent: Arsenic, Total (mg/l)    Analysis Run 1/27/2021 2:50 PM    View: CCR Landfill  
 Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

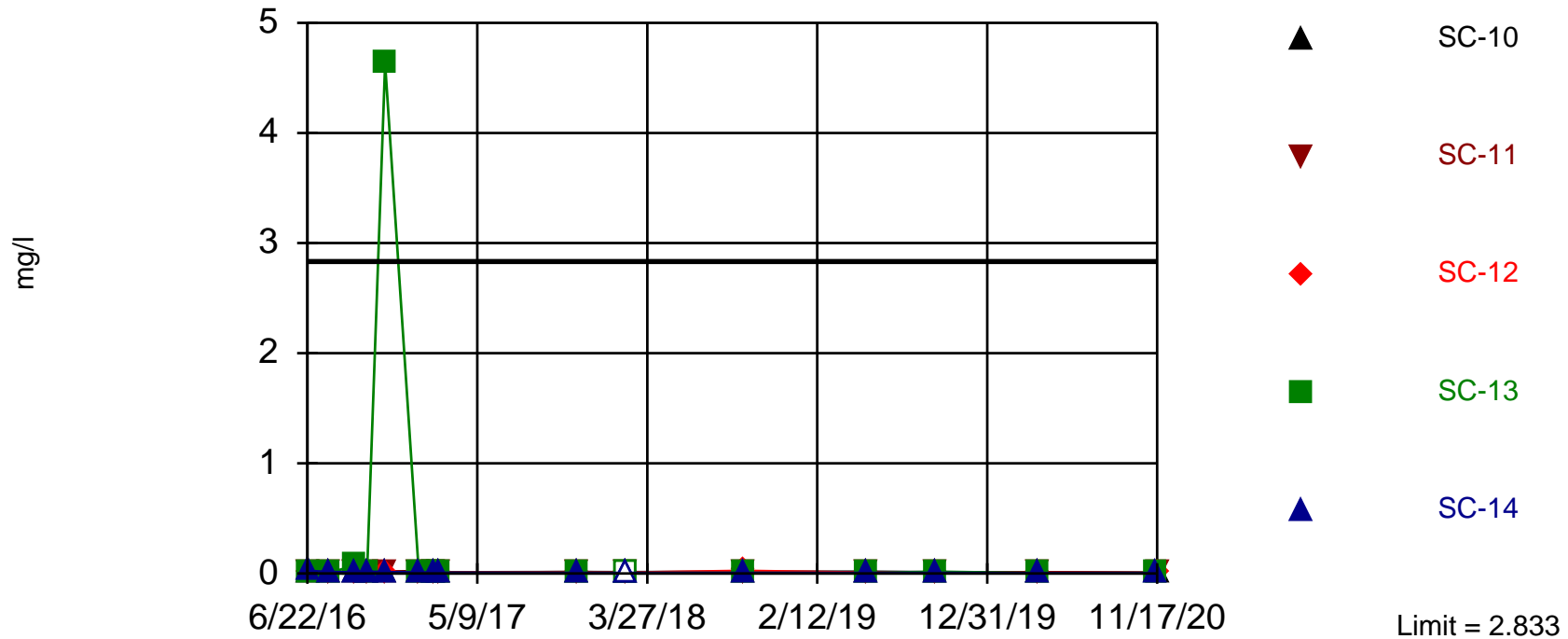
	FC-1	SC-14	SC-13	SC-12	SC-11	CC-1	FC-2	SC-10	FC-3A	FC-3B
6/22/2016	0.0042	0.0022	0.0019	0.0017	0.0093	0.0109 (D)	0.0025	0.0083		
6/23/2016									0.0031	
6/27/2016										0.0026
8/2/2016	0.0025 (D)					0.0105	0.0016		0.0021	0.0031
8/3/2016		<0.001	<0.001	0.0014	0.0095			0.00625 (D)		
9/19/2016	0.0094 (D)					0.0089 (D)	0.0036 (D)		0.0029 (D)	0.0051 (D)
9/20/2016		<0.001 (D1)	0.0013 (D)	0.0026 (D)	0.00825 (D)			0.0073 (D)		
10/12/2016	0.0023 (D)					0.0071 (D)	<0.001 (D1)		0.001325 (D)	0.0056 (D)
10/13/2016		<0.001 (D1)	0.0015 (D)	0.00285 (D)	0.0062 (D)			0.0051 (D)		
11/15/2016	0.0036 (D)					0.0054 (D)	<0.001 (D1)		0.0018 (D)	0.007 (D)
11/16/2016		<0.001 (D1)	<0.001 (D)	0.0016 (D)	<0.001 (D1)			0.003 (D)		
1/18/2017	0.0061 (D)					0.00255 (D)	0.0011 (D)		<0.001 (D1)	0.0057 (D)
1/19/2017		<0.001 (D1)	<0.001 (D1)	<0.001 (D1)	0.0033 (D)			0.0039 (D)		
2/14/2017	<0.001 (D1)					0.00495 (D)	<0.001 (D1)		<0.001 (D1)	0.004 (D)
2/15/2017		<0.001 (D)	<0.001 (D1)	<0.001 (D1)	0.0046 (D)			0.0054 (D)		
2/28/2017	0.00625 (D)					0.011 (D)	0.0076 (D)		0.0069 (D)	0.0081 (D)
3/1/2017		0.003 (D)	0.0057 (D)	0.0067 (D)	0.0111 (D)			0.0126 (D)		
11/13/2017	0.0041 (D)					0.008 (D)	0.0025 (D)		0.0022 (D)	0.0064 (D)
11/14/2017		0.0011 (D)	0.0018 (D)	0.0027 (D)	0.0089 (D)			0.0095 (D)		
2/14/2018	<0.002						<0.001		0.00115 (D)	0.0026
2/15/2018		<0.001	<0.001	0.0011	0.0021			0.0022		
9/25/2018	0.005 (D)					0.0115	0.0014		0.003	0.0074
9/26/2018		<0.001	<0.001 (D)	0.0013	0.0104			0.0068		
5/14/2019	0.0029					0.0072 (D)	0.0013 (D)		0.0017 (D)	0.002 (D)
5/15/2019		<0.001 (D)	0.001 (D)	0.00135 (D)	0.0051 (D)			0.0057 (D)		
9/24/2019	0.00295 (D)			<0.001 (D1D)		0.0081 (D)	<0.001 (D1D)		0.0016 (D)	0.0044 (D)
9/25/2019		<0.001 (D1D)	0.00105 (D)		0.005 (D)			0.0051 (D)		
4/6/2020	0.0034 (D)					0.00765 (D)	0.003 (D)			0.0041 (D)
4/7/2020		0.0011 (D)	0.0011 (D)	0.0013 (D)	0.0077 (D)			0.009 (D)		
11/16/2020		<0.001 (DD1)	<0.001 (DD1)			0.0111 (D)			0.0017 (D)	0.0016 (D)
11/17/2020	0.0039 (D)			0.00115 (D)	0.007 (D)		0.0018 (D)	0.0084 (D)		

Hollow symbols indicate censored values.

Within Limit

### Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 5.333% NDs. Annual per-constituent alpha = 0.003431. Individual comparison alpha = 0.0003436 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Barium, Total (mg/l)    Analysis Run 1/27/2021 2:50 PM    View: CCR Landfill  
 Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	SC-11	FC-2	CC-1	SC-13	SC-10	SC-14	SC-12	FC-3A	FC-3B
6/22/2016	0.00954	0.017	0.00503	2.83285 (D)	0.00979	0.0184	0.024	0.0112		
6/23/2016									0.034	
6/27/2016										0.0336
8/2/2016	0.008725 (D)		<0.005	0.00512					0.0202	0.0253
8/3/2016		0.0165			0.00703	0.0138 (D)	0.0131	0.0133		
9/19/2016	0.00928		0.00525 (D)	0.00542					0.0218	0.0183
9/20/2016		0.009275 (D)			0.0736	0.013	0.0109			
10/12/2016	0.00905		0.00536	0.00593					0.03735 (D)	0.0184
10/13/2016		0.0225			0.00797	0.0141	0.0163	0.01415 (D)		
11/15/2016	0.0102		0.00516	0.00608					0.01735 (D)	0.0652
11/16/2016		0.016			4.629645 (D)	0.0178	0.0136	0.0178		
1/18/2017	0.00929		0.00539	0.005675 (D)					0.0164	0.0244
1/19/2017		0.0117			0.0075	0.0216	0.00905	0.0108		
2/14/2017	0.01		0.00566	0.006005 (D)					0.0167	0.023
2/15/2017		0.0156			0.00742	0.0145 (D)	0.00766	0.0127		
2/28/2017	0.009 (D)		0.0054	<0.005					0.0148	0.0208
3/1/2017		0.00732			0.00603	0.0105	0.0063	0.00781 (D)		
11/13/2017	0.0082 (D)		0.00435 (D)	0.004 (D)					0.0259 (D)	0.0154 (D)
11/14/2017		0.01395 (D)			0.006 (D)	0.014 (D)	0.0052 (D)	0.0063 (D)		
2/14/2018	0.0105		<0.01	<0.01					0.01205 (D)	0.0196
2/15/2018		0.0089			<0.01	0.0124	<0.01	0.0079		
9/25/2018	0.00665 (D)		0.004	0.0039					0.021	0.037
9/26/2018		0.0099			0.00575 (D)	0.0165	0.0057	0.0245		
5/14/2019	0.0073		0.0043 (D)	0.0044 (D)					0.0265 (D)	0.0146 (D)
5/15/2019		0.0086 (D)			0.0046 (D)	0.0168 (D)	0.005 (D)	0.00755 (D)		
9/24/2019	0.0073 (D)		0.0056 (D)	0.0041 (D)				0.007 (D)	0.0276 (D)	0.0268 (D)
9/25/2019		0.0099 (D)			0.0168 (D)	0.0124 (D)	0.0049 (D)			
4/6/2020	0.0068 (D)		0.004 (D)	0.0033 (D)					0.0123 (D)	0.0099 (D)
4/7/2020		0.0119 (D)			0.0045 (D)	0.0112 (D)	0.0048 (D)	0.0059 (D)		
11/16/2020				0.0041 (D)	0.004 (D)		0.0047 (DD1)		0.008 (D)	0.0098 (D)
11/17/2020	0.007 (D)	0.0046 (D)	0.0044 (D)			0.0083 (D)		0.0061 (D)		

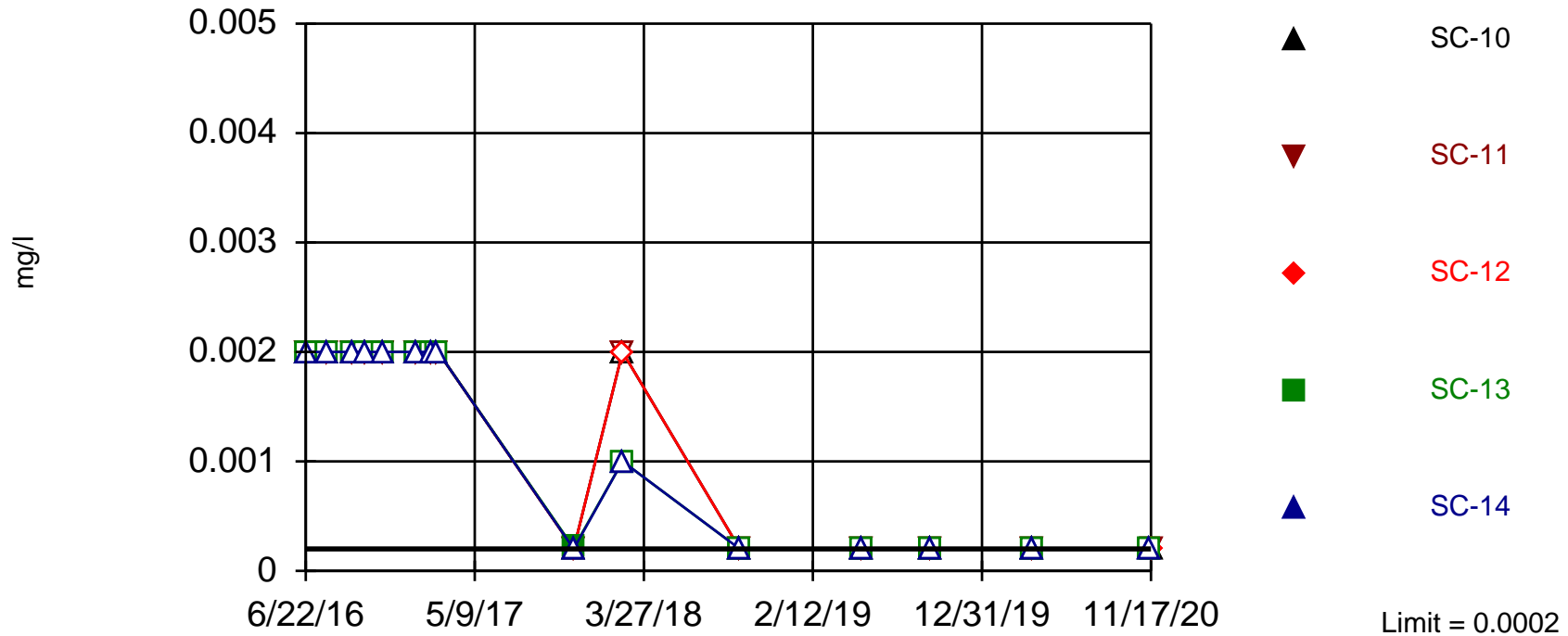


Hollow symbols indicate censored values.

Within Limit

### Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 75) were censored; limit is most recent reporting limit. Annual per-constituent alpha = 0.003431. Individual comparison alpha = 0.0003436 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

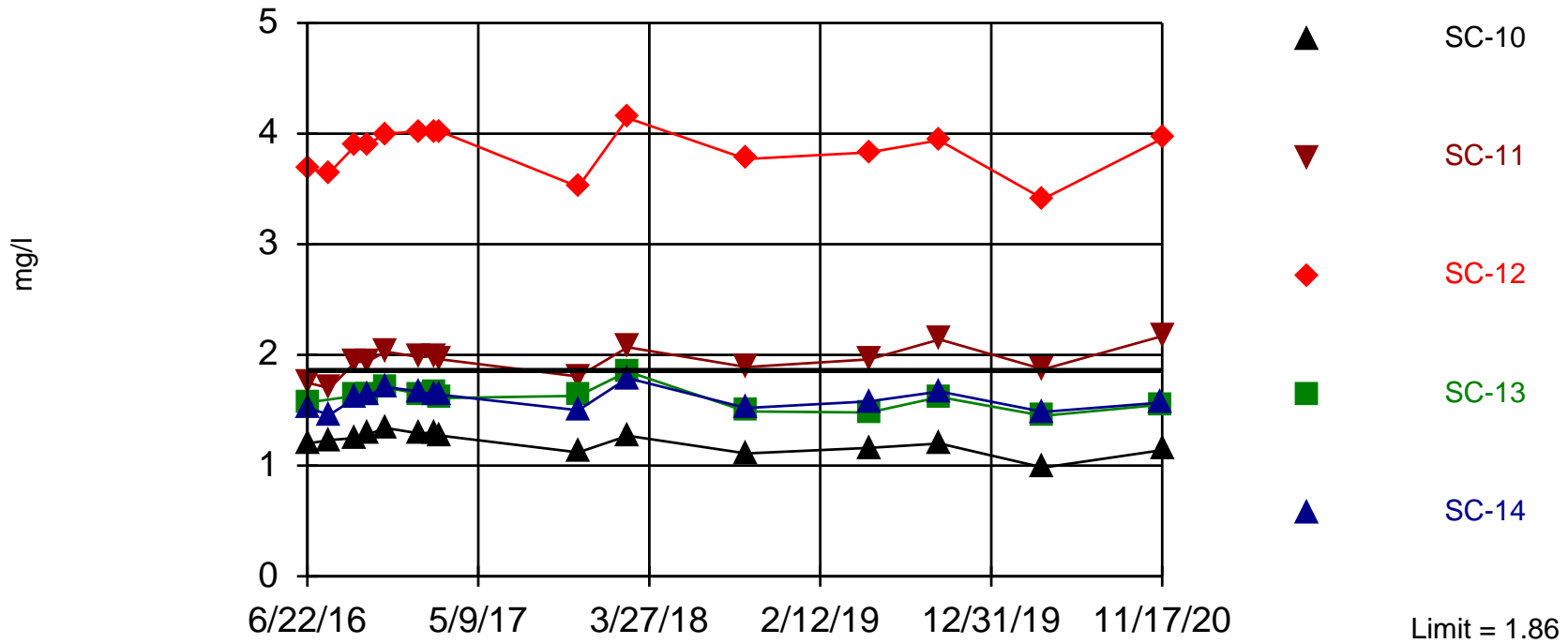
Constituent: Beryllium, Total (mg/l)    Analysis Run 1/27/2021 2:50 PM    View: CCR Landfill  
 Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	SC-11	SC-12	SC-10	CC-1	SC-13	SC-14	FC-2	FC-3A	FC-3B
6/22/2016	<0.002	<0.002	<0.002	<0.002	<0.002 (D)	<0.002	<0.002	<0.002		
6/23/2016									<0.002	
6/27/2016										<0.002
8/2/2016	<0.002 (D)				<0.002			<0.002	<0.002	<0.002
8/3/2016		<0.002	<0.002	<0.002 (D)		<0.002	<0.002			
9/19/2016	<0.002				<0.002			<0.002 (D)	<0.002	<0.002
9/20/2016		<0.002 (D)	<0.002	<0.002		<0.002	<0.002			
10/12/2016	<0.002				<0.002			<0.002	<0.002 (D)	<0.002
10/13/2016		<0.002	<0.002 (D)	<0.002		<0.002	<0.002			
11/15/2016	<0.002				<0.002			<0.002	<0.002 (D)	<0.002
11/16/2016		<0.002	<0.002	<0.002		<0.002 (D)	<0.002			
1/18/2017	<0.002				<0.002 (D)			<0.002	<0.002	<0.002
1/19/2017		<0.002	<0.002	<0.002		<0.002	<0.002			
2/14/2017	<0.002				<0.002 (D)			<0.002	<0.002	<0.002
2/15/2017		<0.002	<0.002	<0.002 (D)		<0.002	<0.002			
2/28/2017	<0.002 (D)				<0.002			<0.002	<0.002	<0.002
3/1/2017		<0.002	<0.002 (D)	<0.002		<0.002	<0.002			
11/13/2017	<0.0002 (D1)				<0.0002 (D1)			<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)
11/14/2017		<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)		0.00021 (D)	<0.0002 (D1)			
2/14/2018	<0.001 (T)				<0.001 (T)			<0.0004 (T)	<0.0004 (TD)	<0.001 (T)
2/15/2018		<0.002	<0.002	<0.002		<0.001 (T)	<0.001 (T)			
9/25/2018	<0.0002 (D)				<0.0002			<0.0002	<0.0002	<0.0002
9/26/2018		<0.0002	<0.0002	<0.0002		<0.0002 (D)	<0.0002			
5/14/2019	<0.0002				<0.0002 (D1D)			<0.0002	<0.0002 (D1D)	<0.0002 (D1D)
5/15/2019		<0.0002 (D1D)	<0.0002 (D1D)	<0.0002 (D1D)		<0.0002 (D1D)	<0.0002 (D1D)			
9/24/2019	<0.0002 (D1D)		<0.0002 (D1D)		<0.0002 (D1D)			<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (D1D)
9/25/2019		<0.0002 (D1D)		<0.0002 (D1D)		<0.0002 (D1D)	<0.0002 (D1D)			
4/6/2020	<0.0002 (DD1)				<0.0002 (DD1)			<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (DD1)
4/7/2020		<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (DD1)		<0.0002 (DD1)	<0.0002 (DD1)			
11/16/2020					<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (DD1)		<0.0002 (DD1)	<0.0002 (DD1)
11/17/2020	<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (D)	<0.0002				<0.0002 (D)		

Exceeds Limit: SC-11, SC-12

### Prediction Limit

#### Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. Annual per-constituent alpha = 0.003431. Individual comparison alpha = 0.0003436 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Boron, Total (mg/l)    Analysis Run 1/27/2021 2:50 PM    View: CCR Landfill  
 Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

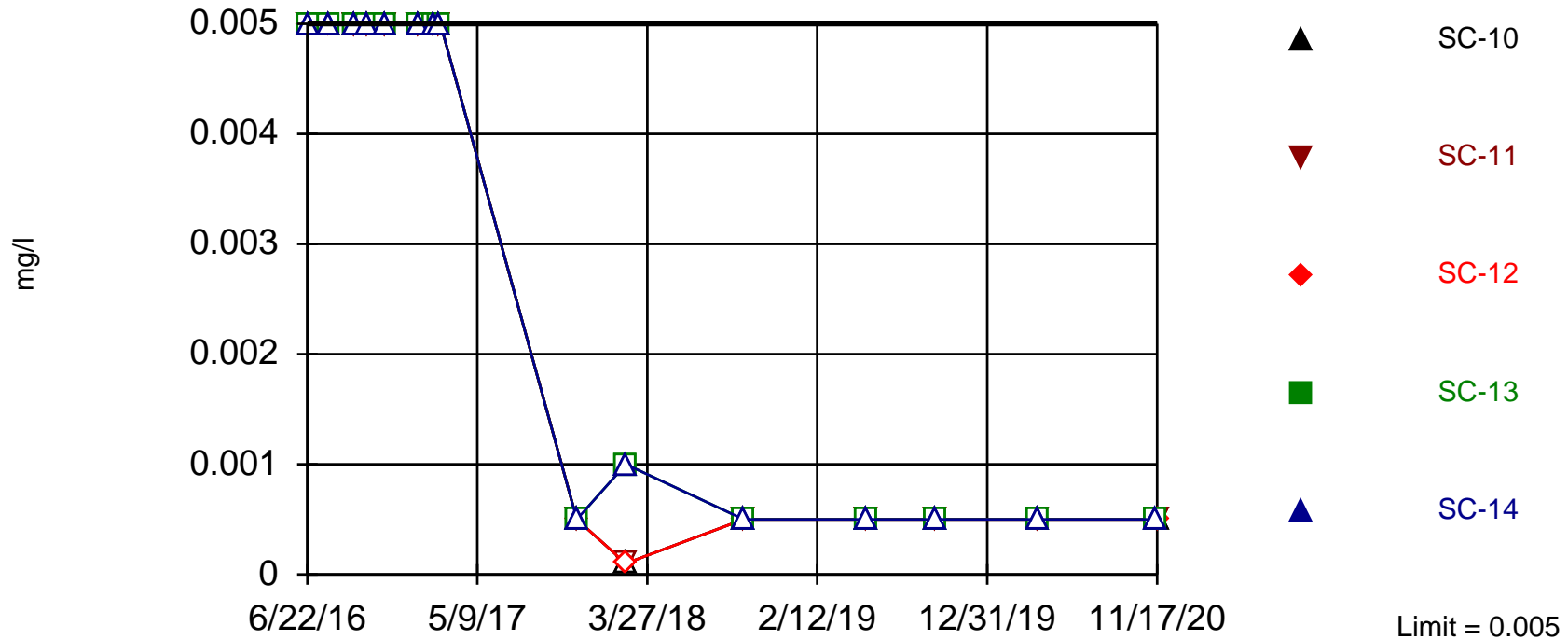
	FC-1	SC-14	SC-10	SC-12	SC-13	CC-1	SC-11	FC-2	FC-3A	FC-3B
6/22/2016	0.976 (T)	1.52	1.2	3.68	1.57	1.07 (D)	1.75	0.901 (T)		
6/23/2016									1.31	
6/27/2016										1.09
8/2/2016	0.9285 (D)					1.03		0.902	1.08	1.28
8/3/2016		1.46	1.23 (D)	3.65			1.7			
9/19/2016	0.932					1.05		0.937 (D)	1.2	1.46
9/20/2016		1.61	1.25	3.89	1.63		1.935 (D)			
10/12/2016	0.931					1.1		0.923	1.175 (D)	1.53
10/13/2016		1.63	1.28	3.9 (D)	1.63		1.94			
11/15/2016	1.03					1.12		0.936	1.185 (D)	1.68
11/16/2016		1.71	1.34	4	1.705 (D)		2.03			
1/18/2017	0.98					1.125 (D)		0.946	1.19	1.66
1/19/2017		1.67	1.29	4.02	1.65		1.98			
2/14/2017	0.972					1.115 (D)		0.934	1.14	1.59
2/15/2017		1.64	1.3 (D)	4.02	1.67		1.99			
2/28/2017	0.9495 (D)					1.03 (D)		0.956 (D)	1.14 (D)	1.73 (D)
3/1/2017		1.64 (D)	1.27 (DT1)	4.015 (DT1)	1.61 (DT1)		1.96 (DT1)			
11/13/2017	0.884					1.04		0.925 (D)	1.05	1.69
11/14/2017		1.5	1.12	3.52	1.63		1.805 (D)			
2/14/2018	1.05 (D)					1.08 (D)		0.957 (D)	1.13 (D)	1.86 (D)
2/15/2018		1.79 (DT)	1.27 (DT)	4.14 (DT)	1.85 (DT)		2.07 (DT)			
9/25/2018	0.887 (D)					1 (D)		0.887 (D)	1.03 (D)	1.73 (D)
9/26/2018		1.52 (D)	1.11 (D)	3.77 (D)	1.49 (D)		1.89 (D)			
5/14/2019	1.02					1.07		0.926	1.04 (D)	1.3
5/15/2019		1.58 (T)	1.16 (T)	3.83 (TD)	1.48 (T)		1.96 (T)			
9/24/2019	0.969 (D)			3.94		1.05		0.948	1.07	1.42
9/25/2019		1.67	1.2		1.62 (D)		2.14			
4/6/2020	0.758					0.809 (D)		0.864	0.987	1.1
4/7/2020		1.485 (D)	0.982	3.41	1.45		1.87			
11/16/2020		1.57			1.55	1			1.04	1.2
11/17/2020	0.986		1.14	3.955 (D)			2.17	0.9645 (D)		

Hollow symbols indicate censored values.

Within Limit

### Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 75 background values. 96% NDs. Annual per-constituent alpha = 0.003431. Individual comparison alpha = 0.0003436 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

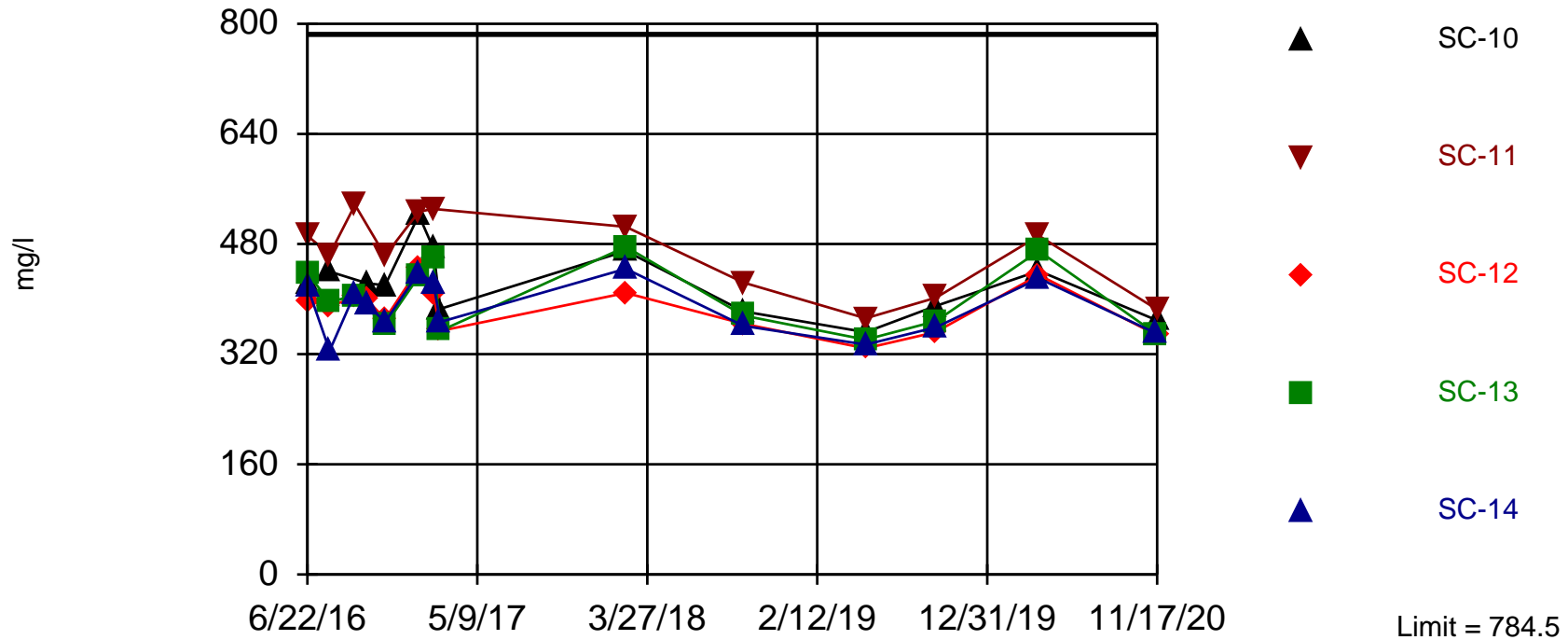
Constituent: Cadmium, Total (mg/l) Analysis Run 1/27/2021 2:50 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	SC-11	SC-14	SC-10	SC-12	FC-2	SC-13	CC-1	FC-3A	FC-3B
6/22/2016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005 (D)		
6/23/2016									<0.005	
6/27/2016										<0.005
8/2/2016	<0.005 (D)					<0.005		<0.005	<0.005	<0.005
8/3/2016			<0.005	<0.005 (D)	<0.005		<0.005			
9/19/2016	<0.005					<0.005		<0.005	<0.005	<0.005
9/20/2016		<0.005 (D)	<0.005	<0.005	<0.005		<0.005			
10/12/2016	<0.005					<0.005		<0.005	<0.005 (D)	<0.005
10/13/2016		<0.005	<0.005	<0.005	<0.005 (D)		<0.005			
11/15/2016	<0.005					<0.005		<0.005	<0.005 (D)	<0.005
11/16/2016		<0.005	<0.005	<0.005	<0.005		<0.005 (D)			
1/18/2017	<0.005					<0.005		<0.005 (D)	<0.005	<0.005
1/19/2017		<0.005	<0.005	<0.005	<0.005		<0.005			
2/14/2017	<0.005					<0.005		<0.005 (D)	<0.005	<0.005
2/15/2017		<0.005	<0.005	<0.005 (D)	<0.005		<0.005			
2/28/2017	<0.005 (D)					<0.005		<0.005	<0.005	<0.005
3/1/2017		<0.005	<0.005	<0.005	<0.005 (D)		<0.005			
11/13/2017	<0.0005 (D1)					<0.0005 (D1)		<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
11/14/2017		<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)		<0.0005 (D1)			
2/14/2018	<0.001					0.00031		<0.001	0.000365 (D)	0.00032
2/15/2018		<0.0001	<0.001	<0.0001	<0.0001		<0.001			
9/25/2018	<0.0005 (D)					<0.0005		<0.0005	<0.0005	<0.0005
9/26/2018		<0.0005	<0.0005	<0.0005	<0.0005		<0.0005 (D)			
5/14/2019	<0.0005					<0.0005 (D1D)		<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
5/15/2019		<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)		<0.0005 (D1D)			
9/24/2019	<0.0005 (D1D)				<0.0005 (D1D)	<0.0005 (D1D)		<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
9/25/2019		<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)			<0.0005 (D1D)			
4/6/2020	<0.0005 (DD1)					<0.0005 (DD1)		<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
4/7/2020		<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)		<0.0005 (DD1)			
11/16/2020			<0.0005 (DD1)				<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
11/17/2020	<0.0005 (DD1)	<0.0005 (DD1)		<0.0005	<0.0005 (D)	<0.0005 (DD1)				

Within Limit

## Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 62 background values. Annual per-constituent alpha = 0.00495. Individual comparison alpha = 0.0004961 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

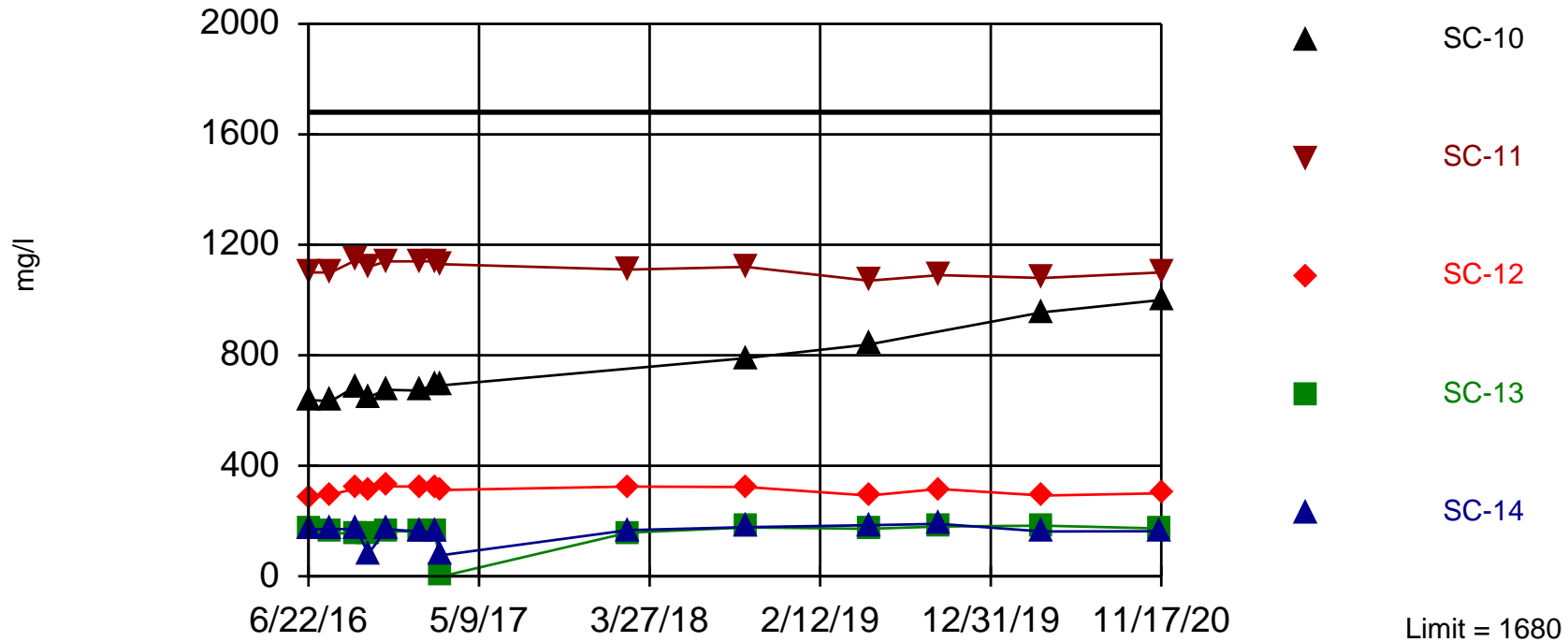
Constituent: Calcium, Total (mg/l) Analysis Run 1/27/2021 2:51 PM View: CCR Landfill  
 Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	SC-10	SC-11	SC-12	CC-1	SC-14	SC-13	FC-3A	FC-3B
6/22/2016	404	405 (T1D)	424 (DT1)	492 (DT1)	397 (DT1)	472 (DT1)	418 (DT1)	438 (DT1)		
6/23/2016									440 (DT1)	
6/27/2016										453 (DT1)
8/2/2016	410 (DT1)	440 (DT1)							417 (DT1)	412 (DT1)
8/3/2016			440 (DT1)	465 (DT1)	390 (DT1)		325	396 (DT1)		
9/19/2016	388 (DT1)	393.5 (DT1)				483 (DT1)			433 (DT1)	424 (DT1)
9/20/2016				537 (DT1)	402 (DT1)		409 (D)	405 (D)		
10/12/2016	389 (D)	390 (D)				398 (DT1)			398 (DT1)	
10/13/2016			423 (DT1)		399 (DT1)		392 (DT1)			
11/15/2016									385 (D)	331 (D)
11/16/2016			420 (DT1)	463 (DT1)	371 (DT1)		367 (DT1)	362 (DT1)		
1/18/2017	438 (T1D)	438 (T1D)							445 (DT1)	282 (DT1)
1/19/2017			522 (DT1)	527 (DT1)	445 (D)		439 (DT1)	433 (DT1)		
2/14/2017	408 (DT1)					431.5 (DT1)			420 (DT1)	296 (DT1)
2/15/2017			474.5 (DT1)	531 (DT1)	408 (DT1)		424 (DT1)	458 (DT1)		
2/28/2017	376.5 (DT1)	381 (DT1)				379 (DT1)			390 (DT1)	325 (DT1)
3/1/2017			386 (DT1)		354 (DT1)		367 (DT1)	354 (DT1)		
2/14/2018	397 (DT)	387 (DT)				392 (DT)			401 (DT)	246 (DT)
2/15/2018			470 (DT)	505 (DT)	409 (DT)		444 (DT)	476 (DT)		
9/25/2018	370 (D)	368 (D)							386 (D)	233 (D)
9/26/2018			382 (D)	424 (D)	364 (D)		361 (D)	376 (D)		
5/14/2019	337 (T1)	344				340 (T1)			353.5 (T1D)	196 (T1)
5/15/2019			352 (T1)	372 (T1)	328.5 (T1D)		334 (T1)	341 (T1)		
9/24/2019	368.5 (D)	374 (D)			352 (DT1)	400 (D)			379 (D)	201 (D)
9/25/2019			390	402 (D)			359 (DT1)	368 (DT1)		
4/6/2020	651 (DT1)	678 (DT1)				784.5 (DT1)			711 (DT1)	398 (DT1)
4/7/2020			441 (DT1)	492 (DT1)	435 (DT1)		430 (DT1)	470 (DT1)		
11/16/2020						343	350 (T1)	349 (T1)	375	216
11/17/2020	343	366 (D)	369 (T1)	385 (T1)	347.5 (T1D)					



Within Limit

## Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. Annual per-constituent alpha = 0.003874. Individual comparison alpha = 0.0003881 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Chloride (mg/l) Analysis Run 1/27/2021 2:51 PM View: CCR Landfill  
 Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

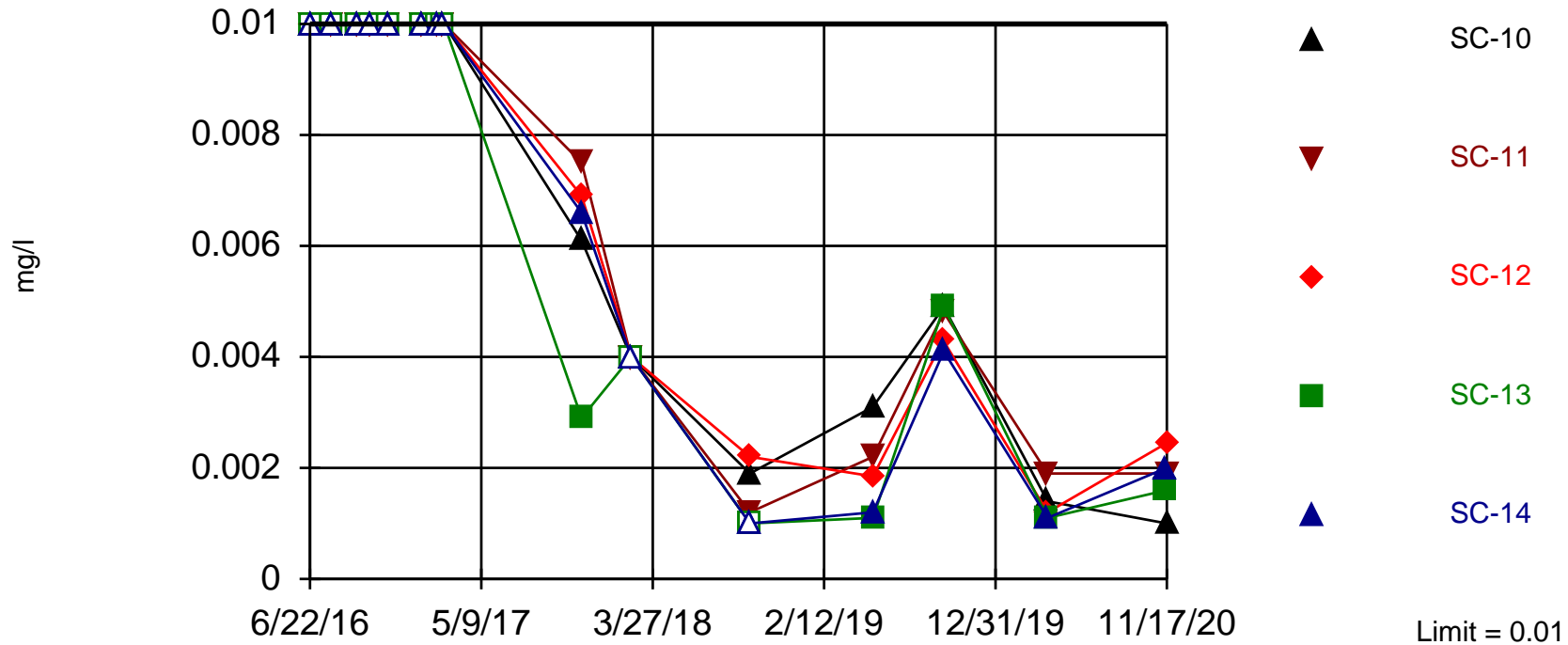
	FC-1	FC-2	SC-10	SC-14	SC-11	CC-1	SC-13	SC-12	FC-3A	FC-3B
6/22/2016	772 (D)	132 (D)	638 (D)	170 (D)	1100 (D)	1535 (D)	168 (D)	284 (D)		
6/23/2016									92.5 (D)	
6/27/2016										319 (D)
8/2/2016	761.5 (D)	128 (D)				1540 (D)			91 (D)	504 (D)
8/3/2016			633.5 (D)	171 (D)	1100 (D)		160 (D)	296 (D)		
9/19/2016	760 (D)	130 (D)				1530 (D)			96.3 (D)	594 (D)
9/20/2016			688 (D)	171 (D)	1145 (D)		150 (D)	317 (D)		
10/12/2016	750 (D)	124 (D)				1500 (D)			99.55 (D)	687 (D)
10/13/2016			649 (D)	81.2 (D)	1120 (D)		154 (D)	308.5 (D)		
11/15/2016	71.2 (D)	127 (D)				1550 (D)			101.5 (D)	676 (D)
11/16/2016			675 (D)	170 (D)	1140 (D)		163 (D)	326 (D)		
1/18/2017	741 (D)	125 (D)				1680 (D)			104 (D)	631 (D)
1/19/2017			672 (D)	162 (D)	1140 (D)		162 (D)	324 (D)		
2/14/2017	738 (D)	123 (D)				1515 (D)			107 (D)	732 (D)
2/15/2017			697.5 (D)	160 (D)	1140 (D)		165 (D)	320 (D)		
2/28/2017	769 (D)	122 (D)				1560 (D)			107 (D)	818 (D)
3/1/2017			691 (D)	76.5 (D)	1130 (D)		0.163 (D)	312.5 (D)		
2/14/2018	756 (D)	124 (D)				1530 (D)			115.5 (D)	652 (D)
2/15/2018				167 (DT)	1110 (DT)		158 (DT)	325 (TD)		
9/25/2018	783.5 (D)	118 (D)				1520 (D)			122 (D)	1210 (D)
9/26/2018			790 (D)	178 (D)	1120 (D)		177 (D)	323 (D)		
5/14/2019	782 (D)	113 (D)				1540 (D)			124 (D)	199 (D)
5/15/2019			839 (D)	185 (D)	1070 (D)		172 (D)	292 (D)		
9/24/2019	811 (D)	116 (D)				1580 (D)		316 (D)	127 (D)	220 (D)
9/25/2019				190 (D)	1090 (D)		180 (D)			
4/6/2020	0.798 (D)	112 (D)				1630 (D)			131 (D)	194 (D)
4/7/2020			956 (D)	162 (D)	1080 (D)		183 (D)	292 (D)		
11/16/2020				163 (D)		1600 (D)	173 (D)		125 (D)	201 (D)
11/17/2020	802 (D)	102 (D)	1000 (D)		1100 (D)			300.5 (D)		

Hollow symbols indicate censored values.

Within Limit

## Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 75 background values. 62.67% NDs. Annual per-constituent alpha = 0.003431. Individual comparison alpha = 0.0003436 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Chromium, Total (mg/l)    Analysis Run 1/27/2021 2:51 PM    View: CCR Landfill  
 Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

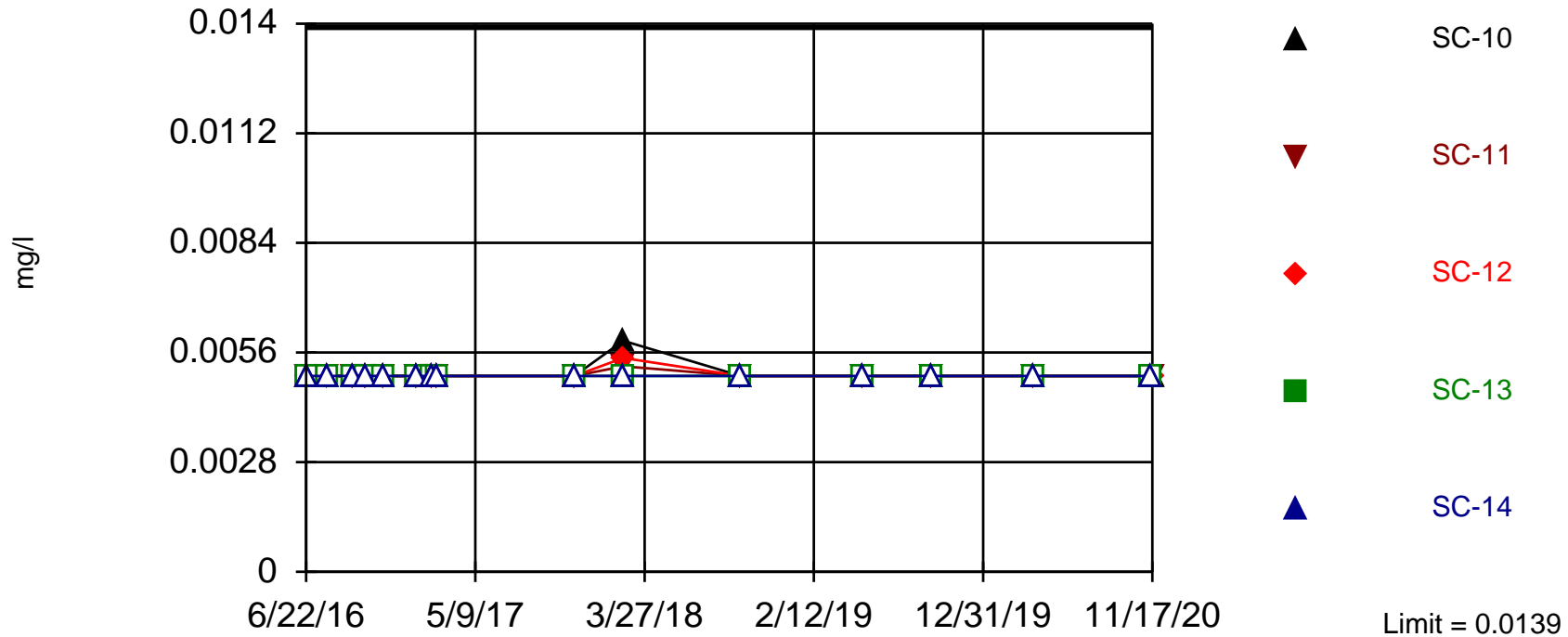
	FC-1	SC-11	SC-12	SC-10	CC-1	SC-13	SC-14	FC-2	FC-3A	FC-3B
6/22/2016	<0.01	<0.01	<0.01	<0.01	<0.01 (D)	<0.01	<0.01	<0.01		
6/23/2016									<0.01	
6/27/2016										<0.01
8/2/2016	<0.01 (D)				<0.01			<0.01	<0.01	<0.01
8/3/2016		<0.01	<0.01	<0.01 (D)		<0.01	<0.01			
9/19/2016	<0.01				<0.01			<0.01 (D)	<0.01	<0.01
9/20/2016		<0.01 (D)	<0.01	<0.01		<0.01	<0.01			
10/12/2016	<0.01				<0.01			<0.01	<0.01 (D)	<0.01
10/13/2016		<0.01	<0.01 (D)	<0.01		<0.01	<0.01			
11/15/2016	<0.01				<0.01			<0.01	<0.01 (D)	<0.01
11/16/2016		<0.01	<0.01	<0.01		<0.01 (D)	<0.01			
1/18/2017	<0.01				<0.01 (D)			<0.01	<0.01	<0.01
1/19/2017		<0.01	<0.01	<0.01		<0.01	<0.01			
2/14/2017	<0.01				<0.01 (D)			<0.01	<0.01	<0.01
2/15/2017		<0.01	<0.01	<0.01 (D)		<0.01	<0.01			
2/28/2017	<0.01 (D)				<0.01			<0.01	<0.01	<0.01
3/1/2017		<0.01	<0.01 (D)	<0.01		<0.01	<0.01			
11/13/2017	0.006 (D)				0.0064 (D)			0.0051 (D)	0.0062 (D)	0.0086 (D)
11/14/2017		0.0075 (D)	0.0069 (D)	0.0061 (D)		0.0029 (D)	0.0066 (D)			
2/14/2018	<0.004				<0.004			<0.004	<0.004 (D)	0.0058
2/15/2018		<0.004	<0.004	<0.004		<0.004	<0.004			
9/25/2018	0.001 (D)				0.0017			0.001	0.0025	0.0061
9/26/2018		0.0012	0.0022	0.0019		<0.001 (D)	<0.001			
5/14/2019	0.0013				0.0018 (D)			<0.001 (D)	0.0031 (D)	0.0049 (D)
5/15/2019		0.0022 (D)	0.00185 (D)	0.0031 (D)		0.0011 (D)	0.0012 (D)			
9/24/2019	0.0042 (D)		0.0043 (D)		0.0036 (D)			0.0035 (D)	0.0054 (D)	0.0089 (D)
9/25/2019		0.0048 (D)		0.0049 (D)		0.0049 (D)	0.0041 (D)			
4/6/2020	<0.001 (DD1)				0.0022 (D)			<0.001 (DD1)	0.0014 (D)	0.0039
4/7/2020		0.0019 (D)	0.0012 (D)	0.0014 (D)		0.0011 (D)	0.0011 (D)			
11/16/2020					0.0044 (D)	0.0016 (D)	0.002 (D)		0.0038 (D)	0.0049 (D)
11/17/2020	0.0046 (D)	0.0019 (D)	0.00245 (D)	0.001 (D)				0.0038 (D)		

Hollow symbols indicate censored values.

Within Limit

### Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 73 background values. 86.3% NDs. Annual per-constituent alpha = 0.003608. Individual comparison alpha = 0.0003614 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

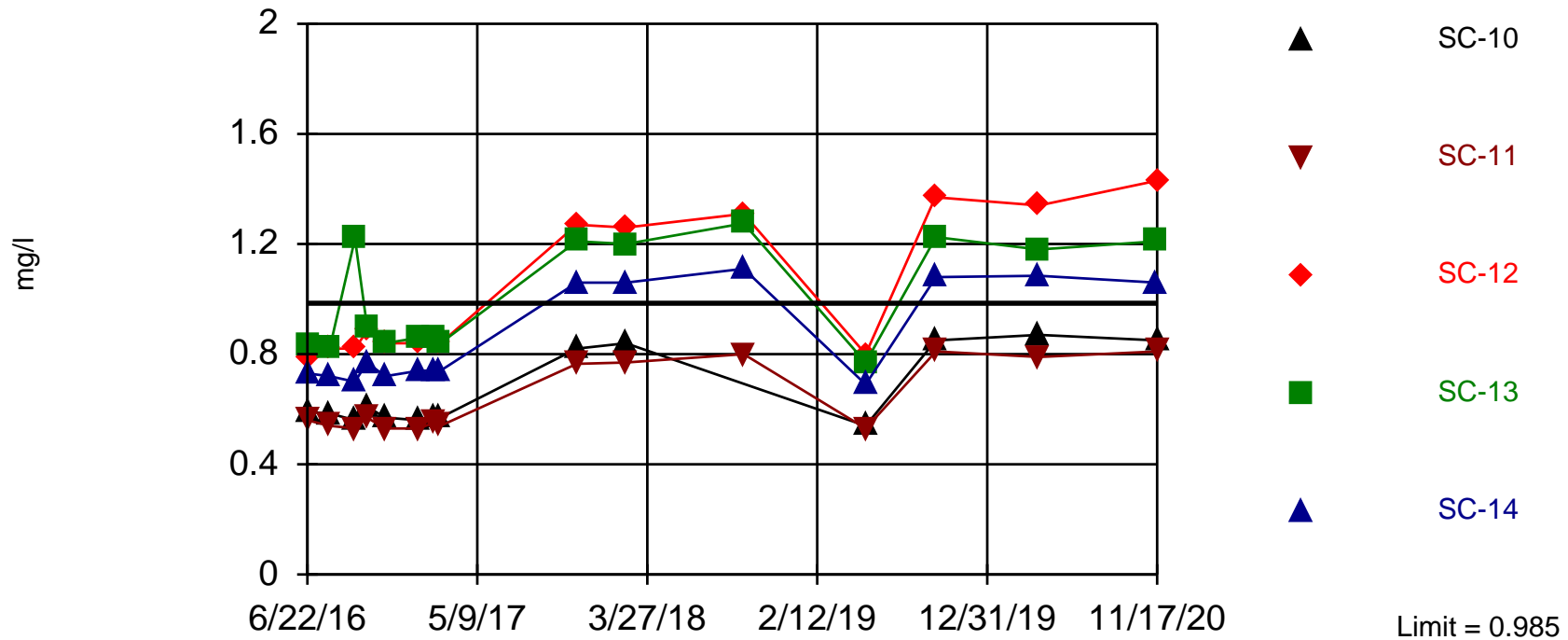
Constituent: Cobalt, Total (mg/l)    Analysis Run 1/27/2021 2:51 PM    View: CCR Landfill  
 Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	SC-14	SC-13	SC-12	SC-11	CC-1	FC-2	SC-10	FC-3A	FC-3B
6/22/2016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005 (D)	<0.005	<0.005		
6/23/2016									<0.005	
6/27/2016										0.0078
8/2/2016	<0.005 (D)						<0.005		<0.005	0.005
8/3/2016		<0.005	<0.005	<0.005	0.005			<0.005 (D)		
9/19/2016	<0.005					<0.005	<0.005 (D)		<0.005	<0.005
9/20/2016		<0.005	<0.005	<0.005	<0.005 (D)					
10/12/2016	<0.005					<0.005	<0.005		<0.005 (D)	<0.005
10/13/2016		<0.005	<0.005	<0.005 (D)	<0.005			<0.005		
11/15/2016	<0.005					<0.005	<0.005		<0.005 (D)	0.00736
11/16/2016		<0.005	<0.005 (D)	<0.005	<0.005			<0.005		
1/18/2017	<0.005					<0.005 (D)	<0.005		<0.005	0.00778
1/19/2017		<0.005	<0.005	<0.005	<0.005			<0.005		
2/14/2017	<0.005					<0.005 (D)	<0.005		<0.005	0.00796
2/15/2017		<0.005	<0.005	<0.005	<0.005			<0.005 (D)		
2/28/2017	<0.005 (D)					<0.005	<0.005		<0.005	0.00553
3/1/2017		<0.005	<0.005	<0.005 (D)	<0.005			<0.005		
11/13/2017	<0.005					<0.005	<0.005 (D)		<0.005	0.0118
11/14/2017		<0.005	<0.005	<0.005	<0.005 (D)			<0.005		
2/14/2018						0.00636	<0.005		<0.005 (D)	0.0139
2/15/2018		<0.005	<0.005	0.00546	0.00525			0.0059		
9/25/2018	<0.005 (DD1)					<0.005 (DD1)	<0.005 (DD1)		<0.005 (DD1)	0.0108 (D)
9/26/2018		<0.005 (DD1)	<0.005 (DD1)	<0.005 (DD1)	<0.005 (DD1)			<0.005 (DD1)		
5/14/2019	<0.005					<0.005	<0.005		<0.005 (D)	<0.005
5/15/2019		<0.005	<0.005	<0.005	<0.005			<0.005		
9/24/2019	<0.005 (D)			<0.005		<0.005	<0.005		<0.005	<0.005
9/25/2019		<0.005	<0.005 (D)		<0.005			<0.005		
4/6/2020	<0.005					<0.005 (D)	<0.005		<0.005	<0.005
4/7/2020		<0.005 (D)	<0.005	<0.005	<0.005			<0.005		
11/16/2020		<0.005	<0.005			<0.005			<0.005	<0.005
11/17/2020	<0.005			<0.005 (D)	<0.005		<0.005 (D)	<0.005		

Exceeds Limit: SC-12, SC-13, SC-14

## Prediction Limit

### Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. Annual per-constituent alpha = 0.003431. Individual comparison alpha = 0.0003436 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Fluoride, Total (mg/l)    Analysis Run 1/27/2021 2:51 PM    View: CCR Landfill  
 Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	SC-10	CC-1	SC-11	SC-14	SC-12	FC-2	SC-13	FC-3A	FC-3B
6/22/2016	0.12 (T)	0.59 (T)	0.215 (TD)	0.56 (T)	0.73 (T)	0.79 (T)	0.51 (T)	0.83 (T)		
6/23/2016									0.46 (T)	
6/27/2016										0.55
8/2/2016	0.06006 (TD)		0.21 (T)				0.5 (T)		0.46 (T)	0.00048 (T)
8/3/2016		0.585 (TD)		0.54 (T)	0.72 (T)	0.82 (T)		0.82 (T)		
9/19/2016	0.13		0.22				0.985 (D)		0.48	0.48
9/20/2016		0.56		0.53 (D)	0.7	0.82		1.22 (D)		
10/12/2016	0.12 (T)		0.21 (T)				0.52 (T)		0.465 (TD)	0.51 (T)
10/13/2016		0.61 (T)		0.57 (T)	0.77 (T)	0.885 (TD)		0.9 (T)		
11/15/2016	0.12 (T)		0.2 (T)				0.51 (T)		0.46 (TD)	0.46 (T)
11/16/2016		0.57 (T)		0.53 (T)	0.72 (T)	0.84 (T)		0.84 (D)		
1/18/2017	0.13 (T)		0.2 (TD)				0.52 (T)		0.46 (T)	0.56 (T)
1/19/2017		0.56 (T)		0.53 (T)	0.74 (T)	0.84 (T)		0.86 (T)		
2/14/2017	0.13 (T)		0.22 (TD)				0.55 (T)		0.48 (T)	0.51 (T)
2/15/2017		0.575 (TD)		0.55 (T)	0.74 (T)			0.86 (T)		
2/28/2017	0.13 (TD)		0.22 (T)				0.53 (T)		0.47 (T)	0.42 (T)
3/1/2017		0.57 (T)		0.54 (T)	0.74 (T)	0.84 (TD)		0.84 (T)		
11/13/2017	0.2		0.45				0.7 (D)		0.56	0.48
11/14/2017		0.82		0.765 (D)	1.06	1.27		1.21		
2/14/2018	0.21		0.5				0.74		0.615 (D)	0.53
2/15/2018		0.84		0.77	1.06	1.26		1.2		
9/25/2018	0.195 (D)		0.48				0.73		0.62	0.52
9/26/2018				0.8	1.11	1.31		1.275 (D)		
5/14/2019	0.13		0.2				0.51		0.44 (D)	0.69
5/15/2019		0.54		0.53	0.69	0.8 (D)		0.77		
9/24/2019	0.195 (D)		0.53			1.37	0.72		0.59	0.72
9/25/2019		0.85		0.81	1.08			1.225 (D)		
4/6/2020	0.21		0.545 (D)				0.72		0.61	0.7
4/7/2020		0.87		0.79	1.085 (D)	1.34		1.18		
11/16/2020			0.55		1.06			1.21	0.6	0.7
11/17/2020	0.2	0.85		0.81		1.43 (D)	0.74 (D)			

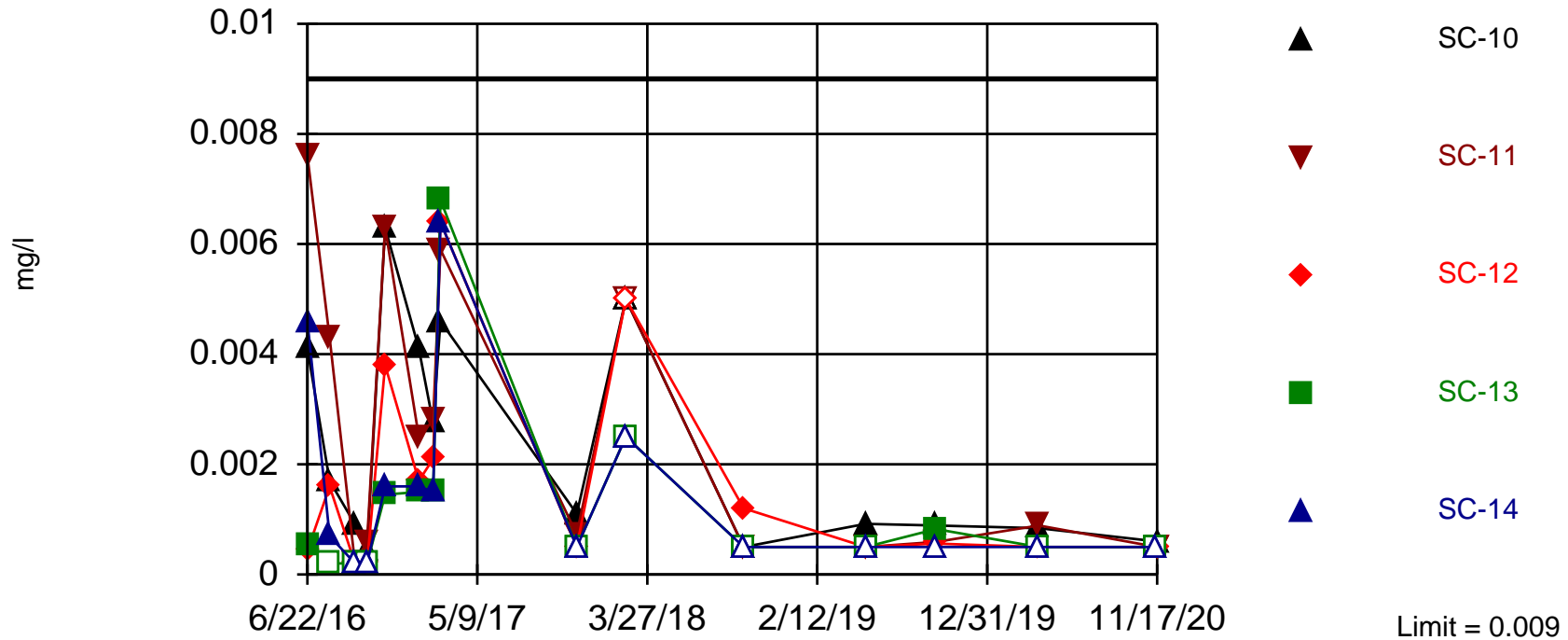


Hollow symbols indicate censored values.

Within Limit

### Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 48% NDs. Annual per-constituent alpha = 0.003431. Individual comparison alpha = 0.0003436 (1 of 2). Comparing 5 points to limit.

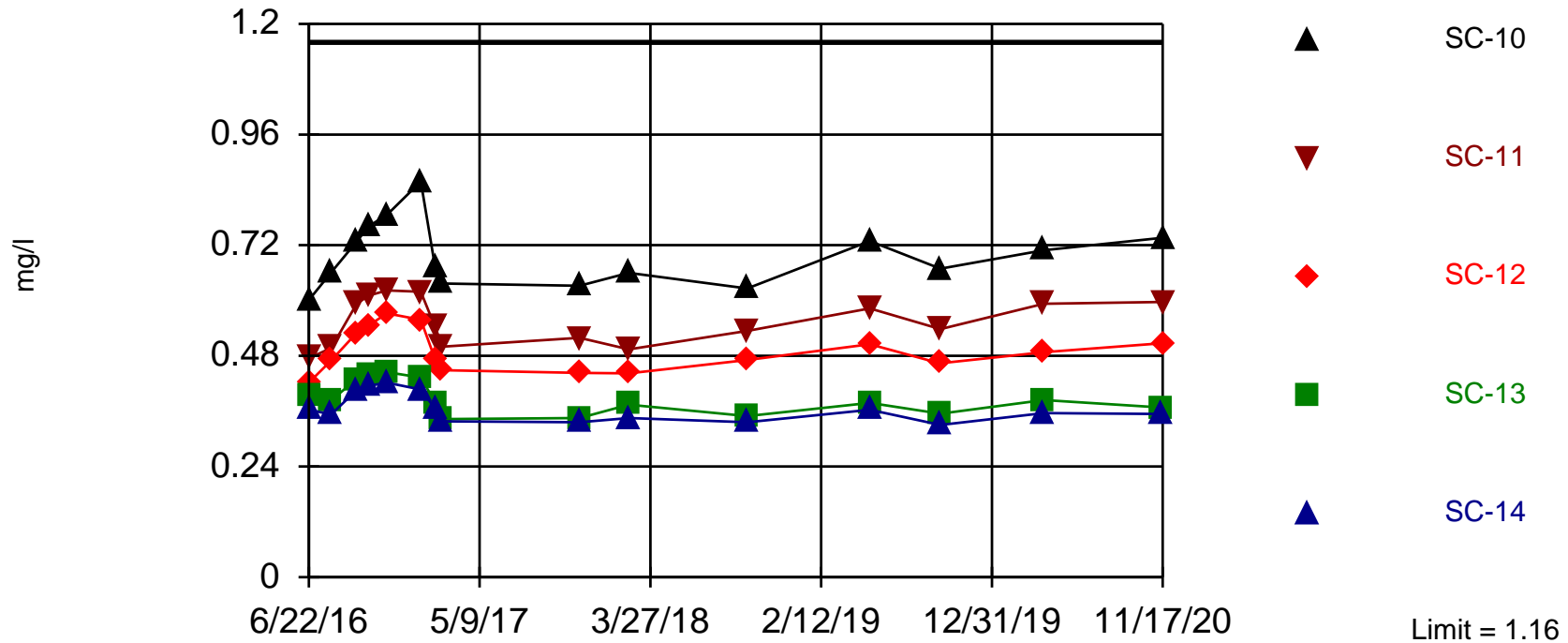
# Prediction Limit

Constituent: Lead, Total (mg/l)    Analysis Run 1/27/2021 2:51 PM    View: CCR Landfill  
 Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	SC-11	SC-12	SC-10	CC-1	SC-13	SC-14	FC-2	FC-3A	FC-3B
6/22/2016	<0.0002	0.0076	0.00043	0.0041	<0.0002 (D)	0.00052	0.0046	0.0002		
6/23/2016									0.0052	
6/27/2016										0.0039
8/2/2016	<0.0002 (D)				<0.0002			<0.0002	0.0015	0.0021
8/3/2016		0.0043	0.0016	0.0017 (D)		<0.0002	0.0007			
9/19/2016	0.00032 (D)				<0.0002 (D1)			<0.0002 (D1)	0.001 (D)	0.00042 (D)
9/20/2016		<0.0002 (D1)	<0.0002 (D1)	0.00091 (D)		<0.0002 (D1)	<0.0002 (D1)			
10/12/2016	<0.0002 (D1)				<0.0002 (D1)			<0.0002 (D1)	0.000835 (D)	<0.0002 (D1)
10/13/2016		0.0006 (D)	<0.0002 (D)	0.00044 (D)		<0.0002 (D1)	<0.0002 (D1)			
11/15/2016	0.0037 (D)				0.0052 (D)			<0.0002 (D1)	0.0031 (D)	0.0065 (D)
11/16/2016		0.0063 (D)	0.0038 (D)	0.0063 (D)		0.00145 (D)	0.0016 (D)			
1/18/2017	<0.0005 (D1)				0.0035 (D)			<0.0005 (D1)	0.0035 (D)	0.0035 (D)
1/19/2017		0.0025 (D)	0.0017 (D)	0.0041 (D)		0.0015 (D)	0.0016 (D)			
2/14/2017	0.0027 (D)				0.0028 (D)			0.0018 (D)	0.0017 (D)	0.00099 (D)
2/15/2017		0.0028 (D)	0.0021 (D)	0.00275 (D)		0.0015 (D)	0.0015 (D)			
2/28/2017	0.0081 (D)				0.0049 (D)			0.0089 (D)	0.009	0.0089 (D)
3/1/2017		0.0059 (D)	0.0064 (D)	0.0046 (D)		0.0068 (D)	0.0064 (D)			
11/13/2017	<0.0005 (D1)				<0.0005 (D1)			<0.0005 (D1)	0.00091 (D)	<0.0005 (D1)
11/14/2017		0.00073 (D)	<0.0005 (D1)	0.0011 (D)		<0.0005 (D1)	<0.0005 (D1)			
2/14/2018	<0.005				<0.005			<0.0025	<0.0025 (D)	<0.0025
2/15/2018		<0.005	<0.005	<0.005		<0.0025	<0.0025			
9/25/2018	<0.0005 (D)				<0.0005			<0.0005	0.00086	0.0046
9/26/2018		<0.0005 (D1)	0.0012	<0.0005 (D1)		<0.0005 (D)	<0.0005			
5/14/2019	<0.0005				<0.0005 (D1D)			<0.0005 (D1D)	0.0011 (D1D)	0.00073 (D1D)
5/15/2019		<0.0005 (D1D)	<0.0005 (D)	0.00092 (D1D)		<0.0005 (D1D)	<0.0005 (D1D)			
9/24/2019	<0.0005 (D1D)		0.00056 (D)		0.00072 (D)			0.0014 (D)	0.0018 (D)	0.0012 (D)
9/25/2019		0.00059 (D)		0.00089 (D)		0.000825 (D)	<0.0005 (D1D)			
4/6/2020	<0.0005 (DD1)				<0.0005 (DD1)			<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
4/7/2020		0.00089 (D)	<0.0005 (DD1)	0.00084 (D)		<0.0005 (DD1)	<0.0005 (DD1)			
11/16/2020					0.0019 (D)	<0.0005 (DD1)	<0.0005 (DD1)		0.00074 (D)	0.00051 (D)
11/17/2020	0.0013 (D)	<0.0005 (DD1)	<0.0005 (D)	0.0006 (D)				<0.0005 (DD1)		

Within Limit

## Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. Annual per-constituent alpha = 0.003431. Individual comparison alpha = 0.0003436 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Lithium, Total (mg/l) Analysis Run 1/27/2021 2:51 PM View: CCR Landfill  
 Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

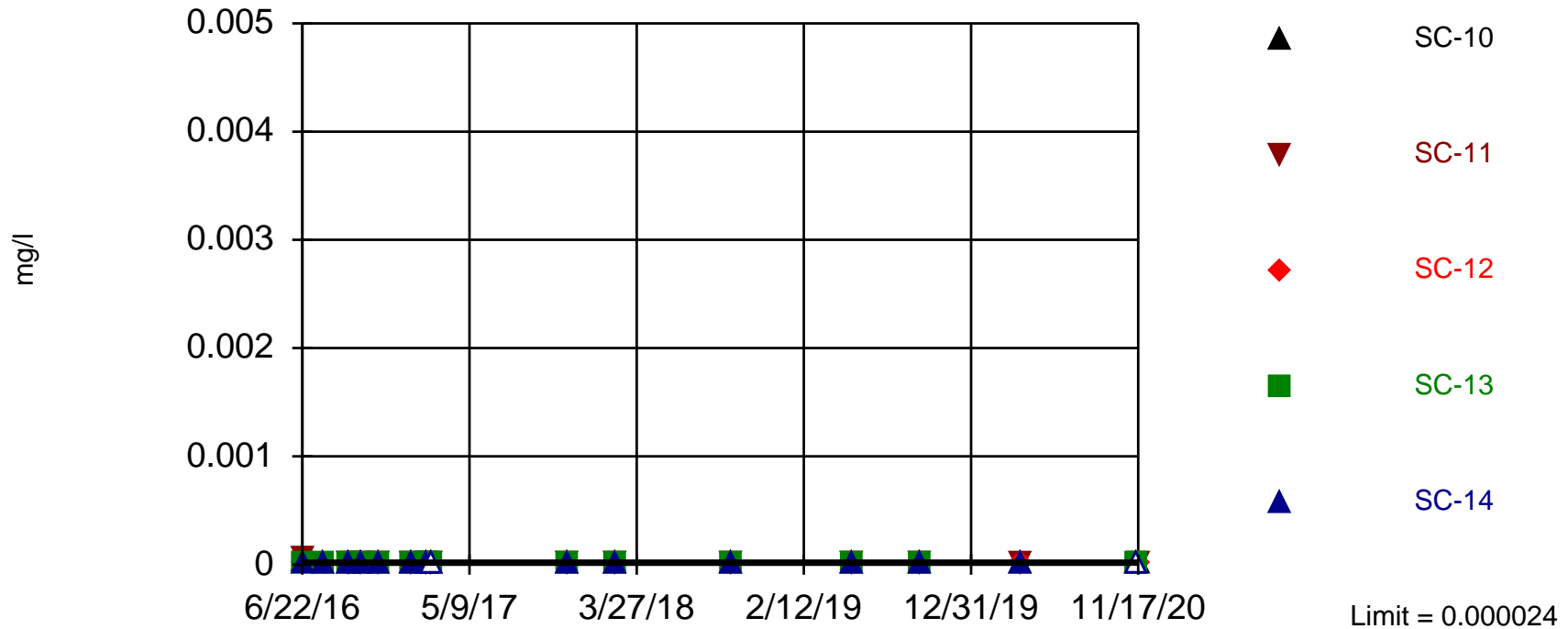
	FC-1	SC-11	SC-12	SC-10	CC-1	SC-13	SC-14	FC-2	FC-3A	FC-3B
6/22/2016	0.904	0.475	0.422	0.601	0.671 (D)	0.394	0.363	0.269		
6/23/2016									0.303	
6/27/2016										0.232
8/2/2016	0.984 (D)				0.731			0.305	0.311	0.274
8/3/2016		0.497	0.47	0.661 (D)		0.384	0.353			
9/19/2016	1.01				0.779			0.306 (D)	0.343	0.295
9/20/2016		0.593 (D)	0.53	0.728		0.429	0.406			
10/12/2016	1.03				0.825			0.307	0.3455 (D)	0.315
10/13/2016		0.611	0.546 (D)	0.761		0.437	0.415			
11/15/2016	1.16				0.822			0.325 (T)	0.3375 (D)	0.344
11/16/2016		0.622	0.572	0.786		0.4445 (D)	0.422			
1/18/2017	1.08				0.791 (D)			0.318	0.343 (D)	0.335
1/19/2017		0.619 (D)	0.558 (D)	0.858 (D)		0.433 (D)	0.407 (D)			
2/14/2017	1				0.73 (D)			0.298	0.312	0.334
2/15/2017		0.542	0.472	0.671 (D)		0.379	0.365			
2/28/2017	0.9125 (D)				0.641			0.275 (D)	0.283 (D)	0.326 (D)
3/1/2017		0.5 (D)	0.449 (D)	0.637 (D)		0.343 (D)	0.338 (D)			
11/13/2017	0.894				0.63			0.2665 (D)	0.288	0.31
11/14/2017		0.519 (D)	0.443	0.632		0.345	0.336			
2/14/2018	0.9 (D)				0.576 (D)			0.265 (D)	0.2635 (D)	0.341 (D)
2/15/2018		0.494 (D)	0.442 (D)	0.66 (D)		0.374 (D)	0.345 (D)			
9/25/2018	0.9085 (D)				0.664 (D)			0.276 (D)	0.302 (D)	0.316 (D)
9/26/2018		0.534 (D)	0.471 (D)	0.626 (D)		0.3495 (D)	0.336 (D)			
5/14/2019	1.13				0.798			0.294	0.3265 (D)	0.321
5/15/2019		0.583	0.505 (D)	0.729		0.378	0.363			
9/24/2019	0.9695 (D)		0.464 (D)		0.722 (D)			0.274 (D)	0.303 (D)	0.284 (D)
9/25/2019		0.538		0.669 (D)		0.3545 (D)	0.33 (D)			
4/6/2020	0.943				0.7435 (D)			0.274	0.295	0.284
4/7/2020		0.593	0.488	0.709		0.384	0.356 (D)			
11/16/2020					0.808	0.368	0.354		0.305	0.28
11/17/2020	1.12	0.597	0.5075 (D)	0.736				0.2905 (D)		

Hollow symbols indicate censored values.

Within Limit

## Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 74 background values. 2.703% NDs. Annual per-constituent alpha = 0.00352. Individual comparison alpha = 0.0003525 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Mercury, Total (mg/l)    Analysis Run 1/27/2021 2:51 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

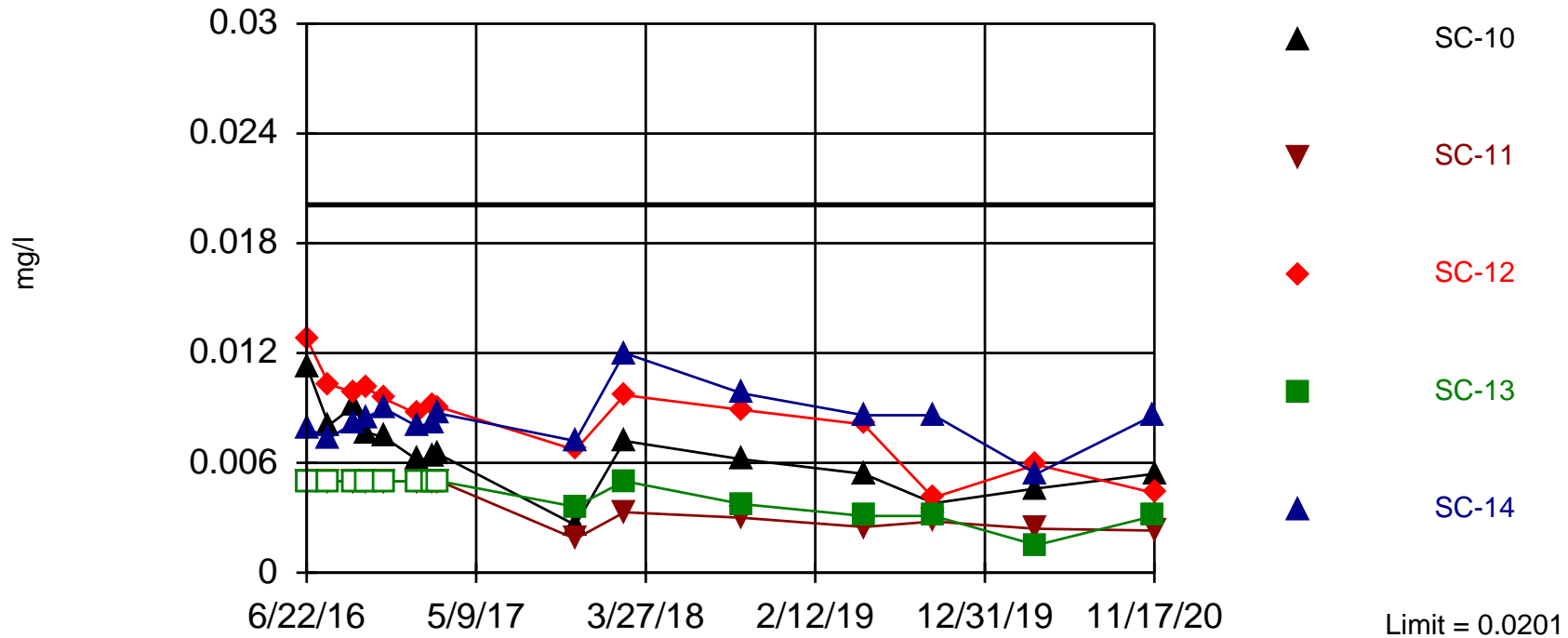
	FC-1	SC-11	SC-14	SC-10	SC-12	FC-2	SC-13	CC-1	FC-3A	FC-3B
6/22/2016	1.3E-06	6.7E-05	1.2E-05	3.6E-05	4.5E-06	2.8E-06	3.6E-06	4.7E-06 (D)		
6/23/2016									5.4E-06	
6/27/2016										1.3E-05
8/2/2016	2E-06 (D)					4E-06		6E-06	7E-06	6E-06
8/3/2016			3E-06	1.05E-05 (D)	6E-06		2E-06			
9/19/2016	2E-06					3E-06 (D)		6E-06	4E-06	3E-06
9/20/2016		9.5E-06 (D)	3E-06	1.6E-05	5E-06		3E-06			
10/12/2016	2E-06							6E-06	5E-06 (D)	3E-06
10/13/2016		1E-05	2E-06	1E-05	3E-06 (D)		2E-06			
11/15/2016	2E-06					4E-06		6E-06	2E-06 (D)	9E-06
11/16/2016		1E-05	2E-06	1E-05	4E-06		2E-06 (D)			
1/18/2017	2E-06					5E-06		7.5E-06 (D)	2E-06	8E-06
1/19/2017		1E-05	2E-06	1.1E-05	4E-06		3E-06			
2/14/2017	2E-06					4E-06		6E-06 (D)	2E-06	4E-06
2/15/2017		8E-06	2E-06	9E-06 (D)	3E-06		2E-06			
2/28/2017	2E-06 (D)					4E-06		6E-06	2E-06	5E-06
3/1/2017		9E-06	<2E-06	9E-06	3E-06 (D)		3E-06			
11/13/2017	2E-06 (T)					3.5E-06 (TD)		6E-06 (T)	4E-06 (T)	7E-06 (T)
11/14/2017		7.5E-06 (D)	2E-06	1E-05	4E-06		2E-06			
2/14/2018	2E-06					3E-06		5E-06	2E-06 (D)	5E-06
2/15/2018		1.3E-05	2E-06	1.1E-05	4E-06		2E-06			
9/25/2018	2.5E-06 (D)					3E-06		5E-06	3E-06	2.4E-05
9/26/2018		8E-06	2E-06	9E-06	5E-06		2E-06 (D)			
5/14/2019	2E-06					3E-06		6E-06	7.5E-06 (D)	3E-06
5/15/2019		9E-06	2E-06	1E-05	4E-06 (D)		2E-06			
9/24/2019	2E-06 (D)					4E-06		5E-06	8E-06	5E-06
9/25/2019		9E-06	2E-06	1E-05			4E-06 (D)			
4/6/2020	2E-06					4E-06		6E-06 (D)	2E-06	2E-06
4/7/2020		1.1E-05	2E-06	9E-06	4E-06					
11/16/2020			<2E-06				2E-06	6E-06	<2E-06	<2E-06
11/17/2020	2E-06	8E-06		8E-06	3E-06 (D)	3E-06 (D)				

Hollow symbols indicate censored values.

Within Limit

### Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 37.33% NDs. Annual per-constituent alpha = 0.003431. Individual comparison alpha = 0.0003436 (1 of 2). Comparing 5 points to limit.

Constituent: Molybdenum, Total    Analysis Run 1/27/2021 2:47 PM    View: CCR Landfill  
 Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

# Prediction Limit

Constituent: Molybdenum, Total (mg/l)    Analysis Run 1/27/2021 2:51 PM    View: CCR Landfill

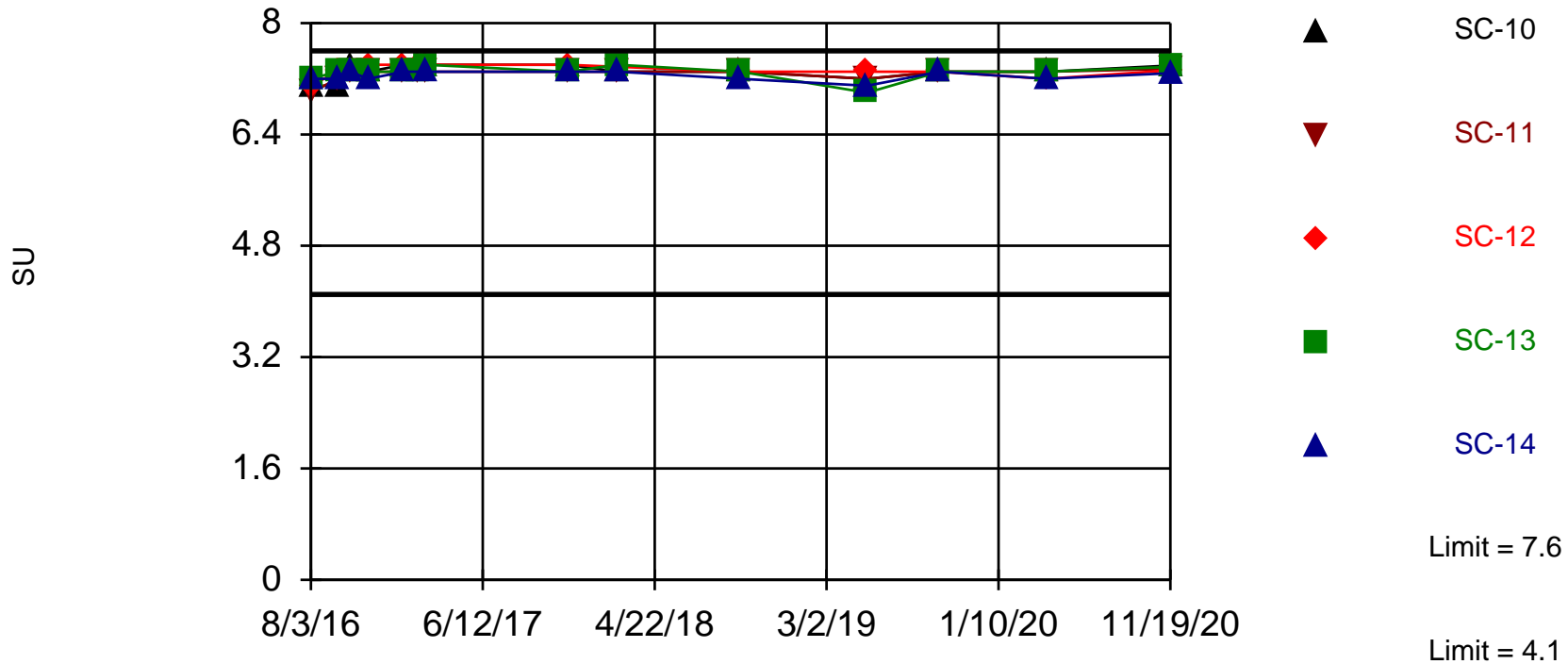
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	SC-11	SC-12	SC-10	CC-1	SC-13	SC-14	FC-2	FC-3A	FC-3B
6/22/2016	<0.005	<0.005	0.0128	0.0113	<0.005 (D)	<0.005	0.0079	<0.005		
6/23/2016									<0.005	
6/27/2016										0.0201
8/2/2016	<0.005 (D)				<0.005			<0.005	0.00838	0.0198
8/3/2016		<0.005	0.0103	0.008055 (D)		<0.005	0.00734			
9/19/2016	<0.005				<0.005			<0.005 (D)	0.0122	0.00609
9/20/2016		<0.005 (D)	0.00983	0.00911		<0.005	0.00819			
10/12/2016	<0.005				<0.005			0.001252 (D)	0.009175 (D)	0.00525
10/13/2016		<0.005	0.0101 (D)	0.00767		<0.005	0.00848			
11/15/2016	<0.005				<0.005			<0.005	0.01065 (D)	0.0117
11/16/2016		<0.005	0.00951	0.0074		<0.005 (D)	0.00897			
1/18/2017	<0.005				<0.005 (D)			<0.005	0.00969	<0.005
1/19/2017		<0.005	0.00866	0.00614		<0.005	0.00798			
2/14/2017	<0.005				<0.005 (D)			<0.005	0.0104	0.00716
2/15/2017		<0.005	0.00909	0.006325 (D)		<0.005	0.00821			
2/28/2017	<0.005 (D)				<0.005			<0.005	0.0109	0.00842
3/1/2017		<0.005	0.00905 (D)	0.00646		<0.005	0.00869			
11/13/2017	0.0015 (D)				<0.0002 (D1)			0.0014 (D)	0.005 (D)	0.0042 (D)
11/14/2017		0.00185 (D)	0.0067 (D)	0.0026 (D)		0.0036 (D)	0.0072 (D)			
2/14/2018	<0.01				<0.01			0.003	0.0112 (D)	0.0055
2/15/2018		0.0033	0.0097	0.0072		0.005	0.012			
9/25/2018	0.0015 (D)				0.0006			0.002	0.0086	0.0027
9/26/2018		0.003	0.0089	0.0062		0.00375 (D)	0.0098			
5/14/2019	0.0018				0.00068 (D)			0.002 (D)	0.0069 (D)	0.0014 (D)
5/15/2019		0.0025 (D)	0.0081 (D)	0.0054 (D)		0.0031 (D)	0.0086 (D)			
9/24/2019	0.00165 (D)		0.0041 (D)		0.00067 (D)			0.0021 (D)	0.0066 (D)	0.002 (D)
9/25/2019		0.0028 (D)		0.0038 (D)		0.0031 (D)	0.0086 (D)			
4/6/2020	0.0013 (D)				0.000275 (D)			0.0016 (D)	0.0073 (D)	0.00057 (D)
4/7/2020		0.0024	0.0059 (D)	0.0046 (D)		0.0015015 (D)	0.005401 (D)			
11/16/2020					0.00034 (D)	0.0031 (D)	0.0086 (D)		0.0074 (D)	0.00073 (D)
11/17/2020	0.0013 (D)	0.0023 (D)	0.00435 (D)	0.0054 (D)				0.0016 (D)		



Within Limits

## Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 70 background values. Annual per-constituent alpha = 0.007748. Individual comparison alpha = 0.0007762 (1 of 2). Comparing 5 points to limit.

Constituent: pH    Analysis Run 1/27/2021 2:47 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

# Prediction Limit

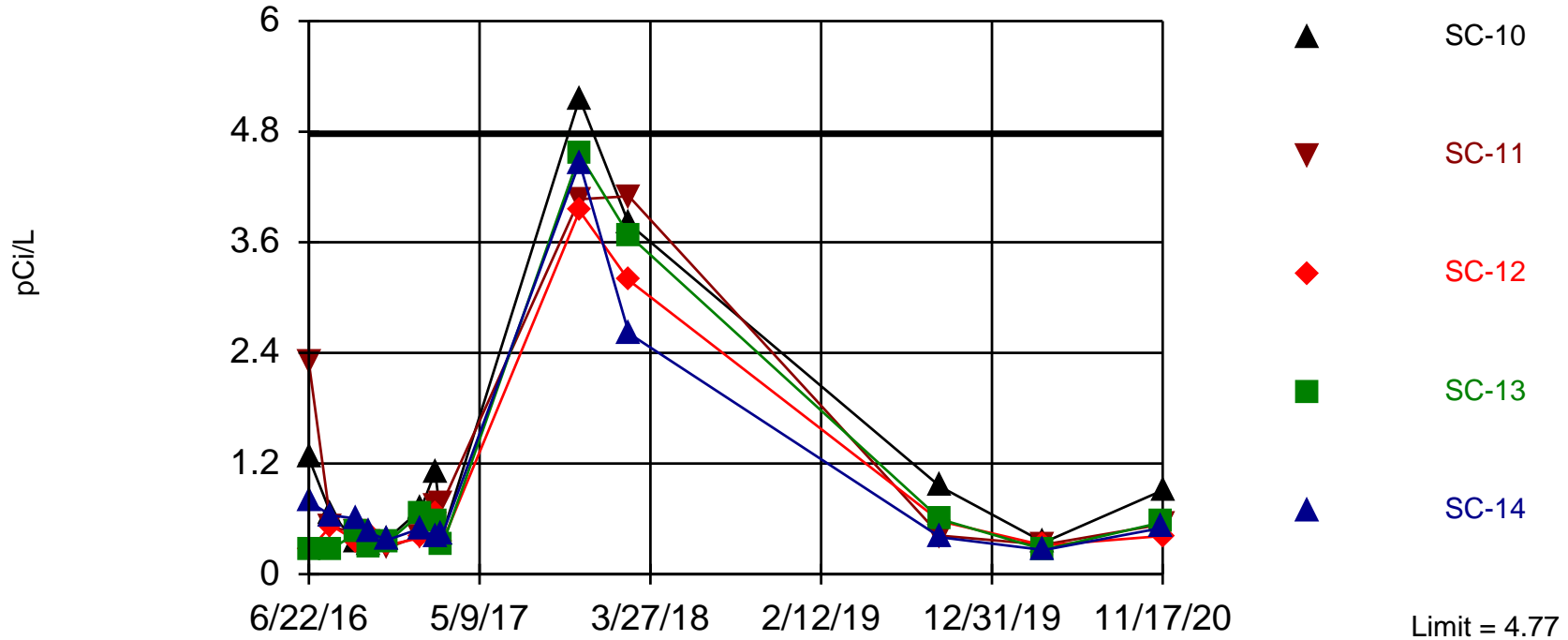
Constituent: pH (SU) Analysis Run 1/27/2021 2:51 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-3B	FC-3A	CC-1	FC-2	SC-12	SC-11	SC-10	SC-14	SC-13
8/2/2016	7 (D)	7.2	7.5	6.8	7.2					
8/3/2016						7.1	7	7.1 (D)	7.2	7.2
9/19/2016	7.1	6.9	7.5	6.7	7.2					
9/20/2016						7.3	7.2	7.1	7.2	7.3
10/12/2016	7.1	7	7.5	6.9	7.2					
10/13/2016						7.3	7.3	7.4	7.3	7.3
11/15/2016	7.1	7	7.6	6.9	7.3					
11/16/2016						7.4	7.3	7.3	7.2	7.3
1/18/2017	7.1	7	7.6	6.9	7.3					
1/19/2017						7.4	7.3	7.4	7.3	7.3
2/14/2017	7.1	7	7.6	6.9	7.3					
2/15/2017						7.4	7.3	7.4		7.3
2/28/2017	7.2	7	7.5	6.9	7.3					
3/1/2017						7.4	7.3	7.4	7.3	7.4
11/13/2017	7.2	7	7.6	7	7.3					
11/14/2017						7.4	7.3	7.4	7.3	7.3
2/14/2018	7.1	6.8	7.6	6.9	7.3					
2/15/2018							7.3	7.3	7.3	7.4
9/25/2018	7	7.1	7.3	6.8	7.3					
9/26/2018						7.3	7.3	7.3	7.2	7.3
5/14/2019	7.1	7.2	7.5	6.8	7.2					
5/15/2019						7.3	7.2	7.2	7.1	7
9/24/2019	7.1	7.1	7.4	7	7.3	7.3				
9/25/2019							7.3	7.3	7.3	7.3
4/6/2020	7.1	7.3	7.5	6.9	7.3					
4/7/2020						7.2	7.3	7.3	7.2	7.3
11/17/2020					4.1					
11/19/2020	7.32		7.45	6.98	7.29	7.32	7.34	7.39	7.28	7.37

Within Limit

## Prediction Limit Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=1.053, Std. Dev.=0.2962, n=64. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9475, critical = 0.947. Kappa = 2.129 (c=22, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.002392. Individual comparison alpha = 0.0004788. Comparing 5 points to limit.

# Prediction Limit

Constituent: Rad 226+228 (pCi/L) Analysis Run 1/27/2021 2:51 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

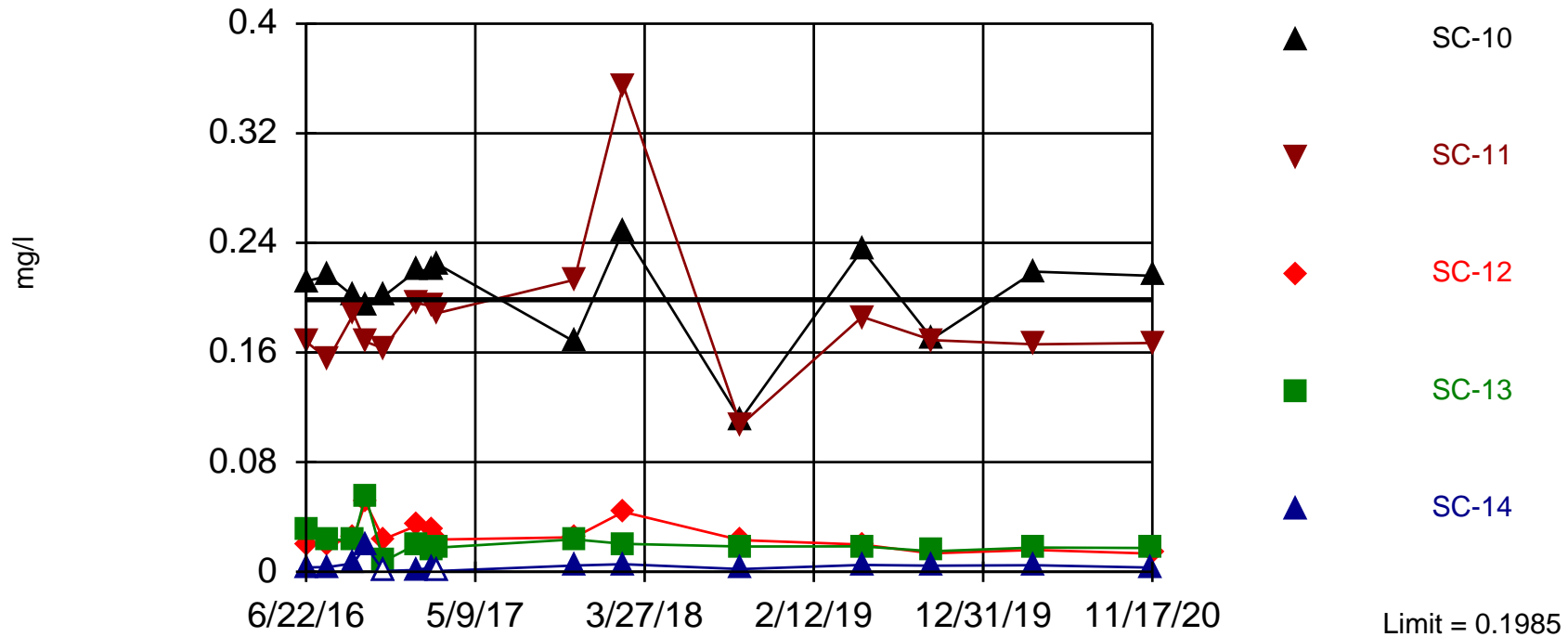
	FC-1	SC-14	SC-13	SC-12	SC-11	CC-1	FC-2	SC-10	FC-3A	FC-3B
6/22/2016	1.475	0.786	0.2705	0.253	2.295	1.317 (D)	0.3375	1.257		
6/23/2016									1.321	
6/27/2016										1.111
8/2/2016	1.38					0.412	0.295		0.3135	1.7775
8/3/2016		0.6375	0.2735	0.528	0.508			0.646		
9/19/2016	2.136					0.6405	0.363		0.3795	0.496
9/20/2016		0.603	0.448	0.3585	0.4555			0.361		
10/12/2016	1.913					1.404	0.3475		0.616	0.4955
10/13/2016		0.4535	0.305	0.437	0.3365			0.324		
11/15/2016	2.128					1.354	0.854		0.395	0.6865
11/16/2016		0.3695	0.341	0.3135	0.286			0.3775		
1/18/2017	1.874					1.494 (D)	0.471		0.617	0.6095
1/19/2017		0.497	0.661	0.393	0.4185			0.704		
2/14/2017	2.31 (D)					1.841	0.7225		2.636	1.366
2/15/2017		0.3975	0.581	0.6565	0.751			1.114		
2/28/2017	1.628					1.59325 (D)	0.446		1.8245	0.414
3/1/2017		0.4345	0.318	0.355	0.7725			0.432		
11/13/2017	6.445					5.16	4.255		3.575	2.225
11/14/2017		4.465	4.55	3.94	4.0675 (D)			5.16		
2/14/2018	5.23					3.22	2.1715		2.23025 (D)	2.79
2/15/2018		2.612	3.677	3.1875 (D)	4.1			3.8		
9/24/2019	1.628					1.444	0.4605		0.548	0.69
9/25/2019		0.4	0.596 (D)	0.5735	0.418			0.949		
4/6/2020	2.368					0.826 (D)	0.428		0.466	0.762
4/7/2020		0.26225 (D)	0.2665	0.3116	0.3205			0.345		
11/16/2020		0.503	0.563			0.714			0.281	0.2355
11/17/2020				0.4145 (D)	0.541		1.192 (D)	0.9085		

Hollow symbols indicate censored values.

Exceeds Limit: SC-10

# Prediction Limit

## Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 1.333% NDs. Annual per-constituent alpha = 0.003431. Individual comparison alpha = 0.0003436 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: Selenium, Total (mg/l)    Analysis Run 1/27/2021 2:51 PM    View: CCR Landfill

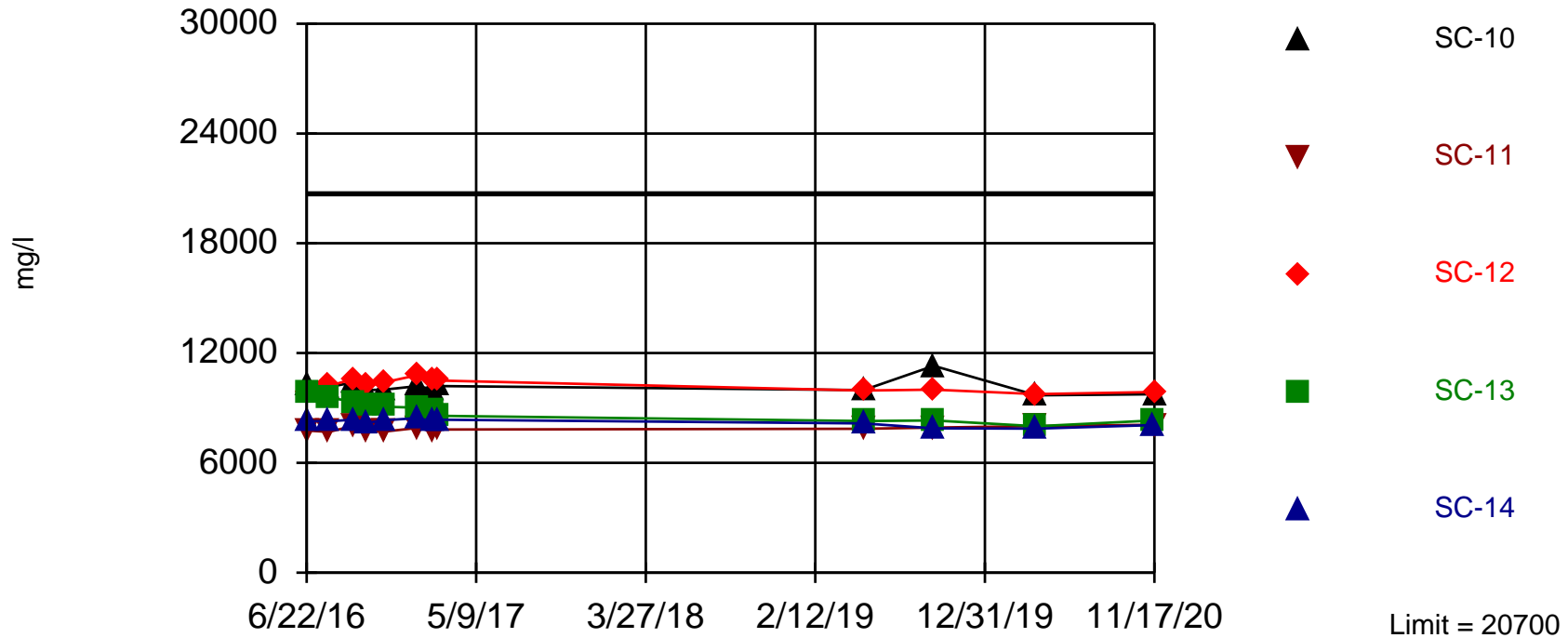
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	SC-11	SC-12	SC-10	CC-1	SC-13	SC-14	FC-2	FC-3A	FC-3B
6/22/2016	0.016	0.168	0.0203	0.212	0.1985 (D)	0.0311	0.0031	0.0471		
6/23/2016									0.0393	
6/27/2016										0.0057
8/2/2016	0.0098 (D)				0.186			0.0412	0.0382	0.0069
8/3/2016		0.155	0.0197	0.216 (D)		0.0236	0.0035			
9/19/2016	0.028 (D)				0.157 (D)			0.04895 (D)	0.0364 (D)	0.0112 (D)
9/20/2016		0.188 (D)	0.0252 (D)	0.201 (D)		0.0228 (D)	0.0062 (D)			
10/12/2016	0.0167 (D)				0.138 (D)			<0.001 (D1)	0.04245 (D)	0.0115 (D)
10/13/2016		0.168 (D)	0.05055 (D)	0.194 (D)		0.0558 (D)	0.0192 (D)			
11/15/2016	0.0136				0.145 (D)			0.0356 (D)	0.0355 (D)	0.0106 (D)
11/16/2016		0.163 (DP1)	0.0237 (DP1)	0.201 (DP1)		0.00765 (D)	<0.001 (D1P)			
1/18/2017	0.0254 (D)				0.1385 (D)			0.0452 (D)	0.039 (D)	0.0067 (D)
1/19/2017		0.196 (D)	0.0337 (D)	0.22 (D)		0.0202 (D)	0.0013 (D)			
2/14/2017	0.0141 (DT)				0.1415 (D)			0.0388 (DT)	0.0352 (DT)	0.0092 (D)
2/15/2017		0.194 (D)	0.03 (D)	0.22 (D)		0.0164 (D)	0.0033 (D)			
2/28/2017	0.00375 (D)				0.143 (D)			0.0367 (D)	0.0263 (D)	0.0011 (D)
3/1/2017		0.189 (D)	0.02355 (D)	0.224 (D)		0.0177 (D)	<0.001 (D1)			
11/13/2017	0.015 (D)				0.135 (D)			0.0381 (D)	0.0552 (D)	0.0107 (D)
11/14/2017		0.213 (D)	0.0252 (D)	0.168 (D)		0.0236 (D)	0.0046 (D)			
2/14/2018	0.0068				0.169			0.044	0.0543 (D)	0.0036
2/15/2018		0.355	0.0437	0.249		0.0204	0.0055			
9/25/2018	0.02165 (D)				0.17			0.0371	0.0512	0.0142
9/26/2018		0.107 (D)	0.0231	0.111 (D)		0.01845 (D)	0.002			
5/14/2019	0.0178 (D)				0.188 (D)			0.0402 (D)	0.04725 (D)	0.005 (D)
5/15/2019		0.186 (D)	0.0198 (D)	0.235 (D)		0.0185 (D)	0.005 (D)			
9/24/2019	0.01665 (D)		0.0134 (D)		0.19 (D)			0.0376 (D)	0.0399 (D)	0.0115 (D)
9/25/2019		0.169 (D)		0.17 (D)		0.015 (D)	0.0045 (D)			
4/6/2020	0.0156 (D)				0.1455 (D)			0.038 (D)	0.0394 (D)	0.0043 (D)
4/7/2020		0.166 (D)	0.0159 (D)	0.219 (D)		0.0177 (D)	0.00475 (D)			
11/16/2020					0.177 (D)	0.0174 (D)	0.003 (D)		0.0386 (D)	0.0052 (D)
11/17/2020	0.0188 (D)	0.167 (D)	0.0132 (D)	0.216 (D)				0.03575 (D)		

Within Limit

## Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 60 background values. Annual per-constituent alpha = 0.005219. Individual comparison alpha = 0.0005231 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

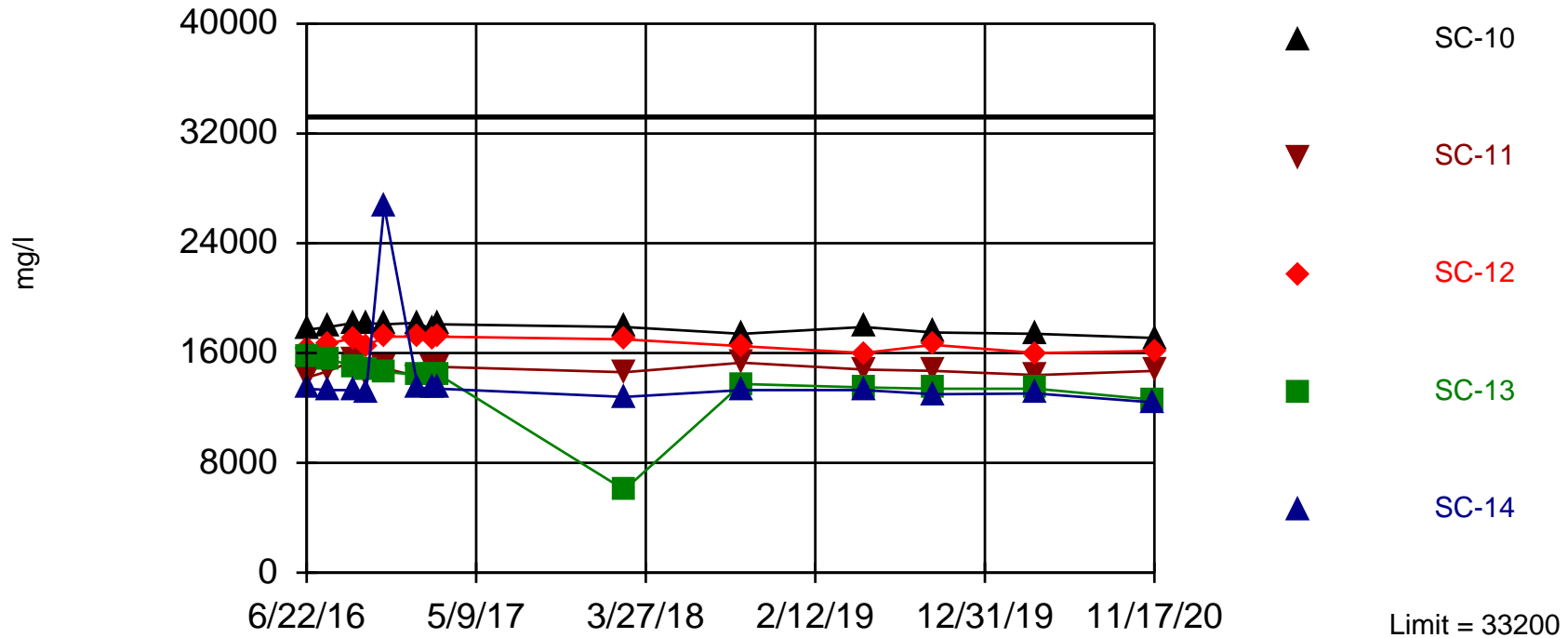
Constituent: Sulfate (mg/l) Analysis Run 1/27/2021 2:51 PM View: CCR Landfill  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	SC-14	SC-11	SC-12	SC-10	SC-13	CC-1	FC-3A	FC-3B
6/22/2016	13200 (D)	7080 (D)	8290 (D)	7770 (D)	9800 (D)	10300 (D)	9790 (D)	17200 (D)		
6/23/2016									5870 (D)	
6/27/2016										4820 (D)
8/2/2016	13000 (D)	7000 (D)						17200 (D)	5650 (D)	5240 (D)
8/3/2016			8270 (D)	7690 (D)	10200 (D)	10150 (D)	9560 (D)			
9/19/2016	13000 (D)	7030 (D)						17300 (D)	5800 (D)	5380 (D)
9/20/2016			8370 (D)	8035 (D)	10600 (D)	10400 (D)	9340 (D)			
10/12/2016	12800 (D)	6910 (D)						16600 (D)	5635 (D)	4940 (D)
10/13/2016			8180 (D)	7730 (D)	10200 (D)	9980 (D)	9080 (D)			
11/15/2016	13600 (D)	6910						17400 (D)	5735 (D)	5370 (D)
11/16/2016			8330 (D)	7710 (D)	10400 (D)	10000 (D)	9070 (D)			
1/18/2017	13700 (D)	7040 (D)						17550 (D)	5880 (D)	4590 (D)
1/19/2017			8450 (D)	7910 (D)	10800 (D)	10200 (D)	9020 (D)			
2/14/2017	13200 (D)	6840 (D)						16800 (D)	5720 (D)	4470 (D)
2/15/2017			8270 (D)	7730 (D)	10500 (D)	10020 (D)	8840 (D)			
2/28/2017	13100 (D)	6940 (D)						17400 (D)	5820 (D)	4640 (D)
3/1/2017			8360 (D)	7820 (D)	10500 (D)	10200 (D)	8570 (D)			
5/14/2019	13200 (D)	6660 (D)						18300 (D)	5725 (D)	4250 (D)
5/15/2019			8160 (D)	7860 (D)	9955 (D)	9980 (D)	8290 (D)			
9/24/2019	13250 (D)	7130 (D)			10000 (D)			20700 (D)	5770 (D)	4440 (D)
9/25/2019			7890 (D)	7930 (D)		11300 (D)	8315 (D)			
4/6/2020	13000 (D)	6750 (D)						19250 (D)	5930 (D)	4480 (D)
4/7/2020			7875 (D)	8010 (D)	9760 (D)	9690 (D)	8000 (D)			
11/16/2020			8070 (D)				8320 (D)	18800 (D)	5760 (D)	4460 (D)
11/17/2020	13300 (D)	6685 (D)		8080 (D)	9875 (D)	9750 (D)				



Within Limit

## Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. Annual per-constituent alpha = 0.003874. Individual comparison alpha = 0.0003881 (1 of 2). Comparing 5 points to limit.

# Prediction Limit

Constituent: TDS (mg/l) Analysis Run 1/27/2021 2:51 PM View: CCR Landfill  
 Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

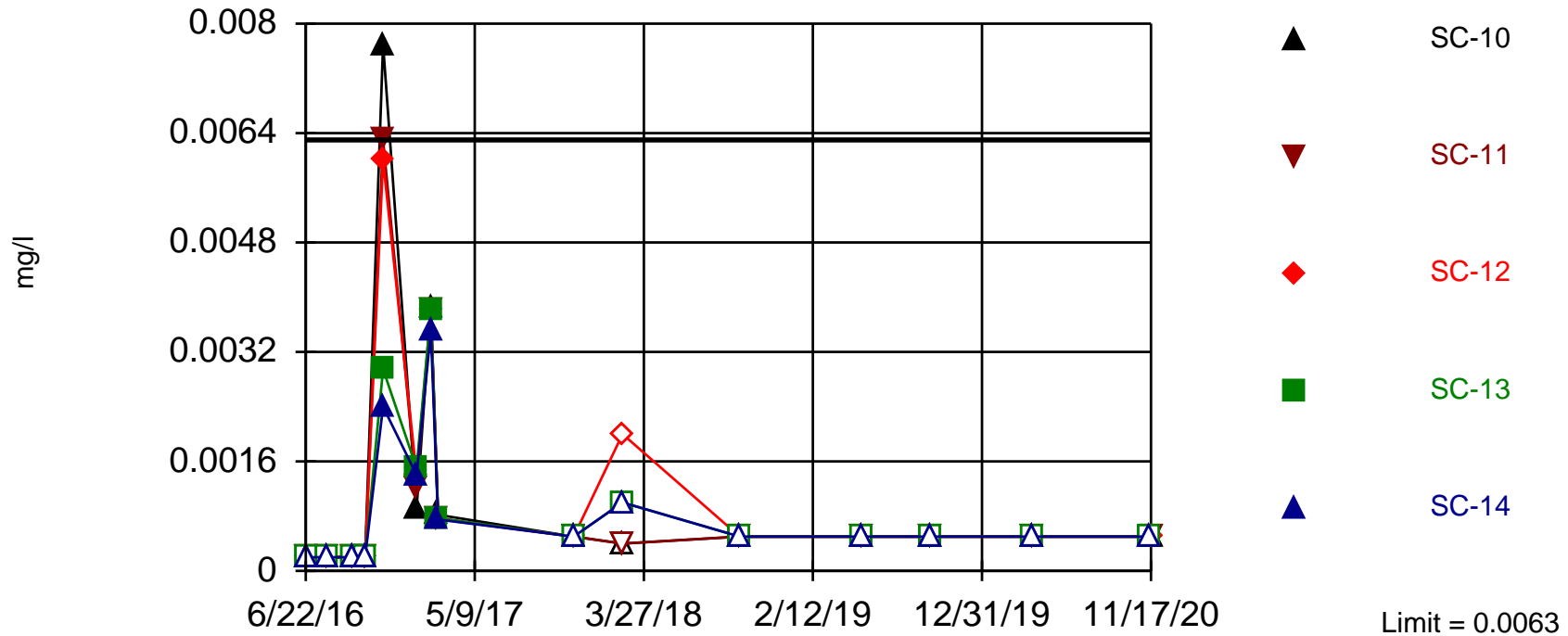
	FC-1	CC-1	SC-10	SC-11	FC-2	SC-14	SC-12	SC-13	FC-3A	FC-3B
6/22/2016	22300	30950 (D)	17700	14200	11200	13400	16200	15800		
6/23/2016									9460	
6/27/2016										7770
8/2/2016	22000 (D)	2.1			10900				9140	9200
8/3/2016			17900 (D)	14700		13300	16700	15600		
9/19/2016	21900	30500			11250 (D)				9320	9410
9/20/2016			18200	15450 (D)		13300	17100	15000		
10/12/2016	23200	31400			11600				9470 (D)	9450
10/13/2016			18200	14400		13200	16500 (D)	14700		
11/15/2016	22100	30600			11300				9320 (D)	9630
11/16/2016			18100	14900		26700	17200	14650 (D)		
1/18/2017	22200	31200 (D)			11200				9180	9250
1/19/2017			18200	14300		13500	17200	14400		
2/14/2017	22100	30450 (D)			11200				9310	9350
2/15/2017			17700 (D)	15000		13400	17000	14400		
2/28/2017	22100 (D)	30800			11300				9490	9410
3/1/2017			18100	15000		13400	17200 (D)	14400		
2/14/2018	22300	32500			11000				9400 (D)	9040
2/15/2018			17900	14600		12800	17000	6040		
9/25/2018	21800 (D)	31400			10900				9700	8970
9/26/2018			17400	15300		13300	16500	13750 (D)		
5/14/2019	22300	32700			10800				9280 (D)	7890
5/15/2019			17900	14800		13300	16000 (D)	13500		
9/24/2019	22200 (D)	33200			10600		16600		9220	7860
9/25/2019			17500	14700		13000		13400 (D)		
4/6/2020	22600	18820 (D)			10900				9540	7880
4/7/2020			17400	14400		13050 (D)	16000	13400		
11/16/2020		32400				12400		12600	9160	7600
11/17/2020	22100		17100	14700	10450 (D)		16150 (D)			

Hollow symbols indicate censored values.

Within Limit

### Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 75 background values. 70.67% NDs. Annual per-constituent alpha = 0.003431. Individual comparison alpha = 0.0003436 (1 of 2). Comparing 5 points to limit.

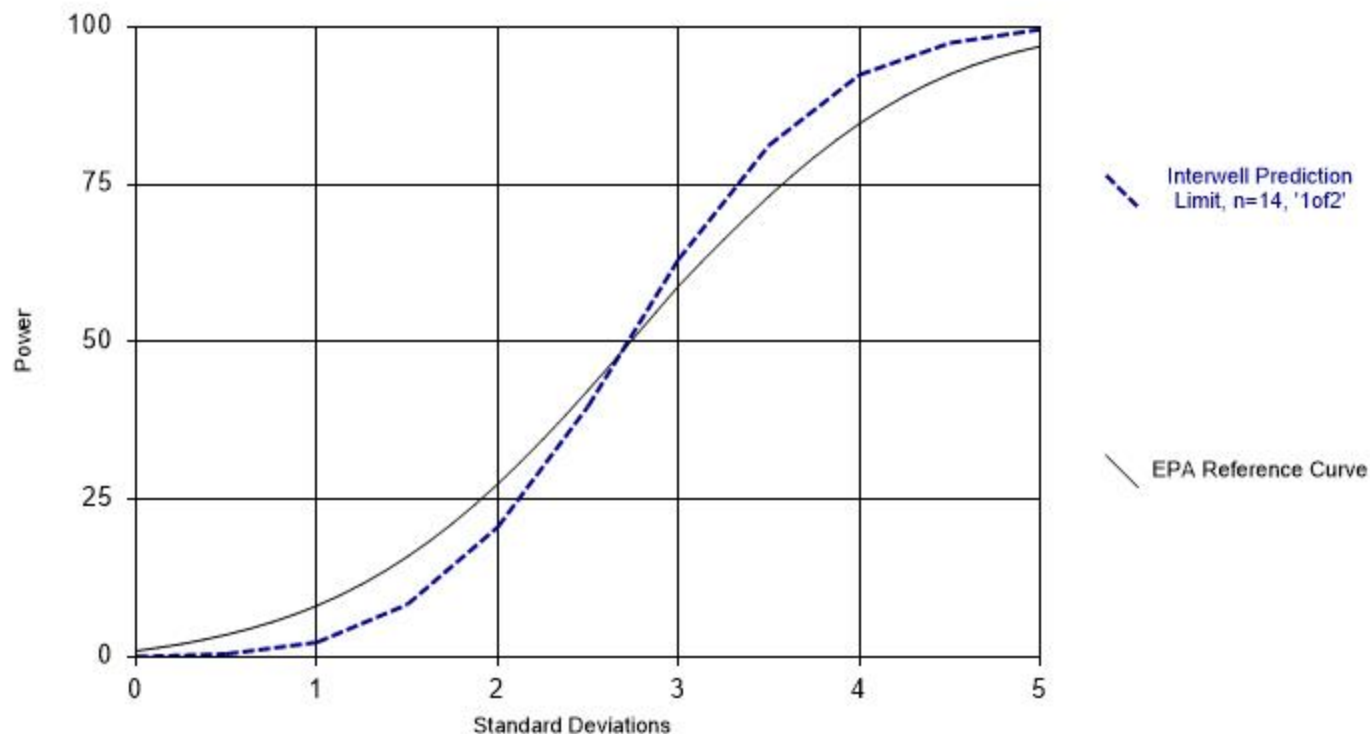
# Prediction Limit

Constituent: Thallium, Total (mg/l)    Analysis Run 1/27/2021 2:51 PM    View: CCR Landfill

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	SC-11	SC-12	SC-10	CC-1	SC-13	SC-14	FC-2	FC-3A	FC-3B
6/22/2016	0.0002	<0.0002	<0.0002	<0.0002	0.000455 (D)	<0.0002	<0.0002	<0.0002		
6/23/2016									<0.0002	
6/27/2016										<0.0002
8/2/2016	<0.0002 (D)				0.00045			<0.0002	<0.0002	<0.0002
8/3/2016		<0.0002	<0.0002	<0.0002 (D)		<0.0002	<0.0002			
9/19/2016	0.00027 (D)				<0.0002 (D1)			0.000545 (D)	<0.0002 (D1)	<0.0002 (D1)
9/20/2016		<0.0002 (D)	<0.0002 (D1)	<0.0002 (D1)		<0.0002 (D1)	<0.0002 (D1)			
10/12/2016	<0.0002 (D1)				<0.0002 (D1)			<0.0002 (D1)	<0.0002 (D)	<0.0002 (D1)
10/13/2016		<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)		<0.0002 (D1)	<0.0002 (D1)			
11/15/2016	0.0061 (D)				0.0063 (D)			<0.0002 (D1)	0.0057 (D)	0.0056 (D)
11/16/2016		0.0063 (D)	0.006 (D)	0.0077 (D)		0.00295 (D)	0.0024 (D)			
1/18/2017	<0.0005 (D1)				0.0014 (D)			<0.0005 (D1)	0.00069 (D)	0.00098 (D)
1/19/2017		0.0012 (D)	0.0014 (D)	0.00091 (D)		0.0015 (D)	0.0014 (D)			
2/14/2017	0.0037 (D)				0.00385 (D)			0.0036 (D)	0.0034 (D)	0.0062 (D)
2/15/2017		0.0038 (D)	0.0038 (D)	0.00385 (D)		0.0038 (D)	0.0035 (D)			
2/28/2017	0.0011 (D)				0.0014 (D)			0.0011 (D)	0.0011 (D)	0.00091 (D)
3/1/2017		0.00077 (D)	0.00076 (D)	0.00082 (D)		0.00077 (D)	0.00075 (D)			
11/13/2017	<0.0005 (D1)				<0.0005 (D1)			<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
11/14/2017		<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)		<0.0005 (D1)	<0.0005 (D1)			
2/14/2018	<0.002				<0.002			<0.001	<0.001 (D)	<0.001
2/15/2018		<0.0004	<0.002	<0.0004		<0.001	<0.001			
9/25/2018	<0.0005 (D)				<0.0005			<0.0005	<0.0005	<0.0005
9/26/2018		<0.0005 (D1)	<0.0005	<0.0005 (D1)		<0.0005 (D)	<0.0005			
5/14/2019	<0.0005				<0.0005 (D1D)			<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
5/15/2019		<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)		<0.0005 (D1D)	<0.0005 (D1D)			
9/24/2019	<0.0005 (D1D)		<0.0005 (D1D)		<0.0005 (D1D)			<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
9/25/2019		<0.0005 (D1D)		<0.0005 (D1D)		<0.0005 (D1D)	<0.0005			
4/6/2020	<0.0005 (DD1)				<0.0005 (DD1)			<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
4/7/2020		<0.0005 (D)	<0.0005 (DD1)	<0.0005 (DD1)		<0.0005 (DD1)	<0.0005 (DD1)			
11/16/2020					<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)		<0.0005 (DD1)	<0.0005
11/17/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (D)	<0.0005				<0.0005 (DD1)		

## Power Curve



Kappa = 2.668, based on 5 compliance wells and 22 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 1/27/2021 2:53 PM View: CCR Landfill

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 75 background values. 84% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Antimony, Total    Analysis Run 1/27/2021 4:04 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

# Tolerance Limit

Constituent: Antimony, Total (mg/l) Analysis Run 1/27/2021 4:09 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B
6/22/2016	<0.0002	<0.0002	<0.0002 (D)		
6/23/2016				0.00021	
6/27/2016					0.00065
8/2/2016	<0.0002 (D)	<0.0002	<0.0002	<0.0002	0.00061
9/19/2016	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)
10/12/2016	<0.0002 (D1)	<0.0002 (D1)	0.0004 (D)	0.00026 (D)	0.00032 (D)
11/15/2016	0.0016 (D)	<0.0002 (D1)	0.0015 (D)	0.0015 (D)	0.0015 (D)
1/18/2017	<0.0005 (D1P)	<0.0005 (D1P)	<0.0005 (D1)	0.00055 (D)	<0.0005 (D1)
2/14/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	0.00066 (D)
2/28/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
11/13/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
2/14/2018	<0.008	<0.0008	<0.008	<0.0008 (D)	<0.0008
9/25/2018	<0.0005 (D)	<0.0005	<0.0005	<0.0005	<0.0005
5/14/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
9/24/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
11/16/2020			<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
11/17/2020	<0.0005 (DD1)	<0.0005 (DD1)			

## Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary (based on square root transformation): Mean=0.05978, Std. Dev.=0.02391, n=73, 12.33% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9751, critical = 0.956. Report alpha = 0.05.

Constituent: Arsenic, Total Analysis Run 1/27/2021 4:04 PM View: CCR Landfill Tolerance  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary



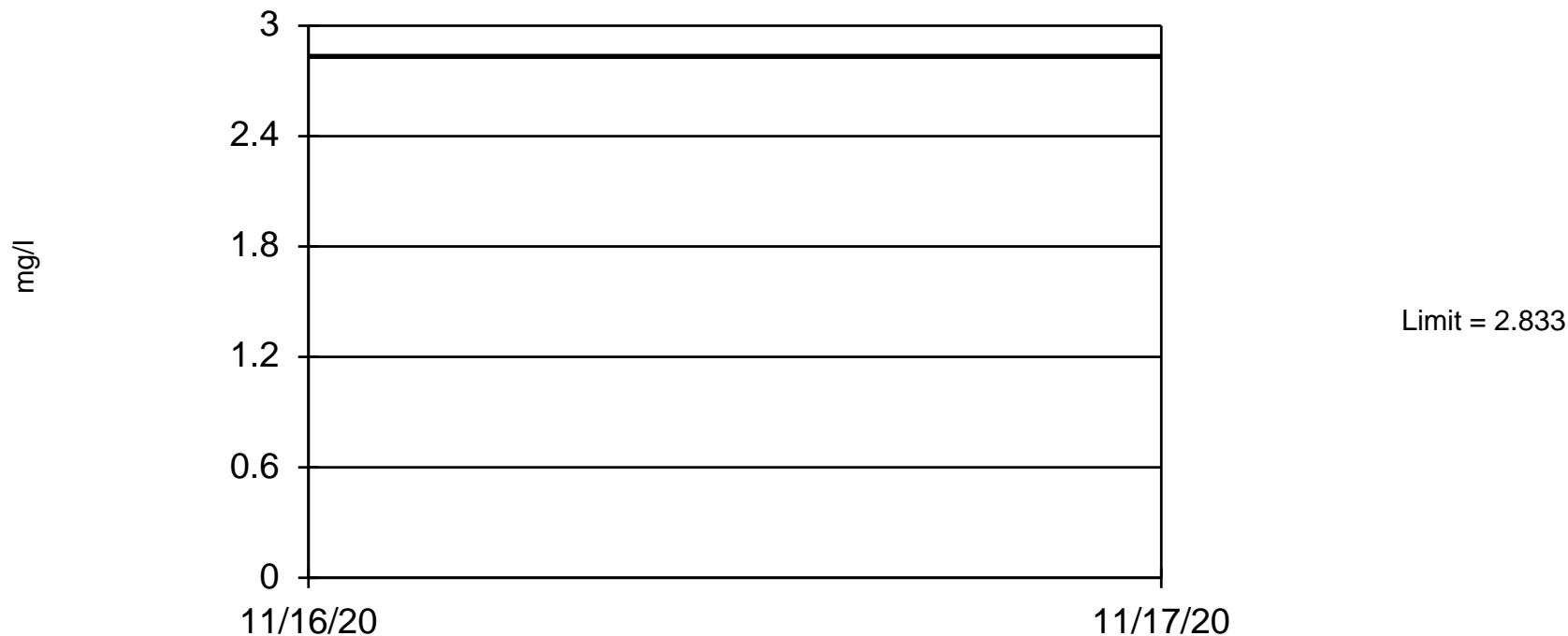
# Tolerance Limit

Constituent: Arsenic, Total (mg/l) Analysis Run 1/27/2021 4:09 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	0.0042	0.0109 (D)	0.0025		
6/23/2016				0.0031	
6/27/2016					0.0026
8/2/2016	0.0025 (D)	0.0105	0.0016	0.0021	0.0031
9/19/2016	0.0094 (D)	0.0089 (D)	0.0036 (D)	0.0029 (D)	0.0051 (D)
10/12/2016	0.0023 (D)	0.0071 (D)	<0.001 (D1)	0.001325 (D)	0.0056 (D)
11/15/2016	0.0036 (D)	0.0054 (D)	<0.001 (D1)	0.0018 (D)	0.007 (D)
1/18/2017	0.0061 (D)	0.00255 (D)	0.0011 (D)	<0.001 (D1)	0.0057 (D)
2/14/2017	<0.001 (D1)	0.00495 (D)	<0.001 (D1)	<0.001 (D1)	0.004 (D)
2/28/2017	0.00625 (D)	0.011 (D)	0.0076 (D)	0.0069 (D)	0.0081 (D)
11/13/2017	0.0041 (D)	0.008 (D)	0.0025 (D)	0.0022 (D)	0.0064 (D)
2/14/2018	<0.002		<0.001	0.00115 (D)	0.0026
9/25/2018	0.005 (D)	0.0115	0.0014	0.003	0.0074
5/14/2019	0.0029	0.0072 (D)	0.0013 (D)	0.0017 (D)	0.002 (D)
9/24/2019	0.00295 (D)	0.0081 (D)	<0.001 (D1D)	0.0016 (D)	0.0044 (D)
4/6/2020	0.0034 (D)	0.00765 (D)	0.003 (D)		0.0041 (D)
11/16/2020		0.0111 (D)		0.0017 (D)	0.0016 (D)
11/17/2020	0.0039 (D)		0.0018 (D)		

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 5.333% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Barium, Total    Analysis Run 1/27/2021 4:05 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

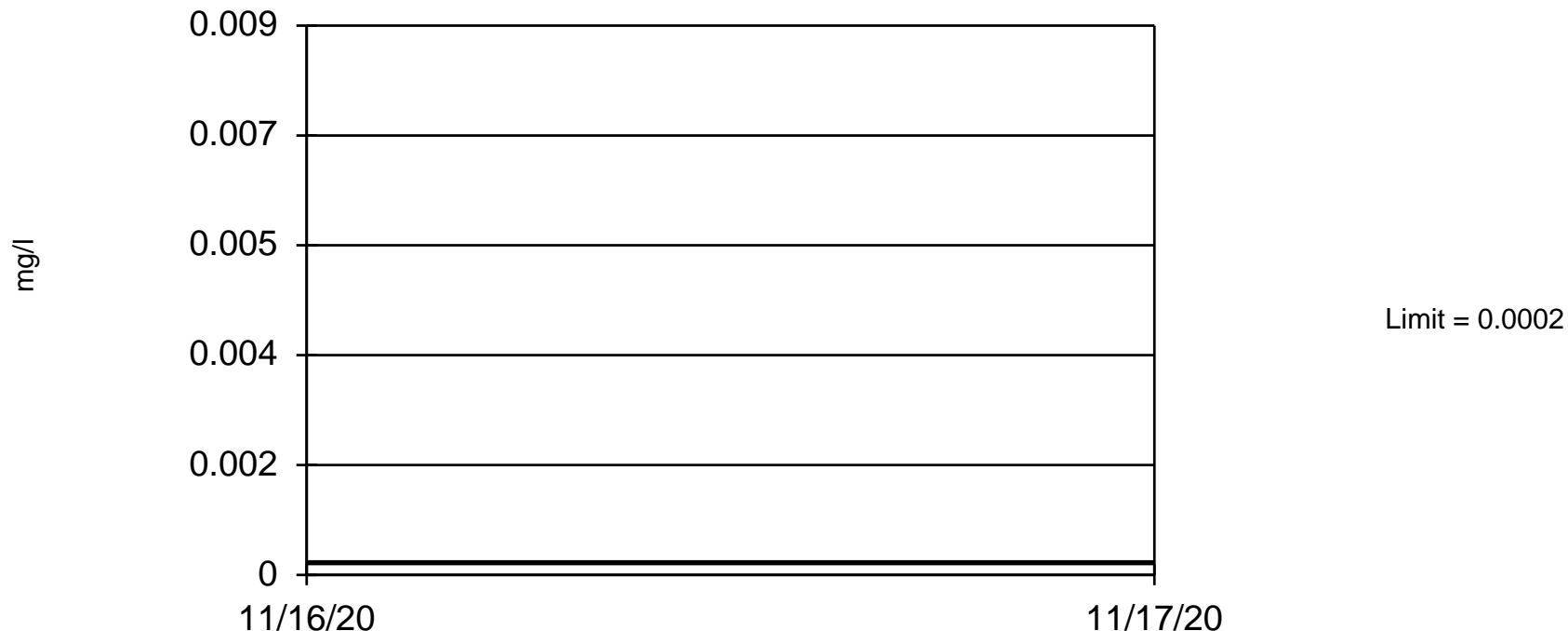
# Tolerance Limit

Constituent: Barium, Total (mg/l) Analysis Run 1/27/2021 4:09 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B
6/22/2016	0.00954	0.00503	2.83285 (D)		
6/23/2016				0.034	
6/27/2016					0.0336
8/2/2016	0.008725 (D)	<0.005	0.00512	0.0202	0.0253
9/19/2016	0.00928	0.00525 (D)	0.00542	0.0218	0.0183
10/12/2016	0.00905	0.00536	0.00593	0.03735 (D)	0.0184
11/15/2016	0.0102	0.00516	0.00608	0.01735 (D)	0.0652
1/18/2017	0.00929	0.00539	0.005675 (D)	0.0164	0.0244
2/14/2017	0.01	0.00566	0.006005 (D)	0.0167	0.023
2/28/2017	0.009 (D)	0.0054	<0.005	0.0148	0.0208
11/13/2017	0.0082 (D)	0.00435 (D)	0.004 (D)	0.0259 (D)	0.0154 (D)
2/14/2018	0.0105	<0.01	<0.01	0.01205 (D)	0.0196
9/25/2018	0.00665 (D)	0.004	0.0039	0.021	0.037
5/14/2019	0.0073	0.0043 (D)	0.0044 (D)	0.0265 (D)	0.0146 (D)
9/24/2019	0.0073 (D)	0.0056 (D)	0.0041 (D)	0.0276 (D)	0.0268 (D)
4/6/2020	0.0068 (D)	0.004 (D)	0.0033 (D)	0.0123 (D)	0.0099 (D)
11/16/2020			0.0041 (D)	0.008 (D)	0.0098 (D)
11/17/2020	0.007 (D)	0.0044 (D)			

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Beryllium, Total    Analysis Run 1/27/2021 4:05 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

# Tolerance Limit

Constituent: Beryllium, Total (mg/l) Analysis Run 1/27/2021 4:09 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B
6/22/2016	<0.002	<0.002	<0.002 (D)		
6/23/2016				<0.002	
6/27/2016					<0.002
8/2/2016	<0.002 (D)	<0.002	<0.002	<0.002	<0.002
9/19/2016	<0.002	<0.002 (D)	<0.002	<0.002	<0.002
10/12/2016	<0.002	<0.002	<0.002	<0.002 (D)	<0.002
11/15/2016	<0.002	<0.002	<0.002	<0.002 (D)	<0.002
1/18/2017	<0.002	<0.002	<0.002 (D)	<0.002	<0.002
2/14/2017	<0.002	<0.002	<0.002 (D)	<0.002	<0.002
2/28/2017	<0.002 (D)	<0.002	<0.002	<0.002	<0.002
11/13/2017	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)
2/14/2018	<0.001 (T)	<0.0004 (T)	<0.001 (T)	<0.0004 (TD)	<0.001 (T)
9/25/2018	<0.0002 (D)	<0.0002	<0.0002	<0.0002	<0.0002
5/14/2019	<0.0002	<0.0002	<0.0002 (D1D)	<0.0002 (D1D)	<0.0002 (D1D)
9/24/2019	<0.0002 (D1D)	<0.0002 (DD1)	<0.0002 (D1D)	<0.0002 (DD1)	<0.0002 (D1D)
4/6/2020	<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (DD1)
11/16/2020			<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (DD1)
11/17/2020	<0.0002 (DD1)	<0.0002 (D)			

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 75 background values. 96% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Cadmium, Total    Analysis Run 1/27/2021 4:05 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

# Tolerance Limit

Constituent: Cadmium, Total (mg/l) Analysis Run 1/27/2021 4:09 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B
6/22/2016	<0.005	<0.005	<0.005 (D)		
6/23/2016				<0.005	
6/27/2016					<0.005
8/2/2016	<0.005 (D)	<0.005	<0.005	<0.005	<0.005
9/19/2016	<0.005	<0.005	<0.005	<0.005	<0.005
10/12/2016	<0.005	<0.005	<0.005	<0.005 (D)	<0.005
11/15/2016	<0.005	<0.005	<0.005	<0.005 (D)	<0.005
1/18/2017	<0.005	<0.005	<0.005 (D)	<0.005	<0.005
2/14/2017	<0.005	<0.005	<0.005 (D)	<0.005	<0.005
2/28/2017	<0.005 (D)	<0.005	<0.005	<0.005	<0.005
11/13/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
2/14/2018	<0.001	0.00031	<0.001	0.000365 (D)	0.00032
9/25/2018	<0.0005 (D)	<0.0005	<0.0005	<0.0005	<0.0005
5/14/2019	<0.0005	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
9/24/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
11/16/2020			<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
11/17/2020	<0.0005 (DD1)	<0.0005 (DD1)			

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 75 background values. 62.67% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Chromium, Total    Analysis Run 1/27/2021 4:05 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary



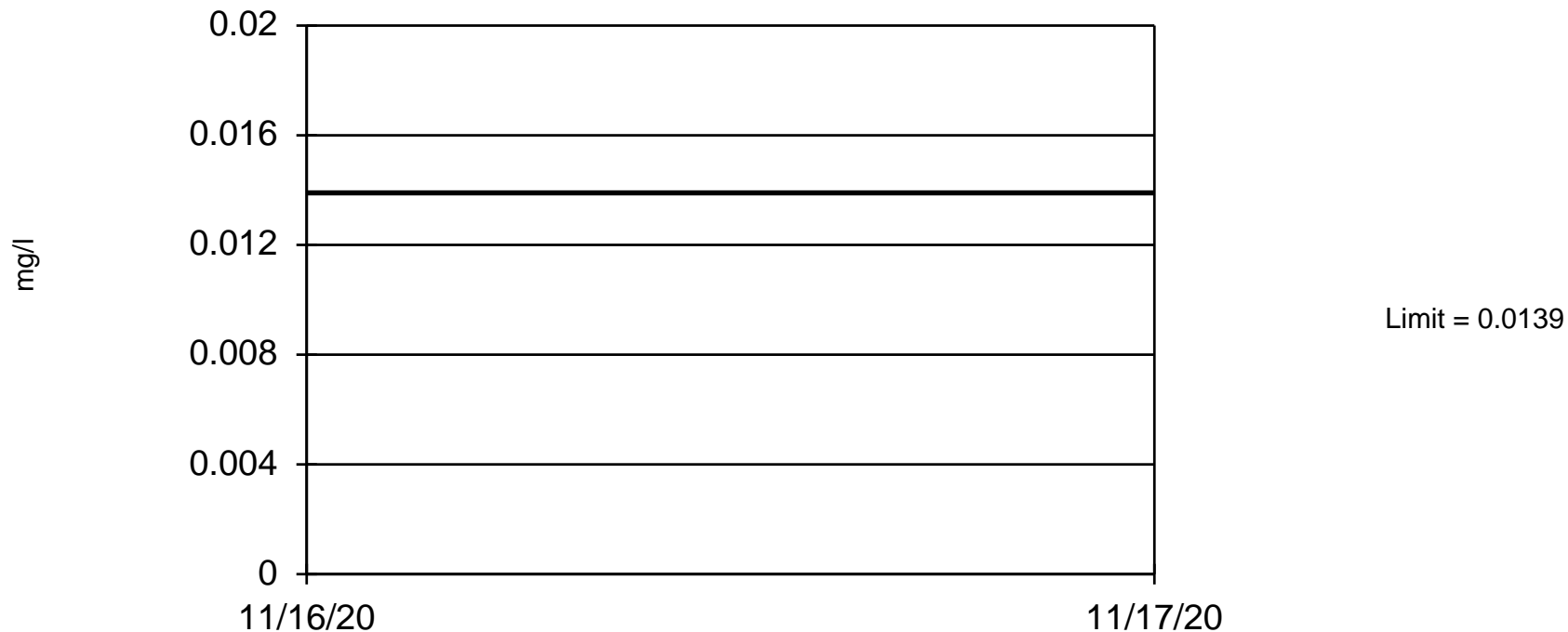
# Tolerance Limit

Constituent: Chromium, Total (mg/l) Analysis Run 1/27/2021 4:09 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B
6/22/2016	<0.01	<0.01	<0.01 (D)		
6/23/2016				<0.01	
6/27/2016					<0.01
8/2/2016	<0.01 (D)	<0.01	<0.01	<0.01	<0.01
9/19/2016	<0.01	<0.01 (D)	<0.01	<0.01	<0.01
10/12/2016	<0.01	<0.01	<0.01	<0.01 (D)	<0.01
11/15/2016	<0.01	<0.01	<0.01	<0.01 (D)	<0.01
1/18/2017	<0.01	<0.01	<0.01 (D)	<0.01	<0.01
2/14/2017	<0.01	<0.01	<0.01 (D)	<0.01	<0.01
2/28/2017	<0.01 (D)	<0.01	<0.01	<0.01	<0.01
11/13/2017	0.006 (D)	0.0051 (D)	0.0064 (D)	0.0062 (D)	0.0086 (D)
2/14/2018	<0.004	<0.004	<0.004	<0.004 (D)	0.0058
9/25/2018	0.001 (D)	0.001	0.0017	0.0025	0.0061
5/14/2019	0.0013	<0.001 (D)	0.0018 (D)	0.0031 (D)	0.0049 (D)
9/24/2019	0.0042 (D)	0.0035 (D)	0.0036 (D)	0.0054 (D)	0.0089 (D)
4/6/2020	<0.001 (DD1)	<0.001 (DD1)	0.0022 (D)	0.0014 (D)	0.0039
11/16/2020			0.0044 (D)	0.0038 (D)	0.0049 (D)
11/17/2020	0.0046 (D)	0.0038 (D)			

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 73 background values. 86.3% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02365.

Constituent: Cobalt, Total    Analysis Run 1/27/2021 4:05 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

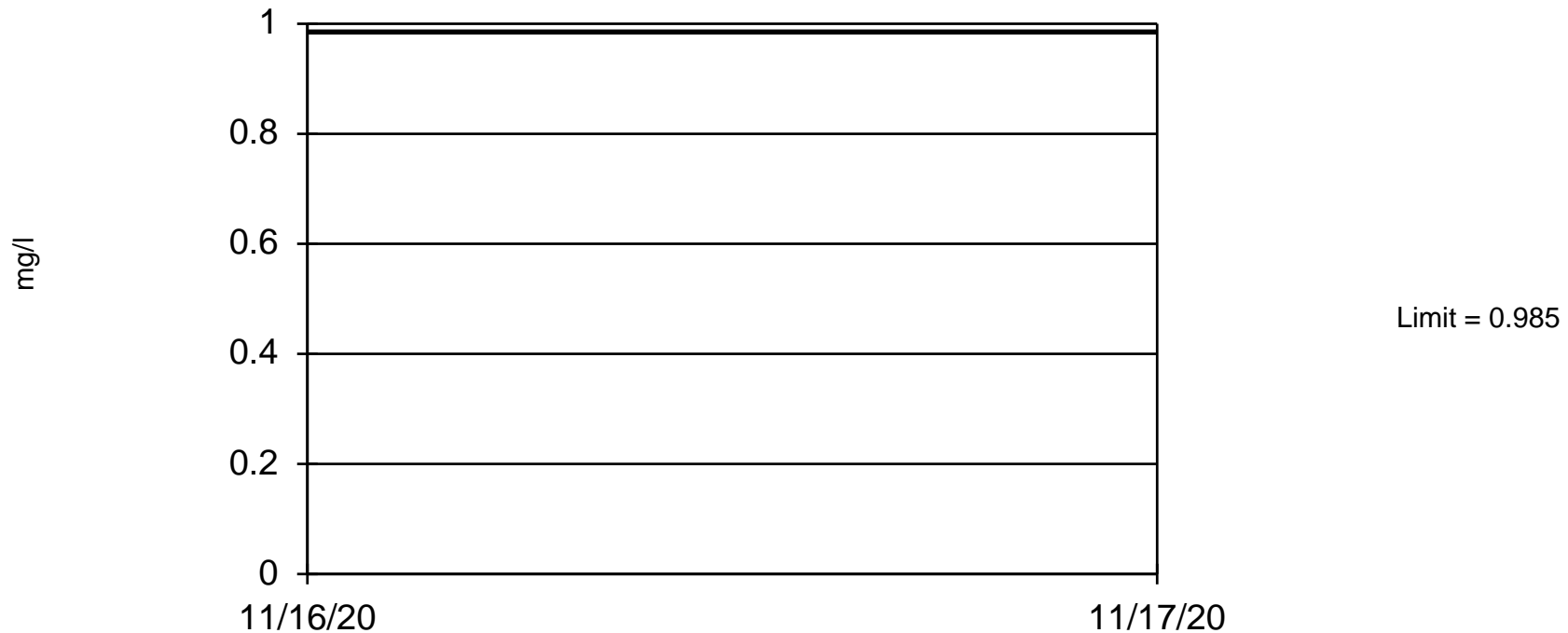
# Tolerance Limit

Constituent: Cobalt, Total (mg/l) Analysis Run 1/27/2021 4:09 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	<0.005	<0.005 (D)	<0.005		
6/23/2016				<0.005	
6/27/2016					0.0078
8/2/2016	<0.005 (D)		<0.005	<0.005	0.005
9/19/2016	<0.005	<0.005	<0.005 (D)	<0.005	<0.005
10/12/2016	<0.005	<0.005	<0.005	<0.005 (D)	<0.005
11/15/2016	<0.005	<0.005	<0.005	<0.005 (D)	0.00736
1/18/2017	<0.005	<0.005 (D)	<0.005	<0.005	0.00778
2/14/2017	<0.005	<0.005 (D)	<0.005	<0.005	0.00796
2/28/2017	<0.005 (D)	<0.005	<0.005	<0.005	0.00553
11/13/2017	<0.005	<0.005	<0.005 (D)	<0.005	0.0118
2/14/2018		0.00636	<0.005	<0.005 (D)	0.0139
9/25/2018	<0.005 (DD1)	<0.005 (DD1)	<0.005 (DD1)	<0.005 (DD1)	0.0108 (D)
5/14/2019	<0.005	<0.005	<0.005	<0.005 (D)	<0.005
9/24/2019	<0.005 (D)	<0.005	<0.005	<0.005	<0.005
4/6/2020	<0.005	<0.005 (D)	<0.005	<0.005	<0.005
11/16/2020		<0.005		<0.005	<0.005
11/17/2020	<0.005		<0.005 (D)		

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Fluoride, Total    Analysis Run 1/27/2021 4:05 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

# Tolerance Limit

Constituent: Fluoride, Total (mg/l) Analysis Run 1/27/2021 4:09 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B
6/22/2016	0.12 (T)	0.51 (T)	0.215 (TD)		
6/23/2016				0.46 (T)	
6/27/2016					0.55
8/2/2016	0.06006 (TD)	0.5 (T)	0.21 (T)	0.46 (T)	0.00048 (T)
9/19/2016	0.13	0.985 (D)	0.22	0.48	0.48
10/12/2016	0.12 (T)	0.52 (T)	0.21 (T)	0.465 (TD)	0.51 (T)
11/15/2016	0.12 (T)	0.51 (T)	0.2 (T)	0.46 (TD)	0.46 (T)
1/18/2017	0.13 (T)	0.52 (T)	0.2 (TD)	0.46 (T)	0.56 (T)
2/14/2017	0.13 (T)	0.55 (T)	0.22 (TD)	0.48 (T)	0.51 (T)
2/28/2017	0.13 (TD)	0.53 (T)	0.22 (T)	0.47 (T)	0.42 (T)
11/13/2017	0.2	0.7 (D)	0.45	0.56	0.48
2/14/2018	0.21	0.74	0.5	0.615 (D)	0.53
9/25/2018	0.195 (D)	0.73	0.48	0.62	0.52
5/14/2019	0.13	0.51	0.2	0.44 (D)	0.69
9/24/2019	0.195 (D)	0.72	0.53	0.59	0.72
4/6/2020	0.21	0.72	0.545 (D)	0.61	0.7
11/16/2020			0.55	0.6	0.7
11/17/2020	0.2	0.74 (D)			

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 48% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Lead, Total    Analysis Run 1/27/2021 4:06 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

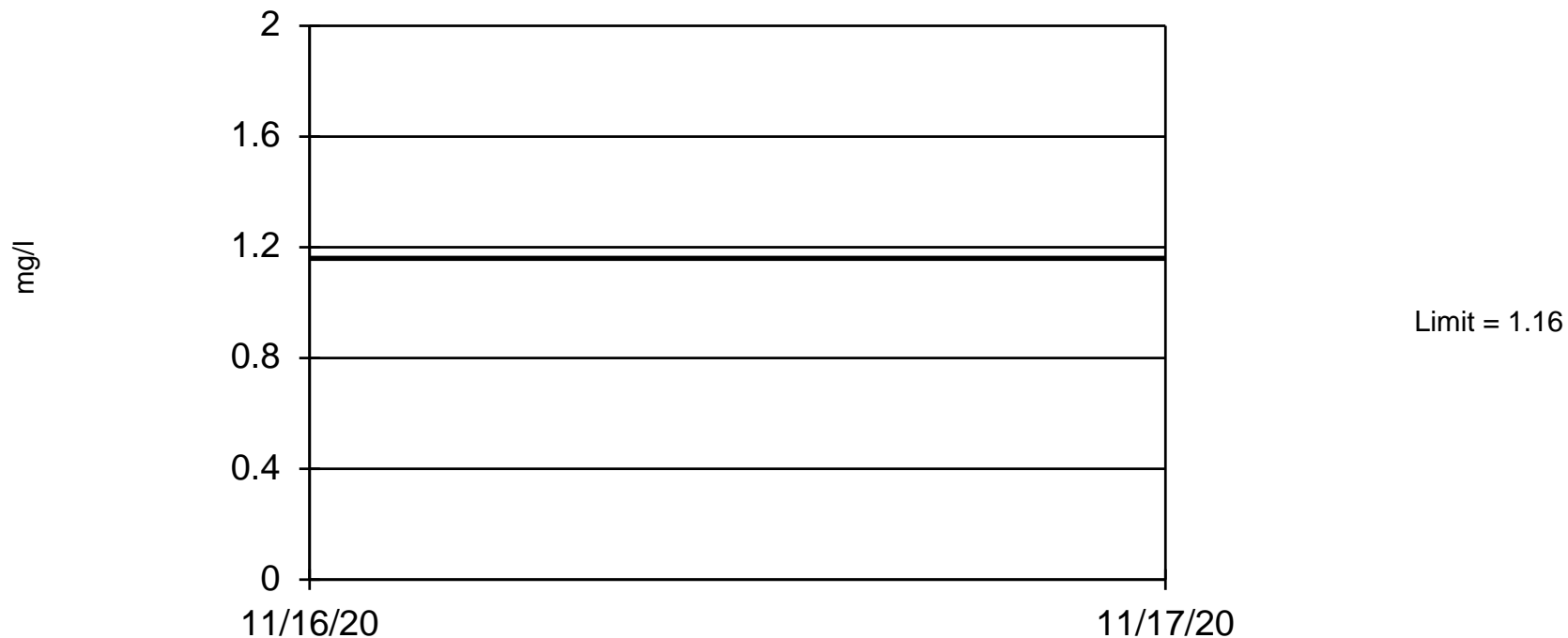
# Tolerance Limit

Constituent: Lead, Total (mg/l) Analysis Run 1/27/2021 4:09 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B
6/22/2016	<0.0002	0.0002	<0.0002 (D)		
6/23/2016				0.0052	
6/27/2016					0.0039
8/2/2016	<0.0002 (D)	<0.0002	<0.0002	0.0015	0.0021
9/19/2016	0.00032 (D)	<0.0002 (D1)	<0.0002 (D1)	0.001 (D)	0.00042 (D)
10/12/2016	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	0.000835 (D)	<0.0002 (D1)
11/15/2016	0.0037 (D)	<0.0002 (D1)	0.0052 (D)	0.0031 (D)	0.0065 (D)
1/18/2017	<0.0005 (D1)	<0.0005 (D1)	0.0035 (D)	0.0035 (D)	0.0035 (D)
2/14/2017	0.0027 (D)	0.0018 (D)	0.0028 (D)	0.0017 (D)	0.00099 (D)
2/28/2017	0.0081 (D)	0.0089 (D)	0.0049 (D)	0.009	0.0089 (D)
11/13/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	0.00091 (D)	<0.0005 (D1)
2/14/2018	<0.005	<0.0025	<0.005	<0.0025 (D)	<0.0025
9/25/2018	<0.0005 (D)	<0.0005	<0.0005	0.00086	0.0046
5/14/2019	<0.0005	<0.0005 (D1D)	<0.0005 (D1D)	0.0011 (D1D)	0.00073 (D1D)
9/24/2019	<0.0005 (D1D)	0.0014 (D)	0.00072 (D)	0.0018 (D)	0.0012 (D)
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
11/16/2020			0.0019 (D)	0.00074 (D)	0.00051 (D)
11/17/2020	0.0013 (D)	<0.0005 (DD1)			

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Lithium, Total    Analysis Run 1/27/2021 4:06 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary



# Tolerance Limit

Constituent: Lithium, Total (mg/l) Analysis Run 1/27/2021 4:09 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B
6/22/2016	0.904	0.269	0.671 (D)		
6/23/2016				0.303	
6/27/2016					0.232
8/2/2016	0.984 (D)	0.305	0.731	0.311	0.274
9/19/2016	1.01	0.306 (D)	0.779	0.343	0.295
10/12/2016	1.03	0.307	0.825	0.3455 (D)	0.315
11/15/2016	1.16	0.325 (T)	0.822	0.3375 (D)	0.344
1/18/2017	1.08	0.318	0.791 (D)	0.343 (D)	0.335
2/14/2017	1	0.298	0.73 (D)	0.312	0.334
2/28/2017	0.9125 (D)	0.275 (D)	0.641	0.283 (D)	0.326 (D)
11/13/2017	0.894	0.2665 (D)	0.63	0.288	0.31
2/14/2018	0.9 (D)	0.265 (D)	0.576 (D)	0.2635 (D)	0.341 (D)
9/25/2018	0.9085 (D)	0.276 (D)	0.664 (D)	0.302 (D)	0.316 (D)
5/14/2019	1.13	0.294	0.798	0.3265 (D)	0.321
9/24/2019	0.9695 (D)	0.274 (D)	0.722 (D)	0.303 (D)	0.284 (D)
4/6/2020	0.943	0.274	0.7435 (D)	0.295	0.284
11/16/2020			0.808	0.305	0.28
11/17/2020	1.12	0.2905 (D)			

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 74 background values. 2.703% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02247.

Constituent: Mercury, Total    Analysis Run 1/27/2021 4:06 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

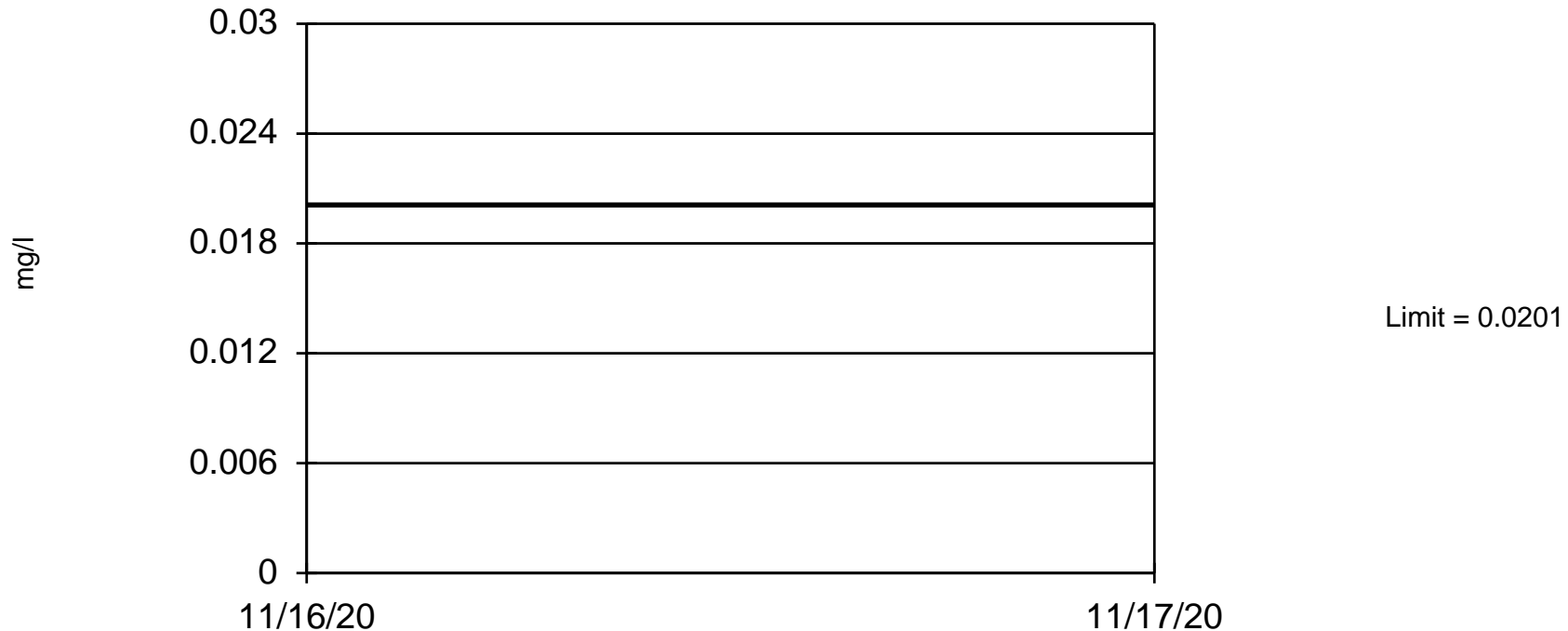
# Tolerance Limit

Constituent: Mercury, Total (mg/l) Analysis Run 1/27/2021 4:09 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	1.3E-06	4.7E-06 (D)	2.8E-06		
6/23/2016				5.4E-06	
6/27/2016					1.3E-05
8/2/2016	2E-06 (D)	6E-06	4E-06	7E-06	6E-06
9/19/2016	2E-06	6E-06	3E-06 (D)	4E-06	3E-06
10/12/2016	2E-06	6E-06		5E-06 (D)	3E-06
11/15/2016	2E-06	6E-06	4E-06	2E-06 (D)	9E-06
1/18/2017	2E-06	7.5E-06 (D)	5E-06	2E-06	8E-06
2/14/2017	2E-06	6E-06 (D)	4E-06	2E-06	4E-06
2/28/2017	2E-06 (D)	6E-06	4E-06	2E-06	5E-06
11/13/2017	2E-06 (T)	6E-06 (T)	3.5E-06 (TD)	4E-06 (T)	7E-06 (T)
2/14/2018	2E-06	5E-06	3E-06	2E-06 (D)	5E-06
9/25/2018	2.5E-06 (D)	5E-06	3E-06	3E-06	2.4E-05
5/14/2019	2E-06	6E-06	3E-06	7.5E-06 (D)	3E-06
9/24/2019	2E-06 (D)	5E-06	5E-06	8E-06	5E-06
4/6/2020	2E-06	6E-06 (D)	4E-06	2E-06	2E-06
11/16/2020		6E-06		<2E-06	<2E-06
11/17/2020	2E-06		3E-06 (D)		

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 37.33% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Molybdenum, Total    Analysis Run 1/27/2021 4:06 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

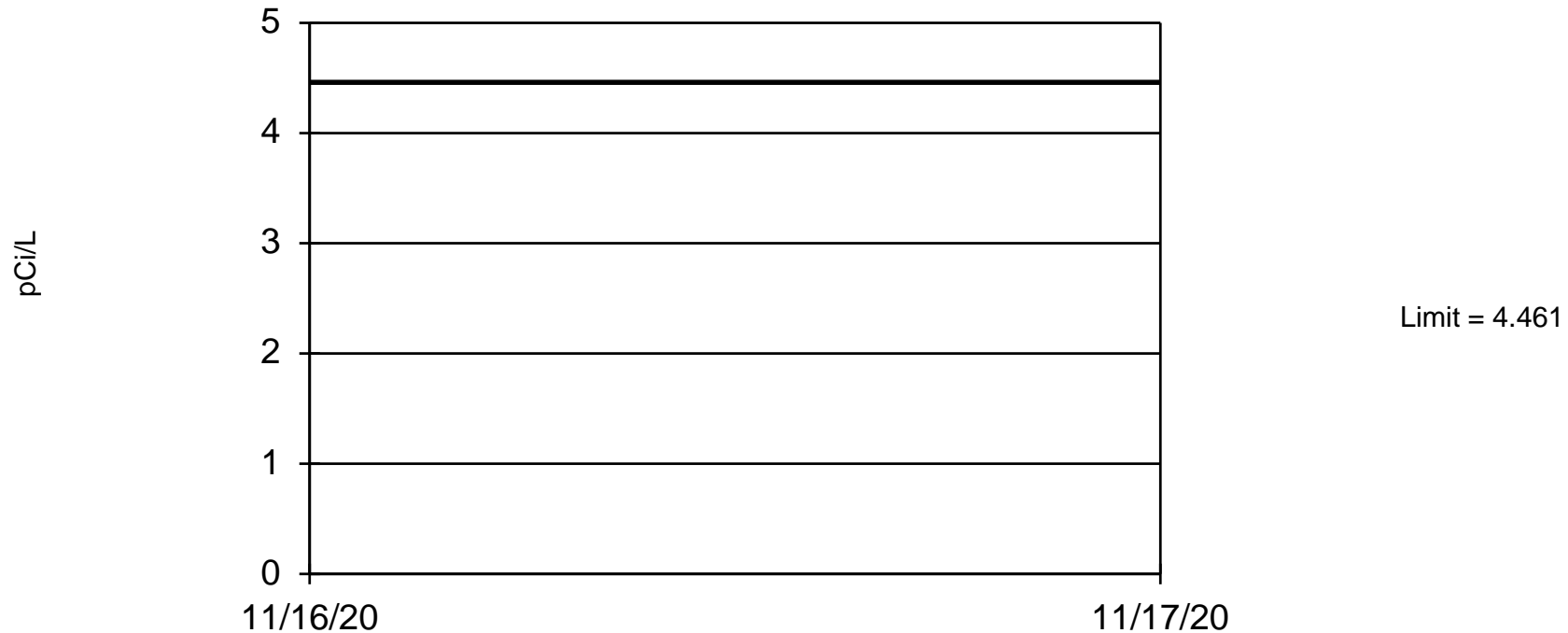
# Tolerance Limit

Constituent: Molybdenum, Total (mg/l) Analysis Run 1/27/2021 4:09 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B
6/22/2016	<0.005	<0.005	<0.005 (D)		
6/23/2016				<0.005	
6/27/2016					0.0201
8/2/2016	<0.005 (D)	<0.005	<0.005	0.00838	0.0198
9/19/2016	<0.005	<0.005 (D)	<0.005	0.0122	0.00609
10/12/2016	<0.005	0.001252 (D)	<0.005	0.009175 (D)	0.00525
11/15/2016	<0.005	<0.005	<0.005	0.01065 (D)	0.0117
1/18/2017	<0.005	<0.005	<0.005 (D)	0.00969	<0.005
2/14/2017	<0.005	<0.005	<0.005 (D)	0.0104	0.00716
2/28/2017	<0.005 (D)	<0.005	<0.005	0.0109	0.00842
11/13/2017	0.0015 (D)	0.0014 (D)	<0.0002 (D1)	0.005 (D)	0.0042 (D)
2/14/2018	<0.01	0.003	<0.01	0.0112 (D)	0.0055
9/25/2018	0.0015 (D)	0.002	0.0006	0.0086	0.0027
5/14/2019	0.0018	0.002 (D)	0.00068 (D)	0.0069 (D)	0.0014 (D)
9/24/2019	0.00165 (D)	0.0021 (D)	0.00067 (D)	0.0066 (D)	0.002 (D)
4/6/2020	0.0013 (D)	0.0016 (D)	0.000275 (D)	0.0073 (D)	0.00057 (D)
11/16/2020			0.00034 (D)	0.0074 (D)	0.00073 (D)
11/17/2020	0.0013 (D)	0.0016 (D)			

## Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary (based on cube root transformation): Mean=1.053, Std. Dev.=0.2962, n=64. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9475, critical = 0.947. Report alpha = 0.05.

Constituent: Rad 226+228 Analysis Run 1/27/2021 4:06 PM View: CCR Landfill Tolerance  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

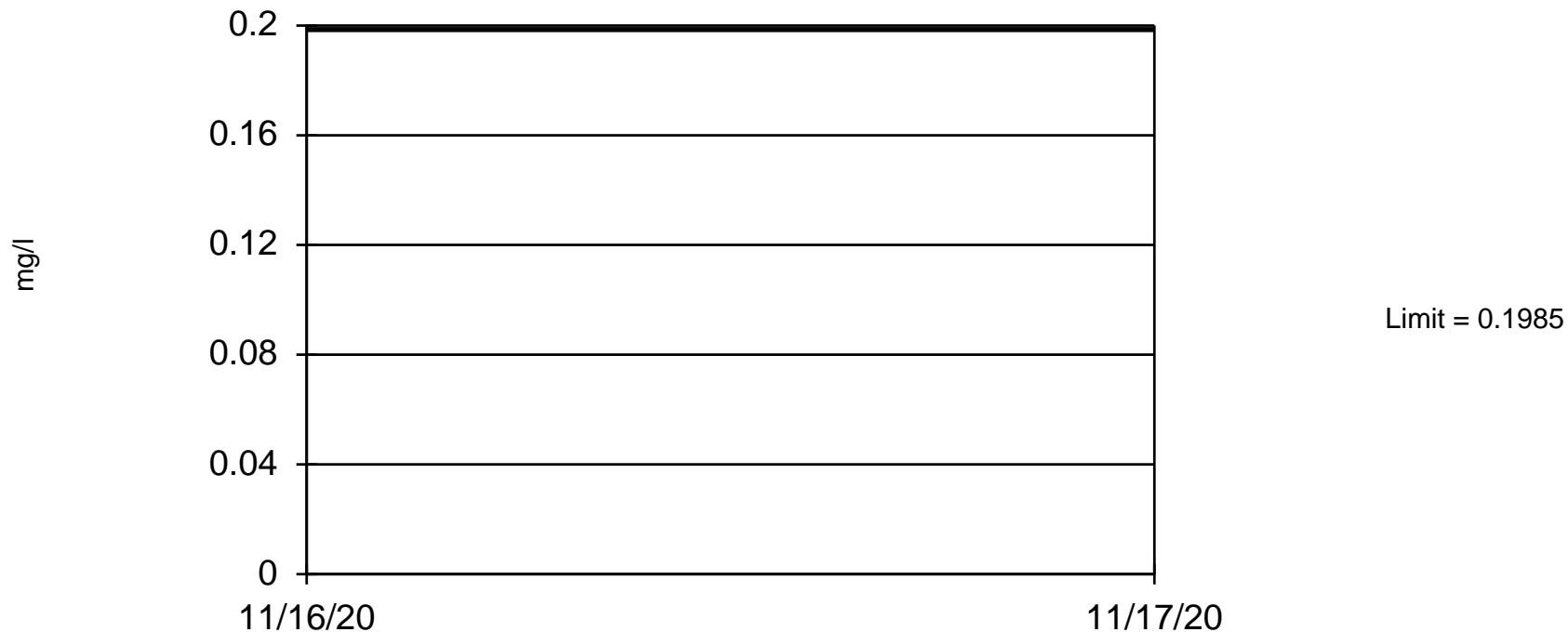
# Tolerance Limit

Constituent: Rad 226+228 (pCi/L) Analysis Run 1/27/2021 4:09 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	CC-1	FC-2	FC-3A	FC-3B
6/22/2016	1.475	1.317 (D)	0.3375		
6/23/2016				1.321	
6/27/2016					1.111
8/2/2016	1.38	0.412	0.295	0.3135	1.7775
9/19/2016	2.136	0.6405	0.363	0.3795	0.496
10/12/2016	1.913	1.404	0.3475	0.616	0.4955
11/15/2016	2.128	1.354	0.854	0.395	0.6865
1/18/2017	1.874	1.494 (D)	0.471	0.617	0.6095
2/14/2017	2.31 (D)	1.841	0.7225	2.636	1.366
2/28/2017	1.628	1.59325 (D)	0.446	1.8245	0.414
11/13/2017	6.445	5.16	4.255	3.575	2.225
2/14/2018	5.23	3.22	2.1715	2.23025 (D)	2.79
9/24/2019	1.628	1.444	0.4605	0.548	0.69
4/6/2020	2.368	0.826 (D)	0.428	0.466	0.762
11/16/2020		0.714		0.281	0.2355
11/17/2020			1.192 (D)		

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 1.333% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Selenium, Total    Analysis Run 1/27/2021 4:06 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary



# Tolerance Limit

Constituent: Selenium, Total (mg/l) Analysis Run 1/27/2021 4:09 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B
6/22/2016	0.016	0.0471	0.1985 (D)		
6/23/2016				0.0393	
6/27/2016					0.0057
8/2/2016	0.0098 (D)	0.0412	0.186	0.0382	0.0069
9/19/2016	0.028 (D)	0.04895 (D)	0.157 (D)	0.0364 (D)	0.0112 (D)
10/12/2016	0.0167 (D)	<0.001 (D1)	0.138 (D)	0.04245 (D)	0.0115 (D)
11/15/2016	0.0136	0.0356 (D)	0.145 (D)	0.0355 (D)	0.0106 (D)
1/18/2017	0.0254 (D)	0.0452 (D)	0.1385 (D)	0.039 (D)	0.0067 (D)
2/14/2017	0.0141 (DT)	0.0388 (DT)	0.1415 (D)	0.0352 (DT)	0.0092 (D)
2/28/2017	0.00375 (D)	0.0367 (D)	0.143 (D)	0.0263 (D)	0.0011 (D)
11/13/2017	0.015 (D)	0.0381 (D)	0.135 (D)	0.0552 (D)	0.0107 (D)
2/14/2018	0.0068	0.044	0.169	0.0543 (D)	0.0036
9/25/2018	0.02165 (D)	0.0371	0.17	0.0512	0.0142
5/14/2019	0.0178 (D)	0.0402 (D)	0.188 (D)	0.04725 (D)	0.005 (D)
9/24/2019	0.01665 (D)	0.0376 (D)	0.19 (D)	0.0399 (D)	0.0115 (D)
4/6/2020	0.0156 (D)	0.038 (D)	0.1455 (D)	0.0394 (D)	0.0043 (D)
11/16/2020			0.177 (D)	0.0386 (D)	0.0052 (D)
11/17/2020	0.0188 (D)	0.03575 (D)			

## Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 75 background values. 70.67% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Thallium, Total    Analysis Run 1/27/2021 4:07 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

# Tolerance Limit

Constituent: Thallium, Total (mg/l) Analysis Run 1/27/2021 4:09 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B
6/22/2016	0.0002	<0.0002	0.000455 (D)		
6/23/2016				<0.0002	
6/27/2016					<0.0002
8/2/2016	<0.0002 (D)	<0.0002	0.00045	<0.0002	<0.0002
9/19/2016	0.00027 (D)	0.000545 (D)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)
10/12/2016	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D)	<0.0002 (D1)
11/15/2016	0.0061 (D)	<0.0002 (D1)	0.0063 (D)	0.0057 (D)	0.0056 (D)
1/18/2017	<0.0005 (D1)	<0.0005 (D1)	0.0014 (D)	0.00069 (D)	0.00098 (D)
2/14/2017	0.0037 (D)	0.0036 (D)	0.00385 (D)	0.0034 (D)	0.0062 (D)
2/28/2017	0.0011 (D)	0.0011 (D)	0.0014 (D)	0.0011 (D)	0.00091 (D)
11/13/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
2/14/2018	<0.002	<0.001	<0.002	<0.001 (D)	<0.001
9/25/2018	<0.0005 (D)	<0.0005	<0.0005	<0.0005	<0.0005
5/14/2019	<0.0005	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
9/24/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
11/16/2020			<0.0005 (DD1)	<0.0005 (DD1)	<0.0005
11/17/2020	<0.0005 (DD1)	<0.0005 (DD1)			

# Tolerance Limit

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary Printed 1/27/2021, 4:09 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, Total (mg/l)	n/a	0.008	n/a	n/a	n/a	75	84	n/a	0.02134	NP Inter(NDs)
Arsenic, Total (mg/l)	n/a	0.01146	n/a	n/a	n/a	73	12.33	sqrt(x)	0.05	Inter
Barium, Total (mg/l)	n/a	2.833	n/a	n/a	n/a	75	5.333	n/a	0.02134	NP Inter(normal...
Beryllium, Total (mg/l)	n/a	0.0002	n/a	n/a	n/a	75	100	n/a	0.02134	NP Inter(NDs)
Cadmium, Total (mg/l)	n/a	0.005	n/a	n/a	n/a	75	96	n/a	0.02134	NP Inter(NDs)
Chromium, Total (mg/l)	n/a	0.01	n/a	n/a	n/a	75	62.67	n/a	0.02134	NP Inter(NDs)
Cobalt, Total (mg/l)	n/a	0.0139	n/a	n/a	n/a	73	86.3	n/a	0.02365	NP Inter(NDs)
Fluoride, Total (mg/l)	n/a	0.985	n/a	n/a	n/a	75	0	n/a	0.02134	NP Inter(normal...
Lead, Total (mg/l)	n/a	0.009	n/a	n/a	n/a	75	48	n/a	0.02134	NP Inter(normal...
Lithium, Total (mg/l)	n/a	1.16	n/a	n/a	n/a	75	0	n/a	0.02134	NP Inter(normal...
Mercury, Total (mg/l)	n/a	0.000024	n/a	n/a	n/a	74	2.703	n/a	0.02247	NP Inter(normal...
Molybdenum, Total (mg/l)	n/a	0.0201	n/a	n/a	n/a	75	37.33	n/a	0.02134	NP Inter(normal...
Rad 226+228 (pCi/L)	n/a	4.461	n/a	n/a	n/a	64	0	x^(1/3)	0.05	Inter
Selenium, Total (mg/l)	n/a	0.1985	n/a	n/a	n/a	75	1.333	n/a	0.02134	NP Inter(normal...
Thallium, Total (mg/l)	n/a	0.0063	n/a	n/a	n/a	75	70.67	n/a	0.02134	NP Inter(NDs)

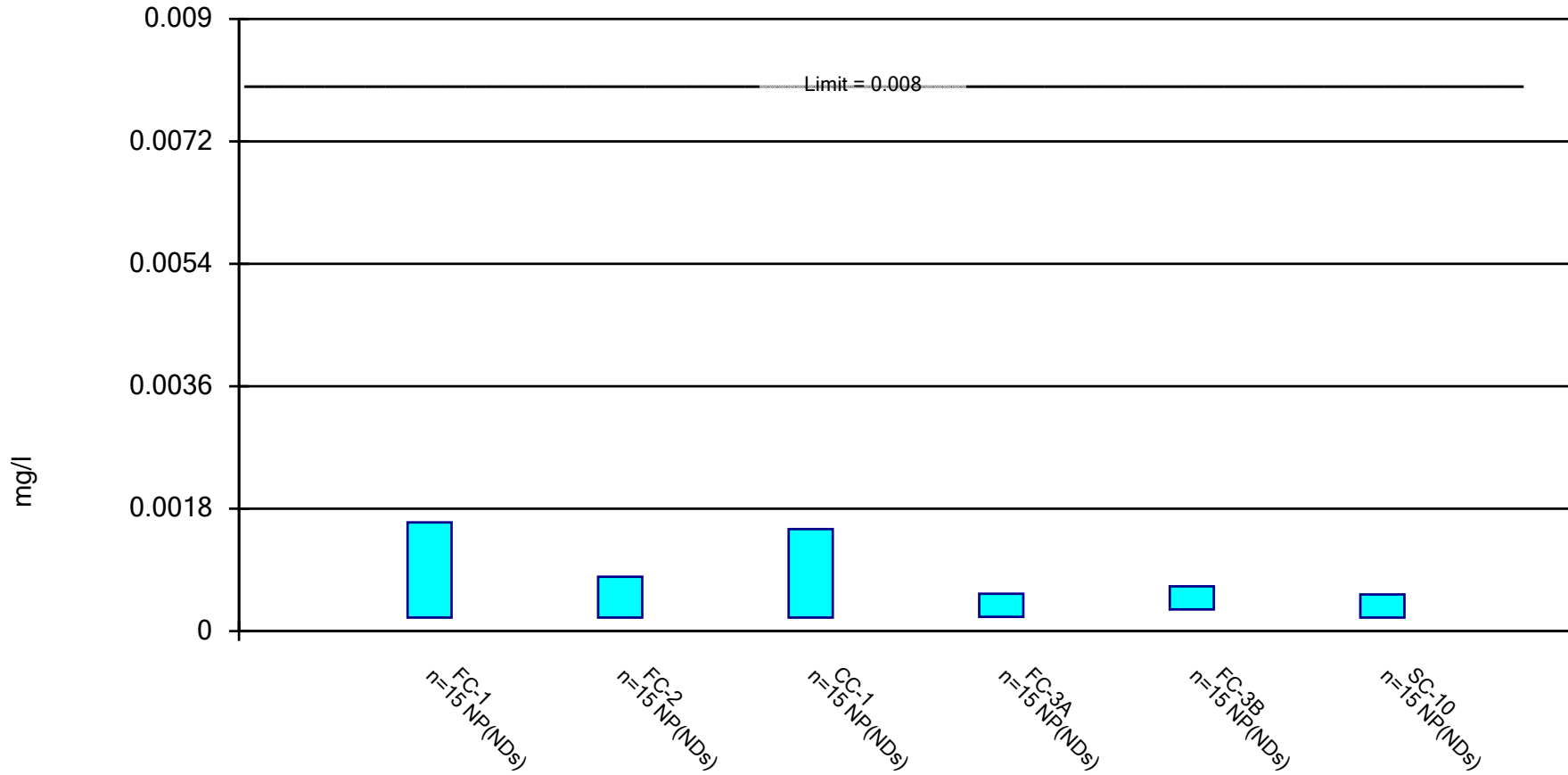
# Tolerance Limit

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary Printed 1/27/2021, 4:09 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, Total (mg/l)	n/a	0.008	n/a	n/a	n/a	75	84	n/a	0.02134	NP Inter(NDs)
Arsenic, Total (mg/l)	n/a	0.01146	n/a	n/a	n/a	73	12.33	sqrt(x)	0.05	Inter
Barium, Total (mg/l)	n/a	2.833	n/a	n/a	n/a	75	5.333	n/a	0.02134	NP Inter(normal...
Beryllium, Total (mg/l)	n/a	0.0002	n/a	n/a	n/a	75	100	n/a	0.02134	NP Inter(NDs)
Cadmium, Total (mg/l)	n/a	0.005	n/a	n/a	n/a	75	96	n/a	0.02134	NP Inter(NDs)
Chromium, Total (mg/l)	n/a	0.01	n/a	n/a	n/a	75	62.67	n/a	0.02134	NP Inter(NDs)
Cobalt, Total (mg/l)	n/a	0.0139	n/a	n/a	n/a	73	86.3	n/a	0.02365	NP Inter(NDs)
Fluoride, Total (mg/l)	n/a	0.985	n/a	n/a	n/a	75	0	n/a	0.02134	NP Inter(normal...
Lead, Total (mg/l)	n/a	0.009	n/a	n/a	n/a	75	48	n/a	0.02134	NP Inter(normal...
Lithium, Total (mg/l)	n/a	1.16	n/a	n/a	n/a	75	0	n/a	0.02134	NP Inter(normal...
Mercury, Total (mg/l)	n/a	0.000024	n/a	n/a	n/a	74	2.703	n/a	0.02247	NP Inter(normal...
Molybdenum, Total (mg/l)	n/a	0.0201	n/a	n/a	n/a	75	37.33	n/a	0.02134	NP Inter(normal...
Rad 226+228 (pCi/L)	n/a	4.461	n/a	n/a	n/a	64	0	x^(1/3)	0.05	Inter
Selenium, Total (mg/l)	n/a	0.1985	n/a	n/a	n/a	75	1.333	n/a	0.02134	NP Inter(normal...
Thallium, Total (mg/l)	n/a	0.0063	n/a	n/a	n/a	75	70.67	n/a	0.02134	NP Inter(NDs)

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony, Total    Analysis Run 1/27/2021 5:04 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

# Confidence Interval

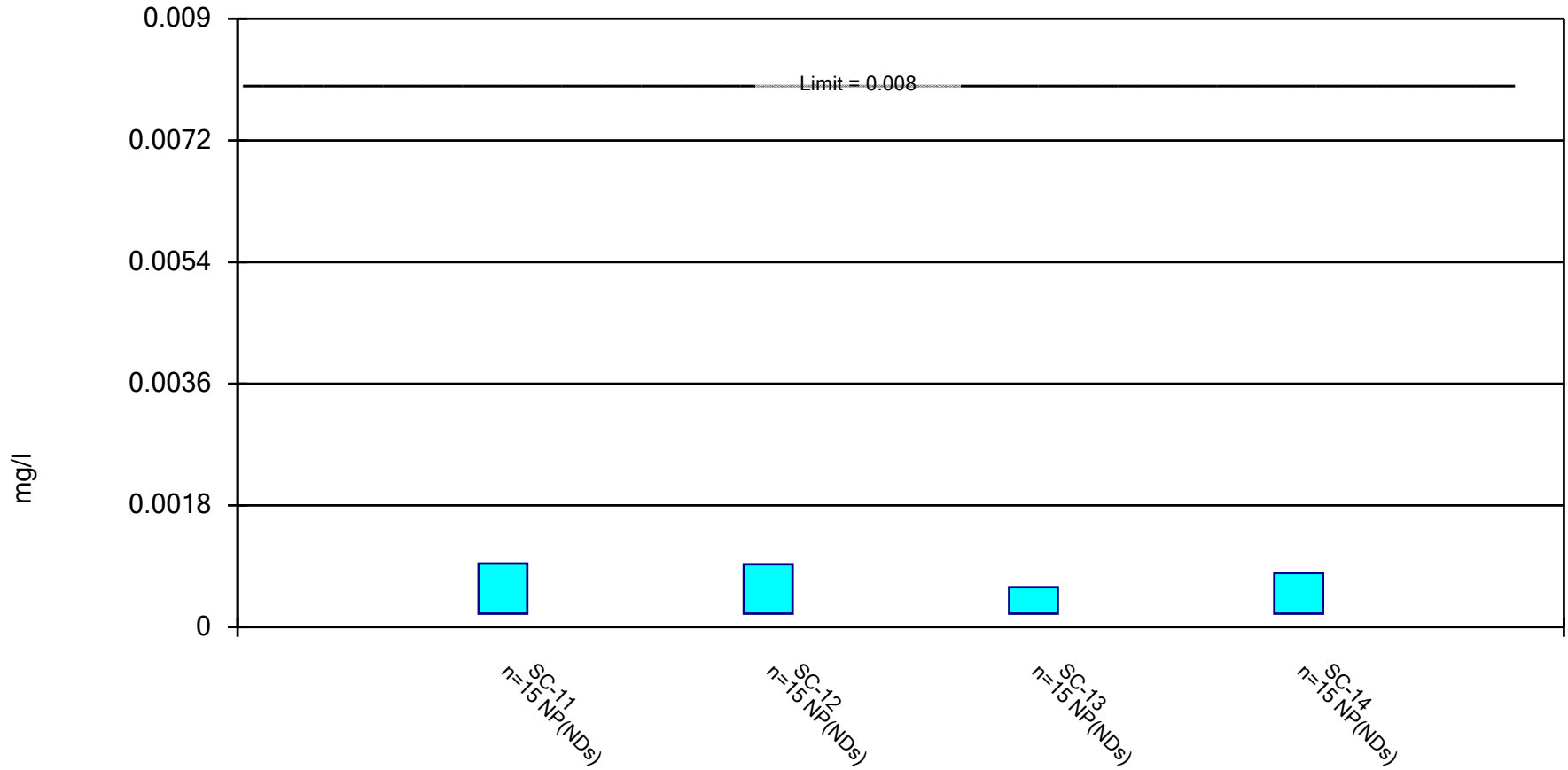
Constituent: Antimony, Total (mg/l)    Analysis Run 1/27/2021 5:10 PM    View: CCR Landfill Tolerance

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	<0.0002	<0.0002	<0.0002 (D)			<0.0002
6/23/2016				0.00021		
6/27/2016					0.00065	
8/2/2016	<0.0002 (D)	<0.0002	<0.0002	<0.0002	0.00061	
8/3/2016						<0.0002 (D)
9/19/2016	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	
9/20/2016						<0.0002 (D1)
10/12/2016	<0.0002 (D1)	<0.0002 (D1)	0.0004 (D)	0.00026 (D)	0.00032 (D)	
10/13/2016						0.00025 (D)
11/15/2016	0.0016 (D)	<0.0002 (D1)	0.0015 (D)	0.0015 (D)	0.0015 (D)	
11/16/2016						0.0012 (D)
1/18/2017	<0.0005 (D1P)	<0.0005 (D1P)	<0.0005 (D1)	0.00055 (D)	<0.0005 (D1)	
1/19/2017						<0.0005 (D1)
2/14/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	0.00066 (D)	
2/15/2017						0.00054 (D)
2/28/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	
3/1/2017						<0.0005 (D1)
11/13/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	
11/14/2017						<0.0005 (D1)
2/14/2018	<0.008	<0.0008	<0.008	<0.0008 (D)	<0.0008	
2/15/2018						<0.008
9/25/2018	<0.0005 (D)	<0.0005	<0.0005	<0.0005	<0.0005	
9/26/2018						<0.0005
5/14/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	
5/15/2019						<0.0005 (D1D)
9/24/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	
9/25/2019						<0.0005 (D1D)
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	
4/7/2020						<0.0005 (DD1)
11/16/2020			<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	
11/17/2020	<0.0005 (DD1)	<0.0005 (DD1)				<0.0005
Mean	0.0009933	0.00042	0.001	0.0005147	0.0005827	0.0009727
Std. Dev.	0.001967	0.0001781	0.00196	0.0003175	0.0002891	0.001959
Upper Lim.	0.0016	0.0008	0.0015	0.00055	0.00066	0.00054
Lower Lim.	0.0002	0.0002	0.0002	0.00021	0.00032	0.0002

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony, Total    Analysis Run 1/27/2021 5:04 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary



# Confidence Interval

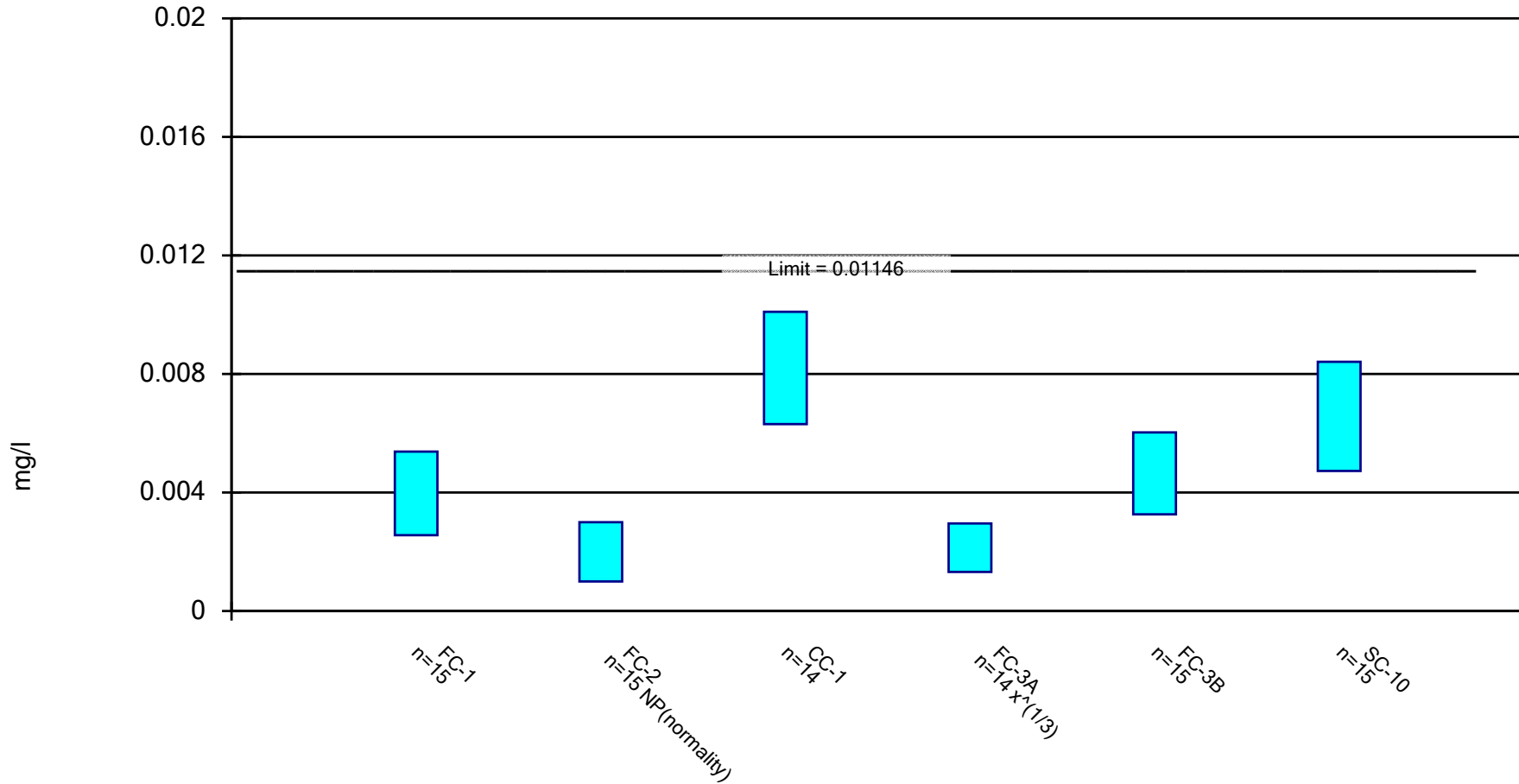
Constituent: Antimony, Total (mg/l) Analysis Run 1/27/2021 5:10 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	SC-11	SC-12	SC-13	SC-14
6/22/2016	<0.0002	<0.0002	<0.0002	0.00021
8/3/2016	<0.0002	<0.0002	<0.0002	<0.0002
9/20/2016	<0.0002 (D1)	<0.0002 (D1)	0.0002 (D)	0.00022 (D)
10/13/2016	0.0002 (D)	0.00023 (D)	<0.0002 (D1)	<0.0002 (D1)
11/16/2016	0.00094 (D)	0.00093 (D)	0.00059 (D)	<0.0002 (D1)
1/19/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
2/15/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
3/1/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
11/14/2017	<0.0005 (D1)	<0.0005 (D1)	0.0071 (DT)	<0.0005 (D1)
2/15/2018	<0.008	<0.008	<0.0008	<0.0008
9/26/2018	<0.0005	<0.0005	<0.0005 (D)	<0.0005
5/15/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
9/24/2019		<0.0005 (D1D)		
9/25/2019	<0.0005 (D1D)		<0.0005 (D1D)	<0.0005 (D1D)
4/7/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
11/16/2020			<0.0005 (DD1)	<0.0005 (DD1)
11/17/2020	<0.0005 (DD1)	<0.0005 (D)		
Mean	0.0009493	0.0009507	0.000886	0.000422
Std. Dev.	0.00196	0.001959	0.001728	0.0001755
Upper Lim.	0.00094	0.00093	0.00059	0.0008
Lower Lim.	0.0002	0.0002	0.0002	0.0002

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic, Total    Analysis Run 1/27/2021 5:04 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

# Confidence Interval

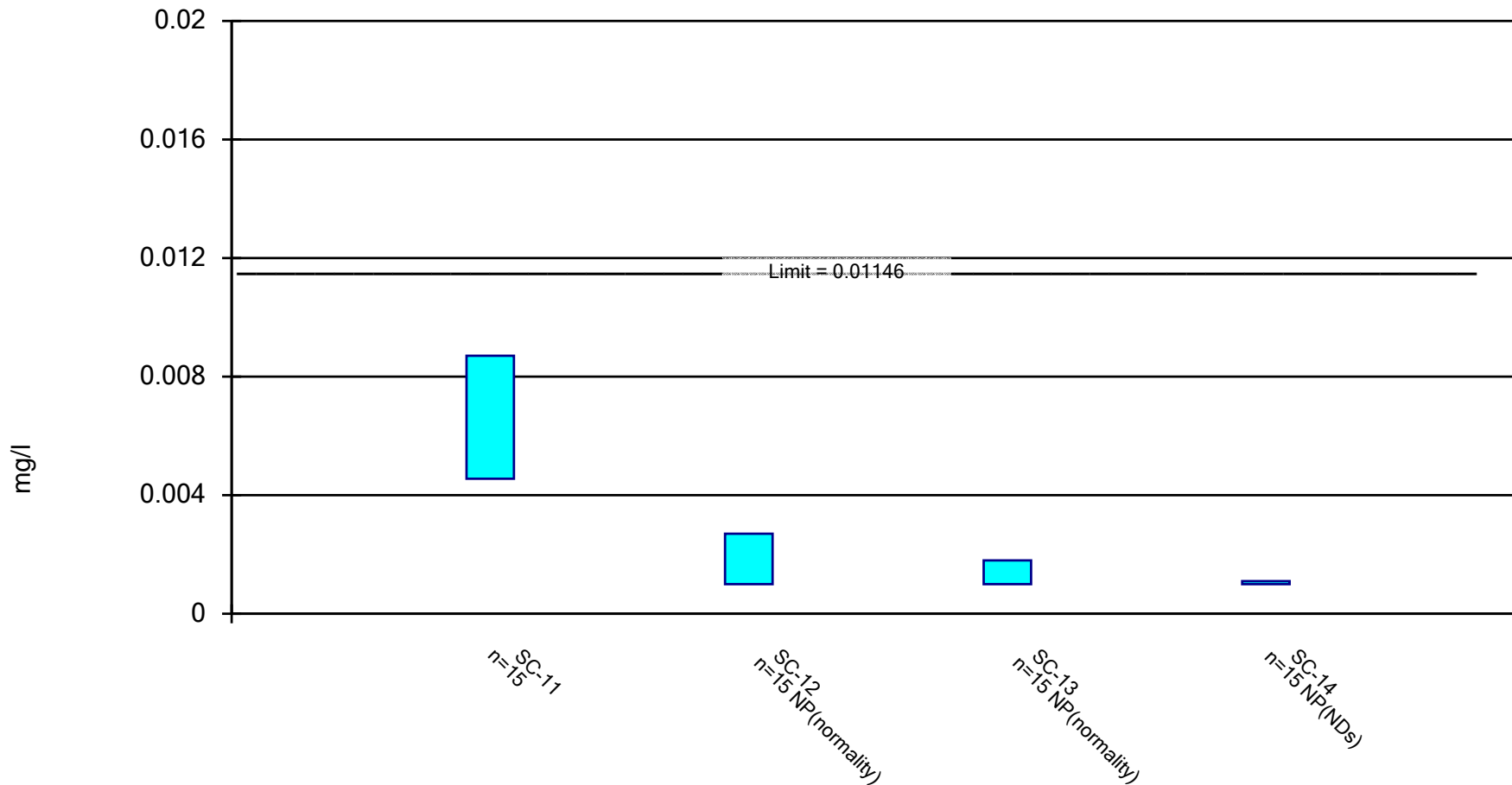
Constituent: Arsenic, Total (mg/l)    Analysis Run 1/27/2021 5:10 PM    View: CCR Landfill Tolerance

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	0.0042	0.0025	0.0109 (D)			0.0083
6/23/2016				0.0031		
6/27/2016					0.0026	
8/2/2016	0.0025 (D)	0.0016	0.0105	0.0021	0.0031	
8/3/2016						0.00625 (D)
9/19/2016	0.0094 (D)	0.0036 (D)	0.0089 (D)	0.0029 (D)	0.0051 (D)	
9/20/2016						0.0073 (D)
10/12/2016	0.0023 (D)	<0.001 (D1)	0.0071 (D)	0.001325 (D)	0.0056 (D)	
10/13/2016						0.0051 (D)
11/15/2016	0.0036 (D)	<0.001 (D1)	0.0054 (D)	0.0018 (D)	0.007 (D)	
11/16/2016						0.003 (D)
1/18/2017	0.0061 (D)	0.0011 (D)	0.00255 (D)	<0.001 (D1)	0.0057 (D)	
1/19/2017						0.0039 (D)
2/14/2017	<0.001 (D1)	<0.001 (D1)	0.00495 (D)	<0.001 (D1)	0.004 (D)	
2/15/2017						0.0054 (D)
2/28/2017	0.00625 (D)	0.0076 (D)	0.011 (D)	0.0069 (D)	0.0081 (D)	
3/1/2017						0.0126 (D)
11/13/2017	0.0041 (D)	0.0025 (D)	0.008 (D)	0.0022 (D)	0.0064 (D)	
11/14/2017						0.0095 (D)
2/14/2018	<0.002	<0.001		0.00115 (D)	0.0026	
2/15/2018						0.0022
9/25/2018	0.005 (D)	0.0014	0.0115	0.003	0.0074	
9/26/2018						0.0068
5/14/2019	0.0029	0.0013 (D)	0.0072 (D)	0.0017 (D)	0.002 (D)	
5/15/2019						0.0057 (D)
9/24/2019	0.00295 (D)	<0.001 (D1D)	0.0081 (D)	0.0016 (D)	0.0044 (D)	
9/25/2019						0.0051 (D)
4/6/2020	0.0034 (D)	0.003 (D)	0.00765 (D)		0.0041 (D)	
4/7/2020						0.009 (D)
11/16/2020			0.0111 (D)	0.0017 (D)	0.0016 (D)	
11/17/2020	0.0039 (D)	0.0018 (D)				0.0084 (D)
Mean	0.003973	0.002093	0.008204	0.002248	0.004647	0.00657
Std. Dev.	0.002081	0.001735	0.002676	0.001513	0.002039	0.002716
Upper Lim.	0.005384	0.003	0.0101	0.002959	0.006028	0.008411
Lower Lim.	0.002563	0.001	0.006308	0.001321	0.003265	0.004729

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic, Total    Analysis Run 1/27/2021 5:04 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

# Confidence Interval

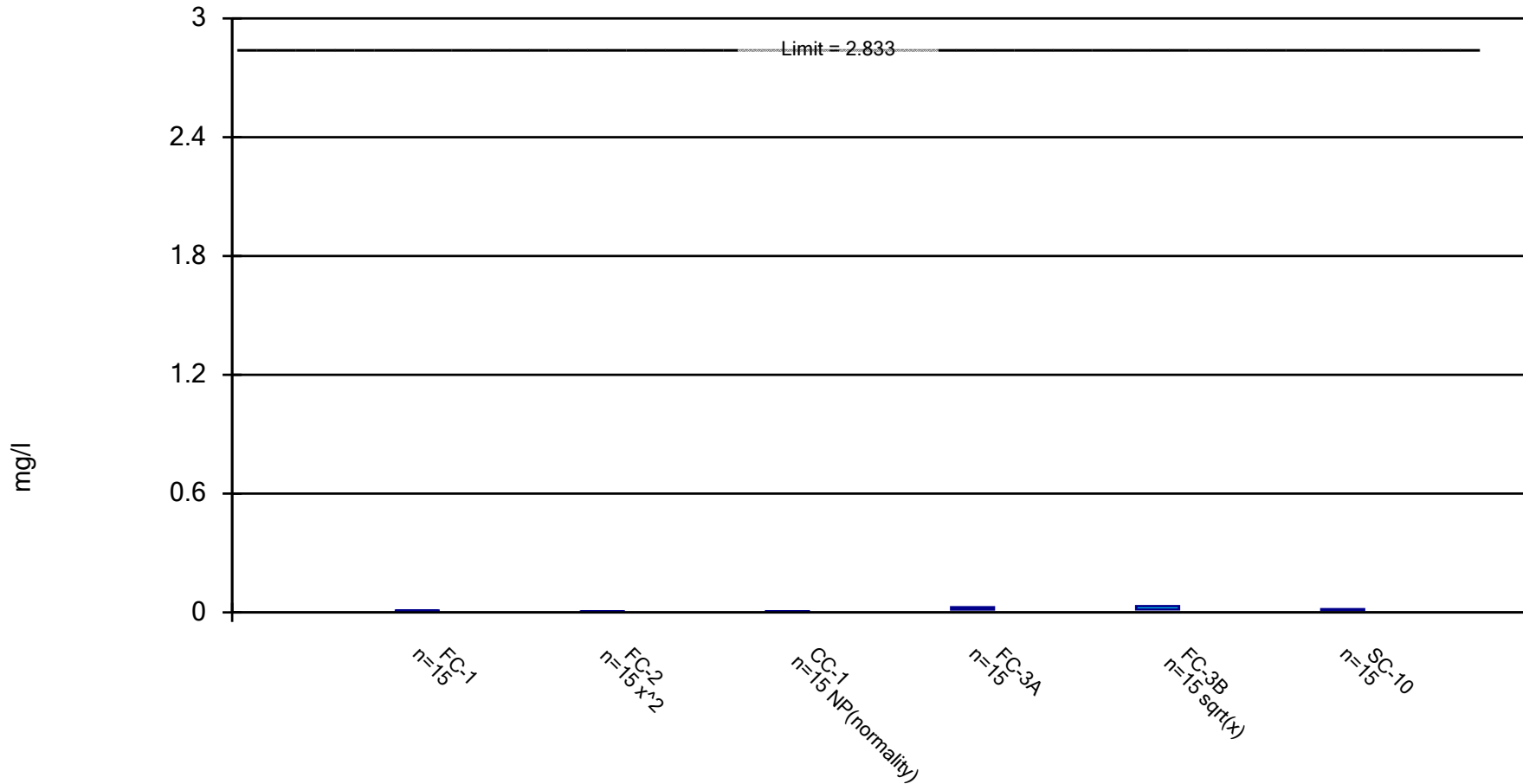
Constituent: Arsenic, Total (mg/l) Analysis Run 1/27/2021 5:10 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	SC-11	SC-12	SC-13	SC-14
6/22/2016	0.0093	0.0017	0.0019	0.0022
8/3/2016	0.0095	0.0014	<0.001	<0.001
9/20/2016	0.00825 (D)	0.0026 (D)	0.0013 (D)	<0.001 (D1)
10/13/2016	0.0062 (D)	0.00285 (D)	0.0015 (D)	<0.001 (D1)
11/16/2016	<0.001 (D1)	0.0016 (D)	<0.001 (D)	<0.001 (D1)
1/19/2017	0.0033 (D)	<0.001 (D1)	<0.001 (D1)	<0.001 (D1)
2/15/2017	0.0046 (D)	<0.001 (D1)	<0.001 (D1)	<0.001 (D)
3/1/2017	0.0111 (D)	0.0067 (D)	0.0057 (D)	0.003 (D)
11/14/2017	0.0089 (D)	0.0027 (D)	0.0018 (D)	0.0011 (D)
2/15/2018	0.0021	0.0011	<0.001	<0.001
9/26/2018	0.0104	0.0013	<0.001 (D)	<0.001
5/15/2019	0.0051 (D)	0.00135 (D)	0.001 (D)	<0.001 (D)
9/24/2019		<0.001 (D1D)		
9/25/2019	0.005 (D)		0.00105 (D)	<0.001 (D1D)
4/7/2020	0.0077 (D)	0.0013 (D)	0.0011 (D)	0.0011 (D)
11/16/2020			<0.001 (DD1)	<0.001 (DD1)
11/17/2020	0.007 (D)	0.00115 (D)		
Mean	0.00663	0.001917	0.00149	0.001227
Std. Dev.	0.003062	0.001466	0.001204	0.0005788
Upper Lim.	0.008705	0.0027	0.0018	0.0011
Lower Lim.	0.004555	0.001	0.001	0.001

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium, Total    Analysis Run 1/27/2021 5:04 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

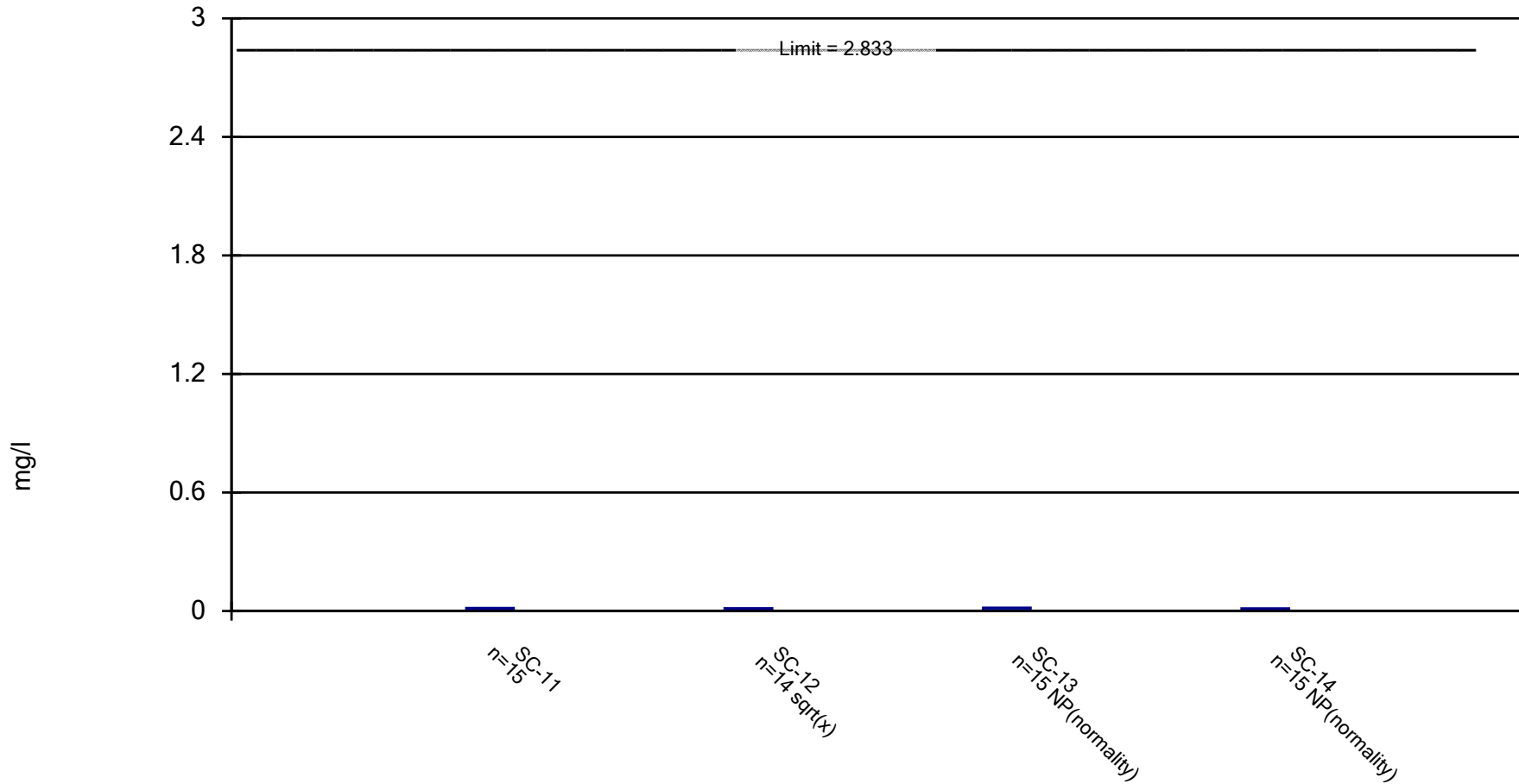
# Confidence Interval

Constituent: Barium, Total (mg/l)    Analysis Run 1/27/2021 5:10 PM    View: CCR Landfill Tolerance  
 Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	0.00954	0.00503	2.83285 (D)			0.0184
6/23/2016				0.034		
6/27/2016					0.0336	
8/2/2016	0.008725 (D)	<0.005	0.00512	0.0202	0.0253	
8/3/2016						0.0138 (D)
9/19/2016	0.00928	0.00525 (D)	0.00542	0.0218	0.0183	
9/20/2016						0.013
10/12/2016	0.00905	0.00536	0.00593	0.03735 (D)	0.0184	
10/13/2016						0.0141
11/15/2016	0.0102	0.00516	0.00608	0.01735 (D)	0.0652	
11/16/2016						0.0178
1/18/2017	0.00929	0.00539	0.005675 (D)	0.0164	0.0244	
1/19/2017						0.0216
2/14/2017	0.01	0.00566	0.006005 (D)	0.0167	0.023	
2/15/2017						0.0145 (D)
2/28/2017	0.009 (D)	0.0054	<0.005	0.0148	0.0208	
3/1/2017						0.0105
11/13/2017	0.0082 (D)	0.00435 (D)	0.004 (D)	0.0259 (D)	0.0154 (D)	
11/14/2017						0.014 (D)
2/14/2018	0.0105	<0.01	<0.01	0.01205 (D)	0.0196	
2/15/2018						0.0124
9/25/2018	0.00665 (D)	0.004	0.0039	0.021	0.037	
9/26/2018						0.0165
5/14/2019	0.0073	0.0043 (D)	0.0044 (D)	0.0265 (D)	0.0146 (D)	
5/15/2019						0.0168 (D)
9/24/2019	0.0073 (D)	0.0056 (D)	0.0041 (D)	0.0276 (D)	0.0268 (D)	
9/25/2019						0.0124 (D)
4/6/2020	0.0068 (D)	0.004 (D)	0.0033 (D)	0.0123 (D)	0.0099 (D)	
4/7/2020						0.0112 (D)
11/16/2020			0.0041 (D)	0.008 (D)	0.0098 (D)	
11/17/2020	0.007 (D)	0.0044 (D)				0.0083 (D)
Mean	0.008589	0.00476	0.1932	0.0208	0.02414	0.01435
Std. Dev.	0.001295	0.0008445	0.7302	0.008242	0.01369	0.00341
Upper Lim.	0.009466	0.005312	0.006005	0.02638	0.03142	0.01666
Lower Lim.	0.007712	0.004293	0.0039	0.01521	0.0154	0.01204

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium, Total Analysis Run 1/27/2021 5:04 PM View: CCR Landfill Tolerance  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary



# Confidence Interval

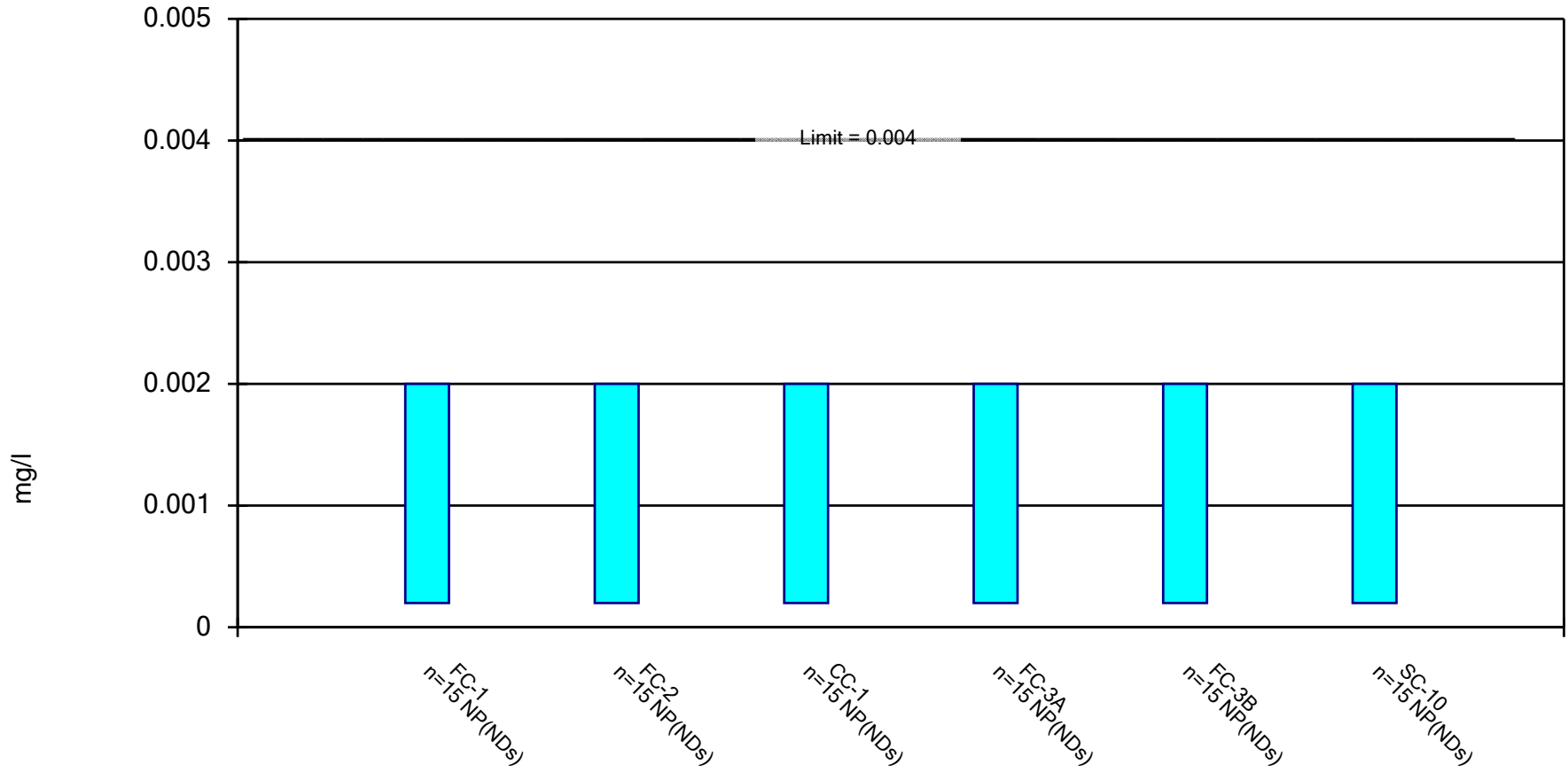
Constituent: Barium, Total (mg/l) Analysis Run 1/27/2021 5:10 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	SC-11	SC-12	SC-13	SC-14
6/22/2016	0.017	0.0112	0.00979	0.024
8/3/2016	0.0165	0.0133	0.00703	0.0131
9/20/2016	0.009275 (D)		0.0736	0.0109
10/13/2016	0.0225	0.01415 (D)	0.00797	0.0163
11/16/2016	0.016	0.0178	4.629645 (D)	0.0136
1/19/2017	0.0117	0.0108	0.0075	0.00905
2/15/2017	0.0156	0.0127	0.00742	0.00766
3/1/2017	0.00732	0.00781 (D)	0.00603	0.0063
11/14/2017	0.01395 (D)	0.0063 (D)	0.006 (D)	0.0052 (D)
2/15/2018	0.0089	0.0079	<0.01	<0.01
9/26/2018	0.0099	0.0245	0.00575 (D)	0.0057
5/15/2019	0.0086 (D)	0.00755 (D)	0.0046 (D)	0.005 (D)
9/24/2019		0.007 (D)		
9/25/2019	0.0099 (D)		0.0168 (D)	0.0049 (D)
4/7/2020	0.0119 (D)	0.0059 (D)	0.0045 (D)	0.0048 (D)
11/16/2020			0.004 (D)	0.0047 (DD1)
11/17/2020	0.0046 (D)	0.0061 (D)		
Mean	0.01224	0.01093	0.3197	0.009081
Std. Dev.	0.004641	0.005309	1.192	0.005601
Upper Lim.	0.01539	0.01409	0.0168	0.0136
Lower Lim.	0.009098	0.007291	0.0046	0.0049

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

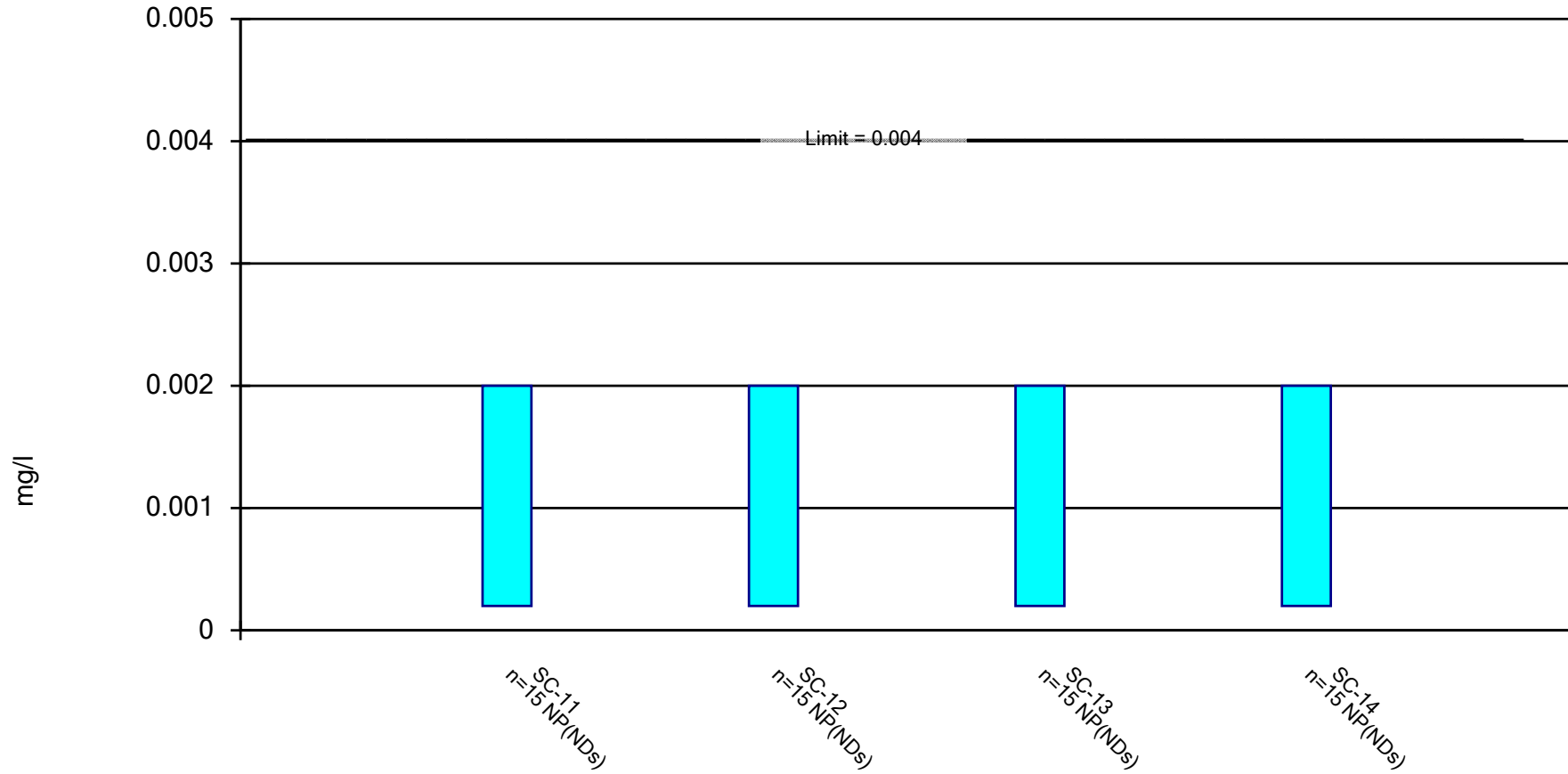


Constituent: Beryllium, Total Analysis Run 1/27/2021 5:05 PM View: CCR Landfill Tolerance  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary



# Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Beryllium, Total Analysis Run 1/27/2021 5:05 PM View: CCR Landfill Tolerance  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

# Confidence Interval

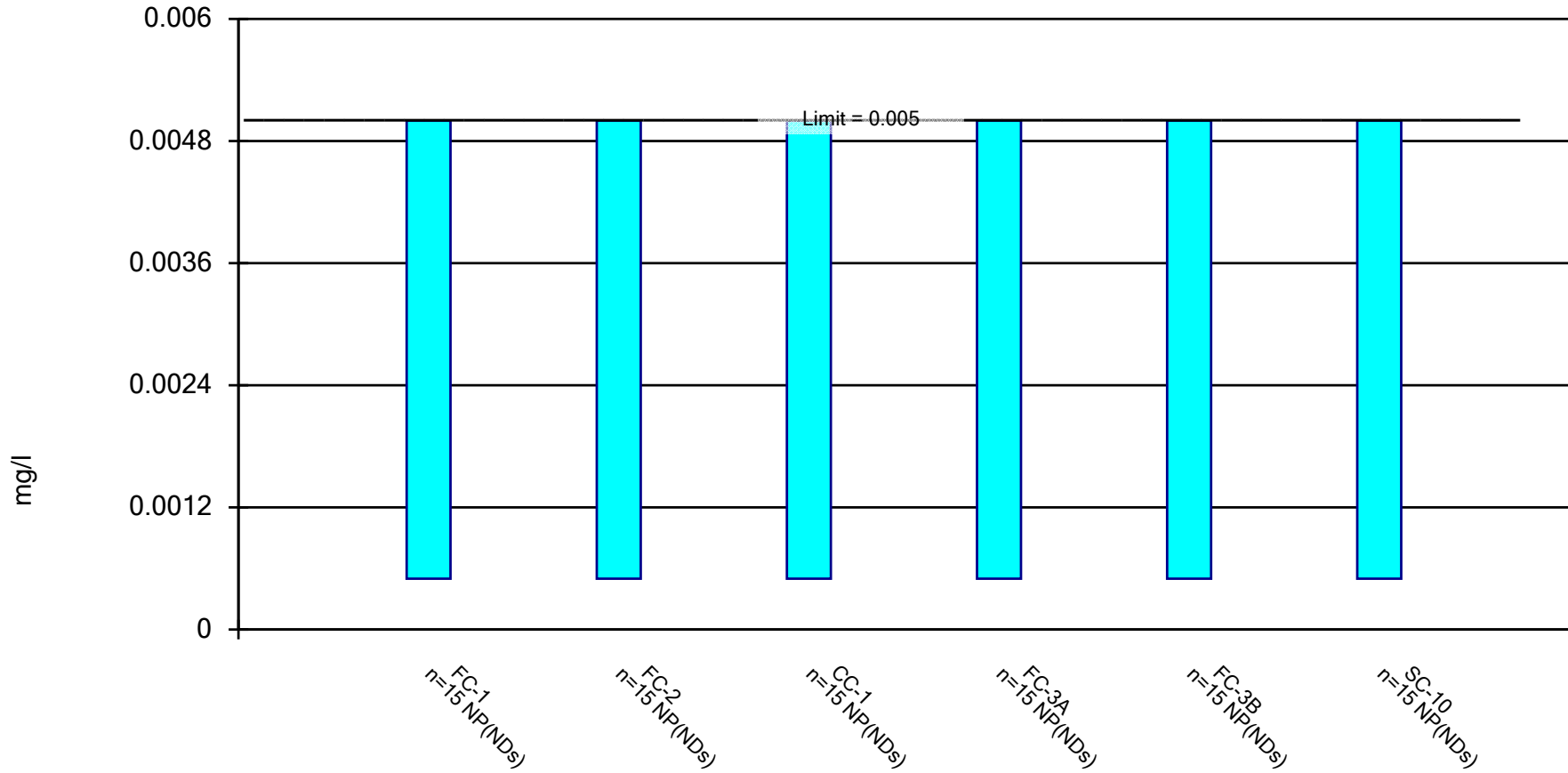
Constituent: Beryllium, Total (mg/l) Analysis Run 1/27/2021 5:10 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	SC-11	SC-12	SC-13	SC-14
6/22/2016	<0.002	<0.002	<0.002	<0.002
8/3/2016	<0.002	<0.002	<0.002	<0.002
9/20/2016	<0.002 (D)	<0.002	<0.002	<0.002
10/13/2016	<0.002	<0.002 (D)	<0.002	<0.002
11/16/2016	<0.002	<0.002	<0.002 (D)	<0.002
1/19/2017	<0.002	<0.002	<0.002	<0.002
2/15/2017	<0.002	<0.002	<0.002	<0.002
3/1/2017	<0.002	<0.002 (D)	<0.002	<0.002
11/14/2017	<0.0002 (D1)	<0.0002 (D1)	0.00021 (D)	<0.0002 (D1)
2/15/2018	<0.002	<0.002	<0.001 (T)	<0.001 (T)
9/26/2018	<0.0002	<0.0002	<0.0002 (D)	<0.0002
5/15/2019	<0.0002 (D1D)	<0.0002 (D1D)	<0.0002 (D1D)	<0.0002 (D1D)
9/24/2019		<0.0002 (D1D)		
9/25/2019	<0.0002 (D1D)		<0.0002 (D1D)	<0.0002 (D1D)
4/7/2020	<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (DD1)	<0.0002 (DD1)
11/16/2020			<0.0002 (DD1)	<0.0002 (DD1)
11/17/2020	<0.0002 (DD1)	<0.0002 (D)		
Mean	0.00128	0.00128	0.001214	0.001213
Std. Dev.	0.0009128	0.0009128	0.0008919	0.0008927
Upper Lim.	0.002	0.002	0.002	0.002
Lower Lim.	0.0002	0.0002	0.0002	0.0002

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

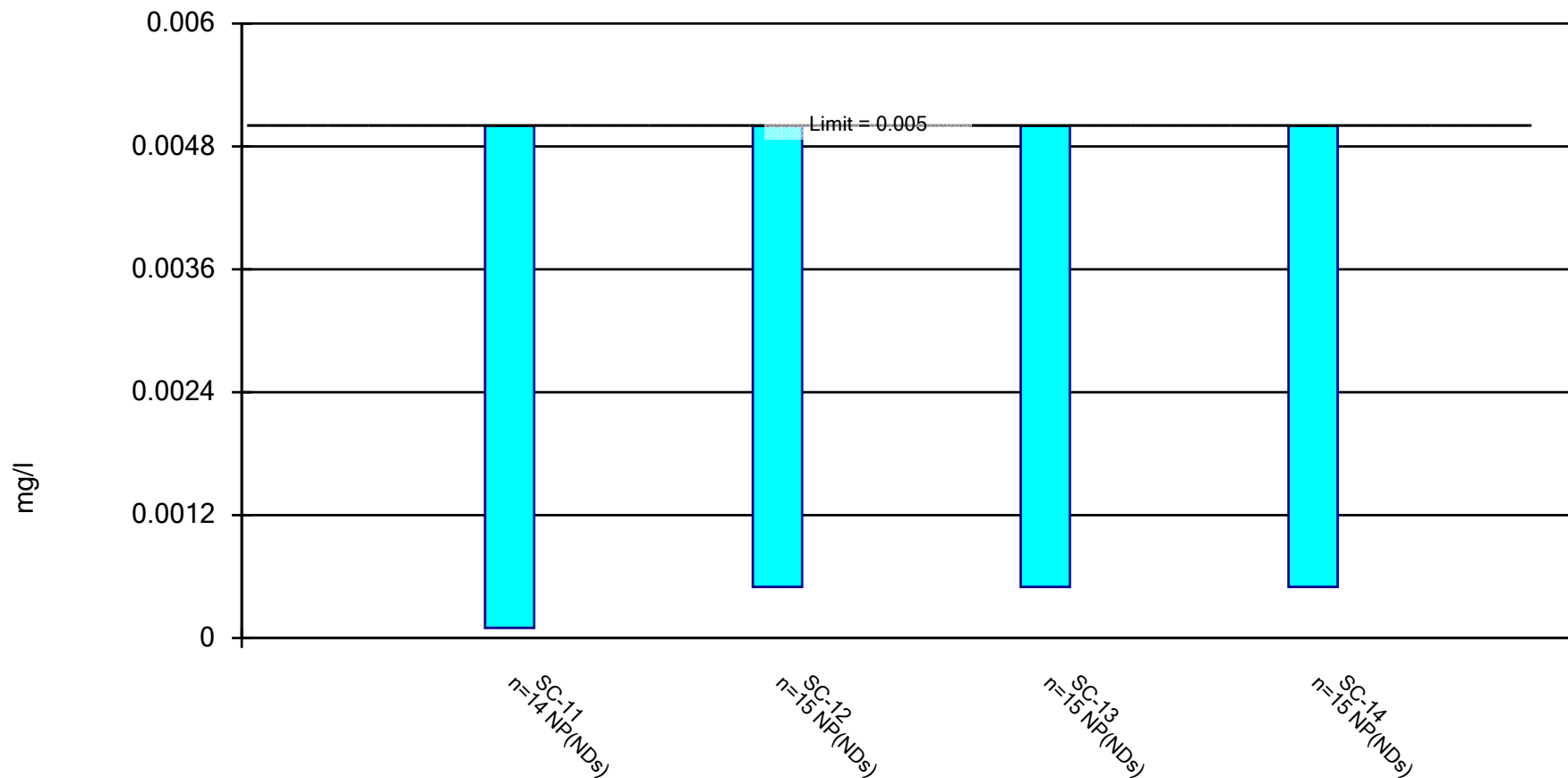


Constituent: Cadmium, Total    Analysis Run 1/27/2021 5:05 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary



# Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cadmium, Total Analysis Run 1/27/2021 5:05 PM View: CCR Landfill Tolerance  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary



# Confidence Interval

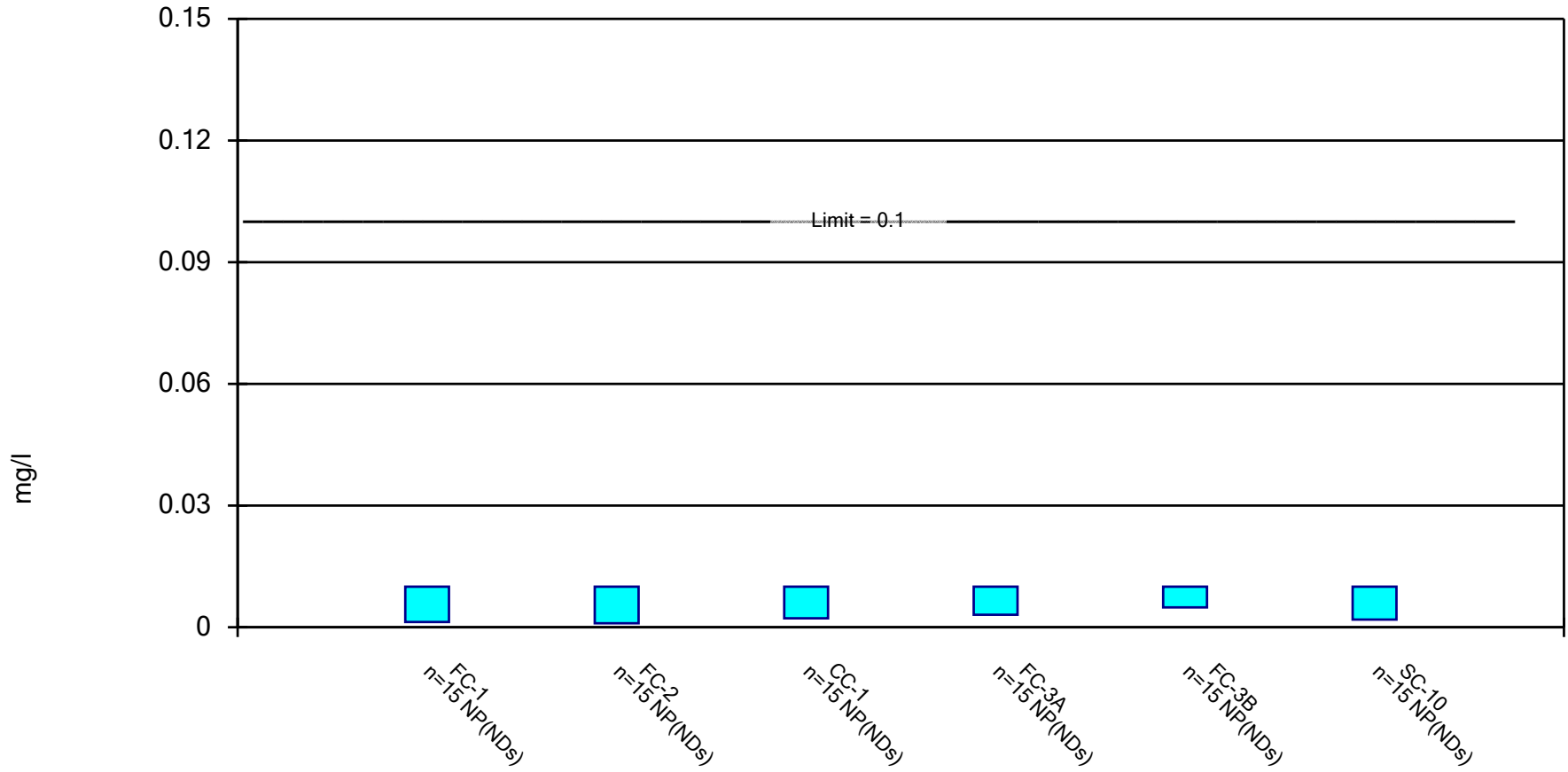
Constituent: Cadmium, Total (mg/l) Analysis Run 1/27/2021 5:10 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	SC-11	SC-12	SC-13	SC-14
6/22/2016	<0.005	<0.005	<0.005	<0.005
8/3/2016		<0.005	<0.005	<0.005
9/20/2016	<0.005 (D)	<0.005	<0.005	<0.005
10/13/2016	<0.005	<0.005 (D)	<0.005	<0.005
11/16/2016	<0.005	<0.005	<0.005 (D)	<0.005
1/19/2017	<0.005	<0.005	<0.005	<0.005
2/15/2017	<0.005	<0.005	<0.005	<0.005
3/1/2017	<0.005	<0.005 (D)	<0.005	<0.005
11/14/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
2/15/2018	<0.0001	<0.0001	<0.001	<0.001
9/26/2018	<0.0005	<0.0005	<0.0005 (D)	<0.0005
5/15/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
9/24/2019		<0.0005 (D1D)		
9/25/2019	<0.0005 (D1D)		<0.0005 (D1D)	<0.0005 (D1D)
4/7/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
11/16/2020			<0.0005 (DD1)	<0.0005 (DD1)
11/17/2020	<0.0005 (DD1)	<0.0005 (D)		
Mean	0.002721	0.002873	0.002933	0.002933
Std. Dev.	0.002367	0.002355	0.00229	0.00229
Upper Lim.	0.005	0.005	0.005	0.005
Lower Lim.	0.0001	0.0005	0.0005	0.0005

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium, Total    Analysis Run 1/27/2021 5:05 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

# Confidence Interval

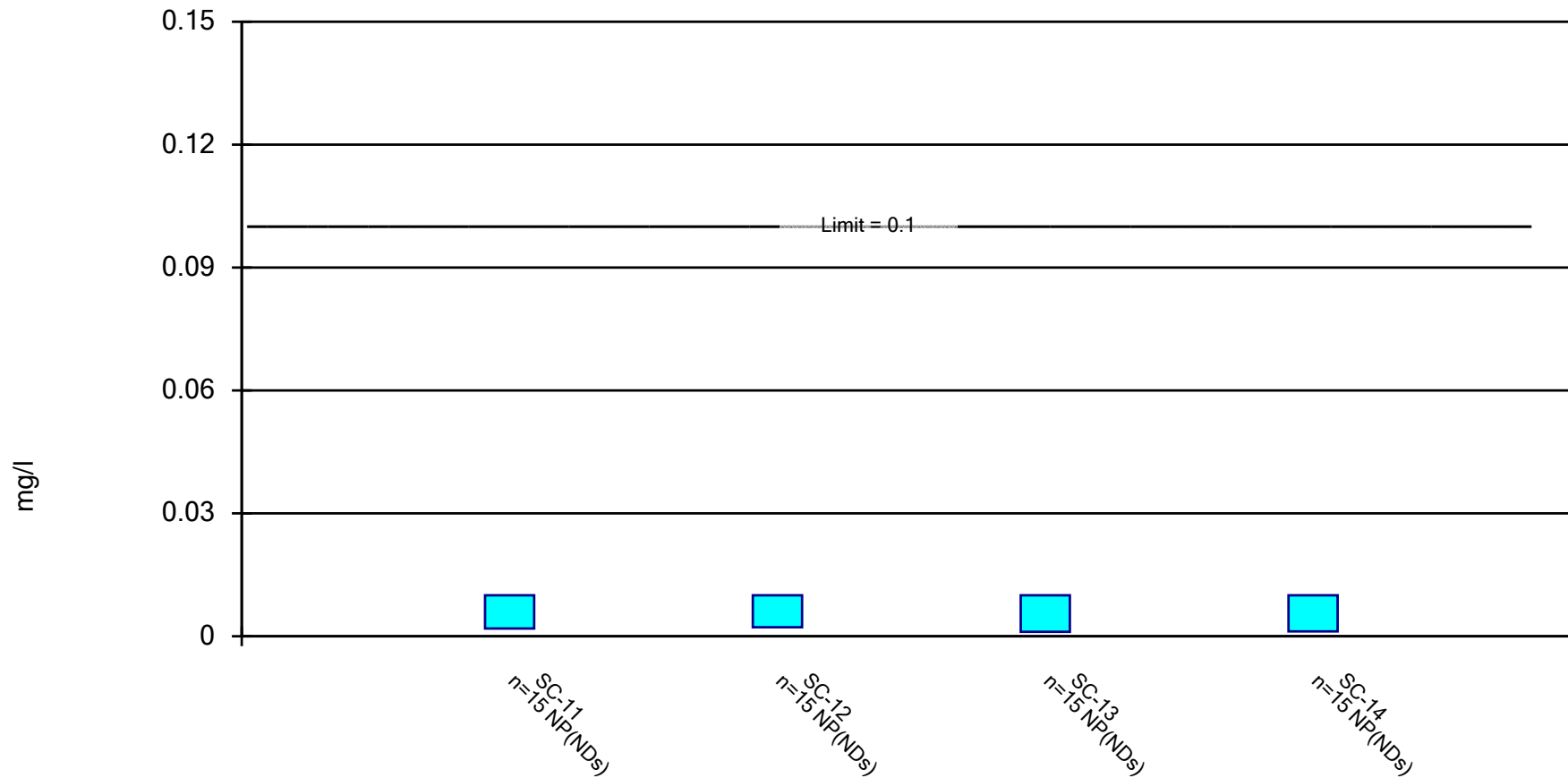
Constituent: Chromium, Total (mg/l)    Analysis Run 1/27/2021 5:10 PM    View: CCR Landfill Tolerance

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	<0.01	<0.01	<0.01 (D)			<0.01
6/23/2016				<0.01		
6/27/2016					<0.01	
8/2/2016	<0.01 (D)	<0.01	<0.01	<0.01	<0.01	
8/3/2016						<0.01 (D)
9/19/2016	<0.01	<0.01 (D)	<0.01	<0.01	<0.01	
9/20/2016						<0.01
10/12/2016	<0.01	<0.01	<0.01	<0.01 (D)	<0.01	
10/13/2016						<0.01
11/15/2016	<0.01	<0.01	<0.01	<0.01 (D)	<0.01	
11/16/2016						<0.01
1/18/2017	<0.01	<0.01	<0.01 (D)	<0.01	<0.01	
1/19/2017						<0.01
2/14/2017	<0.01	<0.01	<0.01 (D)	<0.01	<0.01	
2/15/2017						<0.01 (D)
2/28/2017	<0.01 (D)	<0.01	<0.01	<0.01	<0.01	
3/1/2017						<0.01
11/13/2017	0.006 (D)	0.0051 (D)	0.0064 (D)	0.0062 (D)	0.0086 (D)	
11/14/2017						0.0061 (D)
2/14/2018	<0.004	<0.004	<0.004	<0.004 (D)	0.0058	
2/15/2018						<0.004
9/25/2018	0.001 (D)	0.001	0.0017	0.0025	0.0061	
9/26/2018						0.0019
5/14/2019	0.0013	<0.001 (D)	0.0018 (D)	0.0031 (D)	0.0049 (D)	
5/15/2019						0.0031 (D)
9/24/2019	0.0042 (D)	0.0035 (D)	0.0036 (D)	0.0054 (D)	0.0089 (D)	
9/25/2019						0.0049 (D)
4/6/2020	<0.001 (DD1)	<0.001 (DD1)	0.0022 (D)	0.0014 (D)	0.0039	
4/7/2020						0.0014 (D)
11/16/2020			0.0044 (D)	0.0038 (D)	0.0049 (D)	
11/17/2020	0.0046 (D)	0.0038 (D)				0.001 (D)
Mean	0.006807	0.006627	0.00694	0.007093	0.008207	0.006827
Std. Dev.	0.003775	0.003901	0.003564	0.003393	0.002345	0.003726
Upper Lim.	0.01	0.01	0.01	0.01	0.01	0.01
Lower Lim.	0.0013	0.001	0.0022	0.0031	0.0049	0.0019

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium, Total Analysis Run 1/27/2021 5:05 PM View: CCR Landfill Tolerance  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

# Confidence Interval

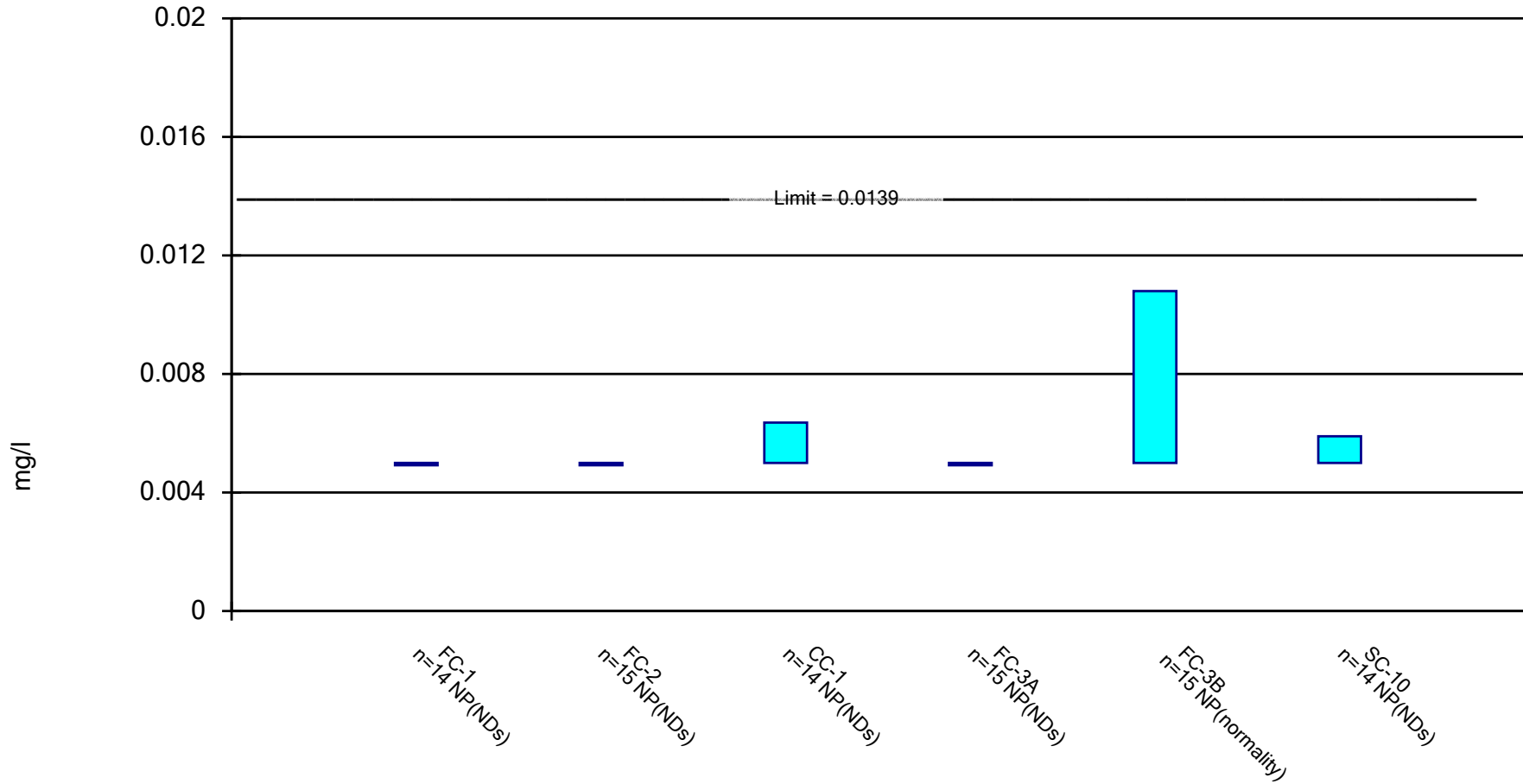
Constituent: Chromium, Total (mg/l) Analysis Run 1/27/2021 5:10 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	SC-11	SC-12	SC-13	SC-14
6/22/2016	<0.01	<0.01	<0.01	<0.01
8/3/2016	<0.01	<0.01	<0.01	<0.01
9/20/2016	<0.01 (D)	<0.01	<0.01	<0.01
10/13/2016	<0.01	<0.01 (D)	<0.01	<0.01
11/16/2016	<0.01	<0.01	<0.01 (D)	<0.01
1/19/2017	<0.01	<0.01	<0.01	<0.01
2/15/2017	<0.01	<0.01	<0.01	<0.01
3/1/2017	<0.01	<0.01 (D)	<0.01	<0.01
11/14/2017	0.0075 (D)	0.0069 (D)	0.0029 (D)	0.0066 (D)
2/15/2018	<0.004	<0.004	<0.004	<0.004
9/26/2018	0.0012	0.0022	<0.001 (D)	<0.001
5/15/2019	0.0022 (D)	0.00185 (D)	0.0011 (D)	0.0012 (D)
9/24/2019		0.0043 (D)		
9/25/2019	0.0048 (D)		0.0049 (D)	0.0041 (D)
4/7/2020	0.0019 (D)	0.0012 (D)	0.0011 (D)	0.0011 (D)
11/16/2020			0.0016 (D)	0.002 (D)
11/17/2020	0.0019 (D)	0.00245 (D)		
Mean	0.0069	0.00686	0.00644	0.006667
Std. Dev.	0.003729	0.003702	0.004073	0.00394
Upper Lim.	0.01	0.01	0.01	0.01
Lower Lim.	0.0019	0.0022	0.0011	0.0012

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

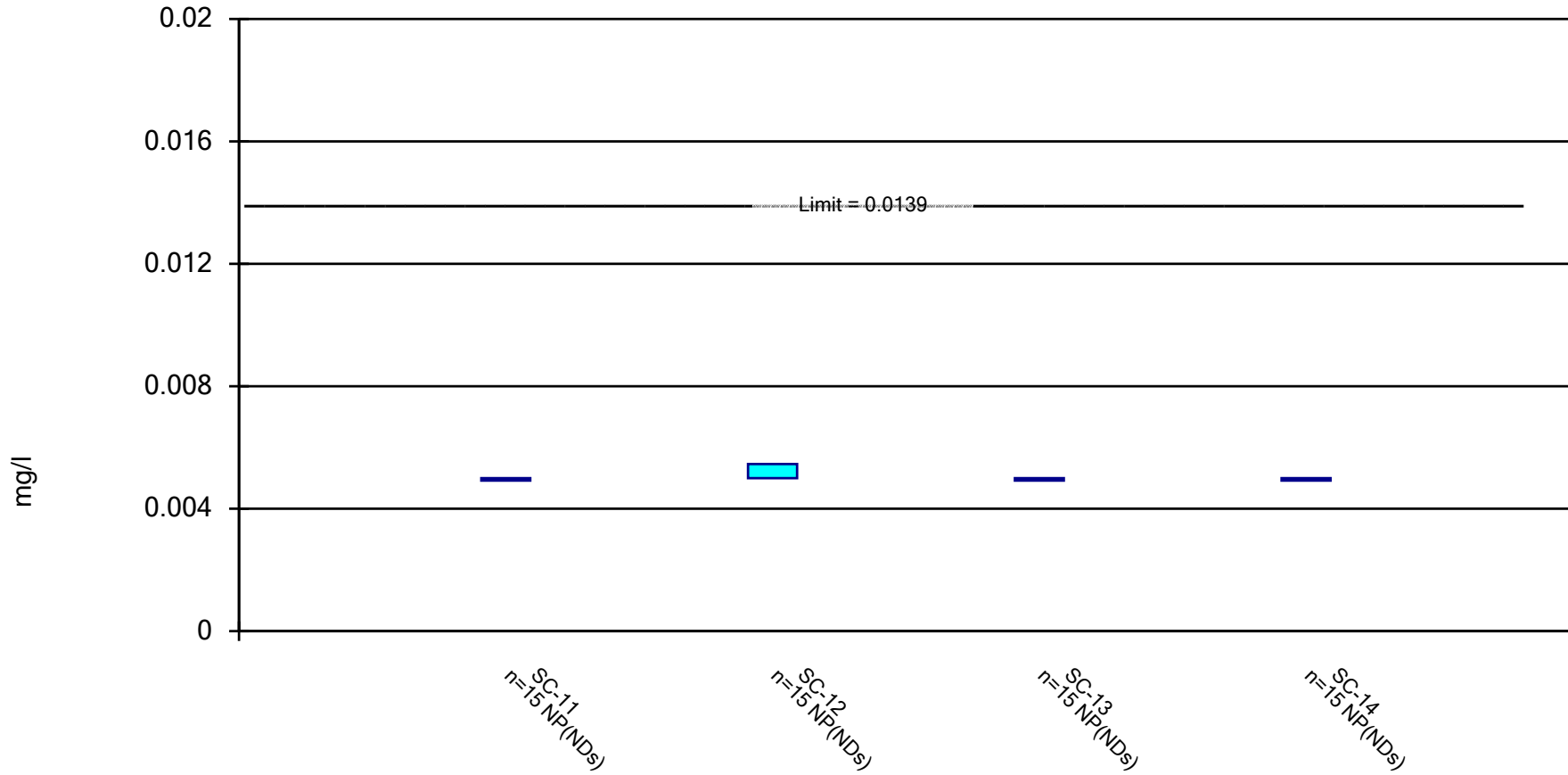


Constituent: Cobalt, Total    Analysis Run 1/27/2021 5:06 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary



# Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cobalt, Total Analysis Run 1/27/2021 5:06 PM View: CCR Landfill Tolerance  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary



# Confidence Interval

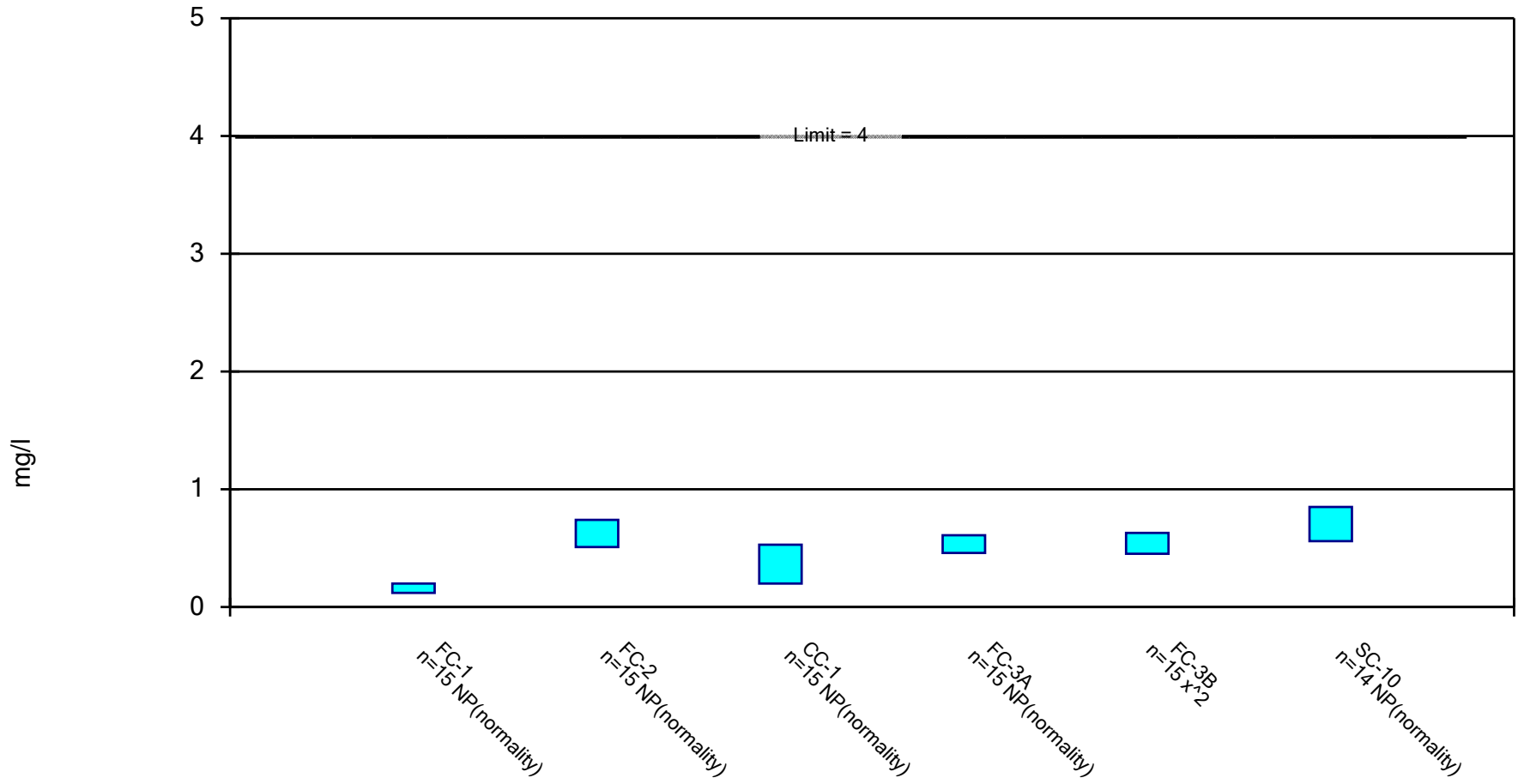
Constituent: Cobalt, Total (mg/l) Analysis Run 1/27/2021 5:10 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	SC-11	SC-12	SC-13	SC-14
6/22/2016	<0.005	<0.005	<0.005	<0.005
8/3/2016	0.005	<0.005	<0.005	<0.005
9/20/2016	<0.005 (D)	<0.005	<0.005	<0.005
10/13/2016	<0.005	<0.005 (D)	<0.005	<0.005
11/16/2016	<0.005	<0.005	<0.005 (D)	<0.005
1/19/2017	<0.005	<0.005	<0.005	<0.005
2/15/2017	<0.005	<0.005	<0.005	<0.005
3/1/2017	<0.005	<0.005 (D)	<0.005	<0.005
11/14/2017	<0.005 (D)	<0.005	<0.005	<0.005
2/15/2018	0.00525	0.00546	<0.005	<0.005
9/26/2018	<0.005 (DD1)	<0.005 (DD1)	<0.005 (DD1)	<0.005 (DD1)
5/15/2019	<0.005	<0.005	<0.005	<0.005
9/24/2019		<0.005		
9/25/2019	<0.005		<0.005 (D)	<0.005
4/7/2020	<0.005	<0.005	<0.005	<0.005 (D)
11/16/2020			<0.005	<0.005
11/17/2020	<0.005	<0.005 (D)		
Mean	0.005017	0.005031	0.005	0.005
Std. Dev.	6.455E-05	0.0001188	0	0
Upper Lim.	0.005	0.00546	0.005	0.005
Lower Lim.	0.005	0.005	0.005	0.005

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride, Total Analysis Run 1/27/2021 5:06 PM View: CCR Landfill Tolerance  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

# Confidence Interval

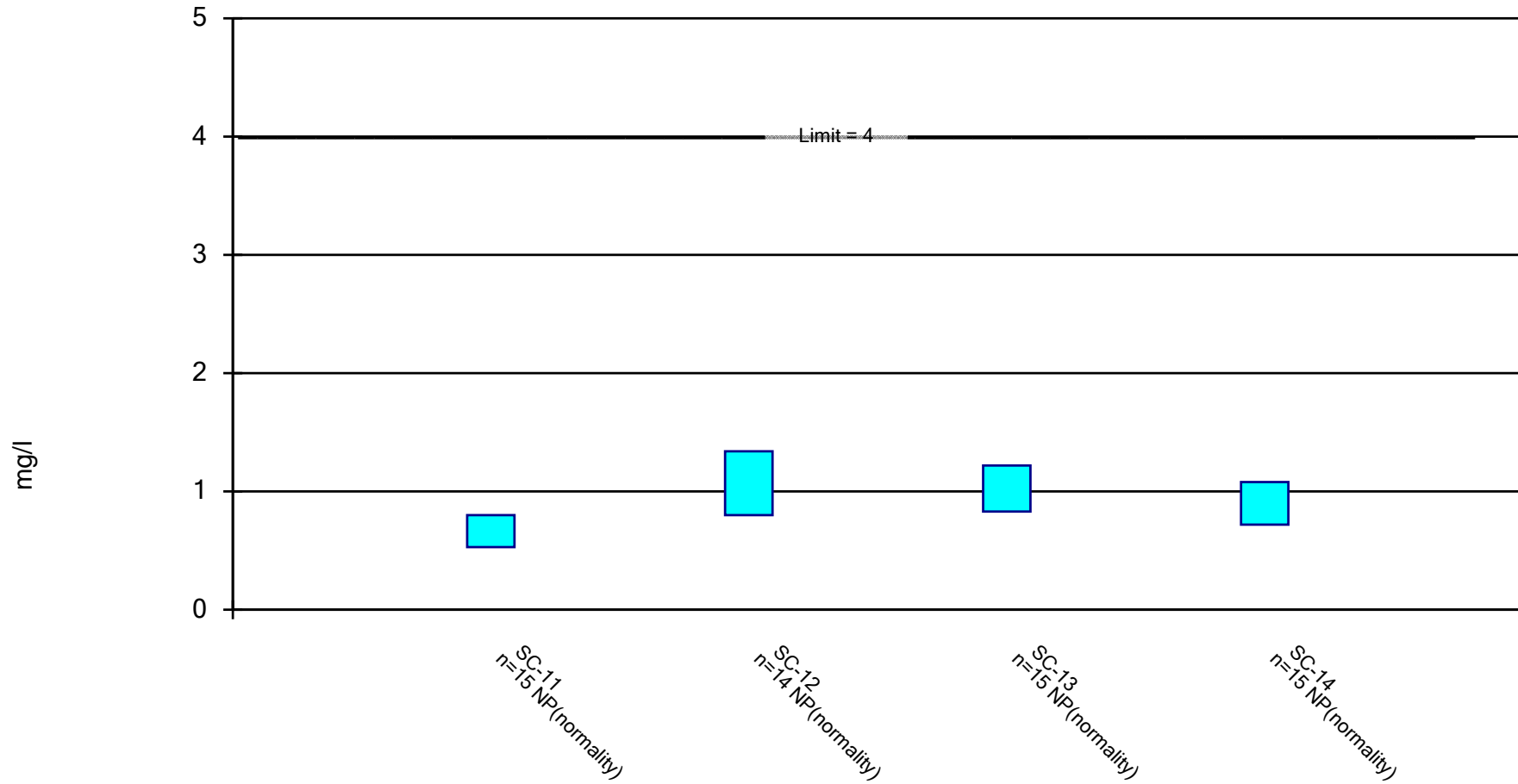
Constituent: Fluoride, Total (mg/l)    Analysis Run 1/27/2021 5:11 PM    View: CCR Landfill Tolerance

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	0.12 (T)	0.51 (T)	0.215 (TD)			0.59 (T)
6/23/2016				0.46 (T)		
6/27/2016					0.55	
8/2/2016	0.06006 (TD)	0.5 (T)	0.21 (T)	0.46 (T)	0.00048 (T)	
8/3/2016						0.585 (TD)
9/19/2016	0.13	0.985 (D)	0.22	0.48	0.48	
9/20/2016						0.56
10/12/2016	0.12 (T)	0.52 (T)	0.21 (T)	0.465 (TD)	0.51 (T)	
10/13/2016						0.61 (T)
11/15/2016	0.12 (T)	0.51 (T)	0.2 (T)	0.46 (TD)	0.46 (T)	
11/16/2016						0.57 (T)
1/18/2017	0.13 (T)	0.52 (T)	0.2 (TD)	0.46 (T)	0.56 (T)	
1/19/2017						0.56 (T)
2/14/2017	0.13 (T)	0.55 (T)	0.22 (TD)	0.48 (T)	0.51 (T)	
2/15/2017						0.575 (TD)
2/28/2017	0.13 (TD)	0.53 (T)	0.22 (T)	0.47 (T)	0.42 (T)	
3/1/2017						0.57 (T)
11/13/2017	0.2	0.7 (D)	0.45	0.56	0.48	
11/14/2017						0.82
2/14/2018	0.21	0.74	0.5	0.615 (D)	0.53	
2/15/2018						0.84
9/25/2018	0.195 (D)	0.73	0.48	0.62	0.52	
5/14/2019	0.13	0.51	0.2	0.44 (D)	0.69	
5/15/2019						0.54
9/24/2019	0.195 (D)	0.72	0.53	0.59	0.72	
9/25/2019						0.85
4/6/2020	0.21	0.72	0.545 (D)	0.61	0.7	
4/7/2020						0.87
11/16/2020			0.55	0.6	0.7	
11/17/2020	0.2	0.74 (D)				0.85
Mean	0.152	0.6323	0.33	0.518	0.522	0.6707
Std. Dev.	0.0455	0.1419	0.1534	0.07045	0.1739	0.1369
Upper Lim.	0.2	0.74	0.53	0.61	0.6295	0.85
Lower Lim.	0.12	0.51	0.2	0.46	0.453	0.56

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Fluoride, Total Analysis Run 1/27/2021 5:06 PM View: CCR Landfill Tolerance  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

# Confidence Interval

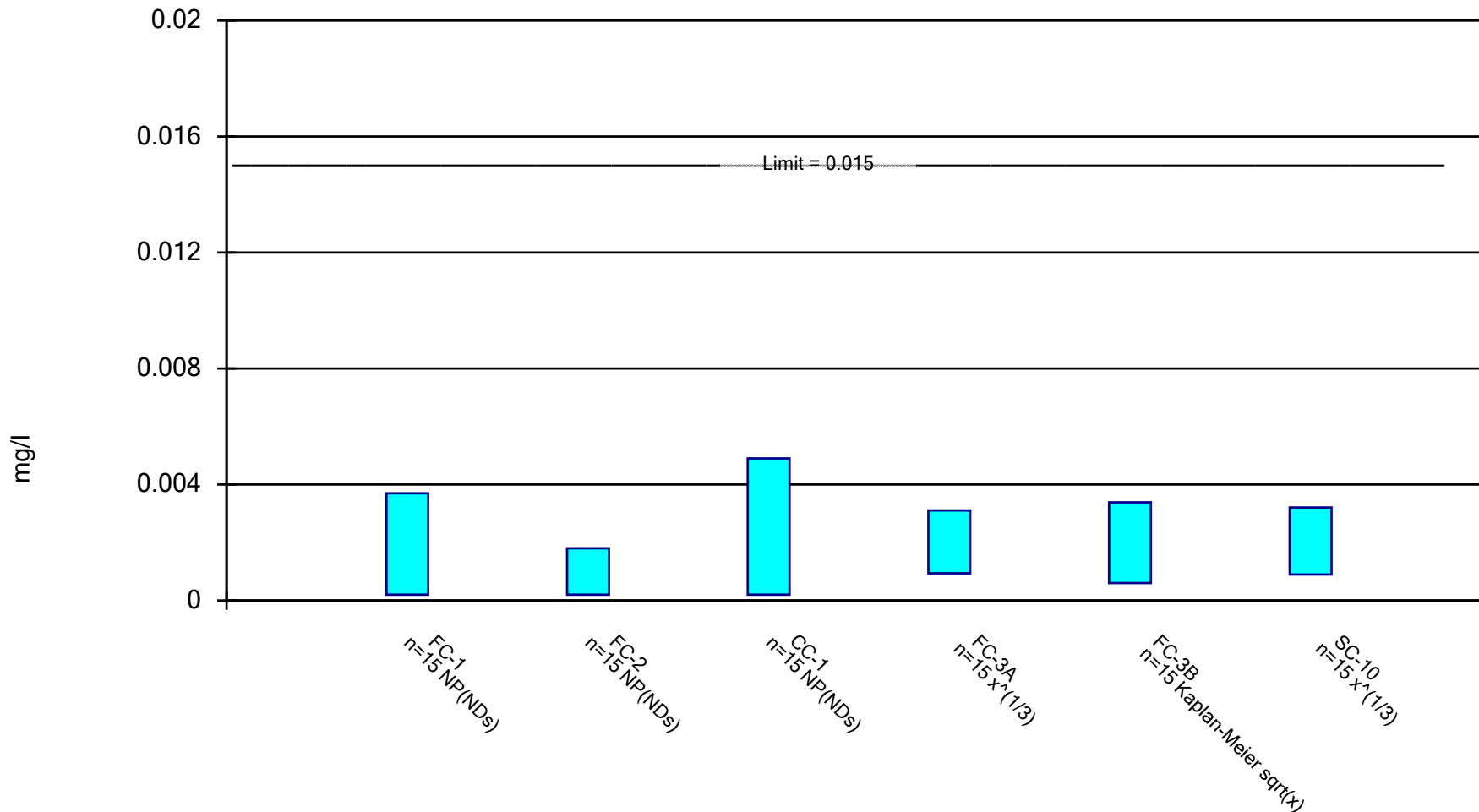
Constituent: Fluoride, Total (mg/l) Analysis Run 1/27/2021 5:11 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	SC-11	SC-12	SC-13	SC-14
6/22/2016	0.56 (T)	0.79 (T)	0.83 (T)	0.73 (T)
8/3/2016	0.54 (T)	0.82 (T)	0.82 (T)	0.72 (T)
9/20/2016	0.53 (D)	0.82	1.22 (D)	0.7
10/13/2016	0.57 (T)	0.885 (TD)	0.9 (T)	0.77 (T)
11/16/2016	0.53 (T)	0.84 (T)	0.84 (D)	0.72 (T)
1/19/2017	0.53 (T)	0.84 (T)	0.86 (T)	0.74 (T)
2/15/2017	0.55 (T)		0.86 (T)	0.74 (T)
3/1/2017	0.54 (T)	0.84 (TD)	0.84 (T)	0.74 (T)
11/14/2017	0.765 (D)	1.27	1.21	1.06
2/15/2018	0.77	1.26	1.2	1.06
9/26/2018	0.8	1.31	1.275 (D)	1.11
5/15/2019	0.53	0.8 (D)	0.77	0.69
9/24/2019		1.37		
9/25/2019	0.81		1.225 (D)	1.08
4/7/2020	0.79	1.34	1.18	1.085 (D)
11/16/2020			1.21	1.06
11/17/2020	0.81	1.43 (D)		
Mean	0.6417	1.044	1.016	0.867
Std. Dev.	0.1271	0.261	0.1975	0.1778
Upper Lim.	0.8	1.34	1.22	1.08
Lower Lim.	0.53	0.8	0.83	0.72

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead, Total    Analysis Run 1/27/2021 5:06 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

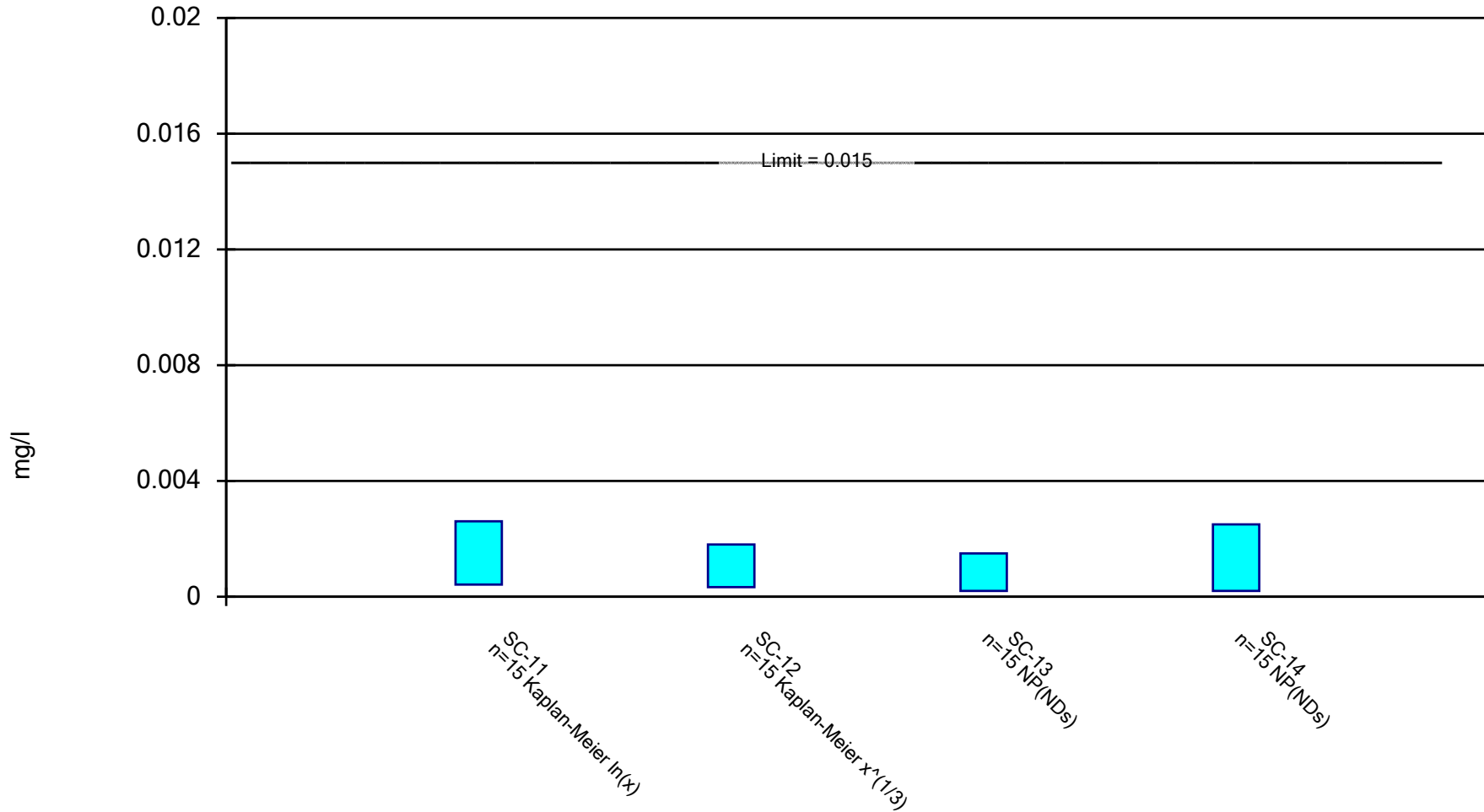
# Confidence Interval

Constituent: Lead, Total (mg/l)    Analysis Run 1/27/2021 5:11 PM    View: CCR Landfill Tolerance  
 Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	<0.0002	0.0002	<0.0002 (D)			0.0041
6/23/2016				0.0052		
6/27/2016					0.0039	
8/2/2016	<0.0002 (D)	<0.0002	<0.0002	0.0015	0.0021	
8/3/2016						0.0017 (D)
9/19/2016	0.00032 (D)	<0.0002 (D1)	<0.0002 (D1)	0.001 (D)	0.00042 (D)	
9/20/2016						0.00091 (D)
10/12/2016	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	0.000835 (D)	<0.0002 (D1)	
10/13/2016						0.00044 (D)
11/15/2016	0.0037 (D)	<0.0002 (D1)	0.0052 (D)	0.0031 (D)	0.0065 (D)	
11/16/2016						0.0063 (D)
1/18/2017	<0.0005 (D1)	<0.0005 (D1)	0.0035 (D)	0.0035 (D)	0.0035 (D)	
1/19/2017						0.0041 (D)
2/14/2017	0.0027 (D)	0.0018 (D)	0.0028 (D)	0.0017 (D)	0.00099 (D)	
2/15/2017						0.00275 (D)
2/28/2017	0.0081 (D)	0.0089 (D)	0.0049 (D)	0.009	0.0089 (D)	
3/1/2017						0.0046 (D)
11/13/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	0.00091 (D)	<0.0005 (D1)	
11/14/2017						0.0011 (D)
2/14/2018	<0.005	<0.0025	<0.005	<0.0025 (D)	<0.0025	
2/15/2018						<0.005
9/25/2018	<0.0005 (D)	<0.0005	<0.0005	0.00086	0.0046	
9/26/2018						<0.0005 (D1)
5/14/2019	<0.0005	<0.0005 (D1D)	<0.0005 (D1D)	0.0011 (D1D)	0.00073 (D1D)	
5/15/2019						0.00092 (D1D)
9/24/2019	<0.0005 (D1D)	0.0014 (D)	0.00072 (D)	0.0018 (D)	0.0012 (D)	
9/25/2019						0.00089 (D)
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	
4/7/2020						0.00084 (D)
11/16/2020			0.0019 (D)	0.00074 (D)	0.00051 (D)	
11/17/2020	0.0013 (D)	<0.0005 (DD1)				0.0006 (D)
Mean	0.001648	0.00124	0.001788	0.002283	0.00247	0.002317
Std. Dev.	0.002303	0.002225	0.001954	0.002262	0.00258	0.001975
Upper Lim.	0.0037	0.0018	0.0049	0.003107	0.003387	0.003209
Lower Lim.	0.0002	0.0002	0.0002	0.0009408	0.0006044	0.000896

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead, Total Analysis Run 1/27/2021 5:06 PM View: CCR Landfill Tolerance  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary



# Confidence Interval

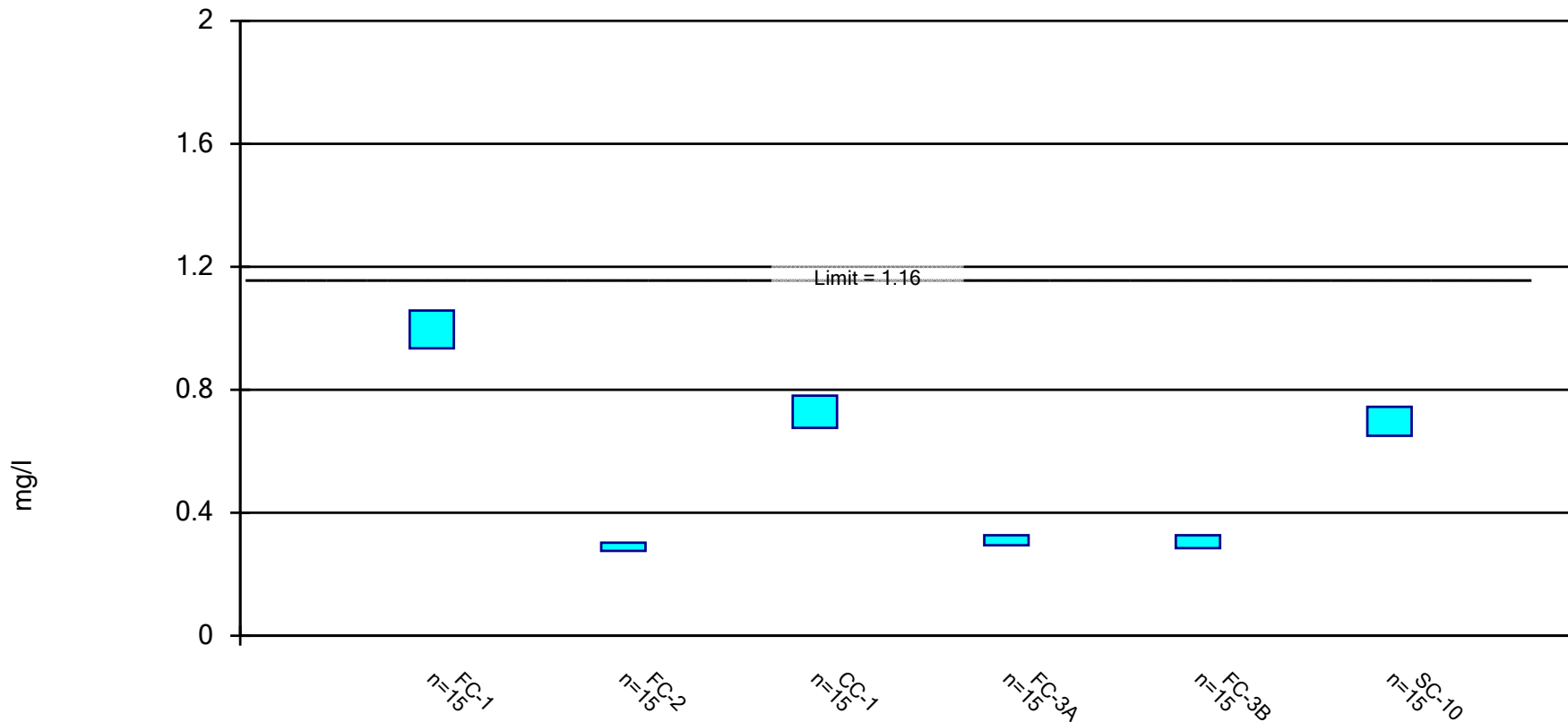
Constituent: Lead, Total (mg/l) Analysis Run 1/27/2021 5:11 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	SC-11	SC-12	SC-13	SC-14
6/22/2016	0.0076	0.00043	0.00052	0.0046
8/3/2016	0.0043	0.0016	<0.0002	0.0007
9/20/2016	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)
10/13/2016	0.0006 (D)	<0.0002 (D)	<0.0002 (D1)	<0.0002 (D1)
11/16/2016	0.0063 (D)	0.0038 (D)	0.00145 (D)	0.0016 (D)
1/19/2017	0.0025 (D)	0.0017 (D)	0.0015 (D)	0.0016 (D)
2/15/2017	0.0028 (D)	0.0021 (D)	0.0015 (D)	0.0015 (D)
3/1/2017	0.0059 (D)	0.0064 (D)	0.0068 (D)	0.0064 (D)
11/14/2017	0.00073 (D)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
2/15/2018	<0.005	<0.005	<0.0025	<0.0025
9/26/2018	<0.0005 (D1)	0.0012	<0.0005 (D)	<0.0005
5/15/2019	<0.0005 (D1D)	<0.0005 (D)	<0.0005 (D1D)	<0.0005 (D1D)
9/24/2019		0.00056 (D)		
9/25/2019	0.00059 (D)		0.000825 (D)	<0.0005 (D1D)
4/7/2020	0.00089 (D)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
11/16/2020			<0.0005 (DD1)	<0.0005 (DD1)
11/17/2020	<0.0005 (DD1)	<0.0005 (D)		
Mean	0.002594	0.001679	0.001213	0.001487
Std. Dev.	0.00256	0.001908	0.001676	0.001786
Upper Lim.	0.002607	0.001806	0.0015	0.0025
Lower Lim.	0.0004228	0.0003323	0.0002	0.0002

### Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium, Total    Analysis Run 1/27/2021 5:07 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

# Confidence Interval

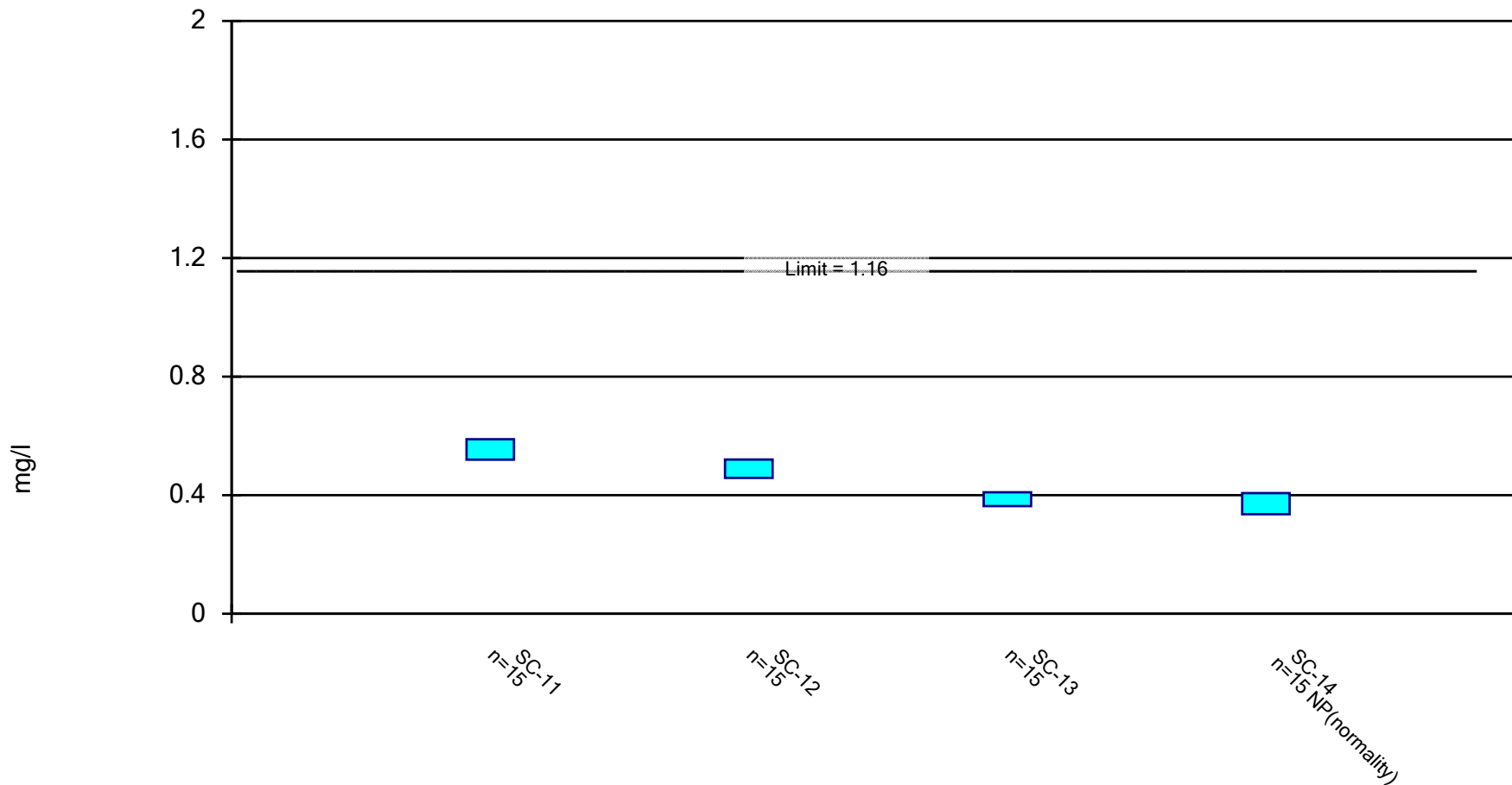
Constituent: Lithium, Total (mg/l) Analysis Run 1/27/2021 5:11 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	0.904	0.269	0.671 (D)			0.601
6/23/2016				0.303		
6/27/2016					0.232	
8/2/2016	0.984 (D)	0.305	0.731	0.311	0.274	
8/3/2016						0.661 (D)
9/19/2016	1.01	0.306 (D)	0.779	0.343	0.295	
9/20/2016						0.728
10/12/2016	1.03	0.307	0.825	0.3455 (D)	0.315	
10/13/2016						0.761
11/15/2016	1.16	0.325 (T)	0.822	0.3375 (D)	0.344	
11/16/2016						0.786
1/18/2017	1.08	0.318	0.791 (D)	0.343 (D)	0.335	
1/19/2017						0.858 (D)
2/14/2017	1	0.298	0.73 (D)	0.312	0.334	
2/15/2017						0.671 (D)
2/28/2017	0.9125 (D)	0.275 (D)	0.641	0.283 (D)	0.326 (D)	
3/1/2017						0.637 (D)
11/13/2017	0.894	0.2665 (D)	0.63	0.288	0.31	
11/14/2017						0.632
2/14/2018	0.9 (D)	0.265 (D)	0.576 (D)	0.2635 (D)	0.341 (D)	
2/15/2018						0.66 (D)
9/25/2018	0.9085 (D)	0.276 (D)	0.664 (D)	0.302 (D)	0.316 (D)	
9/26/2018						0.626 (D)
5/14/2019	1.13	0.294	0.798	0.3265 (D)	0.321	
5/15/2019						0.729
9/24/2019	0.9695 (D)	0.274 (D)	0.722 (D)	0.303 (D)	0.284 (D)	
9/25/2019						0.669 (D)
4/6/2020	0.943	0.274	0.7435 (D)	0.295	0.284	
4/7/2020						0.709
11/16/2020			0.808	0.305	0.28	
11/17/2020	1.12	0.2905 (D)				0.736
Mean	0.9964	0.2895	0.7288	0.3107	0.3061	0.6976
Std. Dev.	0.09064	0.01965	0.07747	0.02428	0.03092	0.06959
Upper Lim.	1.058	0.3029	0.7813	0.3272	0.327	0.7448
Lower Lim.	0.9349	0.2762	0.6763	0.2943	0.2851	0.6504

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium, Total    Analysis Run 1/27/2021 5:07 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

# Confidence Interval

Constituent: Lithium, Total (mg/l) Analysis Run 1/27/2021 5:11 PM View: CCR Landfill Tolerance

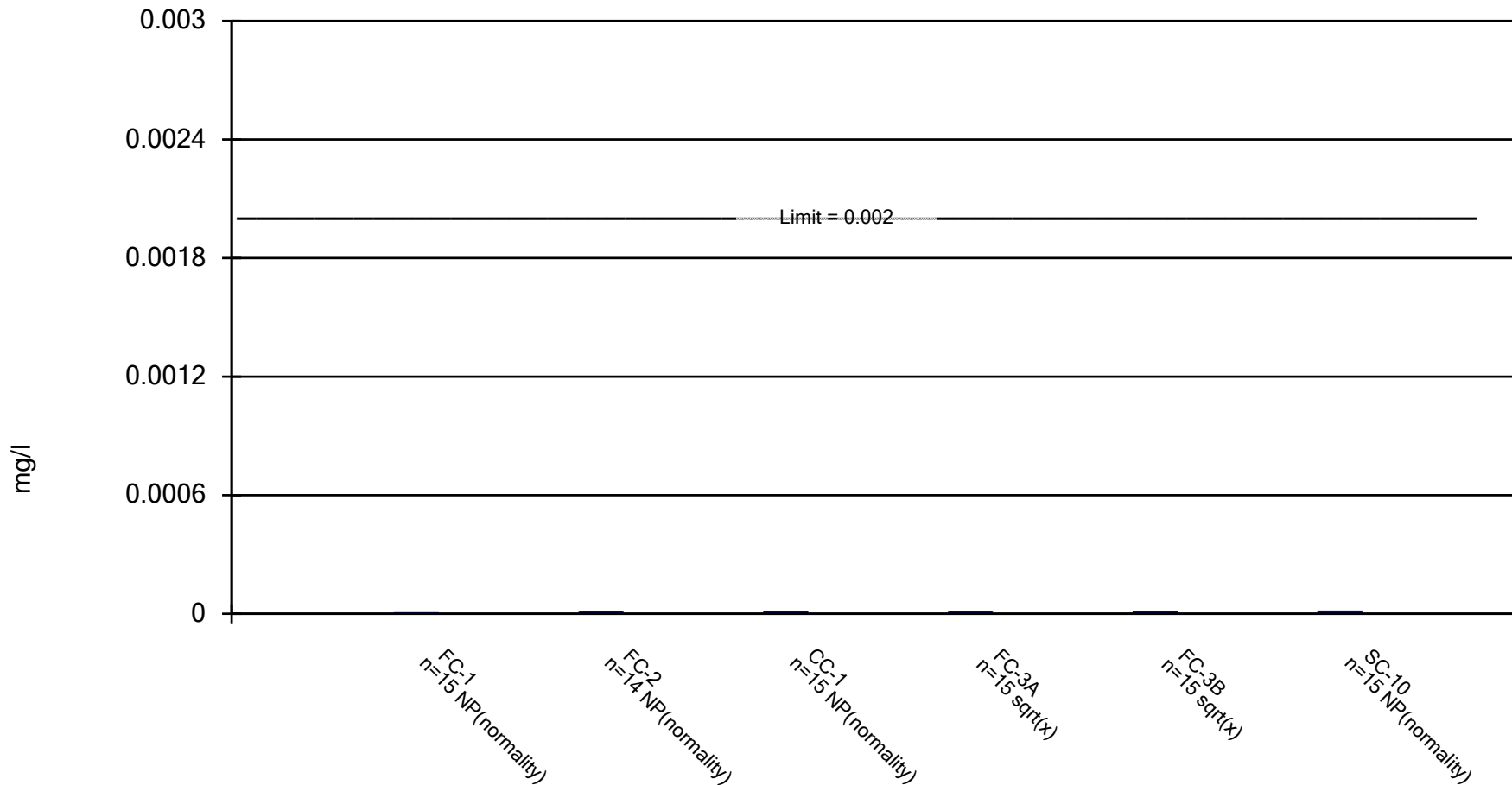
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

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	SC-11	SC-12	SC-13	SC-14
6/22/2016	0.475	0.422	0.394	0.363
8/3/2016	0.497	0.47	0.384	0.353
9/20/2016	0.593 (D)	0.53	0.429	0.406
10/13/2016	0.611	0.546 (D)	0.437	0.415
11/16/2016	0.622	0.572	0.4445 (D)	0.422
1/19/2017	0.619 (D)	0.558 (D)	0.433 (D)	0.407 (D)
2/15/2017	0.542	0.472	0.379	0.365
3/1/2017	0.5 (D)	0.449 (D)	0.343 (D)	0.338 (D)
11/14/2017	0.519 (D)	0.443	0.345	0.336
2/15/2018	0.494 (D)	0.442 (D)	0.374 (D)	0.345 (D)
9/26/2018	0.534 (D)	0.471 (D)	0.3495 (D)	0.336 (D)
5/15/2019	0.583	0.505 (D)	0.378	0.363
9/24/2019		0.464 (D)		
9/25/2019	0.538		0.3545 (D)	0.33 (D)
4/7/2020	0.593	0.488	0.384	0.356 (D)
11/16/2020			0.368	0.354
11/17/2020	0.597	0.5075 (D)		
Mean	0.5545	0.4893	0.3864	0.3659
Std. Dev.	0.05061	0.04566	0.03442	0.03113
Upper Lim.	0.5888	0.5202	0.4098	0.407
Lower Lim.	0.5202	0.4584	0.3631	0.336

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury, Total    Analysis Run 1/27/2021 5:07 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

# Confidence Interval

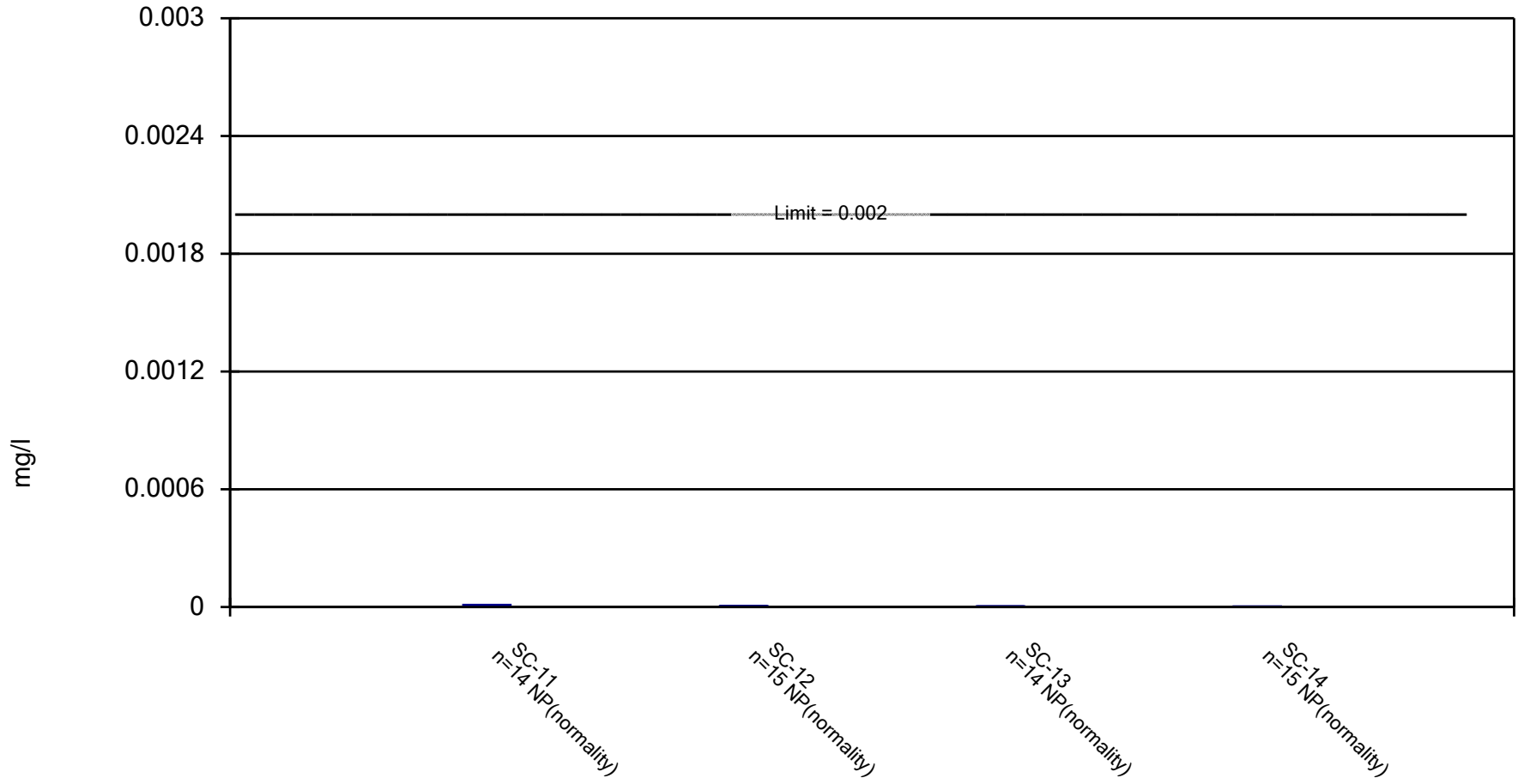
Constituent: Mercury, Total (mg/l)    Analysis Run 1/27/2021 5:11 PM    View: CCR Landfill Tolerance

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	1.3E-06	2.8E-06	4.7E-06 (D)			3.6E-05
6/23/2016				5.4E-06		
6/27/2016					1.3E-05	
8/2/2016	2E-06 (D)	4E-06	6E-06	7E-06	6E-06	
8/3/2016						1.05E-05 (D)
9/19/2016	2E-06	3E-06 (D)	6E-06	4E-06	3E-06	
9/20/2016						1.6E-05
10/12/2016	2E-06		6E-06	5E-06 (D)	3E-06	
10/13/2016						1E-05
11/15/2016	2E-06	4E-06	6E-06	2E-06 (D)	9E-06	
11/16/2016						1E-05
1/18/2017	2E-06	5E-06	7.5E-06 (D)	2E-06	8E-06	
1/19/2017						1.1E-05
2/14/2017	2E-06	4E-06	6E-06 (D)	2E-06	4E-06	
2/15/2017						9E-06 (D)
2/28/2017	2E-06 (D)	4E-06	6E-06	2E-06	5E-06	
3/1/2017						9E-06
11/13/2017	2E-06 (T)	3.5E-06 (TD)	6E-06 (T)	4E-06 (T)	7E-06 (T)	
11/14/2017						1E-05
2/14/2018	2E-06	3E-06	5E-06	2E-06 (D)	5E-06	
2/15/2018						1.1E-05
9/25/2018	2.5E-06 (D)	3E-06	5E-06	3E-06	2.4E-05	
9/26/2018						9E-06
5/14/2019	2E-06	3E-06	6E-06	7.5E-06 (D)	3E-06	
5/15/2019						1E-05
9/24/2019	2E-06 (D)	5E-06	5E-06	8E-06	5E-06	
9/25/2019						1E-05
4/6/2020	2E-06	4E-06	6E-06 (D)	2E-06	2E-06	
4/7/2020						9E-06
11/16/2020			6E-06	<2E-06	<2E-06	
11/17/2020	2E-06	3E-06 (D)				8E-06
Mean	1.987E-06	3.664E-06	5.813E-06	3.793E-06	6.533E-06	1.19E-05
Std. Dev.	2.3E-07	7.4E-07	6.8E-07	2.292E-06	5.718E-06	6.908E-06
Upper Lim.	2.5E-06	5E-06	7.5E-06	5.096E-06	9.189E-06	1.1E-05
Lower Lim.	1.3E-06	3E-06	5E-06	2.174E-06	3.01E-06	9E-06

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury, Total    Analysis Run 1/27/2021 5:07 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary



# Confidence Interval

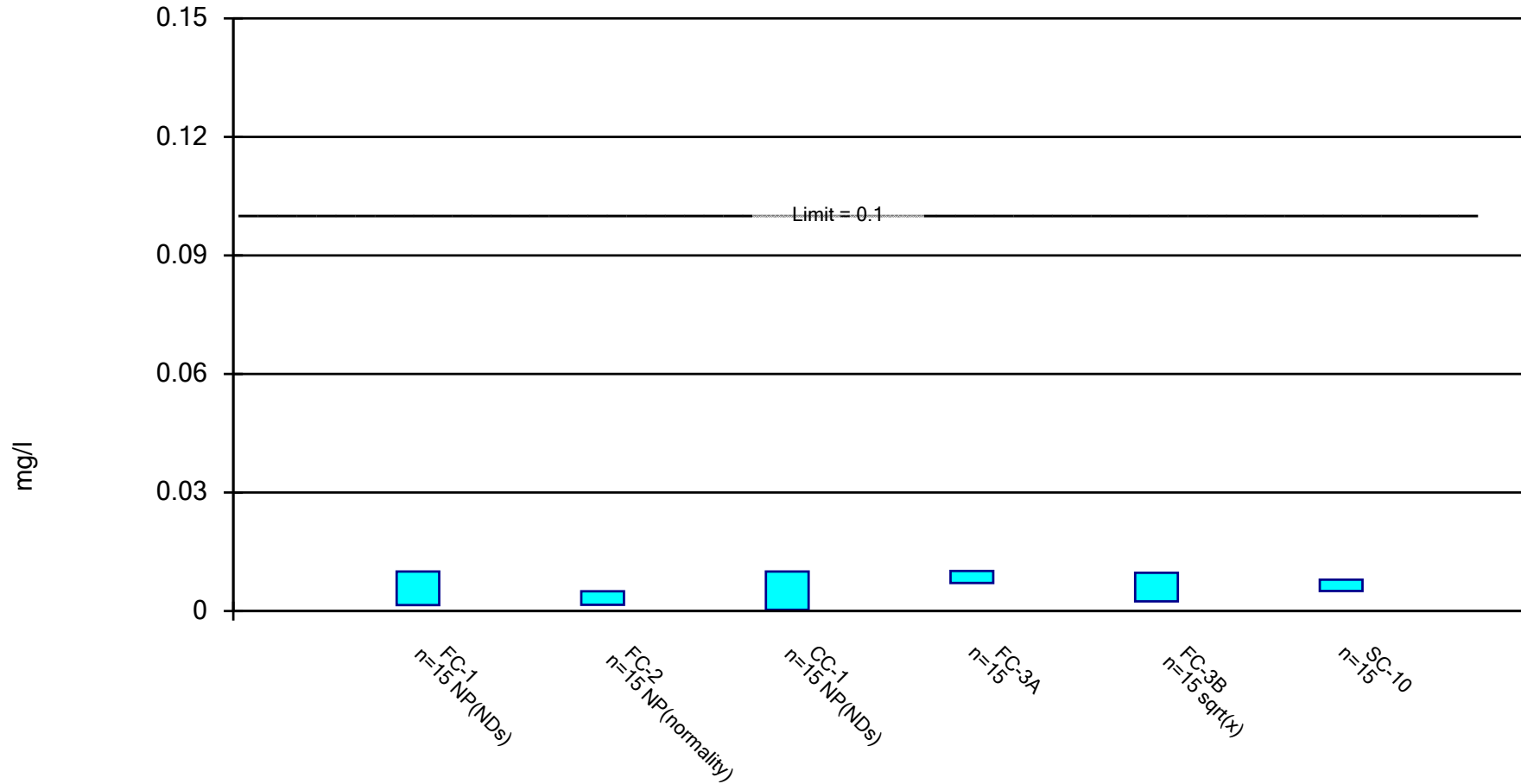
Constituent: Mercury, Total (mg/l) Analysis Run 1/27/2021 5:11 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	SC-11	SC-12	SC-13	SC-14
6/22/2016	6.7E-05	4.5E-06	3.6E-06	1.2E-05
8/3/2016		6E-06	2E-06	3E-06
9/20/2016	9.5E-06 (D)	5E-06	3E-06	3E-06
10/13/2016	1E-05	3E-06 (D)	2E-06	2E-06
11/16/2016	1E-05	4E-06	2E-06 (D)	2E-06
1/19/2017	1E-05	4E-06	3E-06	2E-06
2/15/2017	8E-06	3E-06	2E-06	2E-06
3/1/2017	9E-06	3E-06 (D)	3E-06	<2E-06
11/14/2017	7.5E-06 (D)	4E-06	2E-06	2E-06
2/15/2018	1.3E-05	4E-06	2E-06	2E-06
9/26/2018	8E-06	5E-06	2E-06 (D)	2E-06
5/15/2019	9E-06	4E-06 (D)	2E-06	2E-06
9/24/2019		4E-06		
9/25/2019	9E-06		4E-06 (D)	2E-06
4/7/2020	1.1E-05	4E-06		2E-06
11/16/2020			2E-06	<2E-06
11/17/2020	8E-06	3E-06 (D)		
Mean	1.35E-05	4.033E-06	2.471E-06	2.667E-06
Std. Dev.	1.546E-05	8.5E-07	7E-07	2.637E-06
Upper Lim.	1.1E-05	5E-06	3.6E-06	3E-06
Lower Lim.	8E-06	3E-06	2E-06	1E-06

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum, Total    Analysis Run 1/27/2021 5:07 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

# Confidence Interval

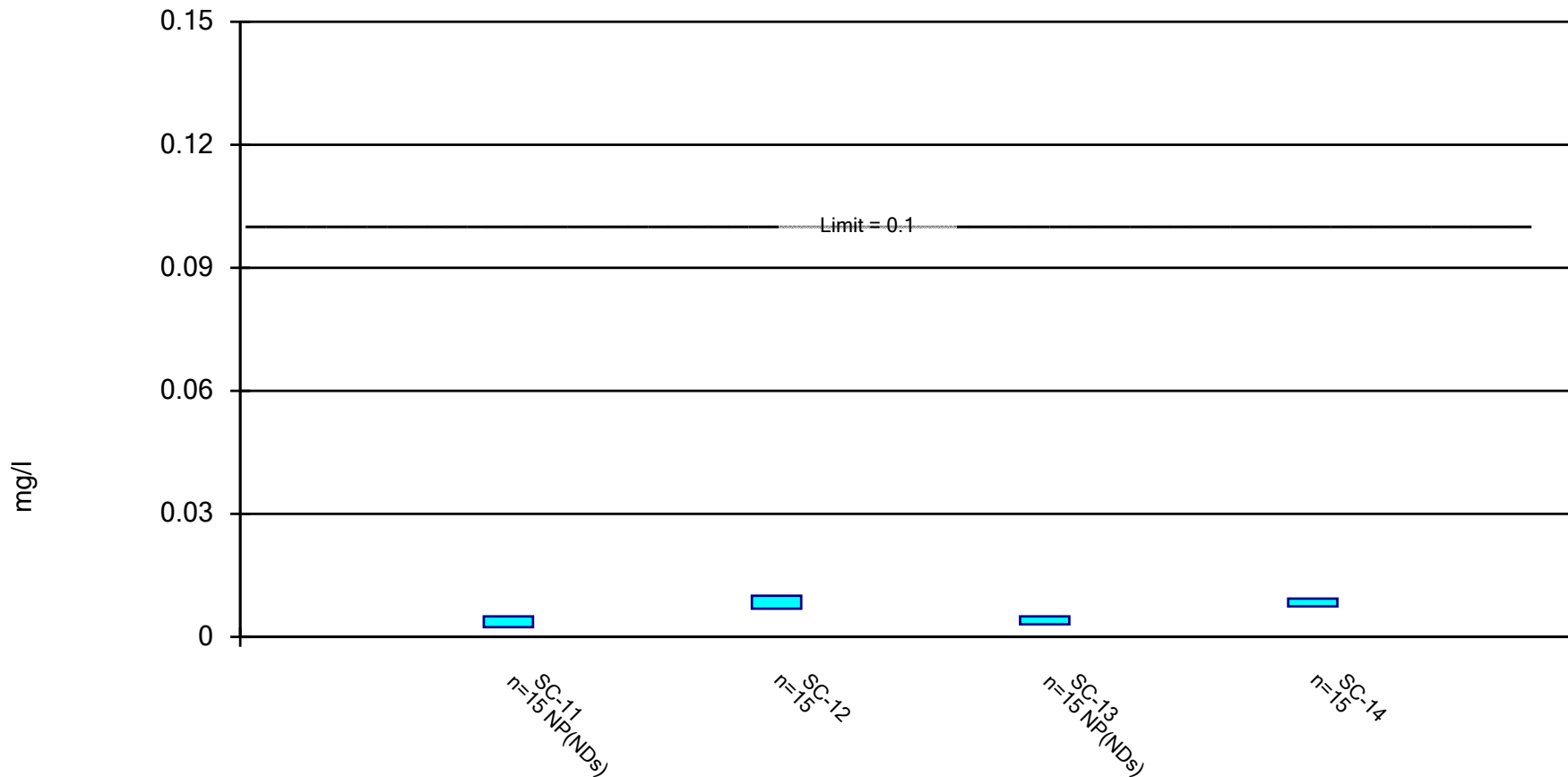
Constituent: Molybdenum, Total (mg/l)    Analysis Run 1/27/2021 5:11 PM    View: CCR Landfill Tolerance

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	<0.005	<0.005	<0.005 (D)			0.0113
6/23/2016				<0.005		
6/27/2016					0.0201	
8/2/2016	<0.005 (D)	<0.005	<0.005	0.00838	0.0198	
8/3/2016						0.008055 (D)
9/19/2016	<0.005	<0.005 (D)	<0.005	0.0122	0.00609	
9/20/2016						0.00911
10/12/2016	<0.005	0.001252 (D)	<0.005	0.009175 (D)	0.00525	
10/13/2016						0.00767
11/15/2016	<0.005	<0.005	<0.005	0.01065 (D)	0.0117	
11/16/2016						0.0074
1/18/2017	<0.005	<0.005	<0.005 (D)	0.00969	<0.005	
1/19/2017						0.00614
2/14/2017	<0.005	<0.005	<0.005 (D)	0.0104	0.00716	
2/15/2017						0.006325 (D)
2/28/2017	<0.005 (D)	<0.005	<0.005	0.0109	0.00842	
3/1/2017						0.00646
11/13/2017	0.0015 (D)	0.0014 (D)	<0.0002 (D1)	0.005 (D)	0.0042 (D)	
11/14/2017						0.0026 (D)
2/14/2018	<0.01	0.003	<0.01	0.0112 (D)	0.0055	
2/15/2018						0.0072
9/25/2018	0.0015 (D)	0.002	0.0006	0.0086	0.0027	
9/26/2018						0.0062
5/14/2019	0.0018	0.002 (D)	0.00068 (D)	0.0069 (D)	0.0014 (D)	
5/15/2019						0.0054 (D)
9/24/2019	0.00165 (D)	0.0021 (D)	0.00067 (D)	0.0066 (D)	0.002 (D)	
9/25/2019						0.0038 (D)
4/6/2020	0.0013 (D)	0.0016 (D)	0.000275 (D)	0.0073 (D)	0.00057 (D)	
4/7/2020						0.0046 (D)
11/16/2020			0.00034 (D)	0.0074 (D)	0.00073 (D)	
11/17/2020	0.0013 (D)	0.0016 (D)				0.0054 (D)
Mean	0.003937	0.00333	0.003518	0.008626	0.006708	0.006511
Std. Dev.	0.002411	0.001663	0.002877	0.002235	0.006163	0.002133
Upper Lim.	0.01	0.005	0.01	0.01014	0.009712	0.007956
Lower Lim.	0.0015	0.0016	0.00034	0.007112	0.002475	0.005065

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum, Total Analysis Run 1/27/2021 5:07 PM View: CCR Landfill Tolerance  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

# Confidence Interval

Constituent: Molybdenum, Total (mg/l) Analysis Run 1/27/2021 5:11 PM View: CCR Landfill Tolerance

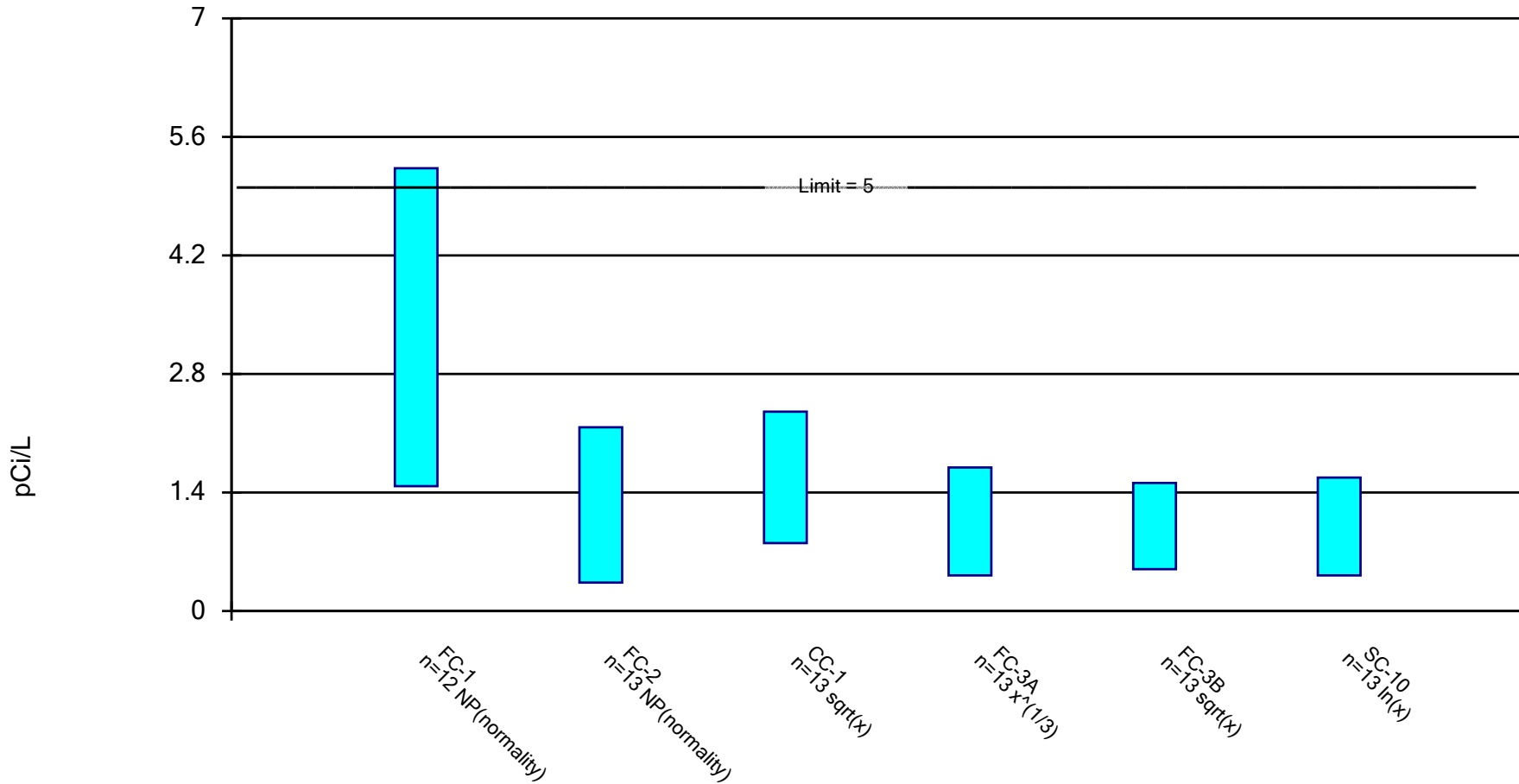
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

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	SC-11	SC-12	SC-13	SC-14
6/22/2016	<0.005	0.0128	<0.005	0.0079
8/3/2016	<0.005	0.0103	<0.005	0.00734
9/20/2016	<0.005 (D)	0.00983	<0.005	0.00819
10/13/2016	<0.005	0.0101 (D)	<0.005	0.00848
11/16/2016	<0.005	0.00951	<0.005 (D)	0.00897
1/19/2017	<0.005	0.00866	<0.005	0.00798
2/15/2017	<0.005	0.00909	<0.005	0.00821
3/1/2017	<0.005	0.00905 (D)	<0.005	0.00869
11/14/2017	0.00185 (D)	0.0067 (D)	0.0036 (D)	0.0072 (D)
2/15/2018	0.0033	0.0097	0.005	0.012
9/26/2018	0.003	0.0089	0.00375 (D)	0.0098
5/15/2019	0.0025 (D)	0.0081 (D)	0.0031 (D)	0.0086 (D)
9/24/2019		0.0041 (D)		
9/25/2019	0.0028 (D)		0.0031 (D)	0.0086 (D)
4/7/2020	0.0024	0.0059 (D)	0.0015015 (D)	0.005401 (D)
11/16/2020			0.0031 (D)	0.0086 (D)
11/17/2020	0.0023 (D)	0.00435 (D)		
Mean	0.003877	0.008473	0.00421	0.008397
Std. Dev.	0.001282	0.002331	0.001109	0.001402
Upper Lim.	0.005	0.01005	0.005	0.009347
Lower Lim.	0.0024	0.006893	0.0031	0.007447

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Rad 226+228 Analysis Run 1/27/2021 5:08 PM View: CCR Landfill Tolerance  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

# Confidence Interval

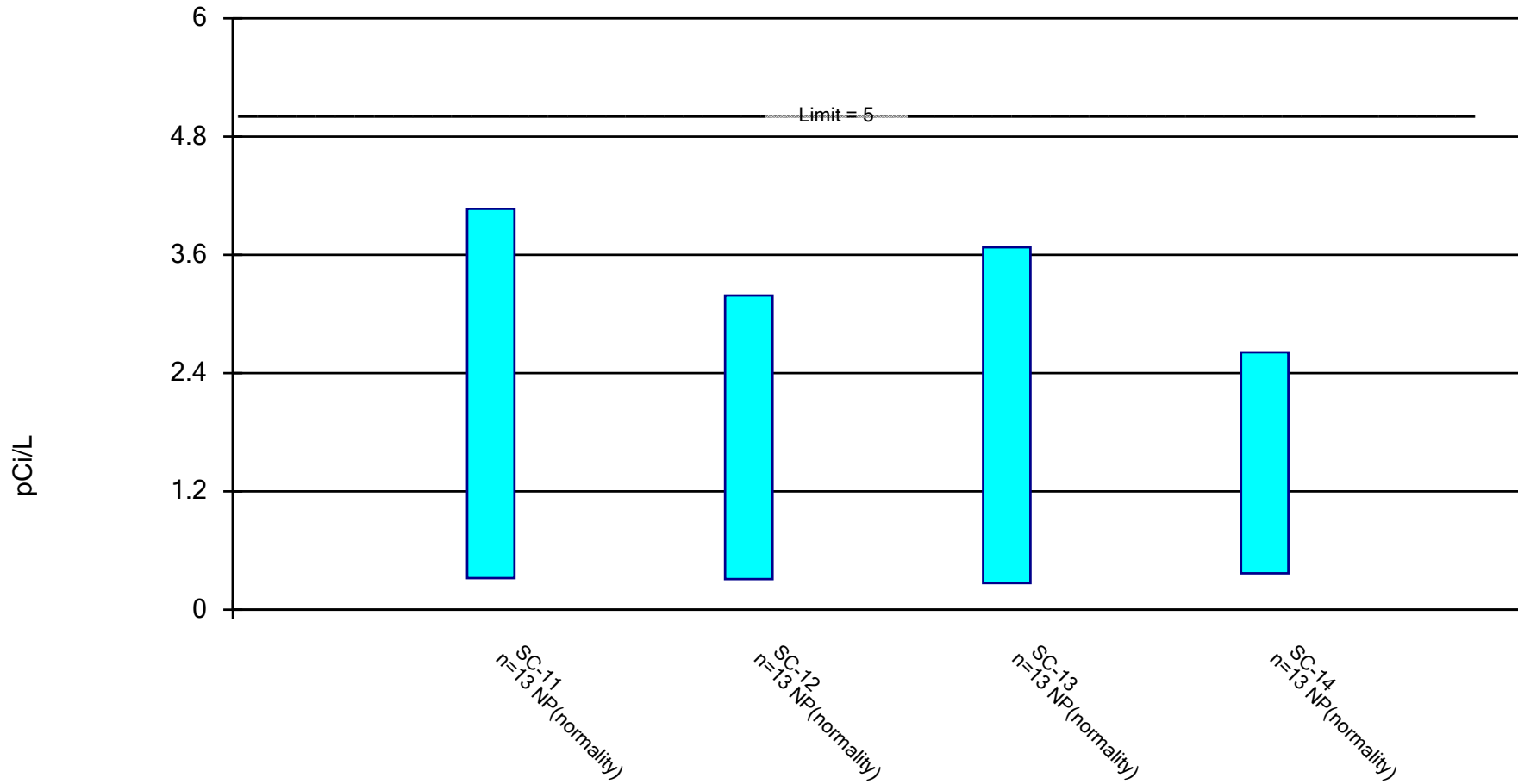
Constituent: Rad 226+228 (pCi/L) Analysis Run 1/27/2021 5:11 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	1.475	0.3375	1.317 (D)			1.257
6/23/2016				1.321		
6/27/2016					1.111	
8/2/2016	1.38	0.295	0.412	0.3135	1.7775	
8/3/2016						0.646
9/19/2016	2.136	0.363	0.6405	0.3795	0.496	
9/20/2016						0.361
10/12/2016	1.913	0.3475	1.404	0.616	0.4955	
10/13/2016						0.324
11/15/2016	2.128	0.854	1.354	0.395	0.6865	
11/16/2016						0.3775
1/18/2017	1.874	0.471	1.494 (D)	0.617	0.6095	
1/19/2017						0.704
2/14/2017	2.31 (D)	0.7225	1.841	2.636	1.366	
2/15/2017						1.114
2/28/2017	1.628	0.446	1.59325 (D)	1.8245	0.414	
3/1/2017						0.432
11/13/2017	6.445	4.255	5.16	3.575	2.225	
11/14/2017						5.16
2/14/2018	5.23	2.1715	3.22	2.23025 (D)	2.79	
2/15/2018						3.8
9/24/2019	1.628	0.4605	1.444	0.548	0.69	
9/25/2019						0.949
4/6/2020	2.368	0.428	0.826 (D)	0.466	0.762	
4/7/2020						0.345
11/16/2020			0.714	0.281	0.2355	
11/17/2020		1.192 (D)				0.9085
Mean	2.543	0.9495	1.648	1.169	1.051	1.26
Std. Dev.	1.592	1.12	1.267	1.071	0.7779	1.488
Upper Lim.	5.23	2.172	2.356	1.696	1.514	1.576
Lower Lim.	1.475	0.3375	0.803	0.4213	0.4944	0.4221

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Rad 226+228 Analysis Run 1/27/2021 5:08 PM View: CCR Landfill Tolerance  
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary



# Confidence Interval

Constituent: Rad 226+228 (pCi/L) Analysis Run 1/27/2021 5:11 PM View: CCR Landfill Tolerance

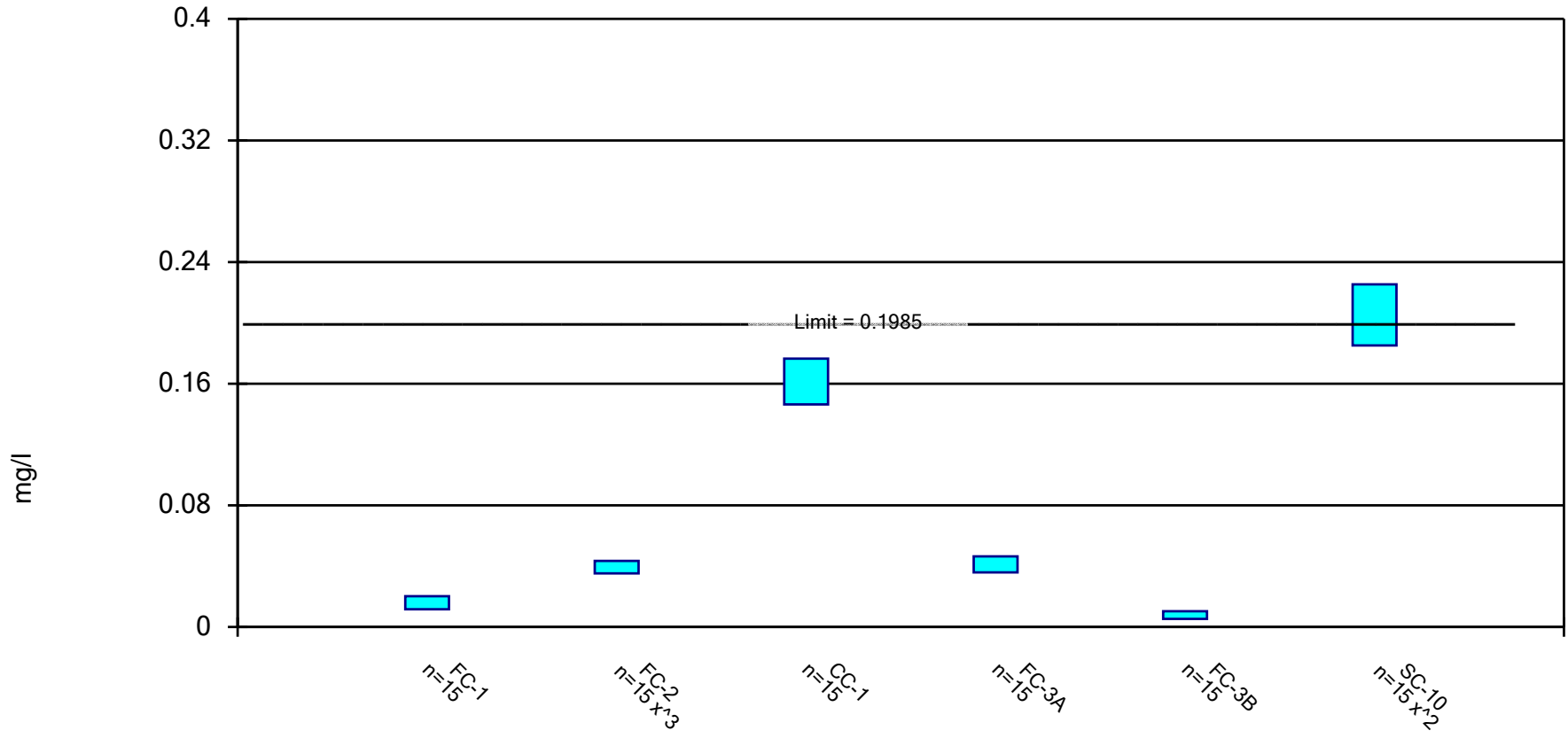
Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

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	SC-11	SC-12	SC-13	SC-14
6/22/2016	2.295	0.253	0.2705	0.786
8/3/2016	0.508	0.528	0.2735	0.6375
9/20/2016	0.4555	0.3585	0.448	0.603
10/13/2016	0.3365	0.437	0.305	0.4535
11/16/2016	0.286	0.3135	0.341	0.3695
1/19/2017	0.4185	0.393	0.661	0.497
2/15/2017	0.751	0.6565	0.581	0.3975
3/1/2017	0.7725	0.355	0.318	0.4345
11/14/2017	4.0675 (D)	3.94	4.55	4.465
2/15/2018	4.1	3.1875 (D)	3.677	2.612
9/25/2019	0.418	0.5735	0.596 (D)	0.4
4/7/2020	0.3205	0.3116	0.2665	0.26225 (D)
11/16/2020			0.563	0.503
11/17/2020	0.541	0.4145 (D)		
Mean	1.175	0.9017	0.9885	0.9554
Std. Dev.	1.392	1.197	1.405	1.214
Upper Lim.	4.068	3.188	3.677	2.612
Lower Lim.	0.3205	0.3116	0.2705	0.3695

### Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium, Total    Analysis Run 1/27/2021 5:08 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

# Confidence Interval

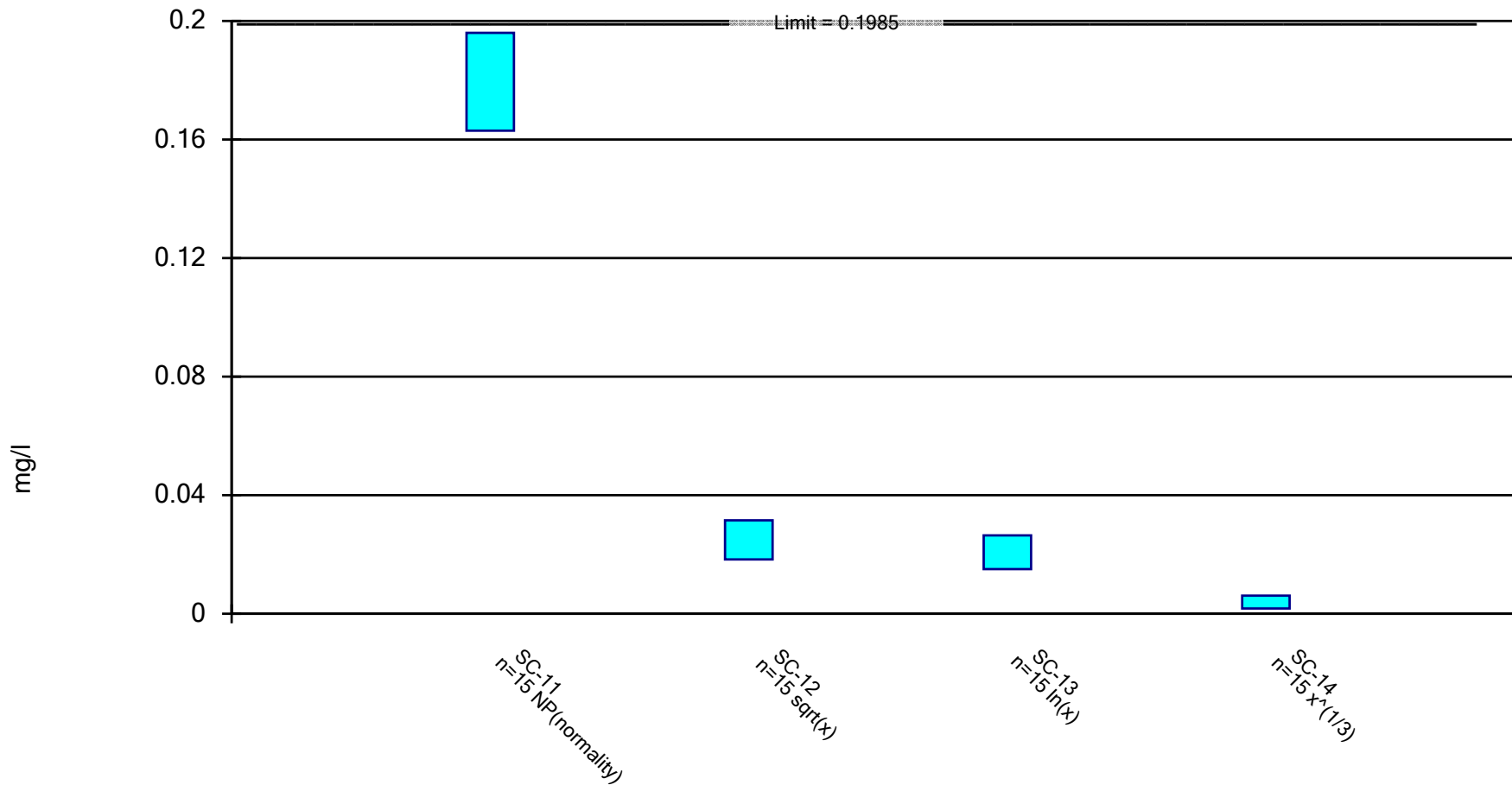
Constituent: Selenium, Total (mg/l)    Analysis Run 1/27/2021 5:11 PM    View: CCR Landfill Tolerance

Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	0.016	0.0471	0.1985 (D)			0.212
6/23/2016				0.0393		
6/27/2016					0.0057	
8/2/2016	0.0098 (D)	0.0412	0.186	0.0382	0.0069	
8/3/2016						0.216 (D)
9/19/2016	0.028 (D)	0.04895 (D)	0.157 (D)	0.0364 (D)	0.0112 (D)	
9/20/2016						0.201 (D)
10/12/2016	0.0167 (D)	<0.001 (D1)	0.138 (D)	0.04245 (D)	0.0115 (D)	
10/13/2016						0.194 (D)
11/15/2016	0.0136	0.0356 (D)	0.145 (D)	0.0355 (D)	0.0106 (D)	
11/16/2016						0.201 (DP1)
1/18/2017	0.0254 (D)	0.0452 (D)	0.1385 (D)	0.039 (D)	0.0067 (D)	
1/19/2017						0.22 (D)
2/14/2017	0.0141 (DT)	0.0388 (DT)	0.1415 (D)	0.0352 (DT)	0.0092 (D)	
2/15/2017						0.22 (D)
2/28/2017	0.00375 (D)	0.0367 (D)	0.143 (D)	0.0263 (D)	0.0011 (D)	
3/1/2017						0.224 (D)
11/13/2017	0.015 (D)	0.0381 (D)	0.135 (D)	0.0552 (D)	0.0107 (D)	
11/14/2017						0.168 (D)
2/14/2018	0.0068	0.044	0.169	0.0543 (D)	0.0036	
2/15/2018						0.249
9/25/2018	0.02165 (D)	0.0371	0.17	0.0512	0.0142	
9/26/2018						0.111 (D)
5/14/2019	0.0178 (D)	0.0402 (D)	0.188 (D)	0.04725 (D)	0.005 (D)	
5/15/2019						0.235 (D)
9/24/2019	0.01665 (D)	0.0376 (D)	0.19 (D)	0.0399 (D)	0.0115 (D)	
9/25/2019						0.17 (D)
4/6/2020	0.0156 (D)	0.038 (D)	0.1455 (D)	0.0394 (D)	0.0043 (D)	
4/7/2020						0.219 (D)
11/16/2020			0.177 (D)	0.0386 (D)	0.0052 (D)	
11/17/2020	0.0188 (D)	0.03575 (D)				0.216 (D)
<b>Mean</b>	0.01598	0.03765	0.1615	0.04121	0.007827	0.2037
<b>Std. Dev.</b>	0.006324	0.0111	0.02224	0.007785	0.003722	0.03348
<b>Upper Lim.</b>	0.02026	0.04351	0.1765	0.04649	0.01035	0.2254
<b>Lower Lim.</b>	0.01169	0.03529	0.1464	0.03594	0.005305	0.1852

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium, Total    Analysis Run 1/27/2021 5:08 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

# Confidence Interval

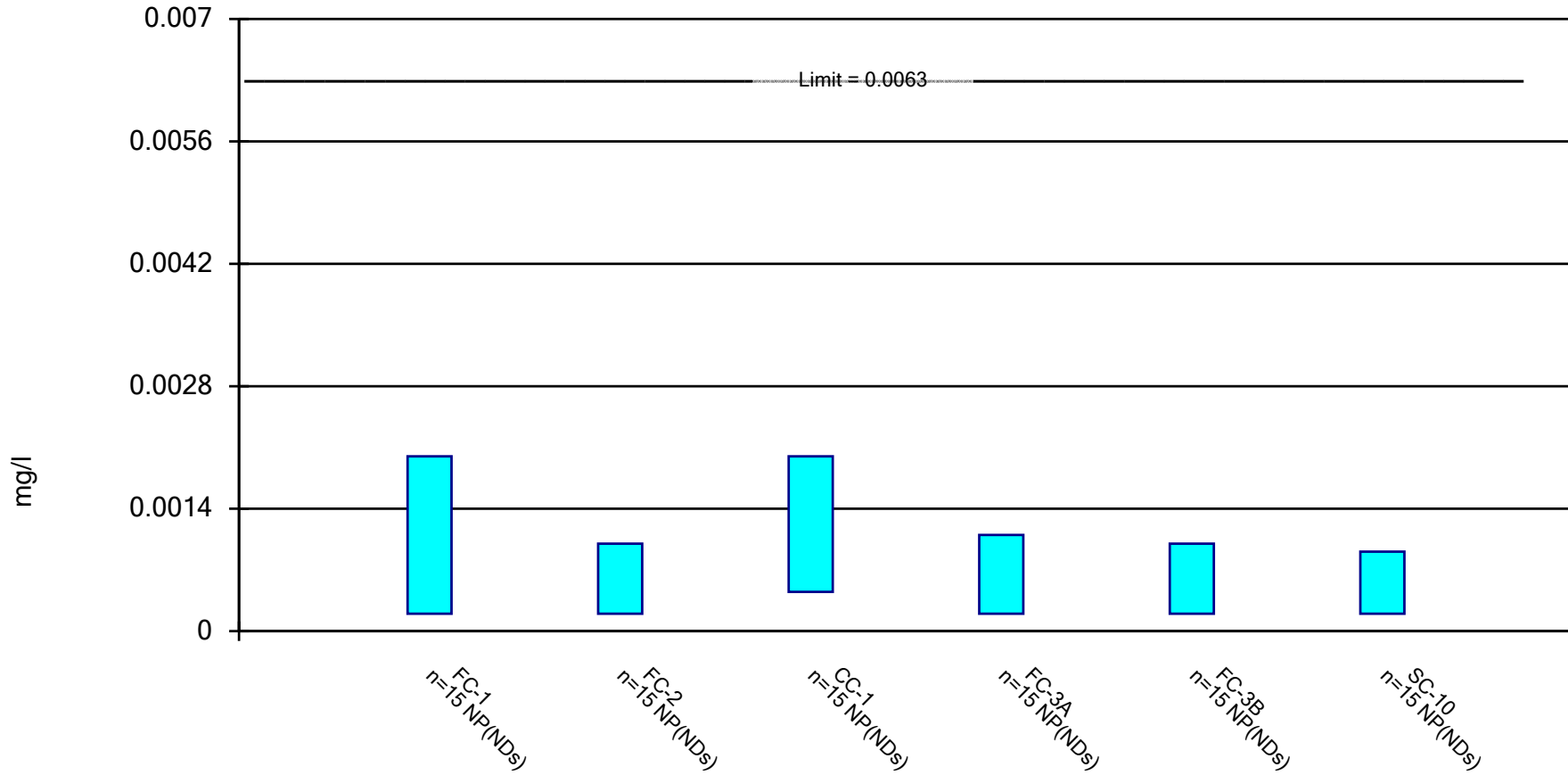
Constituent: Selenium, Total (mg/l) Analysis Run 1/27/2021 5:11 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	SC-11	SC-12	SC-13	SC-14
6/22/2016	0.168	0.0203	0.0311	0.0031
8/3/2016	0.155	0.0197	0.0236	0.0035
9/20/2016	0.188 (D)	0.0252 (D)	0.0228 (D)	0.0062 (D)
10/13/2016	0.168 (D)	0.05055 (D)	0.0558 (D)	0.0192 (D)
11/16/2016	0.163 (DP1)	0.0237 (DP1)	0.00765 (D)	<0.001 (D1P)
1/19/2017	0.196 (D)	0.0337 (D)	0.0202 (D)	0.0013 (D)
2/15/2017	0.194 (D)	0.03 (D)	0.0164 (D)	0.0033 (D)
3/1/2017	0.189 (D)	0.02355 (D)	0.0177 (D)	<0.001 (D1)
11/14/2017	0.213 (D)	0.0252 (D)	0.0236 (D)	0.0046 (D)
2/15/2018	0.355	0.0437	0.0204	0.0055
9/26/2018	0.107 (D)	0.0231	0.01845 (D)	0.002
5/15/2019	0.186 (D)	0.0198 (D)	0.0185 (D)	0.005 (D)
9/24/2019		0.0134 (D)		
9/25/2019	0.169 (D)		0.015 (D)	0.0045 (D)
4/7/2020	0.166 (D)	0.0159 (D)	0.0177 (D)	0.00475 (D)
11/16/2020			0.0174 (D)	0.003 (D)
11/17/2020	0.167 (D)	0.0132 (D)		
Mean	0.1856	0.0254	0.02175	0.004463
Std. Dev.	0.05271	0.0105	0.01071	0.004435
Upper Lim.	0.196	0.03153	0.02647	0.006143
Lower Lim.	0.163	0.01835	0.01505	0.001784

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium, Total    Analysis Run 1/27/2021 5:08 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

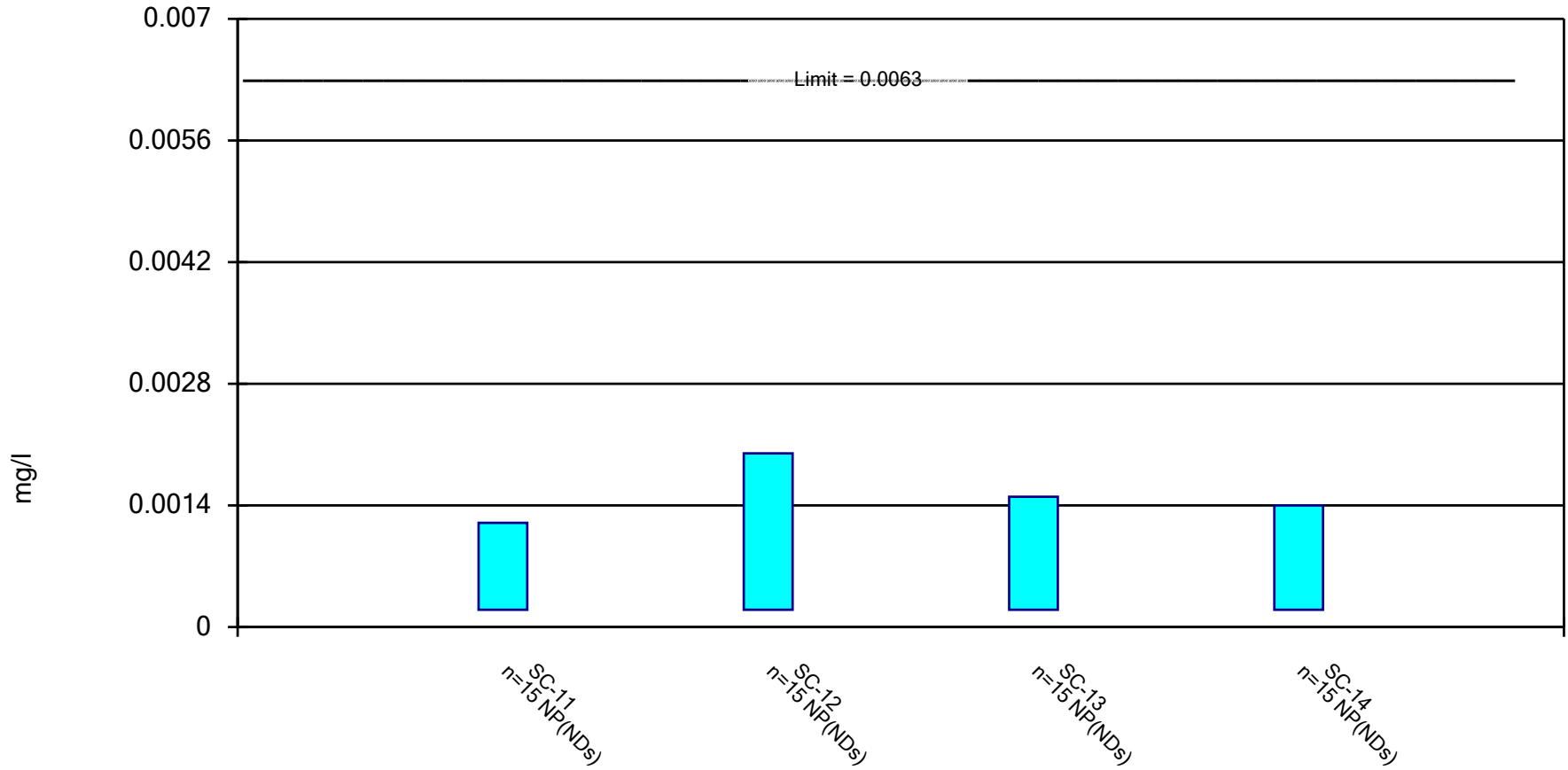
# Confidence Interval

Constituent: Thallium, Total (mg/l)    Analysis Run 1/27/2021 5:11 PM    View: CCR Landfill Tolerance  
 Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary

	FC-1	FC-2	CC-1	FC-3A	FC-3B	SC-10
6/22/2016	0.0002	<0.0002	0.000455 (D)			<0.0002
6/23/2016				<0.0002		
6/27/2016					<0.0002	
8/2/2016	<0.0002 (D)	<0.0002	0.00045	<0.0002	<0.0002	
8/3/2016						<0.0002 (D)
9/19/2016	0.00027 (D)	0.000545 (D)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	
9/20/2016						<0.0002 (D1)
10/12/2016	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D)	<0.0002 (D1)	
10/13/2016						<0.0002 (D1)
11/15/2016	0.0061 (D)	<0.0002 (D1)	0.0063 (D)	0.0057 (D)	0.0056 (D)	
11/16/2016						0.0077 (D)
1/18/2017	<0.0005 (D1)	<0.0005 (D1)	0.0014 (D)	0.00069 (D)	0.00098 (D)	
1/19/2017						0.00091 (D)
2/14/2017	0.0037 (D)	0.0036 (D)	0.00385 (D)	0.0034 (D)	0.0062 (D)	
2/15/2017						0.00385 (D)
2/28/2017	0.0011 (D)	0.0011 (D)	0.0014 (D)	0.0011 (D)	0.00091 (D)	
3/1/2017						0.00082 (D)
11/13/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	
11/14/2017						<0.0005 (D1)
2/14/2018	<0.002	<0.001	<0.002	<0.001 (D)	<0.001	
2/15/2018						<0.0004
9/25/2018	<0.0005 (D)	<0.0005	<0.0005	<0.0005	<0.0005	
9/26/2018						<0.0005 (D1)
5/14/2019	<0.0005	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	
5/15/2019						<0.0005 (D1D)
9/24/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	
9/25/2019						<0.0005 (D1D)
4/6/2020	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)	
4/7/2020						<0.0005 (DD1)
11/16/2020			<0.0005 (DD1)	<0.0005 (DD1)	<0.0005	
11/17/2020	<0.0005 (DD1)	<0.0005 (DD1)				<0.0005
Mean	0.001151	0.000703	0.001284	0.001046	0.001233	0.001165
Std. Dev.	0.001651	0.0008436	0.001684	0.001511	0.001917	0.002019
Upper Lim.	0.002	0.001	0.002	0.0011	0.001	0.00091
Lower Lim.	0.0002	0.0002	0.00045	0.0002	0.0002	0.0002

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium, Total    Analysis Run 1/27/2021 5:08 PM    View: CCR Landfill Tolerance  
Clear Spring Ranch    Client: CSU    Data: Ash Landfill SHDF Master Database - Primary



# Confidence Interval

Constituent: Thallium, Total (mg/l) Analysis Run 1/27/2021 5:11 PM View: CCR Landfill Tolerance

Clear Spring Ranch Client: CSU Data: Ash Landfill SHDF Master Database - Primary

	SC-11	SC-12	SC-13	SC-14
6/22/2016	<0.0002	<0.0002	<0.0002	<0.0002
8/3/2016	<0.0002	<0.0002	<0.0002	<0.0002
9/20/2016	<0.0002 (D)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)
10/13/2016	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)	<0.0002 (D1)
11/16/2016	0.0063 (D)	0.006 (D)	0.0029 (D)	0.0024 (D)
1/19/2017	0.0012 (D)	0.0014 (D)	0.0015 (D)	0.0014 (D)
2/15/2017	0.0038 (D)	0.0038 (D)	0.0038 (D)	0.0035 (D)
3/1/2017	0.00077 (D)	0.00076 (D)	0.00077 (D)	0.00075 (D)
11/14/2017	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)	<0.0005 (D1)
2/15/2018	<0.0004	<0.002	<0.001	<0.001
9/26/2018	<0.0005 (D1)	<0.0005	<0.0005 (D)	<0.0005
5/15/2019	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)	<0.0005 (D1D)
9/24/2019		<0.0005 (D1D)		
9/25/2019	<0.0005 (D1D)		<0.0005 (D1D)	<0.0005
4/7/2020	<0.0005 (D)	<0.0005 (DD1)	<0.0005 (DD1)	<0.0005 (DD1)
11/16/2020			<0.0005 (DD1)	<0.0005 (DD1)
11/17/2020	<0.0005 (DD1)	<0.0005 (D)		
Mean	0.001085	0.001184	0.000918	0.0008567
Std. Dev.	0.001697	0.001639	0.001059	0.0009329
Upper Lim.	0.0012	0.002	0.0015	0.0014
Lower Lim.	0.0002	0.0002	0.0002	0.0002

## APPENDIX C

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### Analytical Results of Groundwater Samples

**CCR LANDFILL**  
**Analytical Results of Groundwater Samples (2020)**  
**Constituents - Antimony to Fluoride**

Monitoring Well ID	Well Purpose	Sample Date & Purpose	Antimony <sup>T</sup> (mg/L)	Arsenic <sup>T</sup> (mg/L)	Barium <sup>T</sup> (mg/L)	Beryllium <sup>T</sup> (mg/l)	Boron <sup>T</sup> (mg/l)	Cadmium <sup>T</sup> (mg/l)	Calcium <sup>T</sup> (mg/l)	Chloride <sup>T</sup> (mg/l)	Chromium <sup>T</sup> (mg/l)	Cobalt <sup>T</sup> (mg/l)	Fluoride <sup>T</sup> (mg/l)
CC-1	Upgradient	04/06/2020 DM & AM	<0.0005	0.00765	0.0033	<0.0002	0.809	<0.0005	784.5	1630	0.0022	<0.005	0.545
		11/16/2020 DM & AM	<0.0005	0.0111	0.0041	<0.0002	1.00	<0.0005	343	1600	0.0044	<0.005	0.55
FC-1	Upgradient	04/06/2020 DM & AM	<0.0005	0.0034	0.0068	<0.0002	0.758	<0.0005	651	798	<0.001	<0.005	0.21
		11/17/2020 DM & AM	<0.0005	0.0039	0.007	<0.0002	0.986	<0.0005	343	802	0.0046	<0.005	0.20
FC-2	Upgradient	04/06/2020 DM & AM	<0.0005	0.003	0.004	<0.0002	0.864	<0.0005	678	112	<0.001	<0.005	0.72
		11/17/2020 DM & AM	<0.0005	0.0026	0.0044	<0.0002	0.9645	<0.0005	366	102	0.0038	<0.005	0.74
FC-3A	Upgradient	04/06/2020 DM & AM	<0.0005	0.002	0.0123	<0.0002	0.987	<0.0005	711	131	0.0014	<0.005	0.61
		11/16/2020 DM & AM	<0.0005	0.0017	0.008	<0.0002	1.04	<0.0005	375	125	0.0038	<0.005	0.60
FC-3B	Upgradient	04/16/2020 DM & AM	<0.0005	0.0041	0.0099	<0.0002	1.1	<0.0005	398	194	0.0039	<0.005	0.70
		11/16/2020 DM & AM	<0.0005	0.0016	0.0098	<0.0002	1.2	<0.0005	216	201	0.0049	<0.005	0.70
SC-10	Downgradient	04/07/2020 DM & AM	<0.0005	0.009	0.0112	<0.0002	0.982	<0.0005	441	956	0.0014	<0.005	0.87
		11/17/2020 DM & AM	<0.0005	0.0084	0.0083	<0.0002	1.14	<0.0005	369	1000	0.0010	<0.005	0.85
SC-11	Downgradient	04/07/2020 DM & AM	<0.0005	0.0077	0.0119	<0.0002	1.87	<0.0005	492	1080	0.0019	<0.005	0.79
		11/17/2020 DM & AM	<0.0005	0.007	0.0046	<0.0002	2.17	<0.0005	385	1100	0.0019	<0.005	0.81
SC-12	Downgradient	04/07/2020 DM & AM	<0.0005	0.0013	0.0059	<0.0002	3.41	<0.0005	435	292	0.0012	<0.005	1.34
		11/17/2020 DM & AM	<0.0005	0.0013	0.0061	<0.0002	3.955	<0.0005	347.5	300.5	0.00245	<0.005	1.43
SC-13	Downgradient	04/07/2020 DM & AM	<0.0005	0.0011	0.0045	<0.0002	1.45	<0.0005	470	183	0.0011	<0.005	1.18
		11/16/2020 DM & AM	<0.0005	<0.001	0.004	<0.0002	1.55	<0.0005	349	173	0.0016	<0.005	1.21
SC-14	Cross-Gradient	04/07/2020 DM & AM	<0.0005	0.0012	0.0048	<0.0002	1.485	<0.0005	430	162	0.0011	<0.005	1.085
		11/16/2020 DM & AM	<0.0005	<0.001	0.0047	<0.0002	1.57	<0.0005	350	163	0.0020	<0.005	1.06

< Indicates that the compound was not detected above the stated laboratory reporting limit.  
AM Assessment Monitoring.  
DM Detection Monitoring.  
NA Not Analyzed.  
T Total Recoverable Concentration.  
D Dissolved Concentration.  
*Italics* Average of duplicate samples collected.

**CCR LANDFILL**  
**Analytical Results of Groundwater Samples (2020)**  
**Constituents – Lead to TDS**

Monitoring Well ID	Well Purpose	Sample Date & Purpose	Lead <sup>T</sup> (mg/L)	Lithium <sup>T</sup> (mg/L)	Mercury <sup>T</sup> (mg/L)	Molybdenum <sup>T</sup> (mg/l)	pH *	Radium 226 (pCi/L)	Radium 228 (pCi/l)	Selenium <sup>T</sup> (mg/l)	Sulfate <sup>T</sup> (mg/l)	Thallium <sup>T</sup> (mg/l)	TDS
CC-1	Upgradient	04/06/2020 DM & AM	<0.0005	0.7435	0.000006	0.000275	6.9	0.3085	0.8465	0.1455	19250	<0.0005	34300
		11/16/2020 DM & AM	0.0019	0.808	0.000006	0.00034	6.98	0.158	0.556	0.177	18800	<0.0005	32400
FC-1	Upgradient	04/06/2020 DM & AM	<0.0005	0.943	0.000002	0.0013	7.1	0.498	1.87	0.0156	13000	<0.0005	22600
		11/17/2020 DM & AM	0.0013	1.12	0.000002	0.0013	7.32	0.940	1.83	0.0188	13300	<0.0005	22100
FC-2	Upgradient	04/06/2020 DM & AM	<0.0005	0.274	0.000004	0.0016	7.3	<0.08	0.388	0.038	6750	<0.0005	10900
		11/17/2020 DM & AM	<0.0005	0.2905	0.000003	0.0016	7.29	<0.394	<0.392	0.03575	6685	<0.0005	10450
FC-3A	Upgradient	04/06/2020 DM & AM	<0.0005	0.295	0.000002	0.0073	7.5	<0.142	<0.648	0.0394	5930	<0.0005	9540
		11/16/2020 DM & AM	0.00074	0.305	<0.000002	0.0074	7.45	<0.124	<0.438	0.0386	5760	<0.0005	9160
FC-3B	Upgradient	04/06/2020 DM & AM	<0.0005	0.284	0.000002	0.00057	7.3	0.199	0.563	0.0043	4480	<0.0005	7880
		11/16/2020 DM & AM	0.00051	0.28	<0.000002	0.00073	NM	<0.190	<0.281	0.0052	4460	<0.0005	7600
SC-10	Downgradient	04/07/2020 DM & AM	0.00084	0.709	0.000009	0.0046	7.3	<0.115	<0.575	0.219	9692	<0.0005	17400
		11/17/2020 DM & AM	0.0006	0.736	0.000008	0.0054	7.39	<0.957	<0.860	0.216	9750	<0.0005	17100
SC-11	Downgradient	04/07/2020 DM & AM	0.0089	0.593	0.000011	0.0024	7.3	<0.117	<0.524	0.166	8010	<0.0005	14400
		11/17/2020 DM & AM	<0.0005	0.597	0.000008	0.0023	7.34	<0.558	<0.524	0.167	8080	<0.0005	14700
SC-12	Downgradient	04/07/2020 DM & AM	<0.0005	0.488	0.000004	0.0059	7.2	0.0996	<0.424	0.0159	9760	<0.0005	16000
		11/17/2020 DM & AM	<0.0005	0.5075	0.000003	0.00435	7.32	<0.448	<0.453	0.0132	9875	<0.0005	16150
SC-13	Downgradient	04/07/2020 DM & AM	<0.0005	0.384	0.000003	0.0030	7.3	<0.113	<0.420	0.0177	8000	<0.0005	13400
		11/16/2020 DM & AM	<0.0005	0.368	0.000002	0.0031	7.37	<0.617	<0.509	0.0174	8320	<0.0005	12600
SC-14	Cross-Gradient	04/07/2020 DM & AM	<0.0005	0.356	0.000002	0.0081	7.2	<0.097	<0.042	0.00475	7875	<0.0005	13050
		11/16/2020 DM & AM	<0.0005	0.354	<0.000002	0.0086	7.28	<0.546	<0.460	0.003	8070	<0.0005	12400

< Indicates that the compound was not detected above the stated laboratory reporting limit.  
AM Assessment Monitoring.  
DM Detection Monitoring.  
NA Not Analyzed.  
T Total Recoverable Concentration.  
D Dissolved Concentration.  
*Italics* Average of duplicate samples collected.  
\* Second annual sampling event pH measured on 11/19/2020.

## APPENDIX D

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### Laboratory Analytical Results



# Colorado Springs Utilities

*It's how we're all connected*



## Laboratory Report For:

Coal Combustion Residuals - Landfill

Colorado Springs Utilities  
Wastewater Special Studies

**Report Authorized by:** *Wendy M. Asay*

**Title:** Environmental Specialist

**Report Date:** May 14, 2020

**Report generated by:** Wendy M. Asay

Colorado Springs Utilities Laboratory Services Section certifies that the test results meet all approved method and Laboratory Quality Assurance Plan requirements unless otherwise noted

## Samples

443038	6-Apr-2020 12:08	Crooked Canyon Well #1
443039	6-Apr-2020 12:08	Crooked Canyon Well #1
443040	6-Apr-2020 09:39	Fort Carson Well #1
443041	6-Apr-2020 10:10	Fort Carson Well #2
443042	6-Apr-2020 13:27	Fort Carson Well #3A
443043	6-Apr-2020 13:53	Fort Carson Well #3B
443044	6-Apr-2020 11:38	Equipment Blank
443122	7-Apr-2020 09:15	Sand Canyon Well #10
443123	7-Apr-2020 10:03	Sand Canyon Well #11
443124	7-Apr-2020 11:02	Sand Canyon Well #12
443125	7-Apr-2020 12:04	Sand Canyon Well #13
443126	7-Apr-2020 12:56	Sand Canyon Well #14
443127	7-Apr-2020 12:56	Sand Canyon Well #14
443128	7-Apr-2020 10:14	Equipment Blank

LIMS #: 443038

Sample Date: 4/6/2020 12:08:00 PM

Sample Point: CC\_1

Sample Point Description: Crooked Canyon Well #1

Collection Comments:

Sample Type: GRAB

Sampler Initials: JH

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	6.9	SU	2.0	0			1
+	SM_2550_B	Temperature Centigrade (Field)	13.0	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	25600	umhos/cm	1	0			1
	NA	Depth to Water	13.34	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	34400	mg/L	10	0		04/09/2020	1
	SM_4500_FC	Fluoride (Total)	0.54	mg/L	0.10	0.008			1
	EPA_1631	Mercury (Total)	0.006	ug/L	0.002	0		04/08/2020	1
	EPA_200_7	Boron (Total Recoverable)	810	ug/L	20.0	0		04/15/2020	1
		Calcium (Total Recoverable)	797000	ug/L	100	0	D/T1	04/15/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		04/15/2020	1
		Lithium (Total Recoverable)	741	ug/L	10.0	0		04/14/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/16/2020	1
		Arsenic (Total Recoverable)	8.2	ug/L	1.0	0	D	04/15/2020	1
		Barium (Total Recoverable)	3.3	ug/L	0.20	0	D	04/15/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1	04/15/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
		Chromium (Total Recoverable)	2.5	ug/L	1.0	0	D	04/15/2020	1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
		Molybdenum (Total Recoverable)	0.22	ug/L	0.20	0	D	04/15/2020	1
		Selenium (Total Recoverable)	163	ug/L	1.0	0	D	04/15/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
	EPA_300_0	Chloride	1630	mg/L	0.25	0	D	04/17/2020	1
		Sulfate	19000	mg/L	0.25	0	D	04/17/2020	1
*	EPA_903_0	Radium 226 (Total)	0.260	pCi/L	0.109	0	J	05/05/2020	1
*	EPA_904_0	Radium 228 (Total)	0.962	pCi/L	0.455	0	J	04/29/2020	1



LIMS #: 443039

Sample Date: 4/6/2020 12:08:00 PM

Sample Point: CC\_1

Sample Point Description: Crooked Canyon Well #1

Collection Comments:

Sample Type: GRAB

Sampler Initials: JH

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
	SM_2540_C	Total Dissolved Solids	34200	mg/L	10	0		04/09/2020	1
	SM_4500_FC	Fluoride (Total)	0.55	mg/L	0.10	0.008			1
	EPA_300_0	Chloride	1630	mg/L	0.25	0	D	04/17/2020	1
		Sulfate	19500	mg/L	0.25	0	D	04/17/2020	1
	EPA_1631	Mercury (Total)	0.006	ug/L	0.002	0		04/08/2020	1
	EPA_200_7	Boron (Total Recoverable)	808	ug/L	20.0	0		04/15/2020	1
		Calcium (Total Recoverable)	772000	ug/L	100	0	D/T1	04/15/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		04/15/2020	1
		Lithium (Total Recoverable)	746	ug/L	10.0	0		04/14/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/16/2020	1
		Arsenic (Total Recoverable)	7.1	ug/L	1.0	0	D	04/15/2020	1
		Barium (Total Recoverable)	3.3	ug/L	0.20	0	D	04/15/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1	04/15/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
		Chromium (Total Recoverable)	1.9	ug/L	1.0	0	D	04/15/2020	1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
		Molybdenum (Total Recoverable)	0.33	ug/L	0.20	0	D	04/15/2020	1
		Selenium (Total Recoverable)	128	ug/L	1.0	0	D	04/15/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
*	EPA_904_0	Radium 228 (Total)	0.731	pCi/L	0.560	0	J	04/29/2020	1
*	EPA_903_0	Radium 226 (Total)	0.357	pCi/L	0.116	0	J	05/05/2020	1

LIMS #: 443040

Sample Date: 4/6/2020 9:39:00 AM

Sample Point: FC\_1

Sample Point Description: Fort Carson Well #1

Collection Comments:

Sample Type: GRAB

Sampler Initials: JH

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.1	SU	2.0	0			1
+	SM_2550_B	Temperature Centigrade (Field)	13.7	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	20600	umhos/cm	1	0			1
	NA	Depth to Water	15.20	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	22600	mg/L	10	0		04/09/2020	1
	SM_4500_FC	Fluoride (Total)	0.21	mg/L	0.10	0.008			1
	EPA_300_0	Chloride	798	mg/L	0.25	0	D	04/17/2020	1
		Sulfate	13000	mg/L	0.25	0	D	04/17/2020	1
	EPA_1631	Mercury (Total)	0.002	ug/L	0.002	0		04/08/2020	1
	EPA_200_7	Boron (Total Recoverable)	758	ug/L	20.0	0		04/15/2020	1
		Calcium (Total Recoverable)	651000	ug/L	100	0	D/T1	04/15/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		04/15/2020	1
		Lithium (Total Recoverable)	943	ug/L	10.0	0		04/14/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/16/2020	1
		Arsenic (Total Recoverable)	3.4	ug/L	1.0	0	D	04/15/2020	1
		Barium (Total Recoverable)	6.8	ug/L	0.20	0	D	04/15/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1	04/15/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
		Chromium (Total Recoverable)	<1.0	ug/L	1.0	0	D/D1	04/15/2020	1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
		Molybdenum (Total Recoverable)	1.3	ug/L	0.20	0	D	04/15/2020	1
		Selenium (Total Recoverable)	15.6	ug/L	1.0	0	D	04/15/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
*	EPA_903_0	Radium 226 (Total)	0.498	pCi/L	0.110	0	J	05/05/2020	1
*	EPA_904_0	Radium 228 (Total)	1.87	pCi/L	0.48	0		04/29/2020	1

LIMS #: 443041

Sample Date: 4/6/2020 10:10:00 AM

Sample Point: FC\_2

Sample Point Description: Fort Carson Well #2

Collection Comments:

Sample Type: GRAB

Sampler Initials: JH

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.3	SU	2.0	0			1
+	SM_2550_B	Temperature Centigrade (Field)	12.9	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	9950	umhos/cm	1	0			1
	NA	Depth to Water	12.99	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	10900	mg/L	10	0		04/09/2020	1
	SM_4500_FC	Fluoride (Total)	0.72	mg/L	0.10	0.008			1
	EPA_300_0	Chloride	112	mg/L	0.25	0	D	04/17/2020	1
		Sulfate	6750	mg/L	0.25	0	D	04/17/2020	1
	EPA_1631	Mercury (Total)	0.004	ug/L	0.002	0		04/08/2020	1
	EPA_200_7	Boron (Total Recoverable)	864	ug/L	20.0	0		04/15/2020	1
		Calcium (Total Recoverable)	678000	ug/L	100	0	D/T1	04/15/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		04/15/2020	1
		Lithium (Total Recoverable)	274	ug/L	10.0	0		04/14/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/16/2020	1
		Arsenic (Total Recoverable)	3.0	ug/L	1.0	0	D	04/15/2020	1
		Barium (Total Recoverable)	4.0	ug/L	0.20	0	D	04/15/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1	04/15/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
		Chromium (Total Recoverable)	<1.0	ug/L	1.0	0	D/D1	04/15/2020	1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
		Molybdenum (Total Recoverable)	1.6	ug/L	0.20	0	D	04/15/2020	1
		Selenium (Total Recoverable)	38.0	ug/L	1.0	0	D	04/15/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
*	EPA_903_0	Radium 226 (Total)	<0.080	pCi/L	0.0800	0	U	05/05/2020	1
*	EPA_904_0	Radium 228 (Total)	0.388	pCi/L	0.324	0	J	04/29/2020	1

LIMS #: 443042

Sample Date: 4/6/2020 1:27:00 PM

Sample Point: FC\_3A

Sample Point Description: Fort Carson Well #3A

Collection Comments:

Sample Type: GRAB

Sampler Initials: JH

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.5	SU	2.0	0			1
+	SM_2550_B	Temperature Centigrade (Field)	13.1	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	8740	umhos/cm	1	0			1
	NA	Depth to Water	17.65	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	9540	mg/L	10	0		04/09/2020	1
	SM_4500_FC	Fluoride (Total)	0.61	mg/L	0.10	0.008			1
	EPA_300_0	Chloride	131	mg/L	0.25	0	D	04/17/2020	1
		Sulfate	5930	mg/L	0.25	0	D	04/17/2020	1
	EPA_1631	Mercury (Total)	0.002	ug/L	0.002	0		04/08/2020	1
	EPA_200_7	Boron (Total Recoverable)	987	ug/L	20.0	0		04/15/2020	1
		Calcium (Total Recoverable)	711000	ug/L	100	0	D/T1	04/15/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		04/15/2020	1
		Lithium (Total Recoverable)	295	ug/L	10.0	0		04/14/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/16/2020	1
		Arsenic (Total Recoverable)	2.0	ug/L	1.0	0	D	04/15/2020	1
		Barium (Total Recoverable)	12.3	ug/L	0.20	0	D	04/15/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1	04/15/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
		Chromium (Total Recoverable)	1.4	ug/L	1.0	0	D	04/15/2020	1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
		Molybdenum (Total Recoverable)	7.3	ug/L	0.20	0	D	04/15/2020	1
		Selenium (Total Recoverable)	39.4	ug/L	1.0	0	D	04/15/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
*	EPA_903_0	Radium 226 (Total)	<0.142	pCi/L	0.142	0	U	05/05/2020	1
*	EPA_904_0	Radium 228 (Total)	<0.648	pCi/L	0.648	0	U	04/29/2020	1

LIMS #: 443043

Sample Date: 4/6/2020 1:53:00 PM

Sample Point: FC\_3B

Sample Point Description: Fort Carson Well #3B

Collection Comments:

Sample Type: GRAB

Sampler Initials: JH

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.3	SU	2.0	0			1
+	SM_2550_B	Temperature Centigrade (Field)	13.5	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	8930	umhos/cm	1	0			1
	NA	Depth to Water	17.04	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	7880	mg/L	10	0		04/09/2020	1
	SM_4500_FC	Fluoride (Total)	0.70	mg/L	0.10	0.008			1
	EPA_300_0	Chloride	194	mg/L	0.25	0	D	04/17/2020	1
		Sulfate	4480	mg/L	0.25	0	D	04/17/2020	1
	EPA_1631	Mercury (Total)	0.002	ug/L	0.002	0		04/08/2020	1
	EPA_200_7	Boron (Total Recoverable)	1100	ug/L	20.0	0		04/15/2020	1
		Calcium (Total Recoverable)	398000	ug/L	100	0	D/T1	04/15/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		04/15/2020	1
		Lithium (Total Recoverable)	284	ug/L	10.0	0		04/14/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/16/2020	1
		Arsenic (Total Recoverable)	4.1	ug/L	1.0	0	D	04/15/2020	1
		Barium (Total Recoverable)	9.9	ug/L	0.20	0	D	04/15/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1	04/15/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
		Chromium (Total Recoverable)	3.9	ug/L	1.0	0	D	04/15/2020	1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
		Molybdenum (Total Recoverable)	0.57	ug/L	0.20	0	D	04/15/2020	1
		Selenium (Total Recoverable)	4.3	ug/L	1.0	0	D	04/15/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	04/15/2020	1
*	EPA_903_0	Radium 226 (Total)	0.199	pCi/L	0.0840	0	J	05/05/2020	1
*	EPA_904_0	Radium 228 (Total)	0.563	pCi/L	0.372	0	J	04/29/2020	1

LIMS #: 443044

Sample Date: 4/6/2020 11:38:00 AM

Sample Point: EQUIP\_BLK

Sample Point Description: Equipment Blank

Collection Comments:

Sample Type: GRAB

Sampler Initials: JH

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
	SM_2540_C	Total Dissolved Solids	<10	mg/L	10	0		04/09/2020	1
	SM_4500_FC	Fluoride (Total)	<0.10	mg/L	0.10	0.008	J		1
	EPA_300_0	Chloride	<0.25	mg/L	0.25	0			1
		Sulfate	<0.25	mg/L	0.25	0			1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0		04/15/2020	1
		Arsenic (Total Recoverable)	<1.0	ug/L	1.0	0		04/15/2020	1
		Barium (Total Recoverable)	<0.20	ug/L	0.20	0		04/15/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0		04/15/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0		04/15/2020	1
		Chromium (Total Recoverable)	<1.0	ug/L	1.0	0		04/15/2020	1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0		04/15/2020	1
		Molybdenum (Total Recoverable)	<0.20	ug/L	0.20	0		04/15/2020	1
		Selenium (Total Recoverable)	<1.0	ug/L	1.0	0		04/15/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0		04/16/2020	1
	EPA_1631	Mercury (Total)	<0.002	ug/L	0.002	0		04/08/2020	1
	EPA_200_7	Boron (Total Recoverable)	<20.0	ug/L	20.0	0		04/15/2020	1
		Calcium (Total Recoverable)	<100	ug/L	100	0	T1	04/15/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		04/15/2020	1
		Lithium (Total Recoverable)	<10.0	ug/L	10.0	0		04/14/2020	1

LIMS #: 443122

Sample Date: 4/7/2020 9:15:00 AM

Sample Point: SC\_10

Sample Point Description: Sand Canyon Well #10

Collection Comments:

Sample Type: GRAB

Sampler Initials: JH

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.3	SU	2.0	0			1
+	SM_2550_B	Temperature Centigrade (Field)	14.0	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	17300	umhos/cm	1	0			1
	NA	Depth to Water	13.06	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	17400	mg/L	10	0		04/09/2020	1
	SM_4500_FC	Fluoride (Total)	0.87	mg/L	0.10	0.008			1
	EPA_300_0	Chloride	956	mg/L	0.25	0	D	04/17/2020	1
		Sulfate	9690	mg/L	0.25	0	D	04/17/2020	1
	EPA_1631	Mercury (Total)	0.009	ug/L	0.002	0			1
	EPA_200_7	Boron (Total Recoverable)	982	ug/L	20.0	0		04/15/2020	1
		Calcium (Total Recoverable)	441000	ug/L	100	0	D/T1	04/15/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		04/15/2020	1
		Lithium (Total Recoverable)	709	ug/L	10.0	0		04/14/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
		Arsenic (Total Recoverable)	9.0	ug/L	1.0	0	D		1
		Barium (Total Recoverable)	11.2	ug/L	0.20	0	D		1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1		1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
		Chromium (Total Recoverable)	1.4	ug/L	1.0	0	D		1
		Lead (Total Recoverable)	0.84	ug/L	0.50	0	D		1
		Molybdenum (Total Recoverable)	4.6	ug/L	0.20	0	D		1
		Selenium (Total Recoverable)	219	ug/L	1.0	0	D		1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
*	EPA_903_0	Radium 226 (Total)	<0.115	pCi/L	0.115	0	U	05/05/2020	1
*	EPA_904_0	Radium 228 (Total)	<0.575	pCi/L	0.575	0	U	04/29/2020	1

LIMS #: 443123

Sample Date: 4/7/2020 10:03:00 AM

Sample Point: SC\_11

Sample Point Description: Sand Canyon Well #11

Collection Comments:

Sample Type: GRAB

Sampler Initials: JH

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.3	SU	2.0	0			1
+	SM_2550_B	Temperature Centigrade (Field)	13.8	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	14700	umhos/cm	1	0			1
	NA	Depth to Water	10.07	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	14400	mg/L	10	0		04/09/2020	1
	SM_4500_FC	Fluoride (Total)	0.79	mg/L	0.10	0.008			1
	EPA_300_0	Chloride	1080	mg/L	0.25	0	D	04/17/2020	1
		Sulfate	8010	mg/L	0.25	0	D	04/17/2020	1
	EPA_1631	Mercury (Total)	0.011	ug/L	0.002	0			1
	EPA_200_7	Boron (Total Recoverable)	1870	ug/L	20.0	0		04/15/2020	1
		Calcium (Total Recoverable)	492000	ug/L	100	0	D/T1	04/15/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		04/15/2020	1
		Lithium (Total Recoverable)	593	ug/L	10.0	0		04/14/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
		Arsenic (Total Recoverable)	7.7	ug/L	1.0	0	D		1
		Barium (Total Recoverable)	11.9	ug/L	0.20	0	D		1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1		1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
		Chromium (Total Recoverable)	1.9	ug/L	1.0	0	D		1
		Lead (Total Recoverable)	0.89	ug/L	0.50	0	D		1
		Molybdenum (Total Recoverable)	2.4	ug/L	0.20	0	D		1
		Selenium (Total Recoverable)	166	ug/L	1.0	0	D		1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
*	EPA_903_0	Radium 226 (Total)	<0.117	pCi/L	0.117	0	U	05/05/2020	1
*	EPA_904_0	Radium 228 (Total)	<0.524	pCi/L	0.524	0	U	04/29/2020	1



LIMS #: 443124

Sample Date: 4/7/2020 11:02:00 AM

Sample Point: SC\_12

Sample Point Description: Sand Canyon Well #12

Collection Comments:

Sample Type: GRAB

Sampler Initials: JH

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.2	SU	2.0	0			1
+	SM_2550_B	Temperature Centigrade (Field)	13.8	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	13400	umhos/cm	1	0			1
	NA	Depth to Water	10.38	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	16000	mg/L	10	0		04/09/2020	1
	SM_4500_FC	Fluoride (Total)	1.34	mg/L	0.10	0.008			1
	EPA_300_0	Chloride	292	mg/L	0.25	0	D	04/17/2020	1
		Sulfate	9760	mg/L	0.25	0	D	04/17/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
		Arsenic (Total Recoverable)	1.3	ug/L	1.0	0	D		1
		Barium (Total Recoverable)	5.9	ug/L	0.20	0	D		1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1		1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
		Chromium (Total Recoverable)	1.2	ug/L	1.0	0	D		1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
		Molybdenum (Total Recoverable)	5.9	ug/L	0.20	0	D		1
		Selenium (Total Recoverable)	15.9	ug/L	1.0	0	D		1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
	EPA_1631	Mercury (Total)	0.004	ug/L	0.002	0			1
	EPA_200_7	Boron (Total Recoverable)	3410	ug/L	20.0	0		04/15/2020	1
		Calcium (Total Recoverable)	435000	ug/L	100	0	D/T1	04/15/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		04/15/2020	1
		Lithium (Total Recoverable)	488	ug/L	10.0	0		04/14/2020	1
*	EPA_903_0	Radium 226 (Total)	0.0996	pCi/L	0.0978	0	J	05/05/2020	1
*	EPA_904_0	Radium 228 (Total)	<0.424	pCi/L	0.424	0	U	04/29/2020	1

LIMS #: 443125

Sample Date: 4/7/2020 12:04:00 PM

Sample Point: SC\_13

Sample Point Description: Sand Canyon Well #13

Collection Comments:

Sample Type: GRAB

Sampler Initials: JH

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.3	SU	2.0	0			1
+	SM_2550_B	Temperature Centigrade (Field)	12.0	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	11800	umhos/cm	1	0			1
	NA	Depth to Water	10.35	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	13400	mg/L	10	0		04/09/2020	1
	SM_4500_FC	Fluoride (Total)	1.18	mg/L	0.10	0.008			1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
		Arsenic (Total Recoverable)	1.1	ug/L	1.0	0	D		1
		Barium (Total Recoverable)	4.5	ug/L	0.20	0	D		1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1		1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
		Chromium (Total Recoverable)	1.1	ug/L	1.0	0	D		1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
		Molybdenum (Total Recoverable)	3.0	ug/L	0.20	0	D		1
		Selenium (Total Recoverable)	17.7	ug/L	1.0	0	D		1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
	EPA_1631	Mercury (Total)	0.003	ug/L	0.002	0			1
	EPA_200_7	Boron (Total Recoverable)	1450	ug/L	20.0	0		04/15/2020	1
		Calcium (Total Recoverable)	470000	ug/L	100	0	D/T1	04/15/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		04/15/2020	1
		Lithium (Total Recoverable)	384	ug/L	10.0	0		04/14/2020	1
	EPA_300_0	Chloride	183	mg/L	0.25	0	D	04/17/2020	1
		Sulfate	8000	mg/L	0.25	0	D	04/17/2020	1
*	EPA_903_0	Radium 226 (Total)	<0.113	pCi/L	0.113	0	U	05/05/2020	1
*	EPA_904_0	Radium 228 (Total)	<0.420	pCi/L	0.420	0	U	04/29/2020	1

LIMS #: 443126

Sample Date: 4/7/2020 12:56:00 PM

Sample Point: SC\_14

Sample Point Description: Sand Canyon Well #14

Collection Comments:

Sample Type: GRAB

Sampler Initials: JH

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.2	SU	2.0	0			1
+	SM_2550_B	Temperature Centigrade (Field)	12.2	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	11500	umhos/cm	1	0			1
	NA	Depth to Water	10.32	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	13100	mg/L	10	0		04/09/2020	1
	SM_4500_FC	Fluoride (Total)	1.11	mg/L	0.10	0.008			1
	EPA_300_0	Chloride	162	mg/L	0.25	0	D	04/17/2020	1
		Sulfate	7840	mg/L	0.25	0	D	04/17/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
		Arsenic (Total Recoverable)	1.2	ug/L	1.0	0	D		1
		Barium (Total Recoverable)	4.8	ug/L	0.20	0	D		1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1		1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
		Chromium (Total Recoverable)	1.1	ug/L	1.0	0	D		1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
		Molybdenum (Total Recoverable)	8.5	ug/L	0.20	0	D		1
		Selenium (Total Recoverable)	5.6	ug/L	1.0	0	D		1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
	EPA_1631	Mercury (Total)	0.002	ug/L	0.002	0			1
	EPA_200_7	Boron (Total Recoverable)	1490	ug/L	20.0	0		04/15/2020	1
		Calcium (Total Recoverable)	418000	ug/L	100	0	D/T1	04/15/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		04/15/2020	1
		Lithium (Total Recoverable)	357	ug/L	10.0	0		04/14/2020	1
*	EPA_903_0	Radium 226 (Total)	<0.097	pCi/L	0.097	0	U	05/05/2020	1
*	EPA_904_0	Radium 228 (Total)	<0.412	pCi/L	0.412	0	U	04/29/2020	1

LIMS #: 443127

Sample Date: 4/7/2020 12:56:00 PM

Sample Point: SC\_14

Sample Point Description: Sand Canyon Well #14

Collection Comments: SC\_14 duplicate

Sample Type: GRAB

Sampler Initials: JH

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
	SM_2540_C	Total Dissolved Solids	13000	mg/L	10	0		04/09/2020	1
	SM_4500_FC	Fluoride (Total)	1.06	mg/L	0.10	0.008			1
	EPA_300_0	Chloride	162	mg/L	0.25	0	D	04/17/2020	1
		Sulfate	7910	mg/L	0.25	0	D	04/17/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
		Arsenic (Total Recoverable)	<1.0	ug/L	1.0	0	D/D1		1
		Barium (Total Recoverable)	4.8	ug/L	0.20	0	D		1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1		1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
		Chromium (Total Recoverable)	1.1	ug/L	1.0	0	D		1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
		Molybdenum (Total Recoverable)	7.7	ug/L	0.20	0	D		1
		Selenium (Total Recoverable)	3.9	ug/L	1.0	0	D		1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1		1
	EPA_1631	Mercury (Total)	0.002	ug/L	0.002	0			1
	EPA_200_7	Boron (Total Recoverable)	1480	ug/L	20.0	0		04/15/2020	1
		Calcium (Total Recoverable)	442000	ug/L	100	0	D/T1	04/15/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		04/15/2020	1
		Lithium (Total Recoverable)	355	ug/L	10.0	0		04/14/2020	1
*	EPA_903_0	Radium 226 (Total)	<0.096	pCi/L	0.096	0	U	05/05/2020	1
*	EPA_904_0	Radium 228 (Total)	<0.444	pCi/L	0.444	0	U	04/29/2020	1

LIMS #: 443128

Sample Date: 4/7/2020 10:14:00 AM

Sample Point: EQUIP\_BLK

Sample Point Description: Equipment Blank

Collection Comments:

Sample Type: GRAB

Sampler Initials: JH

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
	SM_2540_C	Total Dissolved Solids	<10	mg/L	10	0		04/09/2020	1
	SM_4500_FC	Fluoride (Total)	<0.10	mg/L	0.10	0.008	J		1
	EPA_300_0	Chloride	<0.25	mg/L	0.25	0			1
		Sulfate	<0.25	mg/L	0.25	0			1
	EPA_1631	Mercury (Total)	<0.002	ug/L	0.002	0			1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0			1
		Arsenic (Total Recoverable)	<1.0	ug/L	1.0	0			1
		Barium (Total Recoverable)	<0.20	ug/L	0.20	0			1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0			1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0			1
		Chromium (Total Recoverable)	<1.0	ug/L	1.0	0			1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0			1
		Molybdenum (Total Recoverable)	<0.20	ug/L	0.20	0			1
		Selenium (Total Recoverable)	<1.0	ug/L	1.0	0			1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0			1
	EPA_200_7	Boron (Total Recoverable)	<20.0	ug/L	20.0	0		04/15/2020	1
		Calcium (Total Recoverable)	<100	ug/L	100	0	T1	04/15/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		04/15/2020	1
		Lithium (Total Recoverable)	<10.0	ug/L	10.0	0		04/14/2020	1

## Flags

- \* Analysis performed by an external contract laboratory.
- + Analysis performed in the field.

## Data Qualifiers

See Case Narrative for descriptions of qualifiers.

## Glossary

DQ - Data Qualifier  
RL – Reporting Limit  
MDL – Method Detection Limit  
Dil Fac – Dilution Factor

## Case Narrative

D - Sample required dilution. The associated analyte concentration value reported has dilution factor applied. Reporting Limit does not reflect dilution factor.

D1 - To minimize matrix effects, the sample required dilution. The result is below the Reporting Limit, but within the method defined instrument detection.

J - Analysis confirms the presence of the analyte at a concentration which is less than the established Reporting Limit (RL), but greater than the Method Detection Limit (MDL). The associated concentration value reported is approximate.

T1 - The analyte concentration in the sample is disproportionate to the spike level. The performance of the method was shown to be in control.

U - Data result was less than the method detection limit.

CCR Landfill Groundwater Assessment

Sample Date: 4-6-2020

QC Report Needed

Sampler: J. HETZEL

LOCATION	# Bottles	LIMS #	Sample Time	pH, Field (su) SM 4500 H	Temperature, Field (°C) SM 2550 B	Conductivity, Field (µmhos/cm) SM 2510 B	Depth to Water (feet)	Fluoride, SM 4500 F C	Total Dissolved Solids, SM 2540 C	Chloride, Sulfate EPA 300.0 Recoverable	EPA 200.7 (B, Ca, Co & Li - Total Recoverable)	EPA 200.8 (Sb, As, Ba, Be, Cd, Cr, Pb, Mo, Se & Tl - Total Recoverable)	Mercury, EPA 1631 (not collected using clean-hands/dirty-hands)	Total Radium 226 & Radium 228 (Sent to Test America St. Louis)	Comments
CC_1	8	443038	1208	6.93	13.0	25,600	13.34	X	X	X	X	X	X	X	
CC_1 Duplicate	8	443039	1208					X	X	X	X	X	X	X	
FC_1	8	443040	939	7.14	13.7	20,600	15.20	X	X	X	X	X	X	X	
FC_2	8	443041	1010	7.30	12.9	9,950	12.99	X	X	X	X	X	X	X	
FC_3A	8	443042	1327	7.49	13.1	8,740	17.65	X	X	X	X	X	X	X	
FC_3B	8	443043	1353	7.28	13.5	8,930	17.04	X	X	X	X	X	X	X	
EQUIP_BLK	6	443044	1138					X	X	X	X	X	X		
Total # of Bottles	54														

QC Sample

Signature/Print last name  
 Relinquished by [Signature] HETZEL Date/Time 4-6-2020 @ 1435  
 Received by [Signature] HETZEL 4-6-2020 @ 1435

Additional Comments / Sample Rejections/ Actions  
 Sample Template: CCR\_LAND  
 Project ID: CCR\_LAND  
 Test Schedule: CCR\_LAND  
 Samples are NOT filtered in the field.

CCR Landfill Groundwater Assessment

Sample Date: 4-7-2020

QC Report Needed

Sampler: J. Hetzel

LOCATION	# Bottles	LIMS #	Sample Time	pH, Field (su) SM 4500 H	Temperature, Field (°C) SM 2550 B	Conductivity, Field (umhos/cm) SM 2510 B	Depth to Water (feet)	Fluoride, SM 4500 F C	Total Dissolved Solids, SM 2540 C	Chloride, Sulfate EPA 300.0	EPA 200.7 (B, Ca, Co & Li - Total Recoverable)	EPA 200.8 (Sb, As, Ba, Be, Cd, Cr, Pb, Mo, Se & Tl - Total Recoverable)	Mercury, EPA 1631 (not collect using clean-hands/dirty-hands)	Total Radium 226 & Radium 228 (Sent to Test America St. Louis)	Comments
Please mark boxes that apply															
SC_10	87	443122	915	7.32	14.0	17,260	13.06	X	X	X	X	X	X	X	No bottles set up for TDS *
SC_11	87	443123	1003	7.28	13.8	14,730	10.07	X	X	X	X	X	X	X	
SC_12	87	443124	1102	7.21	13.8	13,430	10.38	X	X	X	X	X	X	X	
SC_13	87	443125	1204	7.28	12.0	11,800	10.35	X	X	X	X	X	X	X	
KQC sample SC_14	87	443126	1256	7.20	12.2	11,460	10.32	X	X	X	X	X	X	X	
SC_14 Duplicate	87	443127	1256					X	X	X	X	X	X	X	
EQUIP_BLK	85	443128	1014					X	X	X	X	X	X		
Total # of Bottles	47														

Signature/Print last name: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished by: J. Hetzel HETZEL 4-7-2020 @ 1405  
 Received by: J. Hetzel HETZEL 4-7-2020 @ 1405

Additional Comments / Sample Rejections/ Actions  
 Sample Template: CCR\_LAND  
 Project ID: CCR\_LAND  
 Test Schedule: CCR\_LAND  
 Samples are NOT filtered in the field.

\*General chemistry used volume from F-sample bottle for TDS.  
 NMC 482020





**Colorado Springs Utilities**  
*It's how we're all connected*

**Laboratory Services Section  
QC Report**

**CCR Landfill Assessment  
April 2020**

Quality Assurance Officer Approval:  Rick Johnson \_\_\_\_\_ Date:  5/15/2020 \_\_\_\_\_

## QC Narrative

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This report is for sample numbers 443038 – 443044 and 443122 - 443128.

### **Total Dissolved Solids by Standard Methods 2540 C**

There are no anomalies to report for this analysis.

### **Fluoride by Standard Methods 4500 F C**

There are no anomalies to report for this analysis.

### **Anions by EPA Method 300.0**

There are no anomalies to report for this analysis.

### **Mercury by EPA 1631 E**

There are no anomalies to report for this analysis.

### **EPA 200.7**

The analyte concentration in the sample is disproportionate to the spike level for Total Recoverable Calcium. The performance of the method is shown to be in control. All calcium data is qualified.

### **EPA 200.8**

There are no anomalies to report for this analysis.

Method: Total Dissolved Solids by Standard Methods 2540 C

Batch Analysis date: 4/9/20

Sampled date: 4/6/20 for samples 443038 - 443044

Sampled date: 4/7/20 for samples 443122 - 443127

Matrix QC performed on samples 443038 and 443126

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
QCS	Total Dissolved Solids	97	88 - 109		
Duplicate	Total Dissolved Solids (443038)			1	<10
Duplicate	Total Dissolved Solids (443126)			<1	<10

Method: Fluoride by Standard Methods 4500 F C

Batch Analysis date: 4/17/20

Sampled date: 4/6/20 for samples 443038 - 443044

Sampled date: 4/7/20 for samples 443122 - 443128

Matrix QC performed on samples 443038 and 443128

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
MRL	Fluoride (Total)	101	90 - 110		
QCS	Fluoride (Total)	91	90 - 110		
MS	Fluoride (Total) (443038)	86	80 - 120		
MSD	Fluoride (Total) (443038)			6	<20
MS	Fluoride (Total) (443126)	95	80 - 120		
MSD	Fluoride (Total) (443126)			2	<20
QC Type	Analyte	Concentration	Limit		
LRB	Fluoride (Total)	<0.10 mg/L	0.10 mg/L		

Method: Anions by EPA Method 300.0

Batch Analysis date: 4/16/20

Sampled date: 4/6/20 for samples 443038 - 443044

Sampled date: 4/7/20 for samples 443122 - 443128

Matrix QC performed on samples 442872, 443038 and 443126

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
MRL	Chloride	100	50-150		
LFB	Chloride	100	90-110	<1	<20
LFB	Chloride	102	90-110	<1	<20
FD	Chloride (442872)			<1	<20
FD	Chloride (443038)			<1	<20
FD	Chloride (443126)			<1	<20
MS	Chloride (442872)	99	80-120		
MS	Chloride (443038)	95	80-120		
MS	Chloride (443126)	99	80-120		

MRL	Sulfate	102	50-150		
LFB	Sulfate	100	90-110	<1	<20
LFB	Sulfate	102	90-110	<1	<20
FD	Sulfate (442872)			4	<20
FD	Sulfate (443038)			2	<20
FD	Sulfate (443126)			<1	<20
MS	Sulfate (442872)	100	80-120		
MS	Sulfate (443038)	96	80-120		
MS	Sulfate (443126)	100	80-120		

QC Type	Analyte	Concentration	Limit
LRB	Chloride	<0.25 mg/L	0.25 mg/L
LRB	Chloride	<0.25 mg/L	0.25 mg/L
LRB	Sulfate	<0.25 mg/L	0.25 mg/L
LRB	Sulfate	<0.25 mg/L	0.25 mg/L

Method: Mercury by EPA 1631 E  
Batch Analysis date: 4/8/20  
Sampled date: 4/6/20 for samples 443038 - 443044

Matrix QC performed on sample 443038

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
MRL	Mercury (Total)	94	50-150		
QCS	Mercury (Total)	105	77-123		
MS	Mercury (Total)	99	71-125		
MSD	Mercury (Total)			<1	<24
QC Type	Analyte	Concentration	Limit		
LRB	Mercury (Total)	<0.5 ng/L	0.5 ng/L		

Method: Mercury by EPA 1631 E  
Batch Analysis date: 4/21/20  
Sampled date: 4/7/20 for samples 443122 - 443128

Matrix QC performed on sample 443126

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
MRL	Mercury (Total)	103	50-150		
QCS	Mercury (Total)	120	77-123		
MS	Mercury (Total)	110	71-125		
MSD	Mercury (Total)			2	<24
QC Type	Analyte	Concentration	Limit		
LRB	Mercury (Total)	<0.5 ng/L	0.5 ng/L		

Method: EPA 200.7

Batch Analysis date: 4/14/20 for Lithium

Batch Analysis date: 4/15/20 for Boron, Calcium and Cobalt

Digestion date: 4/9/20

Sampled date: 4/6/20 for samples 443038 - 443044

Sampled date: 4/7/20 for samples 443122 - 443128

Matrix QC performed on samples 443038 and 443126

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
MRL	Boron (Total Recoverable)	68	50-150		
LFB	Boron (Total Recoverable)	98	85-115		
MS	Boron (Total Recoverable) (443038)	75	70-130		
MSD	Boron (Total Recoverable) (443038)			<1	<20
MS	Boron (Total Recoverable) (443126)	112	70-130		
MSD	Boron (Total Recoverable) (443126)			2	<20
MRL	Calcium (Total Recoverable)	94	50-150		
LFB	Calcium (Total Recoverable)	100	85-115		
MS	Calcium (Total Recoverable) (443038)	<b>*-3810</b>	70-130		
MSD	Calcium (Total Recoverable) (443038)			<1	<20
MS	Calcium (Total Recoverable) (443126)	<b>*378</b>	70-130		
MSD	Calcium (Total Recoverable) (443126)			2	<20
MRL	Cobalt (Total Recoverable)	111	50-150		
LFB	Cobalt (Total Recoverable)	95	85-115		
MS	Cobalt (Total Recoverable) (443038)	73	70-130		
MSD	Cobalt (Total Recoverable) (443038)			<1	<20
MS	Cobalt (Total Recoverable) (443126)	99	70-130		
MSD	Cobalt (Total Recoverable) (443126)			2	<20
MRL	Lithium (Total Recoverable)	94	50-150		
LFB	Lithium (Total Recoverable)	94	85-115		
MS	Lithium (Total Recoverable) (443038)	120	70-130		
MSD	Lithium (Total Recoverable) (443038)			2	<20
MS	Lithium (Total Recoverable) (443126)	124	70-130		
MSD	Lithium (Total Recoverable) (443126)			2	<20

QC Type	Analyte	Concentration	Limit
LRB	Boron (Total Recoverable)	<5.63 ug/L	5.63 ug/L
LRB	Calcium (Total Recoverable)	<15.4 ug/L	15.4 ug/L
LRB	Cobalt (Total Recoverable)	<1.52 ug/L	1.52 ug/L
LRB	Lithium (Total Recoverable)	<8.25 ug/L	8.25 ug/L

\*See Narrative

Method: EPA 200.8

Digestion date: 4/8/20

Batch Analysis date: 4/15/20 for As, Ba, Be, Cd, Cr, Pb, Mo, Se & Tl

Batch Analysis date: 4/16/20 for Sb

Sampled date: 4/6/20 for samples 443038 – 443044

Matrix QC performed on sample 443038

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
MRL	Antimony (Total Recoverable)	107	50-150		
LFB	Antimony (Total Recoverable)	97	85-115		
MS	Antimony (Total Recoverable)	80	70-130		
MSD	Antimony (Total Recoverable)			7	<20
MRL	Arsenic (Total Recoverable)	102	50-150		
LFB	Arsenic (Total Recoverable)	102	85-115		
MS	Arsenic (Total Recoverable)	82	70-130		
MSD	Arsenic (Total Recoverable)			4	<20
MRL	Barium (Total Recoverable)	92	50-150		
LFB	Barium (Total Recoverable)	94	85-115		
MS	Barium (Total Recoverable)	76	70-130		
MSD	Barium (Total Recoverable)			2	<20
MRL	Beryllium (Total Recoverable)	102	50-150		
LFB	Beryllium (Total Recoverable)	103	85-115		
MS	Beryllium (Total Recoverable)	78	70-130		
MSD	Beryllium (Total Recoverable)			4	<20
MRL	Cadmium (Total Recoverable)	100	50-150		
LFB	Cadmium (Total Recoverable)	96	85-115		
MS	Cadmium (Total Recoverable)	74	70-130		
MSD	Cadmium (Total Recoverable)			<1	<20
MRL	Chromium (Total Recoverable)	96	50-150		
LFB	Chromium (Total Recoverable)	98	85-115		
MS	Chromium (Total Recoverable)	77	70-130		
MSD	Chromium (Total Recoverable)			3	<20
MRL	Lead (Total Recoverable)	96	50-150		
LFB	Lead (Total Recoverable)	94	85-115		
MS	Lead (Total Recoverable)	75	70-130		
MSD	Lead (Total Recoverable)			1	<20
MRL	Molybdenum (Total Recoverable)	98	50-150		
LFB	Molybdenum (Total Recoverable)	96	85-115		
MS	Molybdenum (Total Recoverable)	77	70-130		
MSD	Molybdenum (Total Recoverable)			<1	<20
MRL	Selenium (Total Recoverable)	104	50-150		
LFB	Selenium (Total Recoverable)	99	85-115		
MS	Selenium (Total Recoverable)	83	70-130		
MSD	Selenium (Total Recoverable)			<1	<20
MRL	Thallium (Total Recoverable)	104	50-150		
LFB	Thallium (Total Recoverable)	99	85-115		
MS	Thallium (Total Recoverable)	83	70-130		
MSD	Thallium (Total Recoverable)			<1	<20
QC Type	Analyte	Concentration	Limit		
LRB	Antimony (Total Recoverable)	<0.20 ug/L	0.20 ug/L		
LRB	Arsenic (Total Recoverable)	<0.32 ug/L	0.32 ug/L		

LRB	Barium (Total Recoverable)	<0.11 ug/L	0.11 ug/L
LRB	Beryllium (Total Recoverable)	<0.093 ug/L	0.093 ug/L
LRB	Cadmium (Total Recoverable)	<0.12 ug/L	0.12 ug/L
LRB	Chromium (Total Recoverable)	<0.37 ug/L	0.37 ug/L
LRB	Lead (Total Recoverable)	<0.11 ug/L	0.11 ug/L
LRB	Molybdenum (Total Recoverable)	<0.21 ug/L	0.21 ug/L
LRB	Selenium (Total Recoverable)	<0.42 ug/L	0.42 ug/L
LRB	Thallium (Total Recoverable)	<0.17 ug/L	0.17 ug/L

Method: EPA 200.8

Digestion date: 4/9/20

Batch Analysis date: 4/15/20

Sampled date: 4/7/20 for samples 443122 – 443128

Matrix QC performed on sample 443126

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
MRL	Antimony (Total Recoverable)	97	50-150		
LFB	Antimony (Total Recoverable)	98	85-115		
MS	Antimony (Total Recoverable)	80	70-130		
MSD	Antimony (Total Recoverable)			<1	<20
MRL	Arsenic (Total Recoverable)	100	50-150		
LFB	Arsenic (Total Recoverable)	101	85-115		
MS	Arsenic (Total Recoverable)	86	70-130		
MSD	Arsenic (Total Recoverable)			1	<20
MRL	Barium (Total Recoverable)	98	50-150		
LFB	Barium (Total Recoverable)	101	85-115		
MS	Barium (Total Recoverable)	83	70-130		
MSD	Barium (Total Recoverable)			<1	<20
MRL	Beryllium (Total Recoverable)	101	50-150		
LFB	Beryllium (Total Recoverable)	104	85-115		
MS	Beryllium (Total Recoverable)	81	70-130		
MSD	Beryllium (Total Recoverable)			<1	<20
MRL	Cadmium (Total Recoverable)	99	50-150		
LFB	Cadmium (Total Recoverable)	100	85-115		
MS	Cadmium (Total Recoverable)	82	70-130		
MSD	Cadmium (Total Recoverable)			<1	<20
MRL	Chromium (Total Recoverable)	97	50-150		
LFB	Chromium (Total Recoverable)	102	85-115		
MS	Chromium (Total Recoverable)	79	70-130		
MSD	Chromium (Total Recoverable)			2	<20
MRL	Lead (Total Recoverable)	95	50-150		
LFB	Lead (Total Recoverable)	98	85-115		
MS	Lead (Total Recoverable)	80	70-130		
MSD	Lead (Total Recoverable)			<1	<20
MRL	Molybdenum (Total Recoverable)	100	50-150		
LFB	Molybdenum (Total Recoverable)	100	85-115		
MS	Molybdenum (Total Recoverable)	82	70-130		
MSD	Molybdenum (Total Recoverable)			2	<20

MRL	Selenium (Total Recoverable)	98	50-150		
LFB	Selenium (Total Recoverable)	102	85-115		
MS	Selenium (Total Recoverable)	88	70-130		
MSD	Selenium (Total Recoverable)			3	<20
MRL	Thallium (Total Recoverable)	96	50-150		
LFB	Thallium (Total Recoverable)	99	85-115		
MS	Thallium (Total Recoverable)	82	70-130		
MSD	Thallium (Total Recoverable)			2	<20
<b>QC Type</b>	<b>Analyte</b>	<b>Concentration</b>		<b>Limit</b>	
LRB	Antimony (Total Recoverable)	<0.20 ug/L		0.20 ug/L	
LRB	Arsenic (Total Recoverable)	<0.32 ug/L		0.32 ug/L	
LRB	Barium (Total Recoverable)	<0.11 ug/L		0.11 ug/L	
LRB	Beryllium (Total Recoverable)	<0.093 ug/L		0.093 ug/L	
LRB	Cadmium (Total Recoverable)	<0.12 ug/L		0.12 ug/L	
LRB	Chromium (Total Recoverable)	<0.37 ug/L		0.37 ug/L	
LRB	Lead (Total Recoverable)	<0.11 ug/L		0.11 ug/L	
LRB	Molybdenum (Total Recoverable)	<0.21 ug/L		0.21 ug/L	
LRB	Selenium (Total Recoverable)	<0.42 ug/L		0.42 ug/L	
LRB	Thallium (Total Recoverable)	<0.17 ug/L		0.17 ug/L	

FD – Field Duplicate  
 LFB – Laboratory Fortified Blank  
 LRB – Laboratory Reagent Blank (Method Blank)  
 QCS – Quality Control Sample  
 MRL – Minimum Reporting Limit (Verification)  
 MS – Matrix Spike  
 MSD – Matrix Spike Duplicate  
**Underline – Data was outside the limit**



## ANALYTICAL REPORT

Eurofins TestAmerica, St. Louis  
13715 Rider Trail North  
Earth City, MO 63045  
Tel: (314)298-8566

Laboratory Job ID: 160-37768-1  
Client Project/Site: TENORM

**For:**

Colorado Springs Utilities  
Laboratory Services Section  
701 E. Las Vegas St., MC 1465  
Colorado Springs, Colorado 80903

Attn: Ms. Wendy Asay



---

*Authorized for release by:  
5/5/2020 11:43:45 AM*

Chenise Lambert-Sykes, Project Manager I  
(314)298-8566  
[chenise.lambert-sykes@testamericainc.com](mailto:chenise.lambert-sykes@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

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

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



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# Case Narrative

Client: Colorado Springs Utilities  
Project/Site: TENORM

Job ID: 160-37768-1

**Job ID: 160-37768-1**

**Laboratory: Eurofins TestAmerica, St. Louis**

## Narrative

### CASE NARRATIVE

**Client: Colorado Springs Utilities**

**Project: TENORM**

**Report Number: 160-37768-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Eurofins TestAmerica, St. Louis attests to the validity of the laboratory data generated by Eurofins TestAmerica facilities reported herein. All analyses performed by Eurofins TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results for Chemistry analyses are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header. All soil/sediment sample results for radiochemistry analyses are based upon sample as dried and disaggregated with the exception of tritium, carbon-14, and iodine-129 by gamma spectroscopy unless requested as wet weight by the client."

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Manual Integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure. Detailed information can be found in the raw data section of the level IV report.

This laboratory report is confidential and is intended for the sole use of Eurofins TestAmerica and its client.

### **RECEIPT**

The samples were received on 04/09/2020; the samples arrived in good condition, properly preserved. The temperature of the coolers at receipt was 13.5 C.

### **Receipt Exceptions**

The reference method requires samples to be preserved at a pH of less than 2. The following samples were received with insufficient preservation at a pH=8: CC\_1 443038 (160-37768-1), CC\_1 DUPLICATE 443039 (160-37768-2), FC\_1 443040 (160-37768-3), FC\_2

# Case Narrative

Client: Colorado Springs Utilities  
Project/Site: TENORM

Job ID: 160-37768-1

## Job ID: 160-37768-1 (Continued)

### Laboratory: Eurofins TestAmerica, St. Louis (Continued)

443041 (160-37768-4), FC\_3A 443042 (160-37768-5), FC\_3B 443043 (160-37768-6), SC\_10 443122 (160-37768-7), SC\_11 443123 (160-37768-8), SC\_12 443124 (160-37768-9), SC\_13 443125 (160-37768-10), SC\_14 443126 (160-37768-11) and SC\_14 DUPLICATE 443127 (160-37768-12). The samples were preserved to the appropriate pH in the laboratory. 160-37768-A-3, 160-37768-B-3 and 160-37768-B-9 were preserved on 04/09/2020 at 13:15 by LAM.

#### RADIUM-226 (GFPC)

Samples CC\_1 443038 (160-37768-1), CC\_1 DUPLICATE 443039 (160-37768-2), FC\_1 443040 (160-37768-3), FC\_2 443041 (160-37768-4), FC\_3A 443042 (160-37768-5), FC\_3B 443043 (160-37768-6), SC\_10 443122 (160-37768-7), SC\_11 443123 (160-37768-8), SC\_12 443124 (160-37768-9), SC\_13 443125 (160-37768-10), SC\_14 443126 (160-37768-11) and SC\_14 DUPLICATE 443127 (160-37768-12) were analyzed for Radium-226 (GFPC) in accordance with EPA Method 903.0. The samples were prepared on 04/13/2020 and analyzed on 05/05/2020.

Insufficient sample volume was available to perform a sample duplicate for the following samples: CC\_1 443038 (160-37768-1), CC\_1 DUPLICATE 443039 (160-37768-2), FC\_1 443040 (160-37768-3), FC\_2 443041 (160-37768-4), FC\_3A 443042 (160-37768-5), FC\_3B 443043 (160-37768-6), SC\_10 443122 (160-37768-7), SC\_11 443123 (160-37768-8), SC\_12 443124 (160-37768-9), SC\_13 443125 (160-37768-10), SC\_14 443126 (160-37768-11) and SC\_14 DUPLICATE 443127 (160-37768-12). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

The following samples were prepared at a reduced aliquot: CC\_1 443038 (160-37768-1), CC\_1 DUPLICATE 443039 (160-37768-2), FC\_1 443040 (160-37768-3), FC\_3A 443042 (160-37768-5), SC\_10 443122 (160-37768-7) and SC\_11 443123 (160-37768-8). Sample 310-179309-1 has a brown cloudy discoloration. Samples 160-37768-1,2,3,7,8 have a yellow discoloration. Sample 160-37768-5 is cloudy.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### RADIUM-228 (GFPC)

Samples CC\_1 443038 (160-37768-1), CC\_1 DUPLICATE 443039 (160-37768-2), FC\_1 443040 (160-37768-3), FC\_2 443041 (160-37768-4), FC\_3A 443042 (160-37768-5), FC\_3B 443043 (160-37768-6), SC\_10 443122 (160-37768-7), SC\_11 443123 (160-37768-8), SC\_12 443124 (160-37768-9), SC\_13 443125 (160-37768-10), SC\_14 443126 (160-37768-11) and SC\_14 DUPLICATE 443127 (160-37768-12) were analyzed for Radium-228 (GFPC) in accordance with EPA 904. The samples were prepared on 04/13/2020 and analyzed on 04/29/2020.

The following samples were prepared at a reduced aliquot: CC\_1 443038 (160-37768-1), CC\_1 DUPLICATE 443039 (160-37768-2), FC\_1 443040 (160-37768-3), FC\_3A 443042 (160-37768-5), SC\_10 443122 (160-37768-7) and SC\_11 443123 (160-37768-8). Sample 310-179309-1 has a brown cloudy discoloration. Samples 160-37768-1,2,3,7,8 have a yellow discoloration. Sample 160-37768-5 is cloudy.

Insufficient sample volume was available to perform a sample duplicate for the following samples: CC\_1 443038 (160-37768-1), CC\_1 DUPLICATE 443039 (160-37768-2), FC\_1 443040 (160-37768-3), FC\_2 443041 (160-37768-4), FC\_3A 443042 (160-37768-5), FC\_3B 443043 (160-37768-6), SC\_10 443122 (160-37768-7), SC\_11 443123 (160-37768-8), SC\_12 443124 (160-37768-9), SC\_13 443125 (160-37768-10), SC\_14 443126 (160-37768-11) and SC\_14 DUPLICATE 443127 (160-37768-12). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Earth City, MO 63045-1205  
phone 314.298.8566 fax 314.298.8757

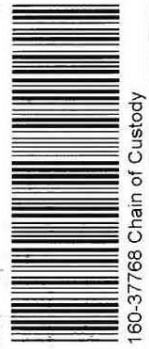
Regulatory Program:  DW  NPDES  RCRA  Other: \_\_\_\_\_  
Project Manager: Wendy Asay  
Tel/Fax: 719-668-4603

**Client Contact**  
Colorado Springs Utilities  
701 E. Las Vegas St.  
Colorado Springs, CO 80903  
(719) 668-4603 Phone  
(xxx) xxx-xxxx FAX  
Project Name: Coal Combustion Rule  
Site:  
P O #

**Site Contact:**  
Lab Contact:  
Date:  
Carrier:  
COC No: \_\_\_\_\_ of \_\_\_\_\_ COCs

**Analysis Turnaround Time**  
 CALENDAR DAYS  WORKING DAYS  
TAT if different from Below \_\_\_\_\_  
 2 weeks  
 1 week  
 2 days  
 1 day

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Total Radium 226, EPA 903.1	Total Radium 228, EPA 904.0
CC_1 443038	4/6/20	1208	G	GW	2	N	X	X	
CC_1 duplicate 443039	4/6/20	1209	G	GW	2	N	X	X	
FC_1 443040	4/6/20	0939	G	GW	2	N	X	X	
FC_2 443041	4/6/20	1010	G	GW	2	N	X	X	
FC_3A 443042	4/6/20	1327	G	GW	2	N	X	X	
FC_3B 443043	4/6/20	1353	G	GW	2	N	X	X	
SC_10 443122	4/7/20	0915	G	GW	2	N	X	X	
SC_11 443123	4/7/20	1003	G	GW	2	N	X	X	
SC_12 443124	4/7/20	1102	G	GW	2	N	X	X	
SC_13 443125	4/7/20	1204	G	GW	2	N	X	X	
SC_14 443126	4/7/20	1256	G	GW	2	N	X	X	
SC_14 duplicate 443127	4/7/20	1256	G	GW	2	N	X	X	



**Preservation Used:** 1= Ice, 2= HCI; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other \_\_\_\_\_  
**Possible Hazard Identification:** Please list any EPA Hazardous Waste? Please list any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

**Special Instructions/QC Requirements & Comments:** Please be sure to use the listed method numbers.

Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months

Cooler Temp. (°C): Obs'd: \_\_\_\_\_ Corrid: \_\_\_\_\_ Therm ID No.: \_\_\_\_\_  
 Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Received by: UPS  
 Date/Time: 4/5/2020 16:20  
 Company: ETA ST  
 Received in Laboratory by: \_\_\_\_\_  
 Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_



## Login Sample Receipt Checklist

Client: Colorado Springs Utilities

Job Number: 160-37768-1

**Login Number: 37768**

**List Source: Eurofins TestAmerica, St. Louis**

**List Number: 1**

**Creator: Korrinhizer, Micha L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	160-37768-A-3, 160-37768-B-3 and 160-37768-B-9 unpreserved
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Definitions/Glossary

Client: Colorado Springs Utilities  
Project/Site: TENORM

Job ID: 160-37768-1

## Qualifiers

### Rad

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

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)

# Method Summary

Client: Colorado Springs Utilities  
Project/Site: TENORM

Job ID: 160-37768-1

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

**Protocol References:**

EPA = US Environmental Protection Agency  
None = None

**Laboratory References:**

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



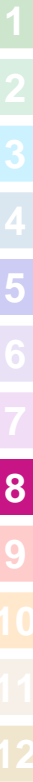


# Sample Summary

Client: Colorado Springs Utilities  
Project/Site: TENORM

Job ID: 160-37768-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
160-37768-1	CC_1 443038	Water	04/06/20 12:08	04/09/20 10:20	
160-37768-2	CC_1 DUPLICATE 443039	Water	04/06/20 12:09	04/09/20 10:20	
160-37768-3	FC_1 443040	Water	04/06/20 09:39	04/09/20 10:20	
160-37768-4	FC_2 443041	Water	04/06/20 10:10	04/09/20 10:20	
160-37768-5	FC_3A 443042	Water	04/06/20 13:27	04/09/20 10:20	
160-37768-6	FC_3B 443043	Water	04/06/20 13:53	04/09/20 10:20	
160-37768-7	SC_10 443122	Water	04/07/20 09:15	04/09/20 10:20	
160-37768-8	SC_11 443123	Water	04/07/20 10:03	04/09/20 10:20	
160-37768-9	SC_12 443124	Water	04/07/20 11:02	04/09/20 10:20	
160-37768-10	SC_13 443125	Water	04/07/20 12:04	04/09/20 10:20	
160-37768-11	SC_14 443126	Water	04/07/20 12:56	04/09/20 10:20	
160-37768-12	SC_14 DUPLICATE 443127	Water	04/07/20 12:56	04/09/20 10:20	



# Client Sample Results

Client: Colorado Springs Utilities  
Project/Site: TENORM

Job ID: 160-37768-1

**Client Sample ID: CC\_1 443038**

**Lab Sample ID: 160-37768-1**

Date Collected: 04/06/20 12:08

Matrix: Water

Date Received: 04/09/20 10:20

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.260		0.110	0.113	1.00	0.109	pCi/L	04/13/20 05:00	05/05/20 04:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					04/13/20 05:00	05/05/20 04:31	1

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.962		0.336	0.348	1.00	0.455	pCi/L	04/13/20 05:30	04/29/20 13:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					04/13/20 05:30	04/29/20 13:15	1
Y Carrier	86.4		40 - 110					04/13/20 05:30	04/29/20 13:15	1

**Client Sample ID: CC\_1 DUPLICATE 443039**

**Lab Sample ID: 160-37768-2**

Date Collected: 04/06/20 12:09

Matrix: Water

Date Received: 04/09/20 10:20

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.357		0.132	0.136	1.00	0.116	pCi/L	04/13/20 05:00	05/05/20 04:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.0		40 - 110					04/13/20 05:00	05/05/20 04:31	1

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.731		0.375	0.381	1.00	0.560	pCi/L	04/13/20 05:30	04/29/20 13:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.0		40 - 110					04/13/20 05:30	04/29/20 13:15	1
Y Carrier	84.9		40 - 110					04/13/20 05:30	04/29/20 13:15	1

**Client Sample ID: FC\_1 443040**

**Lab Sample ID: 160-37768-3**

Date Collected: 04/06/20 09:39

Matrix: Water

Date Received: 04/09/20 10:20

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.498		0.156	0.162	1.00	0.110	pCi/L	04/13/20 05:00	05/05/20 04:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		40 - 110					04/13/20 05:00	05/05/20 04:31	1

Eurofins TestAmerica, St. Louis

# Client Sample Results

Client: Colorado Springs Utilities  
Project/Site: TENORM

Job ID: 160-37768-1

**Client Sample ID: FC\_1 443040**

**Lab Sample ID: 160-37768-3**

Date Collected: 04/06/20 09:39

Matrix: Water

Date Received: 04/09/20 10:20

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.87		0.430	0.463	1.00	0.480	pCi/L	04/13/20 05:30	04/29/20 13:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		40 - 110					04/13/20 05:30	04/29/20 13:15	1
Y Carrier	87.1		40 - 110					04/13/20 05:30	04/29/20 13:15	1

**Client Sample ID: FC\_2 443041**

**Lab Sample ID: 160-37768-4**

Date Collected: 04/06/20 10:10

Matrix: Water

Date Received: 04/09/20 10:20

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0611	U	0.0549	0.0552	1.00	0.0798	pCi/L	04/13/20 05:00	05/05/20 04:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					04/13/20 05:00	05/05/20 04:31	1

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.388		0.217	0.220	1.00	0.324	pCi/L	04/13/20 05:30	04/29/20 13:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					04/13/20 05:30	04/29/20 13:15	1
Y Carrier	87.9		40 - 110					04/13/20 05:30	04/29/20 13:15	1

**Client Sample ID: FC\_3A 443042**

**Lab Sample ID: 160-37768-5**

Date Collected: 04/06/20 13:27

Matrix: Water

Date Received: 04/09/20 10:20

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.111	U	0.0980	0.0985	1.00	0.142	pCi/L	04/13/20 05:00	05/05/20 04:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.1		40 - 110					04/13/20 05:00	05/05/20 04:32	1

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.523	U	0.409	0.412	1.00	0.648	pCi/L	04/13/20 05:30	04/29/20 13:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.1		40 - 110					04/13/20 05:30	04/29/20 13:15	1

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# Client Sample Results

Client: Colorado Springs Utilities  
Project/Site: TENORM

Job ID: 160-37768-1

**Client Sample ID: FC\_3A 443042**

**Lab Sample ID: 160-37768-5**

Date Collected: 04/06/20 13:27

Matrix: Water

Date Received: 04/09/20 10:20

**Method: 904.0 - Radium-228 (GFPC) (Continued)**

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	92.3		40 - 110	04/13/20 05:30	04/29/20 13:15	1

**Client Sample ID: FC\_3B 443043**

**Lab Sample ID: 160-37768-6**

Date Collected: 04/06/20 13:53

Matrix: Water

Date Received: 04/09/20 10:20

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.199		0.0862	0.0880	1.00	0.0843	pCi/L	04/13/20 05:00	05/05/20 04:32	1
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac				
Ba Carrier	104		40 - 110	04/13/20 05:00	05/05/20 04:32	1				
Y Carrier	104		40 - 110	04/13/20 05:00	05/05/20 04:32	1				

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.563		0.255	0.261	1.00	0.372	pCi/L	04/13/20 05:30	04/29/20 13:19	1
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac				
Ba Carrier	104		40 - 110	04/13/20 05:30	04/29/20 13:19	1				
Y Carrier	90.8		40 - 110	04/13/20 05:30	04/29/20 13:19	1				

**Client Sample ID: SC\_10 443122**

**Lab Sample ID: 160-37768-7**

Date Collected: 04/07/20 09:15

Matrix: Water

Date Received: 04/09/20 10:20

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.103	U	0.0821	0.0826	1.00	0.115	pCi/L	04/13/20 05:00	05/05/20 04:32	1
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac				
Ba Carrier	107		40 - 110	04/13/20 05:00	05/05/20 04:32	1				

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.465	U	0.361	0.364	1.00	0.575	pCi/L	04/13/20 05:30	04/29/20 13:19	1
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac				
Ba Carrier	107		40 - 110	04/13/20 05:30	04/29/20 13:19	1				
Y Carrier	86.7		40 - 110	04/13/20 05:30	04/29/20 13:19	1				

# Client Sample Results

Client: Colorado Springs Utilities  
Project/Site: TENORM

Job ID: 160-37768-1

**Client Sample ID: SC\_11 443123**

**Lab Sample ID: 160-37768-8**

Date Collected: 04/07/20 10:03

Matrix: Water

Date Received: 04/09/20 10:20

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0606	U	0.0723	0.0725	1.00	0.117	pCi/L	04/13/20 05:00	05/05/20 04:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					04/13/20 05:00	05/05/20 04:32	1

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.498	U	0.337	0.340	1.00	0.524	pCi/L	04/13/20 05:30	04/29/20 13:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					04/13/20 05:30	04/29/20 13:19	1
Y Carrier	81.9		40 - 110					04/13/20 05:30	04/29/20 13:19	1

**Client Sample ID: SC\_12 443124**

**Lab Sample ID: 160-37768-9**

Date Collected: 04/07/20 11:02

Matrix: Water

Date Received: 04/09/20 10:20

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium-226</b>	<b>0.0996</b>		0.0716	0.0721	1.00	0.0978	pCi/L	04/13/20 05:00	05/05/20 04:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					04/13/20 05:00	05/05/20 04:32	1

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.116	U	0.248	0.248	1.00	0.424	pCi/L	04/13/20 05:30	04/29/20 13:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					04/13/20 05:30	04/29/20 13:19	1
Y Carrier	80.7		40 - 110					04/13/20 05:30	04/29/20 13:19	1

**Client Sample ID: SC\_13 443125**

**Lab Sample ID: 160-37768-10**

Date Collected: 04/07/20 12:04

Matrix: Water

Date Received: 04/09/20 10:20

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0279	U	0.0452	0.0452	1.00	0.113	pCi/L	04/13/20 05:00	05/05/20 04:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.3		40 - 110					04/13/20 05:00	05/05/20 04:32	1

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# Client Sample Results

Client: Colorado Springs Utilities  
Project/Site: TENORM

Job ID: 160-37768-1

**Client Sample ID: SC\_13 443125**

**Lab Sample ID: 160-37768-10**

Date Collected: 04/07/20 12:04

Matrix: Water

Date Received: 04/09/20 10:20

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0482	U	0.239	0.239	1.00	0.420	pCi/L	04/13/20 05:30	04/29/20 13:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.3		40 - 110					04/13/20 05:30	04/29/20 13:20	1
Y Carrier	84.1		40 - 110					04/13/20 05:30	04/29/20 13:20	1

**Client Sample ID: SC\_14 443126**

**Lab Sample ID: 160-37768-11**

Date Collected: 04/07/20 12:56

Matrix: Water

Date Received: 04/09/20 10:20

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0705	U	0.0646	0.0649	1.00	0.0968	pCi/L	04/13/20 05:00	05/05/20 04:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/13/20 05:00	05/05/20 04:32	1

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.324	U	0.259	0.261	1.00	0.412	pCi/L	04/13/20 05:30	04/29/20 13:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/13/20 05:30	04/29/20 13:20	1
Y Carrier	82.2		40 - 110					04/13/20 05:30	04/29/20 13:20	1

**Client Sample ID: SC\_14 DUPLICATE 443127**

**Lab Sample ID: 160-37768-12**

Date Collected: 04/07/20 12:56

Matrix: Water

Date Received: 04/09/20 10:20

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0430	U	0.0571	0.0572	1.00	0.0955	pCi/L	04/13/20 05:00	05/05/20 04:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					04/13/20 05:00	05/05/20 04:32	1

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.226	U	0.269	0.270	1.00	0.444	pCi/L	04/13/20 05:30	04/29/20 13:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					04/13/20 05:30	04/29/20 13:20	1

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# Client Sample Results

Client: Colorado Springs Utilities  
Project/Site: TENORM

Job ID: 160-37768-1

**Client Sample ID: SC\_14 DUPLICATE 443127**

**Lab Sample ID: 160-37768-12**

Date Collected: 04/07/20 12:56

Matrix: Water

Date Received: 04/09/20 10:20

**Method: 904.0 - Radium-228 (GFPC) (Continued)**

<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Y Carrier	74.0		40 - 110	04/13/20 05:30	04/29/20 13:20	1

- 1
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# QC Sample Results

Client: Colorado Springs Utilities  
Project/Site: TENORM

Job ID: 160-37768-1

## Method: 903.0 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-467482/22-A**  
**Matrix: Water**  
**Analysis Batch: 469551**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 467482**

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.02713	U	0.0511	0.0511	1.00	0.121	pCi/L	04/13/20 05:00	05/05/20 04:32	1
Carrier	MB	MB	Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	97.9		40 - 110			04/13/20 05:00	05/05/20 04:32	1		

**Lab Sample ID: LCS 160-467482/1-A**  
**Matrix: Water**  
**Analysis Batch: 469551**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 467482**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	9.655		1.05	1.00	0.0904	pCi/L	85	75 - 125
Carrier	LCS	LCS	Limits			Prepared	Analyzed	Dil Fac	
	%Yield	Qualifier							
Ba Carrier	86.9		40 - 110						

**Lab Sample ID: LCSD 160-467482/2-A**  
**Matrix: Water**  
**Analysis Batch: 469551**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 467482**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	Limit
				Uncert. (2σ+/-)							
Radium-226	11.3	10.08		1.07	1.00	0.0926	pCi/L	89	75 - 125	0.20	1
Carrier	LCSD	LCSD	Limits			Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier									
Ba Carrier	95.4		40 - 110								

## Method: 904.0 - Radium-228 (GFPC)

**Lab Sample ID: MB 160-467497/22-A**  
**Matrix: Water**  
**Analysis Batch: 469171**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 467497**

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.5919		0.301	0.306	1.00	0.444	pCi/L	04/13/20 05:30	04/29/20 13:20	1
Carrier	MB	MB	Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	97.9		40 - 110			04/13/20 05:30	04/29/20 13:20	1		
Y Carrier	74.8		40 - 110			04/13/20 05:30	04/29/20 13:20	1		



# QC Sample Results

Client: Colorado Springs Utilities  
Project/Site: TENORM

Job ID: 160-37768-1

## Method: 904.0 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: LCS 160-467497/1-A**  
**Matrix: Water**  
**Analysis Batch: 469160**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 467497**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	8.89	9.682		1.18	1.00	0.513	pCi/L	109	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	86.9		40 - 110
Y Carrier	77.4		40 - 110

**Lab Sample ID: LCSD 160-467497/2-A**  
**Matrix: Water**  
**Analysis Batch: 469160**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 467497**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	8.89	8.981		1.06	1.00	0.395	pCi/L	101	75 - 125	0.31	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	95.4		40 - 110
Y Carrier	85.2		40 - 110

# QC Association Summary

Client: Colorado Springs Utilities  
Project/Site: TENORM

Job ID: 160-37768-1

## Rad

### Prep Batch: 467482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-37768-1	CC_1 443038	Total/NA	Water	PrecSep-21	
160-37768-2	CC_1 DUPLICATE 443039	Total/NA	Water	PrecSep-21	
160-37768-3	FC_1 443040	Total/NA	Water	PrecSep-21	
160-37768-4	FC_2 443041	Total/NA	Water	PrecSep-21	
160-37768-5	FC_3A 443042	Total/NA	Water	PrecSep-21	
160-37768-6	FC_3B 443043	Total/NA	Water	PrecSep-21	
160-37768-7	SC_10 443122	Total/NA	Water	PrecSep-21	
160-37768-8	SC_11 443123	Total/NA	Water	PrecSep-21	
160-37768-9	SC_12 443124	Total/NA	Water	PrecSep-21	
160-37768-10	SC_13 443125	Total/NA	Water	PrecSep-21	
160-37768-11	SC_14 443126	Total/NA	Water	PrecSep-21	
160-37768-12	SC_14 DUPLICATE 443127	Total/NA	Water	PrecSep-21	
MB 160-467482/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-467482/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-467482/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 467497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-37768-1	CC_1 443038	Total/NA	Water	PrecSep_0	
160-37768-2	CC_1 DUPLICATE 443039	Total/NA	Water	PrecSep_0	
160-37768-3	FC_1 443040	Total/NA	Water	PrecSep_0	
160-37768-4	FC_2 443041	Total/NA	Water	PrecSep_0	
160-37768-5	FC_3A 443042	Total/NA	Water	PrecSep_0	
160-37768-6	FC_3B 443043	Total/NA	Water	PrecSep_0	
160-37768-7	SC_10 443122	Total/NA	Water	PrecSep_0	
160-37768-8	SC_11 443123	Total/NA	Water	PrecSep_0	
160-37768-9	SC_12 443124	Total/NA	Water	PrecSep_0	
160-37768-10	SC_13 443125	Total/NA	Water	PrecSep_0	
160-37768-11	SC_14 443126	Total/NA	Water	PrecSep_0	
160-37768-12	SC_14 DUPLICATE 443127	Total/NA	Water	PrecSep_0	
MB 160-467497/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-467497/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-467497/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

# Tracer/Carrier Summary

Client: Colorado Springs Utilities  
Project/Site: TENORM

Job ID: 160-37768-1

## Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba Carrier (40-110)	
160-37768-1	CC_1 443038	109	
160-37768-2	CC_1 DUPLICATE 443039	97.0	
160-37768-3	FC_1 443040	92.7	
160-37768-4	FC_2 443041	109	
160-37768-5	FC_3A 443042	77.1	
160-37768-6	FC_3B 443043	104	
160-37768-7	SC_10 443122	107	
160-37768-8	SC_11 443123	106	
160-37768-9	SC_12 443124	105	
160-37768-10	SC_13 443125	96.3	
160-37768-11	SC_14 443126	104	
160-37768-12	SC_14 DUPLICATE 443127	108	
LCS 160-467482/1-A	Lab Control Sample	86.9	
LCSD 160-467482/2-A	Lab Control Sample Dup	95.4	
MB 160-467482/22-A	Method Blank	97.9	

**Tracer/Carrier Legend**  
Ba Carrier = Ba Carrier

## Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba Carrier (40-110)	Y Carrier (40-110)
160-37768-1	CC_1 443038	109	86.4
160-37768-2	CC_1 DUPLICATE 443039	97.0	84.9
160-37768-3	FC_1 443040	92.7	87.1
160-37768-4	FC_2 443041	109	87.9
160-37768-5	FC_3A 443042	77.1	92.3
160-37768-6	FC_3B 443043	104	90.8
160-37768-7	SC_10 443122	107	86.7
160-37768-8	SC_11 443123	106	81.9
160-37768-9	SC_12 443124	105	80.7
160-37768-10	SC_13 443125	96.3	84.1
160-37768-11	SC_14 443126	104	82.2
160-37768-12	SC_14 DUPLICATE 443127	108	74.0
LCS 160-467497/1-A	Lab Control Sample	86.9	77.4
LCSD 160-467497/2-A	Lab Control Sample Dup	95.4	85.2
MB 160-467497/22-A	Method Blank	97.9	74.8

**Tracer/Carrier Legend**  
Ba Carrier = Ba Carrier  
Y Carrier = Y Carrier



# Colorado Springs Utilities

*It's how we're all connected*



## Laboratory Report For:

Coal Combustion Residuals - Landfill

Environmental Technical Services

**Report Authorized by:** *Wendy M Asay*

**Title:** Environmental Specialist

**Report Date:** January 20, 2021

**Report generated by:** Wendy M. Asay

Colorado Springs Utilities Laboratory Services Section certifies that the test results meet all approved method and Laboratory Quality Assurance Plan requirements unless otherwise noted

## Samples

451171	16-Nov-2020 11:25	Fort Carson Well #3B
451429	16-Nov-2020 12:27	Fort Carson Well #3A
451178	16-Nov-2020 13:10	Sand Canyon Well #14
451166	16-Nov-2020 13:32	Crooked Canyon Well #1
451177	16-Nov-2020 16:05	Sand Canyon Well #13
451175	17-Nov-2020 10:30	Sand Canyon Well #12
451176	17-Nov-2020 11:07	Sand Canyon Well #12
451174	17-Nov-2020 12:35	Sand Canyon Well #11
451173	17-Nov-2020 13:17	Sand Canyon Well #10
451169	17-Nov-2020 14:00	Fort Carson Well #2
451170	17-Nov-2020 14:08	Fort Carson Well #2
451179	17-Nov-2020 14:25	Equipment Blank
451167	17-Nov-2020 15:30	Fort Carson Well #1

LIMS #: 451171

Sample Date: 11/16/2020 11:25:00 AM

Sample Point: FC\_3B

Sample Point Description: Fort Carson Well #3B

Collection Comments:

Sample Type: GRAB

Sampler Initials: TERRACON

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_2550_B	Temperature Centigrade (Field)	13.4	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	6360	umhos/cm	1	0			1
	NA	Depth to Water	18.13	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	7600	mg/L	10	0		11/20/2020	1
	SM_4500_FC	Fluoride (Total)	0.70	mg/L	0.10	0.008		11/20/2020	1
	EPA_300_0	Chloride	201	mg/L	0.25	0	D		1
		Sulfate	4460	mg/L	0.25	0	D		1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Arsenic (Total Recoverable)	1.6	ug/L	1.0	0	D	11/24/2020	1
		Barium (Total Recoverable)	9.8	ug/L	0.20	0	D	11/24/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1	12/08/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Chromium (Total Recoverable)	4.9	ug/L	1.0	0	D	11/24/2020	1
		Lead (Total Recoverable)	0.51	ug/L	0.50	0	D	11/24/2020	1
		Molybdenum (Total Recoverable)	0.73	ug/L	0.20	0	D	11/24/2020	1
		Selenium (Total Recoverable)	5.2	ug/L	1.0	0	D	11/24/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
	EPA_200_7	Boron (Total Recoverable)	1200	ug/L	20.0	0		12/04/2020	1
		Calcium (Total Recoverable)	216000	ug/L	100	0		12/04/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		12/04/2020	1
		Lithium (Total Recoverable)	280	ug/L	10.0	0		12/04/2020	1
	EPA_1631	Mercury (Total)	<0.002	ug/L	0.002	0		12/18/2020	1
*	EPA_903_0	Radium 226 (Total)	<0.190	pCi/L	0.190	0		12/22/2020	1
*	EPA_904_0	Radium 228 (Total)	<0.281	pCi/L	0.281	0		12/18/2020	1

LIMS #: 451429

Sample Date: 11/16/2020 12:27:00 PM

Sample Point: FC\_3A

Sample Point Description: Fort Carson Well #3A

Collection Comments:

Sample Type: GRAB

Sampler Initials: TERRACON

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_2550_B	Temperature Centigrade (Field)	13.5	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	6370	umhos/cm	1	0			1
	NA	Depth to Water	19	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	9160	mg/L	10	0		11/20/2020	1
	SM_4500_FC	Fluoride (Total)	0.60	mg/L	0.10	0.008			1
	EPA_300_0	Chloride	125	mg/L	0.25	0	D	11/19/2020	1
		Sulfate	5760	mg/L	0.25	0	D	11/19/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Arsenic (Total Recoverable)	1.7	ug/L	1.0	0	D	11/24/2020	1
		Barium (Total Recoverable)	8.0	ug/L	0.20	0	D	11/24/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1	12/08/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Chromium (Total Recoverable)	3.8	ug/L	1.0	0	D	11/24/2020	1
		Lead (Total Recoverable)	0.74	ug/L	0.50	0	D	11/24/2020	1
		Molybdenum (Total Recoverable)	7.4	ug/L	0.20	0	D	11/24/2020	1
		Selenium (Total Recoverable)	38.6	ug/L	1.0	0	D	11/24/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
	EPA_200_7	Boron (Total Recoverable)	1040	ug/L	20.0	0		12/04/2020	1
		Calcium (Total Recoverable)	375000	ug/L	100	0		12/04/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		12/04/2020	1
		Lithium (Total Recoverable)	305	ug/L	10.0	0		12/04/2020	1
	EPA_1631	Mercury (Total)	<0.002	ug/L	0.002	0		12/18/2020	1
*	EPA_903_0	Radium 226 (Total)	<0.124	pCi/L	0.124	0	U	12/22/2020	1
*	EPA_904_0	Radium 228 (Total)	<0.438	pCi/L	0.438	0	U	12/18/2020	1

LIMS #: 451178

Sample Date: 11/16/2020 1:10:00 PM

Sample Point: SC\_14

Sample Point Description: Sand Canyon Well #14

Collection Comments:

Sample Type: GRAB

Sampler Initials: TERRACON

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_2550_B	Temperature Centigrade (Field)	12.7	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	8260	umhos/cm	1	0			1
	NA	Depth to Water	12.25	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	12400	mg/L	10	0		11/20/2020	1
	SM_4500_FC	Fluoride (Total)	1.06	mg/L	0.10	0.008		11/20/2020	1
	EPA_300_0	Chloride	163	mg/L	0.25	0	D	11/20/2020	1
		Sulfate	8070	mg/L	0.25	0	D	11/20/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Arsenic (Total Recoverable)	<1.0	ug/L	1.0	0	D/D1	11/24/2020	1
		Barium (Total Recoverable)	4.7	ug/L	0.20	0	D/D1	11/24/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1	11/24/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Chromium (Total Recoverable)	2.0	ug/L	1.0	0	D	11/24/2020	1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Molybdenum (Total Recoverable)	8.6	ug/L	0.20	0	D	11/24/2020	1
		Selenium (Total Recoverable)	3.0	ug/L	1.0	0	D	11/24/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
	EPA_200_7	Boron (Total Recoverable)	1570	ug/L	20.0	0		12/04/2020	1
		Calcium (Total Recoverable)	350000	ug/L	100	0	T1	12/04/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		12/04/2020	1
		Lithium (Total Recoverable)	354	ug/L	10.0	0		12/04/2020	1
	EPA_1631	Mercury (Total)	<0.002	ug/L	0.002	0		12/18/2020	1
*	EPA_903_0	Radium 226 (Total)	<0.546	pCi/L	0.546	0	U	01/12/2021	1
*	EPA_904_0	Radium 228 (Total)	<0.460	pCi/L	0.460	0	U	01/12/2021	1



LIMS #: 451166

Sample Date: 11/16/2020 1:32:00 PM

Sample Point: CC\_1

Sample Point Description: Crooked Canyon Well #1

Collection Comments:

Sample Type: GRAB

Sampler Initials: TERRACON

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_2550_B	Temperature Centigrade (Field)	13.4	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	19700	umhos/cm	1	0			1
	NA	Depth to Water	13.62	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	32400	mg/L	10	0		11/20/2020	1
	SM_4500_FC	Fluoride (Total)	0.55	mg/L	0.10	0.008		11/20/2020	1
	EPA_300_0	Chloride	1600	mg/L	0.25	0	D	11/19/2020	1
		Sulfate	18800	mg/L	0.25	0	D	11/19/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Arsenic (Total Recoverable)	11.1	ug/L	1.0	0	D	11/24/2020	1
		Barium (Total Recoverable)	4.1	ug/L	0.20	0	D	11/24/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1	12/08/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Chromium (Total Recoverable)	4.4	ug/L	1.0	0	D	11/24/2020	1
		Lead (Total Recoverable)	1.9	ug/L	0.50	0	D	11/24/2020	1
		Molybdenum (Total Recoverable)	0.34	ug/L	0.20	0	D	11/24/2020	1
		Selenium (Total Recoverable)	177	ug/L	1.0	0	D	11/24/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
	EPA_200_7	Boron (Total Recoverable)	1000	ug/L	20.0	0		12/04/2020	1
		Calcium (Total Recoverable)	343000	ug/L	100	0		12/04/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		12/04/2020	1
		Lithium (Total Recoverable)	808	ug/L	10.0	0		12/04/2020	1
	EPA_1631	Mercury (Total)	0.006	ug/L	0.002	0		12/18/2020	1
*	EPA_903_0	Radium 226 (Total)	0.158	pCi/L	0.119	0		12/24/2020	1
*	EPA_904_0	Radium 228 (Total)	0.556	pCi/L	0.478	0		12/18/2020	1

LIMS #: 451177

Sample Date: 11/16/2020 4:05:00 PM

Sample Point: SC\_13

Sample Point Description: Sand Canyon Well #13

Collection Comments:

Sample Type: GRAB

Sampler Initials: TERRACON

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
	SM_2540_C	Total Dissolved Solids	12600	mg/L	10	0		11/20/2020	1
	SM_4500_FC	Fluoride (Total)	1.21	mg/L	0.10	0.008		11/20/2020	1
	EPA_300_0	Chloride	173	mg/L	0.25	0	D	11/20/2020	1
		Sulfate	8320	mg/L	0.25	0	D	11/20/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Arsenic (Total Recoverable)	<1.0	ug/L	1.0	0	D/D1	11/24/2020	1
		Barium (Total Recoverable)	4.0	ug/L	0.20	0	D	11/24/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1	11/24/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Chromium (Total Recoverable)	1.6	ug/L	1.0	0	D	11/24/2020	1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Molybdenum (Total Recoverable)	3.1	ug/L	0.20	0	D	11/24/2020	1
		Selenium (Total Recoverable)	17.4	ug/L	1.0	0	D	11/24/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
	EPA_200_7	Boron (Total Recoverable)	1550	ug/L	20.0	0		12/04/2020	1
		Calcium (Total Recoverable)	349000	ug/L	100	0	T1	12/04/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		12/04/2020	1
		Lithium (Total Recoverable)	368	ug/L	10.0	0		12/04/2020	1
	EPA_1631	Mercury (Total)	0.002	ug/L	0.002	0		12/18/2020	1
+	SM_2550_B	Temperature Centigrade (Field)	13.6	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	8670	umhos/cm	1	0			1
	NA	Depth to Water	11.99	ft.	0.0000	0			1
*	EPA_903_0	Radium 226 (Total)	<0.617	pCi/L	0.617	0	U	01/12/2021	1
*	EPA_904_0	Radium 228 (Total)	<0.509	pCi/L	0.509	0	U	01/12/2021	1

LIMS #: 451175

Sample Date: 11/17/2020 10:30:00 AM

Sample Point: SC\_12

Sample Point Description: Sand Canyon Well #12

Collection Comments:

Sample Type: GRAB

Sampler Initials: TERRACON

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_2550_B	Temperature Centigrade (Field)	16.3	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	12000	umhos/cm	1	0			1
	NA	Depth to Water	11.65	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	16200	mg/L	10	0		11/20/2020	1
	SM_4500_FC	Fluoride (Total)	1.40	mg/L	0.10	0.008		11/20/2020	1
	EPA_300_0	Chloride	297	mg/L	0.25	0	D	11/20/2020	1
		Sulfate	10100	mg/L	0.25	0	D	11/19/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0		11/24/2020	1
		Arsenic (Total Recoverable)	1.3	ug/L	1.0	0	D	11/24/2020	1
		Barium (Total Recoverable)	6.1	ug/L	0.20	0	D	11/24/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0		11/24/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0		11/24/2020	1
		Chromium (Total Recoverable)	2.5	ug/L	1.0	0	D	11/24/2020	1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0		11/24/2020	1
		Molybdenum (Total Recoverable)	4.1	ug/L	0.20	0	D	11/24/2020	1
		Selenium (Total Recoverable)	13.1	ug/L	1.0	0	D	11/24/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0		11/24/2020	1
	EPA_200_7	Boron (Total Recoverable)	3930	ug/L	20.0	0		12/04/2020	1
		Calcium (Total Recoverable)	346000	ug/L	100	0	T1	12/04/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		12/04/2020	1
		Lithium (Total Recoverable)	504	ug/L	10.0	0		12/04/2020	1
	EPA_1631	Mercury (Total)	0.003	ug/L	0.002	0		12/18/2020	1
*	EPA_903_0	Radium 226 (Total)	<0.448	pCi/L	0.448	0	U	01/12/2021	1
*	EPA_904_0	Radium 228 (Total)	<0.453	pCi/L	0.453	0	U	01/12/2021	1

LIMS #: 451176

Sample Date: 11/17/2020 11:07:00 AM

Sample Point: SC\_12

Sample Point Description: Sand Canyon Well #12

Collection Comments: SC12 duplicate

Sample Type: GRAB

Sampler Initials: TERRACON

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
	SM_2540_C	Total Dissolved Solids	16100	mg/L	10	0		11/20/2020	1
	SM_4500_FC	Fluoride (Total)	1.46	mg/L	0.10	0.008		11/20/2020	1
	EPA_300_0	Chloride	304	mg/L	0.25	0	D	11/20/2020	1
		Sulfate	9650	mg/L	0.25	0	D	11/20/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Arsenic (Total Recoverable)	<1.0	ug/L	1.0	0	D/D1	11/24/2020	1
		Barium (Total Recoverable)	6.1	ug/L	0.20	0	D	11/24/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1	11/24/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Chromium (Total Recoverable)	2.4	ug/L	1.0	0	D	11/24/2020	1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Molybdenum (Total Recoverable)	4.6	ug/L	0.20	0	D	11/24/2020	1
		Selenium (Total Recoverable)	13.3	ug/L	1.0	0	D	11/24/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
	EPA_200_7	Boron (Total Recoverable)	3980	ug/L	20.0	0		12/04/2020	1
		Calcium (Total Recoverable)	349000	ug/L	100	0	T1	12/04/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		12/04/2020	1
		Lithium (Total Recoverable)	511	ug/L	10.0	0		12/04/2020	1
	EPA_1631	Mercury (Total)	0.003	ug/L	0.002	0		12/18/2020	1
*	EPA_903_0	Radium 226 (Total)	<0.346	pCi/L	0.346	0	U	01/12/2021	1
*	EPA_904_0	Radium 228 (Total)	<0.411	pCi/L	0.411	0	U	01/12/2021	1

LIMS #: 451174

Sample Date: 11/17/2020 12:35:00 PM

Sample Point: SC\_11

Sample Point Description: Sand Canyon Well #11

Collection Comments:

Sample Type: GRAB

Sampler Initials: TERRACON

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_2550_B	Temperature Centigrade (Field)	16.0	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	11600	umhos/cm	1	0			1
	NA	Depth to Water	10.45	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	14700	mg/L	10	0		11/20/2020	1
	SM_4500_FC	Fluoride (Total)	0.81	mg/L	0.10	0.008		11/20/2020	1
	EPA_300_0	Chloride	1100	mg/L	0.25	0	D	11/19/2020	1
		Sulfate	8080	mg/L	0.25	0	D	11/19/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Arsenic (Total Recoverable)	7.0	ug/L	1.0	0	D	11/24/2020	1
		Barium (Total Recoverable)	4.6	ug/L	0.20	0	D	11/24/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1	11/24/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Chromium (Total Recoverable)	1.9	ug/L	1.0	0	D	11/24/2020	1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Molybdenum (Total Recoverable)	2.3	ug/L	0.20	0	D	11/24/2020	1
		Selenium (Total Recoverable)	167	ug/L	1.0	0	D	11/24/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
	EPA_200_7	Boron (Total Recoverable)	2170	ug/L	20.0	0		12/04/2020	1
		Calcium (Total Recoverable)	385000	ug/L	100	0	T1	12/04/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		12/04/2020	1
		Lithium (Total Recoverable)	597	ug/L	10.0	0		12/04/2020	1
	EPA_1631	Mercury (Total)	0.008	ug/L	0.002	0		12/18/2020	1
*	EPA_903_0	Radium 226 (Total)	<0.558	pCi/L	0.558	0	U	01/12/2021	1
*	EPA_904_0	Radium 228 (Total)	<0.524	pCi/L	0.524	0	U	01/12/2021	1

LIMS #: 451173

Sample Date: 11/17/2020 1:17:00 PM

Sample Point: SC\_10

Sample Point Description: Sand Canyon Well #10

Collection Comments:

Sample Type: GRAB

Sampler Initials: TERRACON

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_2550_B	Temperature Centigrade (Field)	15.4	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	13200	umhos/cm	1	0			1
	NA	Depth to Water	13.45	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	17100	mg/L	10	0		11/20/2020	1
	SM_4500_FC	Fluoride (Total)	0.85	mg/L	0.10	0.008		11/20/2020	1
	EPA_300_0	Chloride	1000	mg/L	0.25	0	D	11/19/2020	1
		Sulfate	9750	mg/L	0.25	0	D	11/19/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0		11/24/2020	1
		Arsenic (Total Recoverable)	8.4	ug/L	1.0	0	D	11/24/2020	1
		Barium (Total Recoverable)	8.3	ug/L	0.20	0	D	11/24/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0		11/24/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0		11/24/2020	1
		Chromium (Total Recoverable)	1.0	ug/L	1.0	0	D	11/24/2020	1
		Lead (Total Recoverable)	0.60	ug/L	0.50	0	D	11/24/2020	1
		Molybdenum (Total Recoverable)	5.4	ug/L	0.20	0	D	11/24/2020	1
		Selenium (Total Recoverable)	216	ug/L	1.0	0	D	11/24/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0		11/24/2020	1
	EPA_200_7	Boron (Total Recoverable)	1140	ug/L	20.0	0		12/04/2020	1
		Calcium (Total Recoverable)	369000	ug/L	100	0	T1	12/04/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		12/04/2020	1
		Lithium (Total Recoverable)	736	ug/L	10.0	0		12/04/2020	1
	EPA_1631	Mercury (Total)	0.008	ug/L	0.002	0		12/18/2020	1
*	EPA_903_0	Radium 226 (Total)	<0.957	pCi/L	0.957	0	U	01/12/2021	1
*	EPA_904_0	Radium 228 (Total)	<0.860	pCi/L	0.860	0	U	01/12/2021	1

LIMS #: 451169

Sample Date: 11/17/2020 2:00:00 PM

Sample Point: FC\_2

Sample Point Description: Fort Carson Well #2

Collection Comments:

Sample Type: GRAB

Sampler Initials: TERRACON

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
	SM_2540_C	Total Dissolved Solids	10500	mg/L	10	0		11/20/2020	1
	SM_4500_FC	Fluoride (Total)	0.73	mg/L	0.10	0.008		11/20/2020	1
	EPA_300_0	Chloride	103	mg/L	0.25	0	D	11/19/2020	1
		Sulfate	6710	mg/L	0.25	0	D	11/19/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Arsenic (Total Recoverable)	<1.0	ug/L	1.0	0	D/D1	11/24/2020	1
		Barium (Total Recoverable)	4.6	ug/L	0.20	0	D	11/24/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1	12/08/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Chromium (Total Recoverable)	3.7	ug/L	1.0	0	D	11/24/2020	1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Molybdenum (Total Recoverable)	1.6	ug/L	0.20	0	D	11/24/2020	1
		Selenium (Total Recoverable)	33.5	ug/L	1.0	0	D	11/24/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
	EPA_200_7	Boron (Total Recoverable)	962	ug/L	20.0	0		12/04/2020	1
		Calcium (Total Recoverable)	367000	ug/L	100	0		12/04/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		12/04/2020	1
		Lithium (Total Recoverable)	289	ug/L	10.0	0		12/04/2020	1
	EPA_1631	Mercury (Total)	0.003	ug/L	0.002	0		12/18/2020	1
+	SM_4500HB	pH	4.1	SU	2.0	0			1
+	SM_2550_B	Temperature Centigrade (Field)	13.4	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	7100	umhos/cm	1	0			1
	NA	Depth to Water	14.09	ft.	0.0000	0			1
*	EPA_903_0	Radium 226 (Total)	<0.394	pCi/L	0.394	0	U	01/12/2021	1
*	EPA_904_0	Radium 228 (Total)	<0.392	pCi/L	0.392	0	U	01/12/2021	1

LIMS #: 451170

Sample Date: 11/17/2020 2:08:00 PM

Sample Point: FC\_2

Sample Point Description: Fort Carson Well #2

Collection Comments: FC2 duplicate

Sample Type: GRAB

Sampler Initials: TERRACON

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
	SM_2540_C	Total Dissolved Solids	10400	mg/L	10	0		11/20/2020	1
	SM_4500_FC	Fluoride (Total)	0.75	mg/L	0.10	0.008			1
	EPA_300_0	Chloride	101	mg/L	0.25	0	D	11/19/2020	1
		Sulfate	6660	mg/L	0.25	0	D	11/19/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Arsenic (Total Recoverable)	2.6	ug/L	1.0	0	D	11/24/2020	1
		Barium (Total Recoverable)	4.2	ug/L	0.20	0	D	11/24/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1	12/08/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Chromium (Total Recoverable)	3.9	ug/L	1.0	0	D	11/24/2020	1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Molybdenum (Total Recoverable)	1.6	ug/L	0.20	0	D	11/24/2020	1
		Selenium (Total Recoverable)	38.0	ug/L	1.0	0	D	11/24/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
	EPA_200_7	Boron (Total Recoverable)	967	ug/L	20.0	0		12/04/2020	1
		Calcium (Total Recoverable)	365000	ug/L	100	0		12/04/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		12/04/2020	1
		Lithium (Total Recoverable)	292	ug/L	10.0	0		12/04/2020	1
	EPA_1631	Mercury (Total)	0.003	ug/L	0.002	0		12/18/2020	1
*	EPA_903_0	Radium 226 (Total)	<0.389	pCi/L	0.389	0	U	01/12/2021	1
*	EPA_904_0	Radium 228 (Total)	<0.439	pCi/L	0.439	0	U	01/12/2021	1



LIMS #: 451179

Sample Date: 11/17/2020 2:25:00 PM

Sample Point: EQUIP\_BLK

Sample Point Description: Equipment Blank

Collection Comments:

Sample Type: GRAB

Sampler Initials: TERRACON

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
	SM_2540_C	Total Dissolved Solids	<10	mg/L	10	0		11/20/2020	1
	SM_4500_FC	Fluoride (Total)	<0.10	mg/L	0.10	0.008	J	11/20/2020	1
	EPA_300_0	Chloride	<0.25	mg/L	0.25	0			1
		Sulfate	<0.25	mg/L	0.25	0			1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0		11/24/2020	1
		Arsenic (Total Recoverable)	<1.0	ug/L	1.0	0		11/24/2020	1
		Barium (Total Recoverable)	<0.20	ug/L	0.20	0		11/24/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0		11/24/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0		11/24/2020	1
		Chromium (Total Recoverable)	<1.0	ug/L	1.0	0		11/24/2020	1
		Lead (Total Recoverable)	<0.50	ug/L	0.50	0		11/24/2020	1
		Molybdenum (Total Recoverable)	<0.20	ug/L	0.20	0		11/24/2020	1
		Selenium (Total Recoverable)	<1.0	ug/L	1.0	0		11/24/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0		11/24/2020	1
	EPA_200_7	Boron (Total Recoverable)	<20.0	ug/L	20.0	0		12/04/2020	1
		Calcium (Total Recoverable)	<100	ug/L	100	0	T1	12/04/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		12/04/2020	1
		Lithium (Total Recoverable)	<10.0	ug/L	10.0	0		12/04/2020	1
	EPA_1631	Mercury (Total)	<0.002	ug/L	0.002	0		12/18/2020	1

LIMS #: 451167

Sample Date: 11/17/2020 3:30:00 PM

Sample Point: FC\_1

Sample Point Description: Fort Carson Well #1

Collection Comments:

Sample Type: GRAB

Sampler Initials: TERRACON

Flag	Method	Analyte	Result	Units	RL	MDL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_2550_B	Temperature Centigrade (Field)	13.8	degrees C	0.000	0			1
+	SM_2510_B	Conductivity	15600	umhos/cm	1	0			1
	NA	Depth to Water	15.52	ft.	0.0000	0			1
	SM_2540_C	Total Dissolved Solids	22100	mg/L	10	0		11/20/2020	1
	SM_4500_FC	Fluoride (Total)	0.20	mg/L	0.10	0.008		11/20/2020	1
	EPA_300_0	Chloride	802	mg/L	0.25	0	D	11/19/2020	1
		Sulfate	13300	mg/L	0.25	0	D	11/19/2020	1
	EPA_200_8	Antimony (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
		Arsenic (Total Recoverable)	3.9	ug/L	1.0	0	D	11/24/2020	1
		Barium (Total Recoverable)	7.0	ug/L	0.20	0	D	11/24/2020	1
		Beryllium (Total Recoverable)	<0.20	ug/L	0.20	0	D/D1	11/24/2020	1
		Cadmium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	12/08/2020	1
		Chromium (Total Recoverable)	4.6	ug/L	1.0	0	D	11/24/2020	1
		Lead (Total Recoverable)	1.3	ug/L	0.50	0	D	11/24/2020	1
		Molybdenum (Total Recoverable)	1.3	ug/L	0.20	0	D	11/24/2020	1
		Selenium (Total Recoverable)	18.8	ug/L	1.0	0	D	11/24/2020	1
		Thallium (Total Recoverable)	<0.50	ug/L	0.50	0	D/D1	11/24/2020	1
	EPA_200_7	Boron (Total Recoverable)	986	ug/L	20.0	0		12/04/2020	1
		Calcium (Total Recoverable)	343000	ug/L	100	0		12/04/2020	1
		Cobalt (Total Recoverable)	<5.00	ug/L	5.00	0		12/04/2020	1
		Lithium (Total Recoverable)	1120	ug/L	10.0	0		12/04/2020	1
	EPA_1631	Mercury (Total)	0.002	ug/L	0.002	0		12/18/2020	1
*	EPA_903_0	Radium 226 (Total)	0.940	pCi/L	0.471	0	J	01/12/2021	1
*	EPA_904_0	Radium 228 (Total)	1.83	pCi/L	0.61	0		01/12/2021	1

## Flags

- \* Analysis performed by an external contract laboratory.
- + Analysis performed in the field.

## Data Qualifiers

See qualifier descriptions below.

## Glossary

DQ - Data Qualifier  
RL – Reporting Limit  
MDL – Method Detection Limit  
Dil Fac – Dilution Factor

## Case Narrative

D - Value reported is multiplied by a dilution factor. The reporting limit is not.

D1 - To minimize matrix effects, the sample required dilution. The result is below the reporting limit, but within the method defined instrument detection.

J - Analysis confirms the presence of the analyte at a concentration which is less than the established RL, but greater than the MDL. The associated concentration value reported is approximate.

T1 - The analyte concentration is disproportionate to the spike level.

U - Data result less than the method detection limit.

Field pH data was rejected - See sample evaluation forms attached.

Sample 451172 was rejected - See sample evaluation forms attached.

CCR Landfill Groundwater Assessment

Sample Date: 11-17-2020

QC Report Needed 16

Sampler: JARED

pH, Field (su) SM 4500 H	Temperature, Field (°C) SM 2550 B	Conductivity, Field (µmhos/cm) SM 2510 B <u>453/cm</u>	Depth to Water (feet)	Fluoride, SM 4500 F C	Total Dissolved Solids, SM 2540 C	Chloride, Sulfate EPA 300.0	EPA 200.7 (B, Ca, Co & Li - Total Recoverable)	EPA 200.8 (Sb, As, Ba, Be, Cd, Cr, Pb, Mo, Se & Tl - Total Recoverable)	Mercury, EPA 1631 (not collect using clean-hands/dirty-hands)	Total Radium 226 & Radium 228 (Sent to Test America St. Louis)	Comments
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LOCATION	# Bottles	LIMS #	Sample Time	Please mark boxes that apply.												
CC_1	8	451166	13:32	3.85	13.13	1972	13.62	X	X	X	X	X	X	X	X	
FC_1	8	451167						X	X	X	X	X	X	X	X	
FC_2	8	451168						X	X	X	X	X	X	X	X	
FC_2 Duplicate	8	451169						X	X	X	X	X	X	X	X	
FC_3A	8	451170	1227	4.10	13.50	6368	19.00	X	X	X	X	X	X	X	X	
FC_3B	8	451171	1125	4.62	13.45	6359	18.13	X	X	X	X	X	X	X	X	
EQUIP_BLK	6	451172	1620					X	X	X	X	X	X	X		
Total # of Bottles	30															

1-500 mL GP	1-250 mL GP	1-250 mL GP	1-500 mL New Certified plastic	1-500 mL New Certified plastic	1-250 mL glass acid-washed	2-1000 mL plastic
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Signature/Print last name

Relinquished by Jared L. Heine

Date/Time 11/17/2020 @ 0809

Received by Meghan Campbell

Date/Time 11-17-20 @ 0809

**Additional Comments / Sample Rejections/ Actions**  
 Sample Template: CCR\_LAND  
 Project ID: CCR\_LAND  
 Test Schedule: CCR\_LAND  
 Samples are NOT filtered in the field.

CCR Landfill Groundwater Assessment

Sample Date: 11-20-2020

QC Report Needed 16

Sampler: John / JAR (E)

LOCATION	# Bottles	LIMS #	Sample Time	Please mark boxes that apply.												Comments
				pH, Field (su) SM 4500 H	Temperature, Field (°C) SM 2550 B	Conductivity, Field (µmhos/cm) SM 2510 B	Depth to Water (feet)	Fluoride, SM 4500 F C	Total Dissolved Solids, SM 2540 C	Chloride, Sulfate EPA 300.0	EPA 200.7 (B, Ca, Co & Li - Total Recoverable)	EPA 200.8 (Sb, As, Ba, Be, Cd, Cr, Pb, Mo, Se & Tl - Total Recoverable)	Mercury, EPA 1631 (not collect using clean-hands/dirty-hands)	Total Radium 226 & Radium 228 (Sent to Test America St. Louis)		
SC_10	8	451173						X	X	X	X	X	X	X		
SC_11	8	451174						X	X	X	X	X	X	X		
SC_12	8	451175						X	X	X	X	X	X	X		
SC_13	8	451176	16:05	4.68	13.59	8669	11.99	X	X	X	X	X	X	X		
SC_13 Duplicate	8	451177	11					X	X	X	X	X	X	X		
SC_14	8	451178	13:10	4.43	12.72	8256	12.25	X	X	X	X	X	X	X		
EQUIP_BLK	10	4511789						X	X	X	X	X	X			
Total # of Bottles	14															

AMC 11-17-20

AMC 11-17-20

Signature/Print last name: John Campbell Date/Time: 11/17/20  
 Relinquished by: John Campbell @ 0807  
 Received by: John Campbell 11-17-20 @ 0809

**Additional Comments / Sample Rejections/ Actions**  
 Sample Template: CCR\_LAND  
 Project ID: CCR\_LAND  
 Test Schedule: CCR\_LAND  
 Samples are NOT filtered in the field.

No duplicate for SC 13 was sampled - but duplicate bottles were used for SC 13 collection  
 AMC

CCR Landfill Groundwater Assessment

Sample Date: 11-17-2020

QC Report Needed ~~46~~ 17

Sampler: John JAKED

pH, Field (su) SM 4500 H	Temperature, Field (C) SM 2550 B	Conductivity, Field (temp. corrected) SM 2510 B 431/cm	Depth to Water (feet)	Fluoride, SM 4500 F C	Total Dissolved Solids, SM 2540 C	Chloride, Sulfate EPA 300.0	EPA 200.7 (B, Ca, Co & Li - Total Recoverable)	EPA 200.8 (Sb, As, Ba, Be, Cd, Cr, Pb, Mo, Se & Tl - Total Recoverable)	Mercury, EPA 1631 (not collect using clean-hands/dirty-hands)	Total Radium 226 & Radium 228 (Sent to Test America St. Louis)	Comments
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LOCATION	# Bottles	LIMS #	Sample Time	Please mark boxes that apply.								Comments				
<del>CC_1</del>	<del>8</del>	<del>451166</del>	<del>13:32</del>	<del>3.85</del>	<del>13.13</del>	<del>1972</del>	<del>19.02</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	
FC_1	8	451167	15:30	3.91	13.75	15591	15.52	X	X	X	X	X	X	X	X	
FC_2	8	451168 169	1400	4.07	13.41	7095	14.09	X	X	X	X	X	X	X	X	
FC_2 Duplicate	8	451169 170	1408					X	X	X	X	X	X	X	X	
<del>FC_3A</del>	<del>8</del>	<del>451170</del>	<del>12:07</del>	<del>4.10</del>	<del>13.50</del>	<del>6368</del>	<del>19.00</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	
<del>FC_3B</del>	<del>8</del>	<del>451171</del>	<del>11:05</del>	<del>4.62</del>	<del>13.45</del>	<del>6357</del>	<del>18.13</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	
EQUIP_BLK	6	451172						X	X	X	X	X	X	X		
Total # of Bottles	24															

blms 11-18-20

1-500 mL GP	1-250 mL GP	1-250 mL GP	1-500 mL New Certified plastic	1-500 mL New Certified plastic	1-250 mL glass acid-washed	2-1000 mL plastic
Additional Comments / Sample Rejections/ Actions						
Relinquished by: <u>[Signature]</u>			Date/Time: <u>11/17/20 9:25</u>		Sample Template: CCR_LAND Project ID: CCR_LAND Test Schedule: CCR_LAND	
Received by: <u>[Signature]</u>					Samples are NOT filtered in the field.	

Received by McGuffey Campbell

11-18-20 @ 0925

CCR Landfill Groundwater Assessment

Sample Date: 11-20-2020

QC Report Needed 19

Sampler: R L D

LOCATION	# Bottles	LIMS #	Sample Time	Please mark boxes that apply.												Comments
				pH, Field (su) SM 4500 H	Temperature, Field (°C) SM 2550 B	Conductivity, Field (umhos/cm) SM 2510 B	Depth to Water (feet)	Fluoride, SM 4500 F C	Total Dissolved Solids, SM 2540 C	Chloride, Sulfate EPA 800.0	EPA 200.7 (B, Ca, Co & Li - Total Recoverable)	EPA 200.8 (Sb, As, Ba, Be, Cd, Cr, Pb, Mo, Se & Tl - Total Recoverable)	Mercury, EPA 1631 (not collect using clean-hands/dirty-hands)	Total Radium 226 & Radium 228 (Sent to Test America St. Louis)		
SC_10	8	451173	13:17	3.65	15.40	13182	13.45	X	X	X	X	X	X	X		
SC_11	8	451174	12:35	3.87	16.03	11552	10.45	X	X	X	X	X	X	X		
SC_12	8	451175	10:30	4.54	16.33	11970	11.65	X	X	X	X	X	X	X		
SC_43 1Z Duplicate	8	451176	11:07	4.88	16.33	11970	11.65	X	X	X	X	X	X	X		
SC_13 Duplicate	8	<del>451177</del>						X	X	X	X	X	X	X		
SC_14	8	<del>451178</del>						X	X	X	X	X	X	X		
EQUIP_BLK	6	451178 79	14:25					X	X	X	X	X	X			
Total # of Bottles								1-500 mL GP	1-250 mL GP	1-250 mL GP	1-500 mL New Certified plastic	1-500 mL New Certified plastic	1-250 mL glass acid-washed	2-1000 mL plastic		

AME  
11-18-20

AME  
11-18-20

Signature/Print last name

Date/Time

Relinquished by

*[Signature]*

• 11/18/20 9:25

Received by

*[Signature]*

• 11-18-20 0925

Received by McGuff Campbell

Additional Comments / Sample Rejections/ Actions

Sample Template: CCR\_LAND  
 Project ID: CCR\_LAND  
 Test Schedule: CCR\_LAND

Samples are NOT filtered in the field.



**Colorado Springs Utilities**  
*It's how we're all connected*

**Laboratory Services Section  
QC Report**

**CCR Landfill Assessment  
November 2020**

Quality Assurance Approval: Lesley Susic

Date: 01/22/2021



## QC Narrative

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This report is for sample numbers 451166, 451167, 451169 – 451179 and 451429.

### **Total Dissolved Solids by Standard Methods 2540 C**

There are no anomalies to report for this analysis.

### **Fluoride by Standard Methods 4500 F C**

There are no anomalies to report for this analysis.

### **Anions by EPA Method 300.0**

There are no anomalies to report for this analysis.

### **Mercury by EPA 1631 E**

There are no anomalies to report for this analysis.

### **EPA 200.7**

The analyte concentration in the sample is disproportionate to the spike level for Total Recoverable Calcium in sample 451175. The performance of the method is shown to be in control. Associated calcium data is qualified.

### **EPA 200.8**

There are no anomalies to report for this analysis.

Method: Total Dissolved Solids by Standard Methods 2540 C

Batch Analysis date: 11/20/20

Sampled date: 11/16/20 for samples 451166, 451171, 451172, 451177, 451178 and 451429

Sampled date: 11/7/20 for samples 451167, 451169, 451170, 451173 – 451176 and 451179

Matrix QC performed on samples 451169 and 451175

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
QCS	Total Dissolved Solids	97	89 - 111		
Duplicate	Total Dissolved Solids (451169)			3	<10
Duplicate	Total Dissolved Solids (451175)			1	<10

Method: Fluoride by Standard Methods 4500 F C

Batch Analysis date: 11/20/20

Sampled date: 11/16/20 for samples 451166, 451171, 451172, 451177, 451178 and 451429

Sampled date: 11/7/20 for samples 451167, 451169, 451170, 451173 – 451176 and 451179

Matrix QC performed on samples 451169, 451278, 451316, 451318 and 451108

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
MRL	Fluoride (Total)	110	90 - 110		
QCS	Fluoride (Total)	90	90 - 110		
MS	Fluoride (Total) (451169)	98	80 - 120		
MSD	Fluoride (Total) (451169)			2	<20
MS	Fluoride (Total) (451278)	94	80 - 120		
MSD	Fluoride (Total) (451278)			2	<20
MS	Fluoride (Total) (451316)	100	80 - 120		
MSD	Fluoride (Total) (451316)			2	<20
MS	Fluoride (Total) (451318)	95	80 - 120		
MSD	Fluoride (Total) (451318)			<1	<20
MS	Fluoride (Total) (451108)	96	80 - 120		
MSD	Fluoride (Total) (451108)			2	<20
QC Type	Analyte	Concentration	Limit		
LRB	Fluoride (Total)	<0.10 mg/L	0.10 mg/L		

Method: Anions by EPA Method 300.0

Batch Analysis date: 11/19/20

Sampled date: 11/16/20 for samples 451166, 451171, 451172, 451177, 451178 and 451429

Sampled date: 11/7/20 for samples 451167, 451169, 451170, 451173 – 451176 and 451179

Matrix QC performed on samples 451169 and 451175

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
MRL	Chloride	90	50-150		
LFB	Chloride	101	90-110	<1	<20
FD	Chloride (451169)			2	<20
FD	Chloride (451175)			2	<20
MS	Chloride (451169)	101	80-120		
MS	Chloride (451175)	101	80-120		
MRL	Sulfate	87	50-150		
LFB	Sulfate	101	90-110	<1	<20
FD	Sulfate (451169)			<1	<20
FD	Sulfate (451175)			5	<20
MS	Sulfate (451169)	95	80-120		
MS	Sulfate (451175)	102	80-120		

QC Type	Analyte	Concentration	Limit
LRB	Chloride	<0.25 mg/L	0.25 mg/L
LRB	Sulfate	<0.25 mg/L	0.25 mg/L

Method: Mercury by EPA 1631 E

Batch Analysis date: 12/18/20

Sampled date: 11/16/20 for samples 451166, 451171, 451172, 451177, 451178 and 451429

Sampled date: 11/7/20 for samples 451167, 451169, 451170, 451173 – 451176 and 451179

Matrix QC performed on sample 451169 and 451175

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
MRL	Mercury (Total)	97	50-150		
QCS	Mercury (Total)	104	77-123		
MS	Mercury (Total) (451169)	90	71-125		
MSD	Mercury (Total) (451169)			<1	<24
MS	Mercury (Total) (451175)	87	71-125		
MSD	Mercury (Total) (451175)			2	<24
QC Type	Analyte	Concentration	Limit		
LRB	Mercury (Total)	<0.5 ng/L	0.5 ng/L		

Method: EPA 200.7

Batch Analysis date: 12/4/20

Digestion date: 11/18/20

Sampled date: 11/16/20 for samples 451166, 451171, 451177, 451178 and 451429

Sampled date: 11/7/20 for samples 451167, 451169, 451170, 451173 – 451176 and 451179

Matrix QC performed on samples 451169 and 451175

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
MRL	Boron (Total Recoverable)	100	50-150		
LFB	Boron (Total Recoverable)	102	85-115		
MS	Boron (Total Recoverable) (451169)	103	70-130		
MSD	Boron (Total Recoverable) (451169)			<1	<20
MS	Boron (Total Recoverable) (451175)	107	70-130		
MSD	Boron (Total Recoverable) (451175)			<1	<20
MRL	Calcium (Total Recoverable)	105	50-150		
LFB	Calcium (Total Recoverable)	101	85-115		
MS	Calcium (Total Recoverable) (451169)	101	70-130		
MSD	Calcium (Total Recoverable) (451169)			<1	<20
MS	Calcium (Total Recoverable) (451175)	<b>*66</b>	70-130		
MSD	Calcium (Total Recoverable) (451175)			1	<20
MRL	Cobalt (Total Recoverable)	99	50-150		
LFB	Cobalt (Total Recoverable)	101	85-115		
MS	Cobalt (Total Recoverable) (451169)	89	70-130		
MSD	Cobalt (Total Recoverable) (451169)			<1	<20
MS	Cobalt (Total Recoverable) (451175)	85	70-130		
MSD	Cobalt (Total Recoverable) (451175)			<1	<20
MRL	Lithium (Total Recoverable)	93	50-150		
LFB	Lithium (Total Recoverable)	99	85-115		
MS	Lithium (Total Recoverable) (451169)	122	70-130		
MSD	Lithium (Total Recoverable) (451169)			<1	<20
MS	Lithium (Total Recoverable) (451175)	130	70-130		
MSD	Lithium (Total Recoverable) (451175)			<1	<20
QC Type	Analyte	Concentration	Limit		
LRB	Boron (Total Recoverable)	<5.63 ug/L	5.63 ug/L		
LRB	Calcium (Total Recoverable)	<15.4 ug/L	15.4 ug/L		
LRB	Cobalt (Total Recoverable)	<1.52 ug/L	1.52 ug/L		
LRB	Lithium (Total Recoverable)	<8.25 ug/L	8.25 ug/L		

\*See Narrative

Method: EPA 200.8

Digestion date: 11/19/20

Batch Analysis date: 11/24/20

Sampled date: 11/16/20 for samples 451177 and 451178

Sampled date: 11/17/20 for samples 451173 – 451176 and 451179

Matrix QC performed on sample 451175

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
MRL	Antimony (Total Recoverable)	108	50-150		
LFB	Antimony (Total Recoverable)	97	85-115		
MS	Antimony (Total Recoverable)	78	70-130		
MSD	Antimony (Total Recoverable)			<1	<20
MRL	Arsenic (Total Recoverable)	127	50-150		
LFB	Arsenic (Total Recoverable)	98	85-115		
MS	Arsenic (Total Recoverable)	74	70-130		
MSD	Arsenic (Total Recoverable)			10	<20
MRL	Barium (Total Recoverable)	90	50-150		
LFB	Barium (Total Recoverable)	102	85-115		
MS	Barium (Total Recoverable)	76	70-130		
MSD	Barium (Total Recoverable)			1	<20
MRL	Beryllium (Total Recoverable)	103	50-150		
LFB	Beryllium (Total Recoverable)	104	85-115		
MS	Beryllium (Total Recoverable)	80	70-130		
MSD	Beryllium (Total Recoverable)			<1	<20
MRL	Cadmium (Total Recoverable)	97	50-150		
LFB	Cadmium (Total Recoverable)	98	85-115		
MS	Cadmium (Total Recoverable)	79	70-130		
MSD	Cadmium (Total Recoverable)			1	<20
MRL	Chromium (Total Recoverable)	125	50-150		
LFB	Chromium (Total Recoverable)	103	85-115		
MS	Chromium (Total Recoverable)	77	70-130		
MSD	Chromium (Total Recoverable)			3	<20
MRL	Lead (Total Recoverable)	100	50-150		
LFB	Lead (Total Recoverable)	97	85-115		
MS	Lead (Total Recoverable)	78	70-130		
MSD	Lead (Total Recoverable)			<1	<20
MRL	Molybdenum (Total Recoverable)	110	50-150		
LFB	Molybdenum (Total Recoverable)	99	85-115		
MS	Molybdenum (Total Recoverable)	80	70-130		
MSD	Molybdenum (Total Recoverable)			<1	<20
MRL	Selenium (Total Recoverable)	104	50-150		
LFB	Selenium (Total Recoverable)	98	85-115		
MS	Selenium (Total Recoverable)	71	70-130		
MSD	Selenium (Total Recoverable)			6	<20
MRL	Thallium (Total Recoverable)	96	50-150		
LFB	Thallium (Total Recoverable)	96	85-115		
MS	Thallium (Total Recoverable)	79	70-130		
MSD	Thallium (Total Recoverable)			2	<20
QC Type	Analyte	Concentration	Limit		
LRB	Antimony (Total Recoverable)	<0.20 ug/L	0.20 ug/L		
LRB	Arsenic (Total Recoverable)	<0.32 ug/L	0.32 ug/L		

LRB	Barium (Total Recoverable)	<0.11 ug/L	0.11 ug/L
LRB	Beryllium (Total Recoverable)	<0.093 ug/L	0.093 ug/L
LRB	Cadmium (Total Recoverable)	<0.12 ug/L	0.12 ug/L
LRB	Chromium (Total Recoverable)	<0.37 ug/L	0.37 ug/L
LRB	Lead (Total Recoverable)	<0.11 ug/L	0.11 ug/L
LRB	Molybdenum (Total Recoverable)	<0.21 ug/L	0.21 ug/L
LRB	Selenium (Total Recoverable)	<0.42 ug/L	0.42 ug/L
LRB	Thallium (Total Recoverable)	<0.17 ug/L	0.17 ug/L

Method: EPA 200.8

Digestion date: 11/19/20

Batch Analysis date: 11/24/20 for all except Beryllium

Batch Analysis date: 12/8/20 for Beryllium

Sampled date: 11/16/20 for samples 451166, 451171, 451172 and 451429

Sampled date: 11/7/20 for samples 451167, 451169, and 451170

Matrix QC performed on sample 451169

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
MRL	Antimony (Total Recoverable)	98	50-150		
LFB	Antimony (Total Recoverable)	98	85-115		
MS	Antimony (Total Recoverable)	76	70-130		
MSD	Antimony (Total Recoverable)			4	<20
MRL	Arsenic (Total Recoverable)	98	50-150		
LFB	Arsenic (Total Recoverable)	97	85-115		
MS	Arsenic (Total Recoverable)	85	70-130		
MSD	Arsenic (Total Recoverable)			5	<20
MRL	Barium (Total Recoverable)	100	50-150		
LFB	Barium (Total Recoverable)	100	85-115		
MS	Barium (Total Recoverable)	74	70-130		
MSD	Barium (Total Recoverable)			3	<20
MRL	Beryllium (Total Recoverable)	98	50-150		
LFB	Beryllium (Total Recoverable)	99	85-115		
MS	Beryllium (Total Recoverable)	129	70-130		
MSD	Beryllium (Total Recoverable)			<1	<20
MRL	Cadmium (Total Recoverable)	101	50-150		
LFB	Cadmium (Total Recoverable)	98	85-115		
MS	Cadmium (Total Recoverable)	79	70-130		
MSD	Cadmium (Total Recoverable)			3	<20
MRL	Chromium (Total Recoverable)	110	50-150		
LFB	Chromium (Total Recoverable)	102	85-115		
MS	Chromium (Total Recoverable)	76	70-130		
MSD	Chromium (Total Recoverable)			3	<20
MRL	Lead (Total Recoverable)	96	50-150		
LFB	Lead (Total Recoverable)	97	85-115		
MS	Lead (Total Recoverable)	78	70-130		
MSD	Lead (Total Recoverable)			<1	<20
MRL	Molybdenum (Total Recoverable)	100	50-150		
LFB	Molybdenum (Total Recoverable)	100	85-115		

MS	Molybdenum (Total Recoverable)	79	70-130		
MSD	Molybdenum (Total Recoverable)			1	<20
MRL	Selenium (Total Recoverable)	102	50-150		
LFB	Selenium (Total Recoverable)	98	85-115		
MS	Selenium (Total Recoverable)	101	70-130		
MSD	Selenium (Total Recoverable)			2	<20
MRL	Thallium (Total Recoverable)	98	50-150		
LFB	Thallium (Total Recoverable)	97	85-115		
MS	Thallium (Total Recoverable)	79	70-130		
MSD	Thallium (Total Recoverable)			<1	<20
<b>QC Type</b>	<b>Analyte</b>	<b>Concentration</b>		<b>Limit</b>	
LRB	Antimony (Total Recoverable)	<0.20 ug/L		0.20 ug/L	
LRB	Arsenic (Total Recoverable)	<0.32 ug/L		0.32 ug/L	
LRB	Barium (Total Recoverable)	<0.11 ug/L		0.11 ug/L	
LRB	Beryllium (Total Recoverable)	<0.093 ug/L		0.093 ug/L	
LRB	Cadmium (Total Recoverable)	<0.12 ug/L		0.12 ug/L	
LRB	Chromium (Total Recoverable)	<0.37 ug/L		0.37 ug/L	
LRB	Lead (Total Recoverable)	<0.11 ug/L		0.11 ug/L	
LRB	Molybdenum (Total Recoverable)	<0.21 ug/L		0.21 ug/L	
LRB	Selenium (Total Recoverable)	<0.42 ug/L		0.42 ug/L	
LRB	Thallium (Total Recoverable)	<0.17 ug/L		0.17 ug/L	

FD – Field Duplicate  
 LFB – Laboratory Fortified Blank  
 LRB – Laboratory Reagent Blank (Method Blank)  
 QCS – Quality Control Sample  
 MRL – Minimum Reporting Limit (Verification)  
 MS – Matrix Spike  
 MSD – Matrix Spike Duplicate  
**Underline – Data was outside the limit**

## ANALYTICAL REPORT

Eurofins TestAmerica, St. Louis  
13715 Rider Trail North  
Earth City, MO 63045  
Tel: (314)298-8566

Laboratory Job ID: 160-40505-1  
Client Project/Site: Coal Combustion Rule

For:  
Colorado Springs Utilities  
Laboratory Services Section  
701 E. Las Vegas St., MC 1465  
Colorado Springs, Colorado 80903

Attn: Ms. Wendy Asay

*Rhonda Ridenhower*

---

Authorized for release by:  
1/18/2021 3:52:18 PM

Rhonda Ridenhower, Client Service Manager  
(314)298-8566  
[Rhonda.Ridenhower@Eurofinset.com](mailto:Rhonda.Ridenhower@Eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?

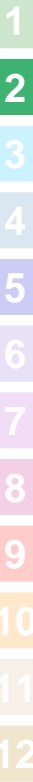


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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

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





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# Case Narrative

Client: Colorado Springs Utilities  
Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

**Job ID: 160-40505-1**

**Laboratory: Eurofins TestAmerica, St. Louis**

**Narrative**

## CASE NARRATIVE

**Client: Colorado Springs Utilities**

**Project: Coal Combustion Rule**

**Report Number: 160-40505-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Eurofins TestAmerica, St. Louis attests to the validity of the laboratory data generated by Eurofins TestAmerica facilities reported herein. All analyses performed by Eurofins TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results for Chemistry analyses are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header. All soil/sediment sample results for radiochemistry analyses are based upon sample as dried and disaggregated with the exception of tritium, carbon-14, and iodine-129 by gamma spectroscopy unless requested as wet weight by the client."

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Manual Integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure. Detailed information can be found in the raw data section of the level IV report.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date

This laboratory report is confidential and is intended for the sole use of Eurofins TestAmerica and its client.

### **RECEIPT**

The samples were received on 11/20/2020; the samples arrived in good condition, properly preserved. The temperature of the coolers at receipt was 13.7 C.

### **RADIUM-226 (GFPC)**

# Case Narrative

Client: Colorado Springs Utilities  
Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

## Job ID: 160-40505-1 (Continued)

### Laboratory: Eurofins TestAmerica, St. Louis (Continued)

Samples 451166 CC\_1 (160-40505-1), 451429 FC\_3A (160-40505-2), 451171 FC\_3B (160-40505-3), 451177 SC\_13 (160-40505-4), 451178 SC\_14 (160-40505-5), 451167 FC\_1 (160-40505-6), 451169 FC\_2 (160-40505-7), 451170 FC\_2 duplicate (160-40505-8), 451173 SC\_10 (160-40505-9), 451174 SC\_11 (160-40505-10), 451175 SC\_12 (160-40505-11) and 451176 SC\_12 duplicate (160-40505-12) were analyzed for Radium-226 (GFPC) in accordance with EPA Method 903.0. The samples were prepared on 11/30/2020, 12/02/2020 and 12/03/2020 and analyzed on 01/12/2021, 12/22/2020 and 12/24/2020.

The following samples were prepared at a reduced aliquot due to yellow discoloration: 451166 CC\_1 (160-40505-1), 451167 FC\_1 (160-40505-6), 451174 SC\_11 (160-40505-10), 451175 SC\_12 (160-40505-11), 451176 SC\_12 duplicate (160-40505-12), and 451177 SC\_13 (160-40505-4).

The following sample has Ba carrier recoveries above the 110% QC limit. The LCS/LCSD (laboratory control sample/laboratory control sample duplicate) have acceptable spike recoveries demonstrating acceptable sample preparation and instrument performance. The sample has been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been reported with this narrative. 451171 FC\_3B (160-40505-3)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **RADIUM-228 (GFPC)**

Samples 451166 CC\_1 (160-40505-1), 451429 FC\_3A (160-40505-2), 451171 FC\_3B (160-40505-3), 451177 SC\_13 (160-40505-4), 451178 SC\_14 (160-40505-5), 451167 FC\_1 (160-40505-6), 451169 FC\_2 (160-40505-7), 451170 FC\_2 duplicate (160-40505-8), 451173 SC\_10 (160-40505-9), 451174 SC\_11 (160-40505-10), 451175 SC\_12 (160-40505-11) and 451176 SC\_12 duplicate (160-40505-12) were analyzed for Radium-228 (GFPC) in accordance with EPA 904. The samples were prepared on 11/30/2020, 12/02/2020 and 12/03/2020 and analyzed on 01/12/2021 and 12/18/2020.

The following samples were prepared at a reduced aliquot due to yellow discoloration: 451166 CC\_1 (160-40505-1), 451167 FC\_1 (160-40505-6), 451174 SC\_11 (160-40505-10), 451175 SC\_12 (160-40505-11), 451176 SC\_12 duplicate (160-40505-12), and 451177 SC\_13 (160-40505-4).

The LCS recovered at (71%) for (Ra228). The limits in our LIMS system at 75-125 reflect the requirements of a regulatory agency that represents a large amount of our work. However the samples associated with this LCS are not from this agency and are therefore held to our in-house statistical limits of (60-140) per method requirements. Although there is a qualifier, the LCS passes. No further action is required (LCS 160-490757/1-A)

The following samples have an RER (replicate error ratio) result outside of the acceptance criteria of 1 (1.15) for Ra228. Duplicate precision is demonstrated by acceptable relative percent difference (RPD), within the limit of 40% (31%). The data have been reported with this narrative.(LCSD 160-490757/2-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Chain of Custody Record

Regulatory Program:  DW  NPDES  RCRA  Other: Coal Combustion Rule

<b>Client Contact</b>		<b>Project Manager: Wendy Asay</b>		<b>Site Contact:</b>	
Colorado Springs Utilities		Tel/Fax: 719-649-7796		Lab Contact: Rhonda Ridenhower	
701 E. Las Vegas St.		Analysis Turnaround Time		Carrier:	
Colorado Springs, CO 80903		<input checked="" type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		COC No: _____ of _____ COCs	
(719) 668-4603 Phone		TAT if different from Below _____		Sampler:	
(xxx) xxx-xxxx FAX		<input checked="" type="checkbox"/> 2 weeks		For Lab Use Only:	
Project Name: Coal Combustion Rule		<input type="checkbox"/> 1 week		Walk-in Client:	
Site:		<input type="checkbox"/> 2 days		Lab Sampling:	
P O #		<input type="checkbox"/> 1 day		Job / SDG No.:	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)		Performance MS / MSD (Y / N)		Sample Specific Notes:
						Y	N	Y	N	
451166 CC_1	11/16/20	1332	G	GW	2		N	X	X	
451170 FC_3A	11/16/20	1227	G	GW	2		N	X	X	
451171 FC_3B	11/16/20	1125	G	GW	2		N	X	X	
451177 SC_13	11/16/20	1605	G	GW	2		N	X	X	
451178 SC_14	11/16/20	1310	G	GW	2		N	X	X	
451167 FC_1	11/17/20	1530	G	GW	2		N	X	X	
451169 FC_2	11/17/20	1400	G	GW	2		N	X	X	
451170 FC_2 duplicate	11/17/20	1408	G	GW	2		N	X	X	
451173 SC_10	11/17/20	1317	G	GW	2		N	X	X	
451174 SC_11	11/17/20	1235	G	GW	2		N	X	X	
451175 SC_12	11/17/20	1030	G	GW	2		N	X	X	
451176 SC_12 duplicate	11/17/20	1107	G	GW	2		N	X	X	



Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other \_\_\_\_\_

Possible Hazard Identification: \_\_\_\_\_  
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Special Instructions/QC Requirements & Comments: **Please be sure to use the listed method numbers.**

<input checked="" type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown
Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months				
Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)				
Cooler Temp. (°C): Obs'd: _____ Corrd: _____				
Therm ID No.: _____				
Received by: <b>FED EX</b>				
Date/Time: 11/17/20 0400				
Company: <b>FED EX</b>				
Received in Laboratory by: <i>[Signature]</i>				
Date/Time: 11/20/2020 0906				
Company: <b>ETA STL</b>				



# Login Sample Receipt Checklist

Client: Colorado Springs Utilities

Job Number: 160-40505-1

**Login Number: 40505**  
**List Number: 1**  
**Creator: Greer, Diane A**

**List Source: Eurofins TestAmerica, St. Louis**

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

# Definitions/Glossary

Client: Colorado Springs Utilities  
Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

## Qualifiers

### Rad

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

# Method Summary

Client: Colorado Springs Utilities  
Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

**Protocol References:**

EPA = US Environmental Protection Agency  
None = None

**Laboratory References:**

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



# Sample Summary

Client: Colorado Springs Utilities  
Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
160-40505-1	451166 CC_1	Water	11/16/20 13:32	11/20/20 09:06	
160-40505-2	451429 FC_3A	Water	11/16/20 12:27	11/20/20 09:06	
160-40505-3	451171 FC_3B	Water	11/16/20 11:25	11/20/20 09:06	
160-40505-4	451177 SC_13	Water	11/16/20 16:05	11/20/20 09:06	
160-40505-5	451178 SC_14	Water	11/16/20 13:10	11/20/20 09:06	
160-40505-6	451167 FC_1	Water	11/16/20 15:30	11/20/20 09:06	
160-40505-7	451169 FC_2	Water	11/16/20 14:00	11/20/20 09:06	
160-40505-8	451170 FC_2 duplicate	Water	11/16/20 14:08	11/20/20 09:06	
160-40505-9	451173 SC_10	Water	11/16/20 13:17	11/20/20 09:06	
160-40505-10	451174 SC_11	Water	11/16/20 12:35	11/20/20 09:06	
160-40505-11	451175 SC_12	Water	11/16/20 10:30	11/20/20 09:06	
160-40505-12	451176 SC_12 duplicate	Water	11/16/20 11:07	11/20/20 09:06	



# Client Sample Results

Client: Colorado Springs Utilities  
Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

**Client Sample ID: 451166 CC\_1**

**Lab Sample ID: 160-40505-1**

Date Collected: 11/16/20 13:32

Matrix: Water

Date Received: 11/20/20 09:06

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.158		0.0917	0.0928	1.00	0.119	pCi/L	11/30/20 09:16	12/24/20 15:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	135	X	40 - 110					11/30/20 09:16	12/24/20 15:13	1

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.556		0.321	0.325	1.00	0.478	pCi/L	11/30/20 10:02	12/18/20 08:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	135	X	40 - 110					11/30/20 10:02	12/18/20 08:47	1
Y Carrier	77.0		40 - 110					11/30/20 10:02	12/18/20 08:47	1

**Client Sample ID: 451429 FC\_3A**

**Lab Sample ID: 160-40505-2**

Date Collected: 11/16/20 12:27

Matrix: Water

Date Received: 11/20/20 09:06

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0287	U	0.0678	0.0679	1.00	0.124	pCi/L	11/30/20 09:16	12/22/20 18:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					11/30/20 09:16	12/22/20 18:16	1

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.285	U	0.271	0.272	1.00	0.438	pCi/L	11/30/20 10:02	12/18/20 08:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					11/30/20 10:02	12/18/20 08:47	1
Y Carrier	80.7		40 - 110					11/30/20 10:02	12/18/20 08:47	1

**Client Sample ID: 451171 FC\_3B**

**Lab Sample ID: 160-40505-3**

Date Collected: 11/16/20 11:25

Matrix: Water

Date Received: 11/20/20 09:06

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.164	U	0.126	0.127	1.00	0.190	pCi/L	11/30/20 09:16	12/22/20 18:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	126	X	40 - 110					11/30/20 09:16	12/22/20 18:16	1

Eurofins TestAmerica, St. Louis

# Client Sample Results

Client: Colorado Springs Utilities  
Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

**Client Sample ID: 451171 FC\_3B**

**Lab Sample ID: 160-40505-3**

Date Collected: 11/16/20 11:25

Matrix: Water

Date Received: 11/20/20 09:06

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.241	U	0.180	0.182	1.00	0.281	pCi/L	11/30/20 10:02	12/18/20 08:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	126	X	40 - 110					11/30/20 10:02	12/18/20 08:48	1
Y Carrier	109		40 - 110					11/30/20 10:02	12/18/20 08:48	1

**Client Sample ID: 451177 SC\_13**

**Lab Sample ID: 160-40505-4**

Date Collected: 11/16/20 16:05

Matrix: Water

Date Received: 11/20/20 09:06

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.363	U	0.385	0.386	1.00	0.617	pCi/L	12/03/20 12:40	01/12/21 16:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.5		40 - 110					12/03/20 12:40	01/12/21 16:29	1

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0306	U	0.289	0.289	1.00	0.509	pCi/L	12/03/20 13:52	01/12/21 08:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.5		40 - 110					12/03/20 13:52	01/12/21 08:38	1
Y Carrier	84.9		40 - 110					12/03/20 13:52	01/12/21 08:38	1

**Client Sample ID: 451178 SC\_14**

**Lab Sample ID: 160-40505-5**

Date Collected: 11/16/20 13:10

Matrix: Water

Date Received: 11/20/20 09:06

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.178	U	0.242	0.242	1.00	0.546	pCi/L	12/02/20 10:12	01/12/21 17:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.1		40 - 110					12/02/20 10:12	01/12/21 17:46	1

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.363	U *	0.291	0.293	1.00	0.460	pCi/L	12/02/20 12:23	01/12/21 12:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.1		40 - 110					12/02/20 12:23	01/12/21 12:53	1

Eurofins TestAmerica, St. Louis

# Client Sample Results

Client: Colorado Springs Utilities  
Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

**Client Sample ID: 451178 SC\_14**  
Date Collected: 11/16/20 13:10  
Date Received: 11/20/20 09:06

**Lab Sample ID: 160-40505-5**  
Matrix: Water

**Method: 904.0 - Radium-228 (GFPC) (Continued)**

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	84.5		40 - 110	12/02/20 12:23	01/12/21 12:53	1

**Client Sample ID: 451167 FC\_1**  
Date Collected: 11/16/20 15:30  
Date Received: 11/20/20 09:06

**Lab Sample ID: 160-40505-6**  
Matrix: Water

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.940		0.408	0.416	1.00	0.471	pCi/L	12/02/20 10:12	01/12/21 17:46	1
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac				
Ba Carrier	87.1		40 - 110	12/02/20 10:12	01/12/21 17:46	1				
Y Carrier										

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.83	*	0.488	0.516	1.00	0.614	pCi/L	12/02/20 12:23	01/12/21 12:53	1
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac				
Ba Carrier	87.1		40 - 110	12/02/20 12:23	01/12/21 12:53	1				
Y Carrier	80.7		40 - 110	12/02/20 12:23	01/12/21 12:53	1				

**Client Sample ID: 451169 FC\_2**  
Date Collected: 11/16/20 14:00  
Date Received: 11/20/20 09:06

**Lab Sample ID: 160-40505-7**  
Matrix: Water

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.187	U	0.149	0.150	1.00	0.394	pCi/L	12/02/20 10:12	01/12/21 17:46	1
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac				
Ba Carrier	97.7		40 - 110	12/02/20 10:12	01/12/21 17:46	1				

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0461	U*	0.223	0.223	1.00	0.392	pCi/L	12/02/20 12:23	01/12/21 12:53	1
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac				
Ba Carrier	97.7		40 - 110	12/02/20 12:23	01/12/21 12:53	1				
Y Carrier	81.9		40 - 110	12/02/20 12:23	01/12/21 12:53	1				

# Client Sample Results

Client: Colorado Springs Utilities  
Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

**Client Sample ID: 451170 FC\_2 duplicate**

**Lab Sample ID: 160-40505-8**

Date Collected: 11/16/20 14:08

Matrix: Water

Date Received: 11/20/20 09:06

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.255	U	0.248	0.249	1.00	0.389	pCi/L	12/02/20 10:12	01/12/21 17:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.8		40 - 110					12/02/20 10:12	01/12/21 17:47	1

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.244	U *	0.268	0.269	1.00	0.439	pCi/L	12/02/20 12:23	01/12/21 12:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.8		40 - 110					12/02/20 12:23	01/12/21 12:53	1
Y Carrier	83.0		40 - 110					12/02/20 12:23	01/12/21 12:53	1

**Client Sample ID: 451173 SC\_10**

**Lab Sample ID: 160-40505-9**

Date Collected: 11/16/20 13:17

Matrix: Water

Date Received: 11/20/20 09:06

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.213	U	0.534	0.534	1.00	0.957	pCi/L	12/02/20 10:12	01/12/21 17:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.1		40 - 110					12/02/20 10:12	01/12/21 17:47	1

**Method: 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.662	U *	0.540	0.544	1.00	0.860	pCi/L	12/02/20 12:23	01/12/21 12:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.1		40 - 110					12/02/20 12:23	01/12/21 12:54	1
Y Carrier	82.6		40 - 110					12/02/20 12:23	01/12/21 12:54	1

**Client Sample ID: 451174 SC\_11**

**Lab Sample ID: 160-40505-10**

Date Collected: 11/16/20 12:35

Matrix: Water

Date Received: 11/20/20 09:06

**Method: 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.451	U	0.369	0.371	1.00	0.558	pCi/L	12/02/20 10:12	01/12/21 17:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					12/02/20 10:12	01/12/21 17:47	1

Eurofins TestAmerica, St. Louis

# Client Sample Results

Client: Colorado Springs Utilities  
Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

## Client Sample ID: 451174 SC\_11

## Lab Sample ID: 160-40505-10

Date Collected: 11/16/20 12:35

Matrix: Water

Date Received: 11/20/20 09:06

### Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.222	U *	0.313	0.314	1.00	0.524	pCi/L	12/02/20 12:23	01/12/21 12:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					12/02/20 12:23	01/12/21 12:54	1
Y Carrier	83.0		40 - 110					12/02/20 12:23	01/12/21 12:54	1

## Client Sample ID: 451175 SC\_12

## Lab Sample ID: 160-40505-11

Date Collected: 11/16/20 10:30

Matrix: Water

Date Received: 11/20/20 09:06

### Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.199	U	0.267	0.268	1.00	0.448	pCi/L	12/02/20 10:12	01/12/21 17:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					12/02/20 10:12	01/12/21 17:47	1

### Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0454	U *	0.249	0.249	1.00	0.453	pCi/L	12/02/20 12:23	01/12/21 12:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					12/02/20 12:23	01/12/21 12:54	1
Y Carrier	81.5		40 - 110					12/02/20 12:23	01/12/21 12:54	1

## Client Sample ID: 451176 SC\_12 duplicate

## Lab Sample ID: 160-40505-12

Date Collected: 11/16/20 11:07

Matrix: Water

Date Received: 11/20/20 09:06

### Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0731	U	0.189	0.190	1.00	0.346	pCi/L	12/02/20 10:12	01/12/21 19:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					12/02/20 10:12	01/12/21 19:39	1

### Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.107	U *	0.219	0.219	1.00	0.411	pCi/L	12/02/20 12:23	01/12/21 12:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					12/02/20 12:23	01/12/21 12:55	1

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# Client Sample Results

Client: Colorado Springs Utilities  
Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

**Client Sample ID: 451176 SC\_12 duplicate**

**Lab Sample ID: 160-40505-12**

**Date Collected: 11/16/20 11:07**

**Matrix: Water**

**Date Received: 11/20/20 09:06**

**Method: 904.0 - Radium-228 (GFPC) (Continued)**

<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>
Y Carrier	82.6		40 - 110

<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
12/02/20 12:23	01/12/21 12:55	1

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# QC Sample Results

Client: Colorado Springs Utilities  
Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

## Method: 903.0 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-490552/23-A**  
**Matrix: Water**  
**Analysis Batch: 492806**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 490552**

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.1707	U	0.183	0.184	1.00	0.294	pCi/L	11/30/20 09:16	12/22/20 18:16	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					11/30/20 09:16	12/22/20 18:16	1

**Lab Sample ID: LCS 160-490552/1-A**  
**Matrix: Water**  
**Analysis Batch: 492806**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 490552**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	22.7	19.31		2.12	1.00	0.303	pCi/L	85	75 - 125
Carrier	LCS	LCS	Limits						
Ba Carrier	%Yield 96.3	Qualifier	40 - 110						

**Lab Sample ID: LCSD 160-490552/2-A**  
**Matrix: Water**  
**Analysis Batch: 492984**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 490552**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	Limit
				Uncert. (2σ+/-)							
Radium-226	22.7	19.08		2.02	1.00	0.251	pCi/L	84	75 - 125	0.06	1
Carrier	LCSD	LCSD	Limits								
Ba Carrier	%Yield 105	Qualifier	40 - 110								

**Lab Sample ID: MB 160-490658/23-A**  
**Matrix: Water**  
**Analysis Batch: 494758**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 490658**

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.1438	U	0.287	0.288	1.00	0.507	pCi/L	12/02/20 10:12	01/12/21 19:42	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.2		40 - 110					12/02/20 10:12	01/12/21 19:42	1

**Lab Sample ID: LCS 160-490658/1-A**  
**Matrix: Water**  
**Analysis Batch: 494758**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 490658**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	9.417		1.27	1.00	0.378	pCi/L	83	75 - 125

# QC Sample Results

Client: Colorado Springs Utilities  
Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

## Method: 903.0 - Radium-226 (GFPC) (Continued)

**Lab Sample ID: LCS 160-490658/1-A**  
**Matrix: Water**  
**Analysis Batch: 494758**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 490658**

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	90.5		40 - 110

**Lab Sample ID: LCSD 160-490658/2-A**  
**Matrix: Water**  
**Analysis Batch: 494940**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 490658**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec.		RER	RER Limit
									Limits	RER		
Radium-226	11.3	11.91		1.43	1.00	0.308	pCi/L	105	75 - 125	0.92		1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	75.4		40 - 110

**Lab Sample ID: MB 160-490807/25-A**  
**Matrix: Water**  
**Analysis Batch: 494782**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 490807**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared		Analyzed		Dil Fac
								Prepared	Analyzed	Prepared	Analyzed	
Radium-226	0.1572	U	0.333	0.333	1.00	0.594	pCi/L	12/03/20 12:40	01/12/21 18:41	18:41		1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	80.8		40 - 110	12/03/20 12:40	01/12/21 18:41	1

**Lab Sample ID: LCS 160-490807/1-A**  
**Matrix: Water**  
**Analysis Batch: 494940**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 490807**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec.		RER	RER Limit
									Limits	RER		
Radium-226	11.3	12.21		1.43	1.00	0.260	pCi/L	108	75 - 125			

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	81.4		40 - 110

## Method: 904.0 - Radium-228 (GFPC)

**Lab Sample ID: MB 160-490554/23-A**  
**Matrix: Water**  
**Analysis Batch: 492430**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 490554**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared		Analyzed		Dil Fac
								Prepared	Analyzed	Prepared	Analyzed	
Radium-228	0.4017	U	0.519	0.521	1.00	0.864	pCi/L	11/30/20 10:02	12/18/20 08:48	08:48		1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110	11/30/20 10:02	12/18/20 08:48	1

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# QC Sample Results

Client: Colorado Springs Utilities  
Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

## Method: 904.0 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: MB 160-490554/23-A**  
**Matrix: Water**  
**Analysis Batch: 492430**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 490554**

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	75.1		40 - 110	11/30/20 10:02	12/18/20 08:48	1

**Lab Sample ID: LCS 160-490554/1-A**  
**Matrix: Water**  
**Analysis Batch: 492438**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 490554**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	15.1	16.65		2.02	1.00	0.823	pCi/L	110	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.3		40 - 110
Y Carrier	78.9		40 - 110

**Lab Sample ID: LCSD 160-490554/2-A**  
**Matrix: Water**  
**Analysis Batch: 492438**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 490554**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	15.1	16.29		1.97	1.00	0.781	pCi/L	108	75 - 125	0.09	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	105		40 - 110
Y Carrier	74.8		40 - 110

**Lab Sample ID: MB 160-490757/23-A**  
**Matrix: Water**  
**Analysis Batch: 494758**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 490757**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3072	U	0.294	0.295	1.00	0.475	pCi/L	12/02/20 12:23	01/12/21 12:50	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	74.2		40 - 110	12/02/20 12:23	01/12/21 12:50	1
Y Carrier	85.6		40 - 110	12/02/20 12:23	01/12/21 12:50	1

**Lab Sample ID: LCS 160-490757/1-A**  
**Matrix: Water**  
**Analysis Batch: 494751**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 490757**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	7.51	5.352	*	0.730	1.00	0.415	pCi/L	71	75 - 125

# QC Sample Results

Client: Colorado Springs Utilities  
Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

## Method: 904.0 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: LCS 160-490757/1-A**  
**Matrix: Water**  
**Analysis Batch: 494751**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 490757**

Carrier	LCS LCS		Limits
	%Yield	Qualifier	
Ba Carrier	90.5		40 - 110
Y Carrier	85.2		40 - 110

**Lab Sample ID: LCSD 160-490757/2-A**  
**Matrix: Water**  
**Analysis Batch: 494751**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 490757**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	RER Limit
									75 - 125	1.15	1	
Radium-228	7.51	7.303	*	0.967	1.00	0.536	pCi/L	97	75 - 125	1.15	1	

Carrier	LCSD LCSD		Limits
	%Yield	Qualifier	
Ba Carrier	75.4		40 - 110
Y Carrier	83.0		40 - 110

**Lab Sample ID: MB 160-490825/25-A**  
**Matrix: Water**  
**Analysis Batch: 494758**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 490825**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared		Analyzed		Dil Fac
								12/03/20 13:52	01/12/21 08:56	01/12/21 08:56	08:56	1
Radium-228	-0.2383	U	0.248	0.249	1.00	0.480	pCi/L	12/03/20 13:52	01/12/21 08:56	01/12/21 08:56	08:56	1

Carrier	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Yield	Qualifier		12/03/20 13:52	01/12/21 08:56	01/12/21 08:56	08:56	
Ba Carrier	80.8		40 - 110	12/03/20 13:52	01/12/21 08:56	01/12/21 08:56	08:56	1
Y Carrier	93.8		40 - 110	12/03/20 13:52	01/12/21 08:56	01/12/21 08:56	08:56	1

**Lab Sample ID: LCS 160-490825/1-A**  
**Matrix: Water**  
**Analysis Batch: 494757**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 490825**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
									75 - 125	
Radium-228	7.51	6.474		0.860	1.00	0.455	pCi/L	86	75 - 125	

Carrier	LCS LCS		Limits
	%Yield	Qualifier	
Ba Carrier	81.4		40 - 110
Y Carrier	85.2		40 - 110

# QC Association Summary

Client: Colorado Springs Utilities  
 Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

## Rad

### Prep Batch: 490552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-40505-1	451166 CC_1	Total/NA	Water	PrecSep-21	
160-40505-2	451429 FC_3A	Total/NA	Water	PrecSep-21	
160-40505-3	451171 FC_3B	Total/NA	Water	PrecSep-21	
MB 160-490552/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-490552/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-490552/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 490554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-40505-1	451166 CC_1	Total/NA	Water	PrecSep_0	
160-40505-2	451429 FC_3A	Total/NA	Water	PrecSep_0	
160-40505-3	451171 FC_3B	Total/NA	Water	PrecSep_0	
MB 160-490554/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-490554/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-490554/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

### Prep Batch: 490658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-40505-5	451178 SC_14	Total/NA	Water	PrecSep-21	
160-40505-6	451167 FC_1	Total/NA	Water	PrecSep-21	
160-40505-7	451169 FC_2	Total/NA	Water	PrecSep-21	
160-40505-8	451170 FC_2 duplicate	Total/NA	Water	PrecSep-21	
160-40505-9	451173 SC_10	Total/NA	Water	PrecSep-21	
160-40505-10	451174 SC_11	Total/NA	Water	PrecSep-21	
160-40505-11	451175 SC_12	Total/NA	Water	PrecSep-21	
160-40505-12	451176 SC_12 duplicate	Total/NA	Water	PrecSep-21	
MB 160-490658/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-490658/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-490658/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 490757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-40505-5	451178 SC_14	Total/NA	Water	PrecSep_0	
160-40505-6	451167 FC_1	Total/NA	Water	PrecSep_0	
160-40505-7	451169 FC_2	Total/NA	Water	PrecSep_0	
160-40505-8	451170 FC_2 duplicate	Total/NA	Water	PrecSep_0	
160-40505-9	451173 SC_10	Total/NA	Water	PrecSep_0	
160-40505-10	451174 SC_11	Total/NA	Water	PrecSep_0	
160-40505-11	451175 SC_12	Total/NA	Water	PrecSep_0	
160-40505-12	451176 SC_12 duplicate	Total/NA	Water	PrecSep_0	
MB 160-490757/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-490757/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-490757/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

### Prep Batch: 490807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-40505-4	451177 SC_13	Total/NA	Water	PrecSep-21	
MB 160-490807/25-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-490807/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

# QC Association Summary

Client: Colorado Springs Utilities  
Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

## Rad

### Prep Batch: 490825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-40505-4	451177 SC_13	Total/NA	Water	PrecSep_0	
MB 160-490825/25-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-490825/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

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# Tracer/Carrier Summary

Client: Colorado Springs Utilities  
 Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

## Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (40-110)	Y (40-110)
160-40505-1	451166 CC_1	135 X	
160-40505-2	451429 FC_3A	107	
160-40505-3	451171 FC_3B	126 X	
160-40505-4	451177 SC_13	80.5	
160-40505-5	451178 SC_14	75.1	
160-40505-6	451167 FC_1	87.1	
160-40505-7	451169 FC_2	97.7	
160-40505-8	451170 FC_2 duplicate	90.8	
160-40505-9	451173 SC_10	91.1	
160-40505-10	451174 SC_11	89.7	
160-40505-11	451175 SC_12	90.0	
160-40505-12	451176 SC_12 duplicate	94.6	
LCS 160-490552/1-A	Lab Control Sample	96.3	
LCS 160-490658/1-A	Lab Control Sample	90.5	
LCS 160-490807/1-A	Lab Control Sample	81.4	
LCSD 160-490552/2-A	Lab Control Sample Dup	105	
LCSD 160-490658/2-A	Lab Control Sample Dup	75.4	
MB 160-490552/23-A	Method Blank	89.7	
MB 160-490658/23-A	Method Blank	74.2	
MB 160-490807/25-A	Method Blank	80.8	

**Tracer/Carrier Legend**

Ba = Ba Carrier

## Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (40-110)	Y (40-110)
160-40505-1	451166 CC_1	135 X	77.0
160-40505-2	451429 FC_3A	107	80.7
160-40505-3	451171 FC_3B	126 X	109
160-40505-4	451177 SC_13	80.5	84.9
160-40505-5	451178 SC_14	75.1	84.5
160-40505-6	451167 FC_1	87.1	80.7
160-40505-7	451169 FC_2	97.7	81.9
160-40505-8	451170 FC_2 duplicate	90.8	83.0
160-40505-9	451173 SC_10	91.1	82.6
160-40505-10	451174 SC_11	89.7	83.0
160-40505-11	451175 SC_12	90.0	81.5
160-40505-12	451176 SC_12 duplicate	94.6	82.6
LCS 160-490554/1-A	Lab Control Sample	96.3	78.9
LCS 160-490757/1-A	Lab Control Sample	90.5	85.2
LCS 160-490825/1-A	Lab Control Sample	81.4	85.2
LCSD 160-490554/2-A	Lab Control Sample Dup	105	74.8
LCSD 160-490757/2-A	Lab Control Sample Dup	75.4	83.0
MB 160-490554/23-A	Method Blank	89.7	75.1
MB 160-490757/23-A	Method Blank	74.2	85.6
MB 160-490825/25-A	Method Blank	80.8	93.8

# Tracer/Carrier Summary

Client: Colorado Springs Utilities  
Project/Site: Coal Combustion Rule

Job ID: 160-40505-1

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## Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

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