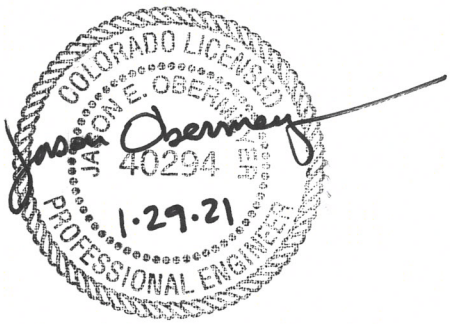
GOLDER

REPORT

Annual Groundwater Monitoring Report – 2020

Coal Combustion Residuals Landfill

Nucla Station Ash Disposal Facility Nucla, Colorado



Submitted to:

Tri-State Generation and Transmission Association, Inc.
PO Box 33695
Denver, Colorado 80233

Submitted by:

Golder Associates Inc.
7245 West Alaska Drive, Suite 200, Lakewood, Colorado 80226

+1 303 980-0540

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Executive Summary

This report summarizes the groundwater monitoring activities and results for the 2020 detection monitoring program for the coal combustion residuals (CCR) landfill that serves Nucla Station, along with the comparative statistical analysis. The CCR landfill, which is owned and operated by Tri-State Generation and Transmission Association, Inc., is currently in detection monitoring, and no program transitions occurred in 2020.

Two verified statistically significant increases (SSIs) were identified in 2020, for total recoverable calcium and field-measured pH at MO-1. An alternative source demonstration (ASD) will be pursued in the first quarter of 2021 for total recoverable calcium in MO-1. An ASD for field-measured pH in MO-1 performed in December 2019 is applicable to the 2020 results, and it was recommended that the Facility remain in detection monitoring. As described in the Groundwater Monitoring System Certification (Golder 2019) and the Groundwater Statistical Method Certification (Golder 2020b), the groundwater monitoring and analytical procedures for the program meet the requirements of 40 CFR 257 (the CCR Rule), and modifications to the monitoring network and sampling program are not recommended at this time.

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TABLES

FIGURES

1.0 INTRODUCTION

Golder Associates Inc. (Golder) has prepared this report to describe the 2020 groundwater monitoring activities and comparative statistical analysis for the Nucla Station Ash Disposal Facility (the Facility), which is a coal combustion residuals (CCR) landfill owned and operated by Tri-State Generation and Transmission Association, Inc. (Tri-State) and subject to regulation under 40 CFR 257 (the CCR Rule). This report was written to meet the requirements of 40 CFR 257.90(e).

1.1 Facility Information

The Facility serves as the location for containment of CCRs generated at Tri-State's Nucla Station, a retired 110-megawatt coal-fired electric generation plant located near Nucla, Colorado. Nucla Station was retired from service in September 2019. Within the 81.65-acre property of the Facility, the CCR disposal footprint comprises approximately 61 acres.

1.2 Purpose

The CCR Rule established specific requirements for reporting of groundwater monitoring activities and corrective action in 40 CFR 257.90. Per part (e) of 40 CFR 257.90, no later than January 31, 2018, and annually thereafter, owners or operators of CCR units must prepare an annual groundwater monitoring and corrective action report.

2.0 GROUNDWATER MONITORING PROGRAM STATUS

The groundwater monitoring system for the Nucla Station Ash Disposal Facility consists of five monitoring wells, as shown in Figure 1 (Golder 2019). The two upgradient monitoring wells are MO-1 and MO-2. The three downgradient monitoring wells are MO-3, MO-4, and MO-5.

2.1 Completed Key Actions in 2020

The following key actions were completed in 2020:

- The 2019 Annual Groundwater Monitoring Report was finalized and placed within the operating record and on Tri-State's publicly accessible CCR website.
- The Groundwater Statistical Method Certification was updated and placed within the operating record and on Tri-State's publicly accessible CCR website (Golder 2020b).
- Detection monitoring sampling events were performed in the second quarter, on April 27 and 28, and in the fourth quarter, on October 21, 28, and 29.

Additionally, a statistical baseline update was conducted for MO-2 through MO-5 prior to comparative statistical analysis of the April 2020 detection monitoring event. This update included well-constituent pairs with a previously identified statistically significant increase (SSI) where a demonstration was made that the SSI is not related to a release from the Facility, but rather reflects natural variability not captured during the initial baseline period. Whenever possible, either a parametric or non-parametric method was used to generate the updated baseline statistical limit for each constituent. The method varies between well-constituent pairs and is based on the percentage of non-detect values in the baseline period and the baseline data distribution for the well-constituent pair, in accordance with the Unified Guidance (USEPA 2009). Total recoverable calcium at MO-5 continued to exhibit a statistically significant decreasing trend; therefore, a trend analysis will be used to assess the data for statistical significance of the parameter until a limit based on non-trending data can be established. A full description of the steps taken for the baseline update can be found in the Groundwater Statistical Method

Certification (Golder 2020b), which is available on Tri-State's publicly accessible CCR website. MO-1 was not included in the baseline update due to trending results (either increasing or decreasing) for most Appendix III constituents. The trending results will continue to be monitored, and a baseline update may occur in the future if stable data are observed.

2.2 Installation and Decommissioning of Monitoring Wells

No monitoring wells were installed or decommissioned for the Nucla Station Ash Disposal Facility in 2020.

2.3 Problems and Resolutions

The following problems were identified in 2020:

- Groundwater levels were not measured at MO-3 or MO-5 during the April 2020 sampling event because the transducer was unable to connect to the laptop used to download the data. The transducer, connection cable, and laptop are being evaluated to limit future issues. For subsequent sampling events, groundwater levels will be measured using a water level meter if issues connecting to the transducer persist.
- After well installation, field-measured pH values in samples collected from MO-1 slowly increased before stabilizing at values greater than 11. In groundwater samples, pH values above 10 are generally considered abnormal and may indicate grout interaction (Pohlmann and Alduino 1992). Since MO-1 is designated as an upgradient well, and in the absence of evidence of mounding under the Facility, it is very unlikely that elevated pH in samples collected from MO-1 is an indication of a release from the Facility. To visually assess the well integrity, a video survey of the interior of MO-1's well casing was conducted in June 2020. The video survey indicated that the well casing for MO-1 was in good condition. Therefore, it is unlikely that the elevated pH is due to a failure in the well casing. MO-1 will remain in the monitoring program, and additional investigation into possible grout interaction may be considered.

2.4 Proposed Key Activities for 2021

The following key actions are expected to be completed in 2021:

- A confirmatory resample for the potential exceedance described in Section 3.4.2 is planned for the first quarter of 2021.
- An ASD will be pursued for total recoverable calcium at MO-1 in the first quarter of 2021.
- Detection monitoring sampling events are planned to occur in the second and fourth quarters of 2021.

3.0 GROUNDWATER MONITORING RESULTS AND ANALYSIS

Activities associated with the groundwater monitoring program are described in this section.

3.1 Groundwater Flow

The groundwater elevation was measured in each well prior to purging during each sampling event, except in MO-3 and MO-5 during the April 2020 sampling event. Groundwater elevations are presented in Table 1 through Table 5. Groundwater elevations from the April 2020 and October 2020 sampling events are shown in Figure 1 and Figure 2, respectively. Groundwater levels in MO-2 and MO-5 have been slowly increasing since well installation in 2016.

The Morrison aquifer is characterized as highly heterogeneous with zones that are variably transmissive and/or subjected to variable amounts of confining pressure. This characterization is supported by the differences in groundwater levels, water column heights, and recovery times observed in the monitoring wells that have been installed to serve as the groundwater monitoring system for the Facility. Sandstone lenses in the Morrison aquifer vary considerably with respect to transmissivity (i.e., thickness and hydraulic conductivity) and horizontal extent due to the alluvial, shoreline, and lacustrine environments that deposited the Salt Wash and Brushy Basin Members of the Morrison Formation, resulting in interbedded siltstone, mudstone, claystone, and shale units. Groundwater elevation data suggest a general southerly groundwater flow direction in the Morrison aquifer near the Nucla Station Ash Disposal Facility. However, the heterogeneity and interbedded nature of the Morrison Formation beneath the Facility, coupled with the observation that groundwater levels in the monitoring wells continue to stabilize at the time of this report's preparation, confound the ability to precisely discern groundwater flow direction and rate.

3.2 Monitoring Data (Analytical Results)

Analytical results from the 2020 monitoring events are shown in Table 1 through Table 5.

3.3 Samples Collected

Two samples were collected from MO-1 through MO-5 during 2020 for the detection monitoring program. These sampling events occurred in April and October 2020.

3.4 Comparative Statistical Analysis

The comparative statistical analysis is summarized below, and the results are presented in Table 6 through Table 10. A full description of the steps taken for the comparative statistical analysis can be found in the Groundwater Statistical Method Certification (Golder 2020b).

3.4.1 Definitions

The following definitions are used in discussion of the comparative statistical analysis:

- SSI – is a statistically significant increase (SSI) and is defined as an analytical result that exceeds the parametric or non-parametric statistical limit established by the baseline statistical analysis.
- Potential Exceedance – is defined as an initial analytical result that exceeds the parametric or non-parametric statistical limit established by the baseline statistical analysis. Confirmatory resampling is used to determine whether the potential exceedance is a false-positive SSI or a verified SSI.
- False-positive SSI – is defined as an analytical result that exceeds the statistical limit but can clearly be attributed to laboratory error or changes in analytical precision or is invalidated through confirmatory resampling.
- Confirmatory resampling – is designated as the resampling event that occurs within 90 days of identifying an SSI over the statistical limit for determination of a verified SSI[1].

[1] Resampling might not occur within 90 days of the sampling event that resulted in the potential exceedance because of the additional time required for activities that must occur before a potential exceedance can be identified. These include sample delivery, analytical testing, review of results, and comparative statistical analysis.

- Verified SSI – is interpreted as two consecutive SSIs (the original sample and the confirmatory resample for analytical results) for the same constituent at the same well.

If the data are assessed with a trend test, confirmatory resampling is generally not applicable, and a verified SSI is defined as a statistically significant increasing trend in the eight most recent results.

3.4.2 Potential Exceedances

Field-measured pH at MO-5 was identified as a potential exceedance from the October 2020 sampling event. Per the Groundwater Statistical Method Certification (Golder 2020b), a confirmatory resampling event for this potential exceedance is scheduled to occur within 90 days of the SSI determination, during the first quarter of 2021.

3.4.3 False-positive Statistically Significant Increases

No false-positive SSIs were identified from the 2020 detection monitoring program.

3.4.4 Verified Statistically Significant Increases

The total recoverable calcium measurement for the sample collected from MO-1 during the October 2020 sampling event indicates a verified SSI. Due to a decreasing trend identified for the baseline data, the total recoverable calcium data are assessed with a trend test. Since the baseline data period, the trend has reversed, and the trend test indicates a statically significant increasing trend. To address the verified SSI for total recoverable calcium at MO-1, Tri-State will pursue an ASD. As specified in 40 CFR 257.94, Tri-State has 90 days to complete the ASD.

The field-measured pH values for the samples collected from MO-1 during both 2020 detection monitoring events indicate verified SSIs[2]. The detrended pH values at MO-1 were less than the lower statistical limit during both semi-annual compliance events in April and October 2020. In December 2019, an ASD was prepared for field-measured pH in MO-1, and it was recommended that the Facility remain in detection monitoring (Golder 2020a). Field-measured pH values have been stable since October 2018, and the previous ASD is also applicable to the SSIs identified from the 2020 sampling events.

4.0 PROGRAM TRANSITIONS

In the fourth quarter of 2017, the groundwater monitoring program for the Nucla Station Ash Disposal Facility transitioned from the baseline period to detection monitoring. The Facility remains in detection monitoring, and no program transitions occurred in 2020.

4.1.1 Detection Monitoring

Samples for the detection monitoring program are collected on a semi-annual basis, beginning with the sample collected in October 2017. Tri-State plans to collect semi-annual samples for the detection monitoring program in the second and fourth quarters of 2021. Additionally, Tri-State will pursue an ASD for total recoverable calcium at MO-1. Pending completion of a successful ASD, the Facility will remain in detection monitoring.

[2] The term SSI is used to be consistent with generally accepted language. However, the SSI is for values less than the lower limit for field-measured pH (which has a two-tailed limit).

4.1.2 Assessment Monitoring

The groundwater monitoring program for the Facility is not in assessment monitoring. Assessment monitoring has not been triggered as described in 40 CFR 257.95. As such, no ASDs have been made under an assessment monitoring program and no actions are required.

4.1.3 Corrective Measures and Assessment

The groundwater monitoring program for the Facility does not indicate the need for corrective measures. An assessment of corrective measures, as described in 40 CFR 257.96, is not required.

5.0 RECOMMENDATIONS AND CLOSING

This report presents the groundwater monitoring activities and results for the 2020 detection monitoring program for the Nucla Station Ash Disposal Facility, along with the comparative statistical analysis. The significant findings from the 2020 monitoring activities and comparative statistical analysis are as follows:

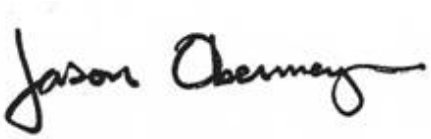
- Field-measured pH in MO-1 was identified as a verified SSI for both detection monitoring samples collected in 2020. An ASD performed in December 2019 is applicable to the 2020 results, and it was recommended that the Facility remain in detection monitoring. No further actions are required.
- Total recoverable calcium in MO-1 was identified as a verified SSI from the October 2020 detection monitoring sample. An ASD will be pursued during the first quarter of 2021.
- Field-measured pH in MO-5 was identified as a potential exceedance from the October 2020 detection monitoring sample. A confirmatory resample will be collected in the first quarter of 2021.

As described in the Groundwater Monitoring System Certification (Golder 2019) and the Groundwater Statistical Method Certification (Golder 2020b), the groundwater monitoring and analytical procedures meet the requirements of the CCR Rule, and modifications to the monitoring network and sampling program are not recommended at this time.

Signature Page

Golder Associates Inc.

Sara Harkins
Senior Project Geochemist



Jason Obermeyer, PE
Associate and Senior Consultant

SAH/JEO/af

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6.0 REFERENCES

Golder Associates Inc. (Golder). 2019. Coal Combustion Residuals Landfill Groundwater Monitoring System Certification, Nucla Station Ash Disposal Facility. Report prepared for Tri-State Generation and Transmission Association, Inc. May 2.

Golder Associates Inc. (Golder). 2020a. Annual Groundwater Monitoring Report – 2019, Coal Combustion Residuals Landfill, Nucla Station Ash Disposal Facility. Report prepared for Tri-State Generation and Transmission Association, Inc. January 29.

Golder Associates Inc. (Golder). 2020b. Coal Combustion Residuals Landfill Groundwater Statistical Method Certification, Nucla Station Ash Disposal Facility. Report prepared for Tri-State Generation and Transmission Association, Inc. June 19.

Pohlmann, K.F., and Alduino, A.J. 1992. Potential Sources of Error in Ground-water Sampling at Hazardous Waste Sites. Ground-Water Issue. United States Environmental Protection Agency. EPA/540/S-92/019. August.

United States Environmental Protection Agency (USEPA). 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities: Unified Guidance. March.

Tables

Table 1. Sample Results Summary Table – MO-1

Analytes	Units	4/28/2020	10/29/2020
		Compliance Event	Compliance Event
Static Water Level Elevation	ft amsl	5715.8	5715.4
Appendix III			
Boron, Total Recoverable	mg/L	0.41	0.401
Calcium, Total Recoverable	mg/L	12.3	14.9
Chloride	mg/L	278	283
Fluoride	mg/L	1.58 B	1.89 B
pH, Field-Measured	pH units	11.9	11.9
Sulfate	mg/L	564	568
Total Dissolved Solids	mg/L	1780	1830

NOTES:

ft amsl: feet above mean sea level

mg/L: milligrams per liter

B: Analyte was detected between the method detection limit and the practical quantitation limit

Table 2. Sample Results Summary Table – MO-2

Analytes	Units	4/27/2020	10/28/2020
		Compliance Event	Compliance Event
Static Water Level Elevation	ft amsl	5731.4	5733.4
Appendix III			
Boron, Total Recoverable	mg/L	0.4 B	0.307 B
Calcium, Total Recoverable	mg/L	57.4	52.7
Chloride	mg/L	2120	2120
Fluoride	mg/L	< 25.0 U	< 12.5 U
pH, Field-Measured	pH units	8.0	8.0
Sulfate	mg/L	2030	2080
Total Dissolved Solids	mg/L	6430	6440

NOTES:

ft amsl: feet above mean sea level

mg/L: milligrams per liter

Non-detects are reported as less than the practical quantitation limit

B: Analyte was detected between the method detection limit and the practical quantitation limit

U: Analyte was not detected above the method detection limit

Table 3. Sample Results Summary Table – MO-3

Analytes	Units	4/28/2020	10/28/2020
		Compliance Event	Compliance Event
Static Water Level Elevation	ft amsl	--[1]	5636.1
Appendix III			
Boron, Total Recoverable	mg/L	0.69	0.659
Calcium, Total Recoverable	mg/L	16.5	16.0
Chloride	mg/L	159	174
Fluoride	mg/L	2.65 B	< 12.5 U
pH, Field-Measured	pH units	8.0	7.9
Sulfate	mg/L	769	775
Total Dissolved Solids	mg/L	2400	2430

NOTES:

ft amsl: feet above mean sea level

mg/L: milligrams per liter

Non-detects are reported as less than the practical quantitation limit

B: Analyte was detected between the method detection limit and the practical quantitation limit

U: Analyte was not detected above the method detection limit

1. Water level was not recorded because of issues with downloading transducer data.

Table 4. Sample Results Summary Table – MO-4

Analytes	Units	4/27/2020	10/21/2020
		Compliance Event	Compliance Event
Static Water Level Elevation	ft amsl	5635.0	5637.5
Appendix III			
Boron, Total Recoverable	mg/L	0.4 B	0.335 B
Calcium, Total Recoverable	mg/L	47.2	43.7
Chloride	mg/L	949	825
Fluoride	mg/L	< 12.5 U	< 5 U
pH, Field-Measured	pH units	7.6	7.5
Sulfate	mg/L	1940	1950
Total Dissolved Solids	mg/L	5180	5160 H

NOTES:

ft amsl: feet above mean sea level

mg/L: milligrams per liter

Non-detects are reported as less than the practical quantitation limit

B: Analyte was detected between the method detection limit and the practical quantitation limit

U: Analyte was not detected above the method detection limit

H: Analyte was analyzed outside of hold time

Table 5. Sample Results Summary Table – MO-5

Analytes	Units	4/27/2020	10/21/2020
		Compliance Event	Compliance Event
Static Water Level Elevation	ft amsl	--[1]	5664.2
Appendix III			
Boron, Total Recoverable	mg/L	0.4 B	0.357 B
Calcium, Total Recoverable	mg/L	14.6	13.2
Chloride	mg/L	1060	836
Fluoride	mg/L	<12.5 U	< 5 U
pH, Field-Measured	pH units	8.3	8.4
Sulfate	mg/L	1800	1810
Total Dissolved Solids	mg/L	5200	5110 H

NOTES:

ft amsl: feet above mean sea level

mg/L: milligrams per liter

Non-detects are reported as less than the practical quantitation limit

B: Analyte was detected between the method detection limit and the practical quantitation limit

U: Analyte was not detected above the method detection limit

H: Analyte was analyzed outside of hold time

1. Water level was not recorded because of issues with downloading transducer data.

Table 6. Statistics Summary Table – MO-1

Analytes	Units	Selected Statistical Method	Statistical Limit	April 2020		October 2020	
				Compliance Point (4/28/20)	SSI Determination	Compliance Point (10/29/2020)	SSI Determination
Appendix III							
Boron, Total Recoverable[1]	mg/L	P-PL	0.43	0.41	No	0.401	No
Calcium, Total Recoverable[1]	mg/L	Trend[2]	NL	12.3	No	14.9	Verified SSI
Chloride	mg/L	P-PL	341	278	No	283	No
Fluoride	mg/L	P-PL	2.8	1.58 B	No	1.89 B	No
pH, Field-Measured[3]	pH units	P-PL	9.8, 10.0	11.9 (8.6)	Verified SSI[4]	11.9 (8.0)	Verified SSI[4]
Sulfate	mg/L	Trend[2]	NL	564	No	568	No
Total Dissolved Solids	mg/L	Trend[2]	NL	1780	No	1830	No

NOTES:

NL: Statistical limit was not calculated for analytes for which the Sen's Slope methodology was selected

P-PL: Parametric Prediction Limit

mg/L: milligrams per liter

Once a verified SSI is identified, confirmatory resampling is not necessary for subsequent SSIs

B: Analyte was detected between the method detection limit and the practical quantitation limit

1. Statistical limits were based on total analyses. Only total recoverable analyses have been conducted for the compliance sampling events and used for comparisons.
2. Baseline data exhibited a statistically significant decreasing trend. Therefore, a trend analysis is used for the determination of SSIs.
3. Statistical limit (two-tailed) was established using detrended data. Compliance data are detrended for comparison to the statistical limit. Detrended value is shown in parentheses.
4. Successful alternative source demonstration prepared in December 2019 is applicable, and the Facility remains in detection monitoring.

Table 7. Statistics Summary Table – MO-2

Analytes	Units	Selected Statistical Method	Statistical Limit	April 2020		October 2020	
				Compliance Point (4/27/2020)	SSI Determination	Compliance Point (10/28/2020)	SSI Determination
Appendix III							
Boron, Total Recoverable	mg/L	P-PL	0.44	0.4 B	No	0.307 B	No
Calcium, Total Recoverable	mg/L	P-PL	64.0	57.4	No	52.7	No
Chloride	mg/L	P-PL	2361	2120	No	2120	No
Fluoride	mg/L	NP-PL	12.5	< 25.0 U	No[1]	< 12.5 U	No
pH, Field-Measured	pH units	P-PL	7.6, 8.7	8.0	No	8.0	No
Sulfate	mg/L	P-PL	2190	2030	No	2080	No
Total Dissolved Solids	mg/L	P-PL	6679	6430	No	6440	No

NOTES:

P-PL: Parametric Prediction Limit

NP-PL: Non-parametric Prediction Limit

mg/L: milligrams per liter

Non-detects are reported as less than the practical quantitation limit

B: Analyte was detected between the method detection limit and the practical quantitation limit

U: Analyte was not detected above the practical quantitation limit

1. Result is not considered an SSI because it is a non-detect with a method detection limit of 5 mg/L, which is less than the statistical limit.

Table 8. Statistics Summary Table – MO-3

Analytes	Units	Selected Statistical Method	Statistical Limit	April 2020		October 2020	
				Compliance Point (4/28/2020)	SSI Determination	Compliance Point (10/28/2020)	SSI Determination
Appendix III							
Boron, Total Recoverable	mg/L	P-PL	0.73	0.69	No	0.659	No
Calcium, Total Recoverable	mg/L	P-PL	20.2	16.5	No	16.0	No
Chloride	mg/L	P-PL	179	159	No	174	No
Fluoride	mg/L	P-PL	3.25	2.65 B	No	< 12.5 U	No[1]
pH, Field-Measured	pH units	P-PL	7.6, 8.2	8.0	No	7.9	No
Sulfate	mg/L	P-PL	875	769	No	775	No
Total Dissolved Solids	mg/L	P-PL	2640	2400	No	2430	No

NOTES:

P-PL: Parametric Prediction Limit

mg/L: milligrams per liter

B: Analyte was detected between the method detection limit and the practical quantitation limit

U: Analyte was not detected above the practical quantitation limit

1. Result is not considered an SSI because it is a non-detect with a method detection limit of 2.5 mg/L, which is less than the statistical limit.

Table 9. Statistics Summary Table – MO-4

Analytes	Units	Selected Statistical Method	Statistical Limit	April 2020		October 2020	
				Compliance Point (4/27/2020)	SSI Determination	Compliance Point (10/21/2020)	SSI Determination
Appendix III							
Boron, Total Recoverable	mg/L	P-PL	0.50	0.4 B	No	0.335 B	No
Calcium, Total Recoverable	mg/L	P-PL	49.2	47.2	No	43.7	No
Chloride	mg/L	P-PL	1086	949	No	825	No
Fluoride	mg/L	NP-PL	12.5	< 12.5 U	No	< 5 U	No
pH, Field-Measured	pH units	NP-PL	7.4, 7.6	7.6	No	7.5	No
Sulfate	mg/L	P-PL	2012	1940	No	1950	No
Total Dissolved Solids	mg/L	P-PL	5373	5180	No	5160 H	No

NOTES:

P-PL: Parametric Prediction Limit

NP-PL: Non-parametric Prediction Limit

mg/L: milligrams per liter

Non-detects are reported as less than the practical quantitation limit

B: Analyte was detected between the method detection limit and the practical quantitation limit

U: Analyte was not detected above the practical quantitation limit

H: Analyte was analyzed outside of hold time

Table 10. Statistics Summary Table – MO-5

Analytes	Units	Selected Statistical Method	Statistical Limit	April 2020		October 2020	
				Compliance Point (4/27/2020)	SSI Determination	Compliance Point (10/21/2020)	SSI Determination
Appendix III							
Boron, Total Recoverable	mg/L	P-PL	0.48	0.4 B	No	0.357 B	No
Calcium, Total Recoverable	mg/L	Trend[1]	NL	14.6	No	13.2	No
Chloride	mg/L	P-PL	1180	1060	No	836	No
Fluoride	mg/L	NP-PL	12.5	< 12.5 U	No	< 5 U	No
pH, Field-Measured	pH units	NP-PL	7.6, 8.3	8.3	No	8.4	Potential Exceedance
Sulfate	mg/L	P-PL	1990	1800	No	1810	No
Total Dissolved Solids	mg/L	P-PL	5495	5200	No	5110 H	No

NOTES:

NL: statistical limit not calculated for analytes for which the Sen's Slope methodology was selected

P-PL: Parametric Prediction Limit

NP-PL: Non-parametric Prediction Limit

mg/L: milligrams per liter

Non-detects are reported as less than the practical quantitation limit

B: Analyte was detected between the method detection limit and the practical quantitation limit

U: Analyte was not detected above the practical quantitation limit

H: Analyte was analyzed outside of hold time

1. Baseline data exhibited a statistically significant decreasing trend. Therefore, a trend analysis is used for the determination of SSIs.

Figures

LEGEND

- PROPERTY BOUNDARY
- 5870 — EXISTING GROUND TOPOGRAPHY
- MO-1 — MONITORING WELL
- 5715.8 — GROUNDWATER ELEVATION (APRIL 2020, NOTE 2)

NOTE(S)

1. WATER LEVEL AT MO-3 AND MO-5 WERE NOT RECORDED BECAUSE OF ISSUES DOWNLOADING DATA FROM THE TRANSDUCER.
2. GROUNDWATER ELEVATION AT MO-1 WAS MEASURED ON APRIL 28, 2020. GROUNDWATER ELEVATIONS AT MO-2 AND MO-4 WERE MEASURED ON APRIL 27, 2020.

N

0 150 300
SCALE FEET

CLIENT
TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION
1100 WEST 116TH AVENUE
WESTMINSTER, COLORADO 80234

CONSULTANT
GOLDER

YYYY-MM-DD	2020-12-28
DESIGNED	BJP
PREPARED	AGD
REVIEWED	SAH
APPROVED	JEO

PROJECT
NUCLA STATION ASH DISPOSAL FACILITY
COAL COMBUSTION RESIDUALS LANDFILL
ANNUAL GROUNDWATER MONITORING REPORT

TITLE
MONITORING WELL LOCATIONS AND GROUNDWATER ELEVATIONS (APRIL 2020)

PROJECT NO.	REV.	FIGURE
20138863	0	1

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LEGEND

- PROPERTY BOUNDARY
- 5870 — EXISTING GROUND TOPOGRAPHY
- MO-1 — MONITORING WELL
- 5715.4 — GROUNDWATER ELEVATION (OCTOBER 2020, NOTE 1)

NOTE(S)

1. GROUNDWATER ELEVATION AT MO-1 WAS MEASURED ON OCTOBER 29, 2020. GROUNDWATER ELEVATIONS AT MO-2 AND MO-3 WERE MEASURED ON OCTOBER 28, 2020. GROUNDWATER ELEVATIONS AT MO-4 AND MO-5 WERE MEASURED ON OCTOBER 21, 2020.

N

0 150 300
SCALE FEET

CLIENT
TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION
1100 WEST 116TH AVENUE
WESTMINSTER, COLORADO 80234

CONSULTANT
GOLDER

YYYY-MM-DD	2020-01-21
DESIGNED	BJP
PREPARED	AGD
REVIEWED	SAH
APPROVED	JEO

PROJECT
NUCLA STATION ASH DISPOSAL FACILITY
COAL COMBUSTION RESIDUALS LANDFILL
ANNUAL GROUNDWATER MONITORING REPORT

TITLE
MONITORING WELL LOCATIONS AND GROUNDWATER ELEVATIONS (OCTOBER 2020)

PROJECT NO.	REV.	FIGURE
20138863	0	2

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI D

0 1 in

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