COAL COMBUSTION RESIDUALS RULE
2019 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

LITTLE BLUE RUN DISPOSAL FACILITY
BEAVER COUNTY, PENNSYLVANIA
HANCOCK COUNTY, WEST VIRGINIA

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TABLE OF CONTENTS

TABLES

FIGURE

DRAWINGS

APPENDICES

1.0 PURPOSE

This report has been prepared for FirstEnergy Generation, LLC (FirstEnergy) to document groundwater monitoring activities at the Little Blue Run Disposal Facility (LBR) conducted during the 2019 calendar year in accordance with 40 CFR § 257.90(e) of the HAZARDOUS AND SOLID WASTE MANAGEMENT SYSTEM; DISPOSAL OF COAL COMBUSTION RESIDUALS FROM ELECTRIC UTILITIES; FINAL RULE, 80 Fed. Reg. 21302 (issued Apr. 17, 2015 and amended August 29, 2018) ("CCR Rule"). By definition in 40 CFR §257.53, LBR is classified as an Existing CCR Surface Impoundment.

2.0 BACKGROUND

2.1 SITE DESCRIPTION AND HISTORY

LBR is an unlined coal-combustion residuals (CCR) surface impoundment located in Beaver County, Pennsylvania and Hancock County, West Virginia. LBR is formed behind an approximately 400-foot high earth- and rock-fill dam that spans the Little Blue Run valley, just south of the Ohio River. LBR has a permitted acreage of 965 acres with approximately 16 miles of shoreline surrounding the limits of disposal, and has an extensive groundwater monitoring network that has been in place for over 40 years. CCR disposal at LBR ceased on December 31, 2016, and the facility is currently undergoing an approximate 12-year closure process that involves covering the impoundment with an impermeable geo-membrane cap and soil cover. To date, approximately 271 acres have been capped in accordance with the approved April 2014 Residual Waste Permit (No. 300558; the "Permit") issued by the Pennsylvania Department of Environmental Protection (PADEP).

Groundwater assessments have been performed at LBR since the 1990s in accordance with Pennsylvania Residual Waste Regulations (25 Pa. Code §289.266). The current permitted monitoring program required by a December 2012 Consent Decree (CD) between FirstEnergy and the PADEP and the April 2014 Permit includes sampling and analysis of 87 groundwater monitoring wells, 18 former domestic wells, 27 current domestic wells, over 230 springs, and 42 surface water monitoring points. Presently, groundwater monitoring at these locations includes quarterly sampling and analysis for 26 total & dissolved metals, and 13 inorganic/indicator parameters.

In addition to the permitted monitoring program, 77 additional monitoring wells were installed between 2014 and 2017 as part of six groundwater assessments at the facility performed in accordance with 25 Pa. Code §289.266. FirstEnergy continues to voluntarily sample a subset of these wells on a quarterly basis to further assess groundwater quality at LBR.

Groundwater monitoring in accordance with the CCR Rule commenced in 2016. The CCR Rule Groundwater Monitoring System includes a subset of the existing PADEP-permitted groundwater monitoring network and currently consists of 47 monitoring wells and 20 springs. In 2019, assessment monitoring performed in accordance with the CCR Rule determined that Appendix IV constituents (arsenic and lithium) are present in groundwater at LBR at Statistically Significant Levels (SSLs) above the Groundwater Protection Standards (GWPSs). As such, an Assessment of Corrective Measures has been performed in accordance with 40 CFR § 257.96.

2.2 TOPOGRAPHY AND DRAINAGE

The Little Blue Run valley is a deeply-dissected residual upland. The area is dominated by steep slopes (up to 70%), with flat-lying areas occurring along stream floodplains and in upland areas between streams.

Prior to construction of LBR, the area was drained by Little Blue Run, which flows northward to the Ohio River. Surrounding watersheds are drained by Mill Creek to the east and Marks Run and its tributaries to the west, both of which flow to the Ohio River.

Erosion by Mill Creek and Little Blue Run has produced a narrow, north-trending ridge on the east side of LBR. Erosion by Marks Run and a western tributary of Little Blue Run has produced a similar narrow ridge on the west side of LBR.

Drainage to most of the Little Blue Run watershed collects in LBR, where the water level behind the dam is controlled by the supernatant river-return system. This system consists of an 18-inch lined borehole (secondary spillway) through the right dam abutment that discharges by gravity to a stilling basin just north of the dam. Both a primary spillway and an emergency spillway are located on the left dam abutment. These spillways are designed to handle design storms beyond the capacity of the secondary spillway. Ultimately, water discharged from LBR is conveyed through a concrete pipe at the downstream end of the stilling basin that discharges to the Ohio River through permitted NPDES Outfall 022.

Flow in the lower reaches of the Little Blue Run stream located north (downstream) of the dam is maintained by drainage from the dam abutments.

2.3 GEOLOGY

LBR is located in the Allegheny Plateau physiographic province, which is characterized by gently dipping coal measures of complex stratigraphy. The stratigraphic units relevant to LBR are Pennsylvanian in age, and belong to the Conemaugh, Allegheny, and Pottsville Groups (Figure 1). The bedrock lithologies surrounding LBR include sandstone, siltstone, claystone, shale, limestone, and coal.

Bedrock within the permit area of LBR is overlain by as much as 24 feet of residuum consisting of residual clay, silt, sand, and weathered rock. Alluvium in the Little Blue Run stream valley is composed of clayey sand and gravel up to 30 feet thick.

2.4 HYDROGEOLOGY

2.4.1 Aquifers

Seven informal aquifers have been defined in the vicinity of LBR on the basis of stratigraphy (Figure 1). These units are not highly permeable, but are more permeable than other units in the stratigraphic series. The permeable strata, generally sandstones and coals, act as aquifers which more readily transmit groundwater. The less-permeable strata, such as shales, claystones, and siltstones, act as aquitards that restrict flow. Both types of units transmit water mainly by secondary, or fracture, permeability.

Tectonic and stress-relief fracturing and weathering have combined to modify the stratigraphic control on permeability by creating a more permeable "rind" over the surfaces of the hills. Any given stratum typically has its lowest permeability beneath the crest of a hill, and permeability increases as the unit approaches its cropline.

Unconsolidated regolith and alluvium probably constitute the most permeable geologic materials at the site. However, they are generally not saturated except in valley bottoms or in the vicinity of springs. These materials are not considered aquifers in the conceptual site model because they are not horizontally pervasive over the site, however, they have been considered as areas of higher permeability at the edges of the aquifers described below.

Middle Glenshaw Aquifer: The Middle Glenshaw aquifer, the highest bedrock aquifer in the section, includes the Brush Creek coal, upper Mahoning sandstone, and the Mahoning coal. The Mahoning sandstone and Mahoning coal are separated by less permeable rocks. The unit has been removed from most of the site by erosion, but crops out on the hillsides surrounding LBR at approximate elevations between 1010 and 1070 ft above mean seal level (AMSL).

Lower Glenshaw Aquifer: The next aquifer beneath the Middle Glenshaw is the Lower Glenshaw aquifer. The aquifer is composed of the Lower Mahoning sandstone, the Upper Freeport coal, and less permeable rocks. This aquifer is present between approximate elevations 920 and 1010 ft AMSL. It crops out north and east of LBR, as well as within the impoundment, and in the Lawrenceville, West Virginia area west of the impoundment.

Freeport Aquifer: Below the Lower Glenshaw aquifer is the Freeport aquifer, which includes the section below the Upper Freeport coal down to the Upper Kittanning coal. The Freeport sandstone and Lower Freeport coal are also contained within this section, as are less permeable rocks. The Freeport aquifer occurs at approximate elevations of 830 to 920 ft AMSL. The Freeport crops out at the northern and northeastern edge of the area, within the incised valleys north and northwest of the impoundment and within the impoundment.

Worthington Aquifer: The Worthington aquifer occurs between approximate elevations of 740 to 830 feet AMSL and includes the section below the Upper Kittanning coal to the Kittanning sandstone. This part of the section includes the upper Worthington sandstone, the middle Kittanning coal, the Lower Worthington sandstone, and the Lower Kittanning coal, as well as less

permeable rocks. The unit crops out along the Ohio River and in the lower reaches of the Little Blue Run valley, Mill Creek valley and the valleys northwest of the impoundment.

Kittanning Aquifer: The Kittanning aquifer occurs between approximate elevations of 660 to 740 feet AMSL, and is composed of the Kittanning sandstone unit and less permeable rock.

Clarion Aquifer: The Clarion aquifer lies below the Kittanning interval between approximate elevations of 600 to 660 feet AMSL and is composed of the Clarion coal, Clarion Sandstone, Brookville coal, and less permeable rock between these more permeable units.

Homewood Aquifer: The Homewood aquifer is the lowest aquifer present in the interval investigated by drilling. It is composed of the Homewood sandstone, and its upper limit occurs at approximate elevation 600 feet AMSL.

2.4.2 Groundwater Flow Characteristics

Groundwater flow: Groundwater table or potentiometric surface maps for various aquifers are shown on Drawings 1 and 2. Drawing 1 was developed using groundwater elevations in monitoring wells that are screened near or just below the water table and using the locations of springs to approximate where the water table intersects the ground surface. Because of the overall size (approximately 7 mi^2) and complex nature of the Site, and the fact that water levels obtained during monitoring events are collected over a number of months due to the large number of sample locations; annual high groundwater levels were used to create the water table contour lines shown on Drawing 1. As these drawings show, groundwater flow patterns at LBR are a complex, three-dimensional field because of the high relief and complex stratigraphy of the area. The flow regime in each aquifer depends upon its elevation with respect to its outcrop locations and the CCR elevation within LBR.

Groundwater flow patterns in the shallow aquifers which crop out above local drainage in the valleys of Mill Creek and Little Blue Run (Middle Glenshaw, Lower Glenshaw, Freeport and Worthington)

are strongly controlled by local topography. In the upper portions of the drainage basin, south of the impoundment, these aquifers are recharged by precipitation and leakage from overlying aquifers. In this area, the lateral component of groundwater flow is northward, toward and into the impoundment.

In the lower reaches of the drainage basin (northeast, northwest and north of LBR), these shallow aquifers crop out in the Mill Creek and Little Blue Run valleys, the valleys northwest of LBR, and along the Ohio River. Hydraulic heads in almost all of the wells in this area are below the impoundment level. Thus, the impoundment recharges the groundwater system in these areas and groundwater flows from LBR toward discharge locations at the aquifer outcrops.

Groundwater flow patterns in the intermediate aquifers that occur at or slightly below the level of Mill Creek and Little Blue Run (Kittanning and Clarion) reflect regional flow components. Flow in these aquifers is primarily northward toward the Ohio River over most of the area, with a component toward Mill Creek in its lower reaches.

Groundwater flow patterns in the deep Homewood aquifer have not been extensively investigated. However, it is expected that groundwater in this unit reflects regional flow components (i.e. toward the Ohio River).

Groundwater velocities: Groundwater velocities in the vicinity of LBR vary greatly because of the wide variety of physical properties within aquifers and the varying hydraulic gradients. Typically, the upland recharge areas south of the impoundment have very low hydraulic gradients; therefore, lower velocities prevail in these areas. In areas further north, particularly in the narrow ridge between LBR and Mill Creek, high gradients produced by impounded water in LBR can result in higher velocities.

Numerical groundwater flow modeling showed that groundwater velocities also vary by aquifer. Typically, the deeper aquifers have much lower velocities than aquifers near the surface, mainly due to greater secondary permeability in the shallower aquifers. Groundwater velocities ranged from $4x10^{-6}$ to $1x10^{-4}$ ft/day in deeper aquifers, and from 0.02 to 0.8 ft/day in unfractured zones

within shallower aquifers. Greater velocities occur in bedrock fracture zones where secondary permeability is orders of magnitude greater than in the bulk rock mass. Bedrock fracture zones have modelled flow velocities that range from approximately 0.76 to 10 ft/day. The weathered zones at the edges of the aquifers also show greater velocities resulting from increased secondary permeability.

3.0 KEY ACTIVITIES COMPLETED

3.1 KEY ACTIVITIES COMPLETED PRIOR TO THE 2019 CALENDAR YEAR

3.1.1 Groundwater Monitoring System and Statistical Method

In accordance with 40 CFR § 257.91 and § 257.93, a groundwater monitoring system and groundwater statistical method of evaluation were developed for LBR and certified in October 2017 by a licensed professional engineer.

3.1.2 Background and Detection Monitoring

In accordance with 40 CFR § 257.94(b), FirstEnergy collected eight independent samples from each background and downgradient monitoring point for analysis of the constituents listed in Appendix III and IV of the CCR Rule. Groundwater samples were collected from January 2016 through October 17, 2017.

In accordance with 40 CFR § 257.94(a), FirstEnergy collected detection monitoring samples from each monitoring point for analysis of the constituents listed in Appendix III of the CCR Rule. The detection monitoring samples were collected in the 4th Quarter 2017.

3.1.3 Statistical Evaluation of Detection Monitoring Data

In accordance with 40 CFR § 257.90 and § 257.93, FirstEnergy evaluated the detection monitoring data for a statistically significant increase (SSI) above the background level for each constituent listed in Appendix III of the CCR Rule. In accordance with 40 CFR §257.93 (h)(2), the SSI determination was completed within 90 days of completing the detection monitoring sampling and laboratory analyses.

3.1.4 Establishment of Assessment Monitoring Program

As a result of SSIs found during Detection Monitoring and in accordance with 40 CFR § 257.95, FirstEnergy established an Assessment Monitoring Program and began sampling and analyzing the monitoring points in the CCR Rule Groundwater Monitoring System for Appendix IV constituents.

3.1.5 Establishment of Groundwater Protection Standards

In accordance with 40 CFR § 257.95(d)(2), FirstEnergy established GWPSs for detected Appendix IV constituents.

3.1.6 Statistical Evaluation of Assessment Monitoring Data

In accordance with 40 CFR § 257.93, FirstEnergy evaluated the assessment monitoring data for SSLs above the GWPSs for each constituent listed in Appendix IV of the CCR Rule. As discussed in greater detail in FirstEnergy's 2018 Annual Groundwater Monitoring and Corrective Action Report, the evaluation identified arsenic and lithium at SSLs greater than GWPSs in one or more aquifer.

3.2 KEY ACTIVITIES COMPLETED DURING THE 2019 CALENDAR YEAR

3.2.1 Characterization of Nature and Extent of Release

In accordance with 40 CFR § 257.95(g)(1) and after making the determination that arsenic and lithium are present at SSLs above the GWPSs, FirstEnergy characterized the extent of SSLs for arsenic and lithium in groundwater at LBR by adding an additional 10 monitoring points to the CCR Rule Groundwater Monitoring System and sampling and analyzing them for Appendix III and IV constituents.

3.2.2 Assessment of Corrective Measures

Within 90 days of determining that arsenic and lithium are present at SSLs above GWPSs, an Assessment of Corrective Measures (ACM) was initiated in accordance with 40 CFR § 257.96 of the CCR Rule. FirstEnergy made a determination that completion of the ACM would require more than 90 days as specified in 40 CFR § 257.96(a); therefore, FirstEnergy made a demonstration of the need for additional time to complete the ACM. Copies of FirstEnergy's demonstration and the professional engineer certification are provided in Appendix A. The results of FirstEnergy's ACM were documented in the Coal Combustion Residuals Rule Assessment of Corrective Measures Report dated June 12, 2019.

4.0 CCR RULE GROUNDWATER MONITORING PROGRAM

Under the CCR Rule, CCR surface impoundments must have a groundwater monitoring system that consists of a sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that:

- Accurately represent the quality of background groundwater that has not been affected by leakage from a CCR unit; and
- Accurately represent the quality of groundwater passing the waste boundary of the CCR unit. The downgradient monitoring system must be installed at the waste boundary to ensure detection of groundwater contamination in the uppermost aquifer. All potential contaminant pathways must be monitored.

The uppermost aquifer, by CCR Rule definition, includes lower aquifers that are hydraulically connected within the facility's property boundary.

4.1 CCR RULE GROUNDWATER MONITORING SYSTEM

The CCR Rule Groundwater Monitoring System (Groundwater Monitoring System) includes a subset of the existing PADEP-permitted groundwater monitoring network and currently consists of 47 monitoring wells and 20 springs, including 10 monitoring points that were added in 2019 to assess the extent of arsenic and lithium SSLs at LBR. Springs were included in the Groundwater Monitoring System to supplement data from the monitoring well network because they are an important aspect of LBR's monitoring program.

The Groundwater Monitoring System includes monitoring points within each of the six aquifers characterized at LBR. The Middle Glenshaw, Lower Glenshaw, Freeport, and Worthington aquifers are in contact with the CCR within LBR. The deeper Kittanning and Clarion aquifers do not crop out within the original Little Blue Run valley, and are not in contact with the CCR. However, monitoring wells located within these deeper aquifers have been included in the

Groundwater Monitoring System because of their potential connection with shallower aquifers. Monitoring points included in the Groundwater Monitoring System are presented in Table 1. Additional information on each monitoring point is provided in Table 2. The location of each monitoring point is shown on Drawing 3.

Monitoring points located downgradient of LBR that do not display impacts from LBR are representative of background water quality and may be included in the background data set. These locations also serve as assessment monitoring points for potential impacts.

4.2 GROUNDWATER SAMPLING AND ANALYSIS

Groundwater samples collected from each monitoring point in 2019 were analyzed for the parameters listed in Appendix III and IV of the CCR Rule. Turbidity, total alkalinity, magnesium, potassium and sodium were also included in the monitoring program. Turbidity was added to allow for an evaluation regarding the potential effect of turbidity on total metals results. The remaining constituents were added to the monitoring program so that Piper diagrams could be prepared to assess groundwater quality based on major ion chemistry. Table 3 provides a summary of the analytical parameters that are monitored at the site.

4.3 CCR RULE GROUNDWATER MONITORING PROGRAM STATUS

LBR has been in the Assessment Monitoring program since January 15, 2018.

4.4 CHANGES TO THE GROUNDWATER MONITORING SYSTEM

In the January 2018 Annual Groundwater Monitoring and Corrective Action Report, it was reported that background monitoring well MW-33D was removed from the CCR Rule Groundwater Monitoring System because the wellscreen and pump were damaged. In 2019, it was determined that the well is still serviceable. As such, the well has been reincorporated into the CCR Rule Groundwater Monitoring System. In addition, the following monitoring points were added to the CCR Rule Groundwater Monitoring System in 2019 to assess the extent of arsenic

and lithium SSLs in groundwater at LBR: MW-17A, MW-49B, S-1VI, S-4PC, S-17, S-19F, S-19I, S-25A, S-78 and First Valley Landslide.

5.0 CCR RULE 2019 ASSESSMENT MONITORING

Statistical evaluation of groundwater data performed in accordance with 40 CFR § 257.93 has identified the presence of SSIs of Appendix III parameters above background levels in each of the aquifers monitored at LBR as indicated in the following table. As a result, LBR has been in the Assessment Monitoring program since January 15, 2018.

App. III Constituent	Aquifer					
	Middle Glenshaw	Lower Glenshaw	Freeport	Worthington	Kittanning	Clarion
B, total (mg/L)	X	X	X	X	X	X
Ca, total (mg/L)	X	X	X	X		
Cl, total (mg/L)	X	X		X		
F, total (mg/L)						
pH (field, S.U.)						
SO_4 (mg/L)	X	X	X	X	X	X
TDS (mg/L)	X	X	X	X		

X – Indicates a SSI exists

5.1 SUMMARY OF 2019 GROUNDWATER SAMPLE COLLECTION

Three Assessment Monitoring events were conducted in 2019. The first sampling event was performed during the 1st Quarter 2019, and consisted of sampling the 10 new monitoring locations that were used to further characterize the extent of SSLs for arsenic and lithium. The two remaining events were performed during the 2nd and 4th Quarter 2019 to satisfy the requirement for semi-annual monitoring, and included sampling of the CCR Rule Groundwater Monitoring System for Appendix III and IV constituents, with a few exceptions as noted in Section 5.2. In accordance with 40 CFR § 257.90(e), a summary of groundwater sampling events performed in 2019 to satisfy the assessment monitoring requirements of the CCR Rule is presented in Table 4.

5.2 SUMMARY OF PROBLEMS ENCOUNTERED AND PROBLEM RESOLUTION

The following problems were encountered during monitoring events performed in 2019:

- S-1VE: This spring was dry in the 4th quarter 2019 and could not be sampled.
- S-81: This spring was dry throughout 2019 and could not be sampled.
- MW-16C: During the 4th Quarter, the well went dry during purging, and did not recover sufficiently to obtain a sample in a manner consistent with the sampling protocols for the site.

The absence of samples/data noted above has not impeded the performance of assessment monitoring activities at LBR; therefore, no additional action is warranted at this time.

5.3 ANALYTICAL DATA SUMMARY

Groundwater monitoring data from assessment monitoring samples collected in 2019 are provided in Appendix B.

6.0 GROUNDWATER PROTECTION STANDARDS FOR APPENDIX IV CONSTITUENTS

The groundwater protection standards (GWPS) for each Appendix IV constituent are established in accordance with 40 CFR § 257.95(h) as one of the following:

- For constituents with an established maximum contaminant level (MCL), the MCL for that constituent.
- For the following constituents, the following health-based values may be used:
    - Cobalt 0.006 mg/L,
    - Lead 0.015 mg/L,
    - Lithium 0.040 mg/L, and
    - Molybdenum 0.10 mg/L.
- For constituents for which the background concentration is greater than the MCL or the health-based concentrations listed above, the background concentration for that constituent.

As listed above, EPA developed specific health-based values for each of the four constituents in Appendix IV that do not have an MCL (cobalt, lead, lithium, and molybdenum). The health-based level for each of these four constituents was derived using the Regional Screening Level (RSL) for each constituent.

7.0 STATISTICAL EVALUATIONS OF APPENDIX IV CONSTITUENTS

For each aquifer, the Electric Power Research Institute's (EPRI) Groundwater Data Management and Evaluation Software (Manages Version 4.1) was used to calculate a background value for Appendix IV constituents based on pooled data from 2016 through 2017 at background monitoring points. The GWPS for each Appendix IV constituent was then set as the greater of the background value or the MCL/RSL. Water quality data collected from the assessment monitoring points through 2019 were then compared to the GWPS using the following methods in accordance with the USEPA Unified Guidance:

Comparison for MCL/RSL-based GWPS			
Data Distribution	***Non-Detect Frequency***	***Trend***	***Method***
Normal	≤50%	Stable	Confidence interval around normal mean
Lognormal	≤50%	Stable	Confidence interval around lognormal geometric mean
Non-normal	n/a	Stable	Non-parametric confidence interval around median
Cannot be determined	>50%	Stable	
Residuals after subtracting trend are normal	≤50%	Trend	Confidence band around linear regression
Residuals are not normal	≤50%	Trend	Confidence band around Theil-Sen line
Comparison for Background-based GWPS			
Single sample approach, where GWPS is based on tolerance interval and data is evaluated using confidence intervals			

The statistical analyses for each aquifer are summarized in the sections below.

7.1 MIDDLE GLENSHAW AQUIFER

7.1.1 Groundwater Protection Standards

As discussed in greater detail in the 2018 CCR Rule Annual Groundwater Monitoring and Corrective Action Report, water quality data from monitoring points MW-25, MW-30A, MW-111 and S-1VA collected in 2016 and 2017 were utilized to calculate background concentrations of

Appendix IV constituents in the Middle Glenshaw aquifer. The calculated background values were compared to the MCL or RSL, and the greater of the background value or MCL/RSL was selected as the GWPS. The GWPSs for Appendix IV constituents in the Middle Glenshaw aquifer are summarized below.

Middle Glenshaw Aquifer

App. IV Constituent	GWPS (mg/L)	Basis		App. IV Constituent	GWPS (mg/L)	Basis
Antimony	0.006	MCL		Lead	0.015	RSL
Arsenic	0.01	MCL		Lithium	0.04	RSL
Barium	2.0	MCL		Mercury	0.002	MCL
Beryllium	0.004	MCL		Molybdenum	0.10	RSL
Cadmium	0.005	MCL		Selenium	0.05	MCL
Chromium	0.10	MCL		Thallium	0.002	MCL
Cobalt	0.006	RSL		Radium-226+228	5.0	MCL
Fluoride	4.0	MCL				

7.1.2 Statistically Significant Levels

Concentrations of Appendix IV constituents from downgradient monitoring points in the Middle Glenshaw aquifer collected through 2019 were compared to GWPSs. The statistical analyses used for this comparison are included in the Manages 4.1 output files presented in Appendix C. The following SSL greater than the GWPS was identified in the Middle Glenshaw aquifer:

App. IV Constituent	Location(s)	Comparison Value (mg/L)	GWPS (mg/L)
Lithium	S-19E	Lower Confidence Limit 0.075	0.04

7.2 LOWER GLENSHAW AQUIFER

7.2.1 Groundwater Protection Standards

As discussed in greater detail in the 2018 CCR Rule Annual Groundwater Monitoring and Corrective Action Report, water quality data from monitoring points MW-6, MW-11B and MW-30B collected in 2016 and 2017 were utilized to calculate background concentrations of Appendix IV constituents in the Lower Glenshaw aquifer. The calculated background values were compared to the MCL or RSL, and the greater of the background value or MCL/RSL was selected as the GWPS. The GWPSs for Appendix IV constituents in the Lower Glenshaw aquifer are summarized below.

Lower Glenshaw Aquifer

App. IV Constituent	GWPS (mg/L)	Basis		App. IV Constituent	GWPS (mg/L)	Basis
Antimony	0.006	MCL		Lead	0.015	RSL
Arsenic	0.01	MCL		Lithium	0.04	RSL
Barium	2.0	MCL		Mercury	0.002	MCL
Beryllium	0.004	MCL		Molybdenum	0.10	RSL
Cadmium	0.005	MCL		Selenium	0.05	MCL
Chromium	0.10	MCL		Thallium	0.002	MCL
Cobalt	0.006	RSL		Radium-226+228	5.0	MCL
Fluoride	4.0	MCL				

7.2.2 Statistically Significant Levels

Concentrations of Appendix IV constituents from downgradient monitoring points in the Lower Glenshaw aquifer collected through 2019 were compared to GWPSs. The statistical analyses used for this comparison are included in the Manages 4.1 output files in Appendix D. The following SSLs greater than the GWPSs were identified in the Lower Glenshaw aquifer:

App. IV Constituent	Location(s)	Comparison Value (mg/L)	GWPS (mg/L)
Arsenic	MW-16A	Lower Confident Limit 0.028	0.01
	S-17	Lower Confident Limit 0.041	
Lithium	MW-9BR	Lower Confidence Limit 0.043	0.04
	MW-16A	Lower Confidence Limit 0.25	
	MW-12B	Lower Confidence Limit 0.069	
	MW-17A	Lower Confidence Limit 0.07	
	S-17	Lower Confidence Limit 0.16	
	S-19F	Lower Confidence Limit 0.055	

7.3 FREEPORT AQUIFER

7.3.1 Groundwater Protection Standards

As discussed in greater detail in the 2018 CCR Rule Annual Groundwater Monitoring and Corrective Action Report, water quality data from monitoring points MW-11A, MW-30C, MW-4AR, MW-7A, MW-14BR, MW-16B and MW-33A collected in 2016 and 2017 were utilized to calculate background concentrations of Appendix IV constituents in the Freeport aquifer. The calculated background values were compared to the MCL or RSL, and the greater of the background value or MCL/RSL was selected as the GWPS. The GWPSs for Appendix IV constituents in the Freeport aquifer are summarized below.

Freeport Aquifer

App. IV Constituent	GWPS (mg/L)	Basis		App. IV Constituent	GWPS (mg/L)	Basis
Antimony	0.006	MCL		Lead	0.015	RSL
Arsenic	0.01	MCL		Lithium	0.061	NPPI
Barium	2.0	MCL		Mercury	0.002	MCL
Beryllium	0.004	MCL		Molybdenum	0.10	RSL
Cadmium	0.005	MCL		Selenium	0.05	MCL
Chromium	0.10	MCL		Thallium	0.002	MCL
Cobalt	0.006	RSL		Radium-226+228	6.13	PARATI
Fluoride	4.0	MCL		NPPI = Non-parametric prediction interval PARATI = Parametric Tolerance Interval		

7.3.2 Statistically Significant Levels

Concentrations of Appendix IV constituents from downgradient monitoring points in the Freeport aquifer collected through 2019 were compared to GWPSs. The statistical analyses for this comparison are included in the Manages 4.1 output files presented in Appendix E. The following SSLs greater than the GWPSs were identified in the Freeport aquifer:

App. IV Constituent	Location(s)	Comparison Value (mg/L)	GWPS (mg/L)
Lithium	S-4PA	Median 0.097	0.061
	S-85	Median 0.30	

7.4 WORTHINGTON AQUIFER

7.4.1 Groundwater Protection Standards

As discussed in greater detail in the 2018 CCR Rule Annual Groundwater Monitoring and Corrective Action Report, water quality data from monitoring points MW-30D and MW-21B collected in 2016 and 2017 were utilized to calculate background concentrations of Appendix IV

constituents in the Worthington aquifer. The calculated background values were compared to the MCL or RSL, and the greater of the background value or MCL/RSL was selected as the GWPS. The GWPSs for Appendix IV constituents in the Worthington aquifer are summarized below.

Worthington Aquifer

App. IV Constituent	GWPS (mg/L)	Basis		App. IV Constituent	GWPS (mg/L)	Basis
Antimony	0.006	MCL		Lead	0.015	RSL
Arsenic	0.01	MCL		Lithium	0.04	RSL
Barium	2.0	MCL		Mercury	0.002	MCL
Beryllium	0.004	MCL		Molybdenum	0.10	RSL
Cadmium	0.005	MCL		Selenium	0.05	MCL
Chromium	0.10	MCL		Thallium	0.002	MCL
Cobalt	0.006	RSL		Radium-226+228	5.0	MCL
Fluoride	4.0	MCL				

7.4.2 Statistically Significant Levels

Concentrations of Appendix IV constituents from downgradient monitoring points in the Worthington aquifer collected through 2019 were compared to GWPSs. The statistical analyses used for this comparison are included in the Manages 4.1 output files presented in Appendix F. The following SSLs greater than the GWPSs were identified in the Worthington aquifer:

App. IV Constituent	Location(s)	Comparison Value (mg/L)	GWPS (mg/L)
Lithium	S-16D	Lower Confidence Limit 0.051	0.04
	S-81	Lower Confidence Limit 0.046	
	S-84	Lower Confidence Limit 0.31	

7.5 KITTANNING AQUIFER

7.5.1 Groundwater Protection Standards

As discussed in greater detail in the 2018 CCR Rule Annual Groundwater Monitoring and Corrective Action Report, water quality data from monitoring points MW-30E, MW-33C and MW-16C collected in 2016 and 2017 were utilized to calculate background concentrations for Appendix IV constituents in the Kittanning aquifer. The calculated background values were compared to the MCL or RSL, and the greater of the background value or MCL/RSL was selected as the GWPS. The GWPSs for Appendix IV constituents in the Kittanning aquifer are summarized below.

Kittanning Aquifer

App. IV Constituent	GWPS (mg/L)	Basis		App. IV Constituent	GWPS (mg/L)	Basis
Antimony	0.006	MCL		Lead	0.015	RSL
Arsenic	0.02	PARATI		Lithium	0.13	NPPI
Barium	7.0	NPPI		Mercury	0.002	MCL
Beryllium	0.004	MCL		Molybdenum	0.10	RSL
Cadmium	0.005	MCL		Selenium	0.05	MCL
Chromium	0.10	MCL		Thallium	0.002	MCL
Cobalt	0.006	RSL		Radium-226+228	49	NPPI
Fluoride	22	PARATI		NPPI = Non-parametric prediction interval PARATI = Parametric Tolerance Interval		

7.5.2 Statistically Significant Levels

Concentrations of Appendix IV constituents from downgradient monitoring points in the Kittanning aquifer collected through 2019 were compared to GWPSs. The statistical analyses for this comparison are included in the Manages 4.1 output files presented in Appendix G. No Appendix IV constituent was identified at a SSL greater than the GWPS in the Kittanning aquifer.

7.6 CLARION AQUIFER

7.6.1 Groundwater Protection Standards

As discussed in greater detail in the 2018 CCR Rule Annual Groundwater Monitoring and Corrective Action Report, water quality data from monitoring points MW-33D and MW-23B collected in 2016 and 2017 were utilized to calculate background concentrations of Appendix IV constituents in the Clarion aquifer. The calculated background values were compared to the MCL or RSL, and the greater of the background value or MCL/RSL was selected as the GWPS. The GWPSs for Appendix IV constituents in the Clarion aquifer are summarized below.

Clarion Aquifer

App. IV Constituent	GWPS (mg/L)	Basis		App. IV Constituent	GWPS (mg/L)	Basis
Antimony	0.006	MCL		Lead	0.015	RSL
Arsenic	0.01	MCL		Lithium	0.30	PARATI
Barium	36	PARATI		Mercury	0.002	MCL
Beryllium	0.004	MCL		Molybdenum	0.10	RSL
Cadmium	0.005	MCL		Selenium	0.05	MCL
Chromium	0.10	MCL		Thallium	0.002	MCL
Cobalt	0.006	RSL		Radium-226+228	100	PARATI
Fluoride	4.0	MCL		PARATI = Parametric Tolerance Interval		

7.6.2 Statistically Significant Levels

Concentrations of Appendix IV constituents from downgradient monitoring points in the Clarion aquifer collected through 2019 were compared to GWPSs. The statistical analyses for this comparison are included in the Manages 4.1 output files presented in Appendix H. The following SSLs greater than the GWPSs were identified in the Clarion aquifer:

App. IV Constituent	Location(s)	Comparison Value (mg/L)	GWPS (mg/L)
Lithium	MW-13A	Lower Confidence Limit 0.34	0.30

7.7 SUMMARY OF SSLs

As discussed in Sections 7.1 through 7.6, SSLs of arsenic and lithium greater than GWPSs have been identified in groundwater at LBR as summarized in the following table:

App. IV Constituent	Location(s)	Aquifer
Arsenic	MW-16A	Lower Glenshaw
	S-17	
Lithium	S-19E	Middle Glenshaw
	MW-9BR	Lower Glenshaw
	MW-16A	
	MW-12B	
	MW-17A	
	S-17	
	S-19F	
	S-4PA	Freeport
	S-85	
	S-16D	Worthington
	S-81	
	S-84	
	MW-13A	Clarion

Monitoring locations with SSLs of arsenic or lithium greater than their respective GWPS are located on FirstEnergy property downgradient of the LBR pool (Drawing 4). With the exception of MW-13A that monitors the Clarion aquifer, SSLs are confined to the shallow aquifers at LBR

that are in contact with the CCR (Middle Glenshaw, Lower Glenshaw, Freeport and Worthington). In the portion of the facility where SSLs occur, the Middle Glenshaw, Lower Glenshaw, Freeport and Worthington aquifers crop out on FirstEnergy property and, therefore, groundwater containing SSLs of arsenic and lithium greater than the GWPS cannot extend beyond the FirstEnergy property boundary as the aquifers have been removed by erosion. In the deeper Clarion aquifer where an SSL for lithium was identified at MW-13A, downgradient monitoring points MW-15B and MW-23B are in compliance with the lithium GWPS. As such, SSLs for arsenic and lithium are confined to FirstEnergy property and there are no groundwater users within the area.

For arsenic, the GWPS under the CCR Rule and the groundwater abatement standard under LBR's Permit both equal the MCL; therefore, the same standard applies for arsenic under both the CCR Rule and Pennsylvania regulations. The GWPS for lithium under the CCR Rule is the alternative risk-based GWPS (i.e. RSL) or background at LBR, whichever is greater. Pennsylvania has published non-residential Statewide Health Standards (SHSs) for lithium in groundwater (0.23 mg/L in used aquifers with ≤ 2,500 mg/L TDS and 23 mg/L in used aquifers with > 2,500 mg/L TDS) that are risk-based standards calculated by the PADEP to be protective of human health and the environment under reasonable non-residential exposure assumptions and factors. Accordingly, for the Clarion aquifer the non-residential SHS is 23 mg/L. For all the remaining aquifers the non-residential SHS is 0.23 mg/L. Out of the 13 locations containing lithium concentrations greater than the GWPS, 10 locations contain lithium at concentrations that are less than the Pennsylvania risk-based SHS as shown on Drawing 4.

The results of assessment monitoring in 2019 show that groundwater conditions at LBR are generally consistent with what was characterized in 2018 and reported in the June 12, 2019 Assessment of Corrective Measures Report, with no major recent changes identified as it pertains to SSLs. Groundwater quality surrounding the site has been improving since the cessation of disposal and commencement of facility closure (i.e. capping) in 2017. Further improvements are anticipated both during and after completion of facility closure.

8.0 ACTIVITIES FOR 2020 CALENDAR YEAR

Anticipated activities for the upcoming calendar year include the following:

- Continue monitoring in accordance with the Assessment Monitoring program.
- Within 30 days of placing this Annual Groundwater Monitoring and Corrective Action Report in the facility's operating record, the report will be posted on the facility's publicly accessible internet site and notification will be provided to the State Director that the report is available.
- As presented in the June 2019 Assessment of Corrective Measures Report, the abatement approach selected in accordance with the Permit (closure/capping and monitored attenuation) is also the preferred corrective measure to comply with 40 CFR §257.96. Pending PADEP's approval of the Groundwater Abatement Plan submitted to satisfy the facility's Permit, a remedy will be selected pursuant to 40 CFR § 257.97.

TABLES

Table 1
CCR Rule Monitoring Network
Little Blue Run Disposal Facility

Monitoring Point	Aquifer	Position[(1)]	Purpose[(2)]	Type
MW-25	Middle Glenshaw	UG	BG	Well
MW-30A	Middle Glenshaw	UG	BG	Well
S-1VA	Middle Glenshaw	DG	BG/A	Spring
MW-10R	Middle Glenshaw	DG	A	Well
MW-12C	Middle Glenshaw	DG	A	Well
MW-24	Middle Glenshaw	DG	A	Well
MW-26	Middle Glenshaw	DG	A	Well
MW-40B	Middle Glenshaw	DG	A	Well
MW-102B	Middle Glenshaw	DG	A	Well
MW-107B	Middle Glenshaw	DG	A	Well
S-9F	Middle Glenshaw	DG	A	Spring
S-19E	Middle Glenshaw	DG	A	Spring
S-30	Middle Glenshaw	DG	A	Spring
MW- 6	Lower Glenshaw	UG	BG	Well
MW-11B	Lower Glenshaw	UG	BG	Well
MW-30B	Lower Glenshaw	UG	BG	Well
MW-3B	Lower Glenshaw	DG	A	Well
MW-4B	Lower Glenshaw	DG	A	Well
MW-7B	Lower Glenshaw	DG	A	Well
MW-9BR	Lower Glenshaw	DG	A	Well
MW-12B	Lower Glenshaw	DG	A	Well
MW-14AR	Lower Glenshaw	DG	A	Well
MW-16A	Lower Glenshaw	DG	A	Well
MW-17A	Lower Glenshaw	DG	A	Well
MW-40C	Lower Glenshaw	DG	A	Well
MW-49B	Lower Glenshaw	DG	A	Well
S-1VI	Lower Glenshaw	DG	A	Spring
S-17	Lower Glenshaw	DG	A	Spring
S-19F	Lower Glenshaw	DG	A	Spring
S-19I	Lower Glenshaw	DG	A	Spring
S-25A	Lower Glenshaw	DG	A	Spring
S-78	Lower Glenshaw	DG	A	Spring
MW-11A	Freeport	UG	BG	Well
MW-30C	Freeport	UG	BG	Well
MW-4AR	Freeport	DG	BG/A	Well
MW-7A	Freeport	DG	BG/A	Well
MW-14BR	Freeport	DG	BG/A	Well
MW-16B	Freeport	DG	BG/A	Well
MW-33A	Freeport	DG	A	Well
MW-3A	Freeport	DG	A	Well
MW-17B	Freeport	DG	A	Well
S-1VE	Freeport	DG	A	Spring
S-4PA	Freeport	DG	A	Spring
S-85	Freeport	DG	A	Spring
MW-30D	Worthington	UG	BG	Well
MW-21B	Worthington	DG	BG/A	Well
MW-18A	Worthington	DG	A	Well
MW-32B	Worthington	DG	A	Well
MW-33B	Worthington	DG	A	Well
S-1VC	Worthington	DG	A	Spring
S-4PC	Worthington	DG	A	Spring
S-16D	Worthington	DG	A	Spring
S-19AC	Worthington	DG	A	Spring
S-81	Worthington	DG	A	Spring
S-84	Worthington	DG	A	Spring
MW-30E	Kittanning	UG	BG	Well
MW-33C	Kittanning	UG	BG	Well
MW-16C	Kittanning	DG	BG/A	Well
MW-13B	Kittanning/Clarion	DG	A	Well
MW-22B	Kittanning	DG	A	Well
MW-32C	Kittanning	DG	A	Well
1st Valley Landslide	Kittanning	DG	A	Spring
MW-33D	Clarion	UG	BG	Well
MW-23B	Clarion	DG	BG/A	Well
MW-13A	Clarion/Homewood	DG	A	Well
MW-15B	Clarion	DG	A	Well
MW-32D	Clarion	DG	A	Well

Footnotes:

[(1)]UG-Upgradient; DG-Downgradient

[(2)]BG-Background; BG/A-potentially downgradient point with background quality; A-Assessment

Table 2
Monitoring Point Details
Little Blue Run Disposal Facility

Well	Date Installed	Casing Diameter (in)	DEPTH (ft)				ELEVATION (ft MSL)				Aquifer
			Bottom of Screen	Top of Screen	Top of Sand	Top of Bentonite	Top of Casing	Approx. Ground	Bottom of Screen	Top of Screen	
MW-10R	Sep-07	4	148	128	124	120	1101.62	1101	953	973	Middle Glenshaw
MW-12C	Dec-85	4	105.5	75.5	72	57	1153.28	1151	1045	1075	Middle Glenshaw
MW-24	Oct-05	4	80	60	56.8	51.5	1120.38	1118	1038	1058	Middle Glenshaw
MW-25	Oct-05	4	135	115	108.5	101	1218.72	1217	1082	1102	Middle Glenshaw
MW-26	Oct-05	4	112	92	80	74	1195.01	1193	1081	1101	Middle Glenshaw
MW-30A	Jun-14	4	131	111	109	3	1149.14	1147	1016	1036	Middle Glenshaw
MW-40B	Apr-15	4	148.8	138.8	136.8	0.5	1177.78	1176	1027	1037	Middle Glenshaw
MW-102B	Nov-12	2	134	129	126	120	1134.61	1133	999	1004	Middle Glenshaw
MW-107B	Aug-12	2	131	121	118	0	1154.20	1152	1021	1031	Middle Glenshaw
MW-111	Sep-12	2	23	13	11	0.5	1163.91	1161	1138	1148	Middle Glenshaw
MW-3B	Jun-82	4	190	88	88	None	1101.87	1099	909	1011	Lower Glenshaw
MW-4B	Jun-13	4	244	144	140	135	1182.73	1180	936	1036	Lower Glenshaw
MW-6	Oct-09	4	215	165	162	158	1177.02	1175	960	1010	Lower Glenshaw
MW-7B	Jul-13	4	164	149	147	140	1120.11	1118	954	969	Lower Glenshaw
MW-9BR	Dec-02	4	217	67	65	49	1098.62	1097	880	1030	Lower Glenshaw
MW-11B	Jun-82	4	219	134	134	None	1157.78	1155	936	1021	Lower Glenshaw
MW-12B	Dec-85	4	205	185.5	181.5	174.5	1154.21	1151	946	966	Lower Glenshaw
MW-14AR	May-13	4	253	238	235	230	1158.71	1156	903	918	Lower Glenshaw
MW-16A	Jun-92	4	180.5	170.5	168.4	165	1127.94	1125	945	955	Lower Glenshaw
MW-17A	Jun-92	4	46	36	34	29.5	979.70	977	931	941	Lower Glenshaw
MW-30B	Jun-14	4	201	181	179	2	1148.84	1147	946	966	Lower Glenshaw
MW-40C	Mar-15	4	211	201	199	0.5	1177.64	1176	965	975	Lower Glenshaw
MW-49B	Apr-16	4	248	238	236	0.5	1165.04	1163	915	925	Lower Glenshaw
MW-3A	Dec-74	4	277	230	226	None	1096.45	1094	817	864	Freeport
MW-4AR	Feb-10	4	351	301	295	290	1183.29	1181	830	880	Freeport
MW-7A	Oct-09	4	257	207	198	196	1120.56	1118	861	911	Freeport
MW-11A	Jul-74	4	300	240	218	None	1143.59	1142	842	902	Freeport
MW-14BR	May-13	4	312	297	295	290	1160.94	1158	846	861	Freeport
MW-16B	May-92	4	270	260	257.5	253.1	1127.51	1125	855	865	Freeport
MW-17B	Jun-92	4	120	110	106.5	99	978.02	976	856	866	Freeport
MW-30C	Jul-14	4	350	330	328	320	1148.26	1146	796	816	Freeport
MW-33A	May-14	4	101	81	78	0.5	1001.67	1000	899	919	Freeport
MW-18A	Jul-93	4	26.3	16.3	14.4	11.7	788.22	786	760	770	Worthington
MW-21B	Jul-93	4	209	199	195.6	187.1	955.08	953	744	754	Worthington
MW-30D	Jun-14	4	390	370	368	360	1148.31	1146	756	776	Worthington
MW-32B	Jun-14	4	158	138	136	0.5	992.02	990	832	852	Worthington
MW-33B	May-14	4	161	141	139	0.5	1000.97	999	838	858	Worthington
MW-13B	Nov-85	4	68.7	48.7	44.5	39	745.87	744	675	695	Kittanning/Clarion
MW-16C	Jul-92	4	377.5	362.5	359.5	339.9	1127.24	1125	747	762	Kittanning
MW-22B	Jul-93	4	57.5	47.5	44.5	40.6	744.60	743	685	695	Kittanning
MW-30E	Jun-14	4	460	440	438	430	1148.62	1147	687	707	Kittanning
MW-32C	Jun-14	4	247	227	225	0.5	991.33	989	742	762	Kittanning
MW-33C	May-14	4	248	228	226	0.5	1000.41	998	750	770	Kittanning
MW-13A	Nov-85	4	157.3	127.3	124.3	116.3	746.37	744	587	617	Clarion/Homewood
MW-15B	May-92	4	115	105	101.7	97.7	739.11	737	622	632	Clarion
MW-23B	Jul-93	4	119.8	109.8	106.8	99.9	736.88	735	615	625	Clarion
MW-32D	Jun-14	4	321	301	298	0.5	990.89	989	668	688	Clarion
MW-33D	May-14	4	320	300	298	0.5	999.32	997	677	697	Clarion

Spring	Approximate Ground Elevation (ft msl)	Aquifer
S-1VA	1035	Middle Glenshaw
S-9F	1011	Middle Glenshaw
S-19E	999	Middle Glenshaw
S-30	1067	Middle Glenshaw
S-1VI	948	Lower Glenshaw
S-17	938	Lower Glenshaw
S-19F	970	Lower Glenshaw
S-19I	940	Lower Glenshaw
S-25A	922	Lower Glenshaw
S-78	928	Lower Glenshaw
S-1VE	819	Freeport
S-4PA	847	Freeport
S-85	820	Freeport
S-1VC	751	Worthington
S-4PC	786	Worthington
S-16D	805	Worthington
S-19AC	775	Worthington
S-81	810	Worthington
S-84	776	Worthington
1st Valley Landslide	731	Kittanning

Table 3
Analytical Parameters
Little Blue Run Disposal Facility

Appendix III to 40 CFR § 257 - Constituents for Detection Monitoring
Boron (total + dissolved)
Calcium (total + dissolved)
Chloride
Fluoride
pH
Sulfate
Total Dissolved Solids (TDS)
Appendix IV to 40 CFR § 257 - Constituents for Assessment Monitoring
Antimony (total + dissolved)
Arsenic (total + dissolved)
Barium (total + dissolved)
Beryllium (total + dissolved)
Cadmium (total + dissolved)
Chromium (total + dissolved)
Cobalt (total + dissolved)
Fluoride
Lead (total + dissolved)
Lithium (total + dissolved)
Mercury (total + dissolved)
Molybdenum (total + dissolved)
Selenium (total + dissolved)
Thallium (total + dissolved)
Radium 226 and 228 combined
Additional Constituents
Turbidity
Total Alkalinity
Magnesium (total + dissolved)
Potassium (total + dissolved)
Sodium (total + dissolved)

Table 4
CCR Rule Sampling Summary - 2019 Assessment Monitoring
Little Blue Run Disposal Facility

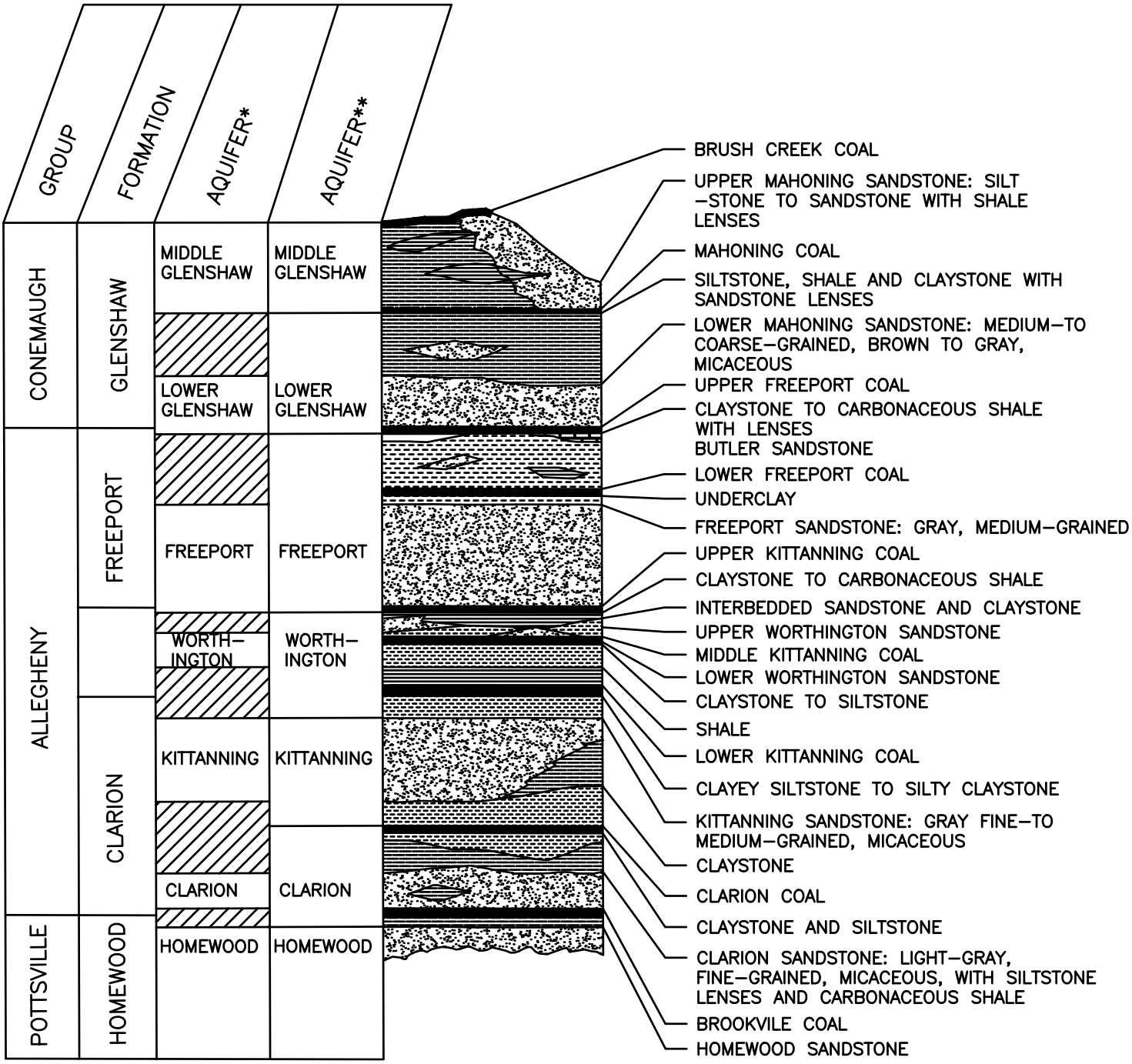
Monitoring Point	Assessment Monitoring Events			Total # of Samples
	1*	2	3	
	Sample Date			
Middle Glenshaw				
MW-10R	NS	4/17/19	10/28/19	2
MW-12C	NS	4/19/19	10/30/19	2
MW-24	NS	5/6/19	11/1/19	2
MW-25	NS	4/25/19	10/23/19	2
MW-26	NS	4/24/19	10/4/19	2
MW-30A	NS	5/2/19	10/30/19	2
MW-40B	NS	5/22/19	10/22/19	2
MW-102B	NS	4/23/19	10/22/19	2
MW-107B	NS	4/23/19	10/24/19	2
S-1VA	NS	4/24/19	10/29/19	2
S-9F	NS	4/17/19	10/28/19	2
S-19E	NS	4/24/19	10/28/19	2
S-30	NS	4/24/19	10/28/19	2
Lower Glenshaw				
MW-3B	NS	4/19/19	11/4/19	2
MW-4B	NS	5/3/19	11/1/19	2
MW-6	NS	4/23/19	10/23/19	2
MW-7B	NS	4/23/19	10/31/19	2
MW-9BR	NS	4/24/19	11/1/19	2
MW-11B	NS	4/23/19	10/23/19	2
MW-12B	NS	5/3/19	10/30/19	2
MW-14AR	NS	4/23/19	10/23/19	2
MW-16A	NS	4/19/19	10/18/19	2
MW-17A	1/29/19	4/9/19	10/18/19	3
MW-30B	NS	5/2/19	10/30/19	2
MW-40C	NS	5/31/19	10/23/19	2
MW-49B	1/29/19	5/8/19	11/4/19	3
S-1VI	1/29/19	4/24/19	10/29/19	3
S-17	1/29/19	4/24/19	10/24/19	3
S-19F	1/29/19	4/24/19	10/28/19	3
S-19I	1/29/19	4/24/19	10/28/19	3
S-25A	1/29/19	4/24/19	10/28/19	3
S-78	1/10/19	4/24/19	10/24/19	3
Freeport				
MW- 3A	NS	4/19/19	11/4/19	2
MW- 4AR	NS	4/25/19	11/1/19	2
MW- 7A	NS	4/23/19	10/29/19	2
MW-11A	NS	4/23/19	10/23/19	2
MW-14BR	NS	4/23/19	10/23/19	2
MW-16B	NS	4/29/19	10/28/19	2
MW-17B	NS	4/9/19	10/18/19	2
MW-30C	NS	5/2/19	10/30/19	2
MW-33A	NS	4/25/19	10/10/19	2
S-1VE	NS	4/24/19	NS	1
S-4PA	NS	4/24/19	10/29/19	2
S-85	NS	4/24/19	10/24/19	2
Worthington				
MW-18A	NS	4/25/19	10/17/19	2
MW-21B	NS	4/29/19	10/28/19	2
MW-30D	NS	5/2/19	10/29/19	2
MW-32B	NS	4/17/19	10/15/19	2
MW-33B	NS	4/16/19	10/9/19	2
S-1VC	NS	4/24/19	10/29/19	2
S-4PC	1/29/19	4/24/19	10/29/19	3
S-16D	NS	4/23/19	10/29/19	2
S-19AC	NS	4/24/19	10/29/19	2
S-81	NS	NS	NS	0
S-84	NS	4/24/19	10/24/19	2
Kittanning				
MW-13B	NS	4/11/19	10/17/19	2
MW-16C	NS	4/30/19	NS	1
MW-22B	NS	4/11/19	10/23/19	2
MW-30E	NS	5/21/19	11/1/19	2
MW-32C	NS	4/19/19	10/15/19	2
MW-33C	NS	4/17/19	10/10/19	2
First Valley Landslide	2/21/19	4/24/19	10/29/19	3
Clarion				
MW-13A	NS	4/11/19	10/17/19	2
MW-15B	NS	4/18/19	10/18/19	2
MW-23B	NS	4/9/19	10/18/19	2
MW-32D	NS	4/19/19	10/15/19	2
MW-33D	NS	5/1/19	10/10/19	2

Footnotes:

* - Event 1 only included the 10 new locations used to further characterize SSLs for As and Li

NS - No Sample

FIGURE



*INFORMAL DESIGNATION FOR GROUNDWATER MODEL

**INFORMAL DESIGNATION FOR IMPACT ASSESSMENTS

AQUITARD

* HAND SIGNATURE ON FILE

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FIRSTENERGY GENERATION, LLC
LITTLE BLUE RUN DISPOSAL AREA

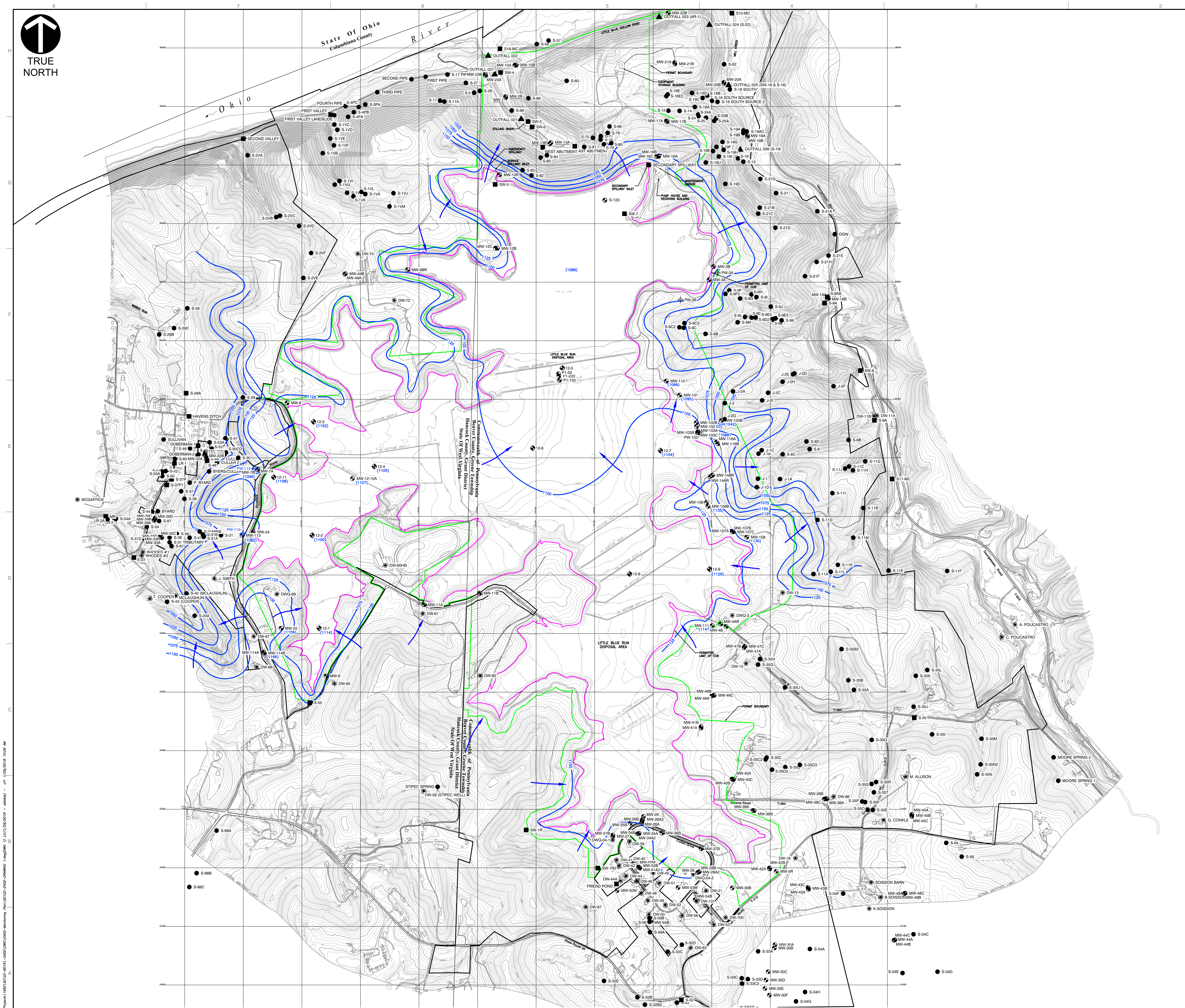
GENERALIZED STRATIGRAPHIC COLUMN

DRAWN BY:	SCC	CHECKED BY:	RAE	APPROVED BY:	MLO*	FIGURE NO.:
DATE:	3/26/2015	DWG SCALE:	N.T.S.	PROJECT NO:	92122.8019	1

G:\Projects\1992\92122-8019\-CADD\DWG\EN02-Monitoring Plan\92122-EN02-FIGURE 1.DWG{FIGURE 1} LS:(4/3/2015 - jbrooks) - LP: 10/31/2017 11:21 AM

DRAWINGS

TRUE NORTH



REVISION RECORD

NO	DATE	DESCRIPTION

SUBMITTAL RECORD

NO	DATE	DESCRIPTION

LEGEND

- FIRSTENERGY GENERATION, LLC PROPERTY LINE
- PERMITTED LIMIT OF CCR
- 1100 — EXISTING TOPOGRAPHIC CONTOUR
- PERMIT BOUNDARY
- EXISTING ACCESS ROADS
- EXISTING ROADWAY
- MONITORING WELL
- PUMPING WELL
- DOMESTIC WELL
- PERMITTED OUTFALL
- SPRING
- SURFACE WATER SAMPLE
- 12-1 — NESTED VIBRATING WIRE PIEZOMETERS
- (1125) — MEASURED ANNUAL HIGH GROUNDWATER ELEVATION
- 1075 — ANNUAL HIGH WATER TABLE CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION

REFERENCES

1. EXISTING TOPOGRAPHY AND SITE FEATURES BASED ON AERIAL MAPPING PREPARED BY NOR EAST MAPPING, DATED: NOVEMBER 10, 2003 AND MARCH 19, 2010.
2. EXISTING CCB TOPOGRAPHY AND GEOTUBES WITHIN IMPOUNDMENT ARE BASED ON A APRIL, 2012 GROUND SURVEY PERFORMED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

SCALE IN FEET
0 600 1200

*HAND SIGNATURE ON FILE

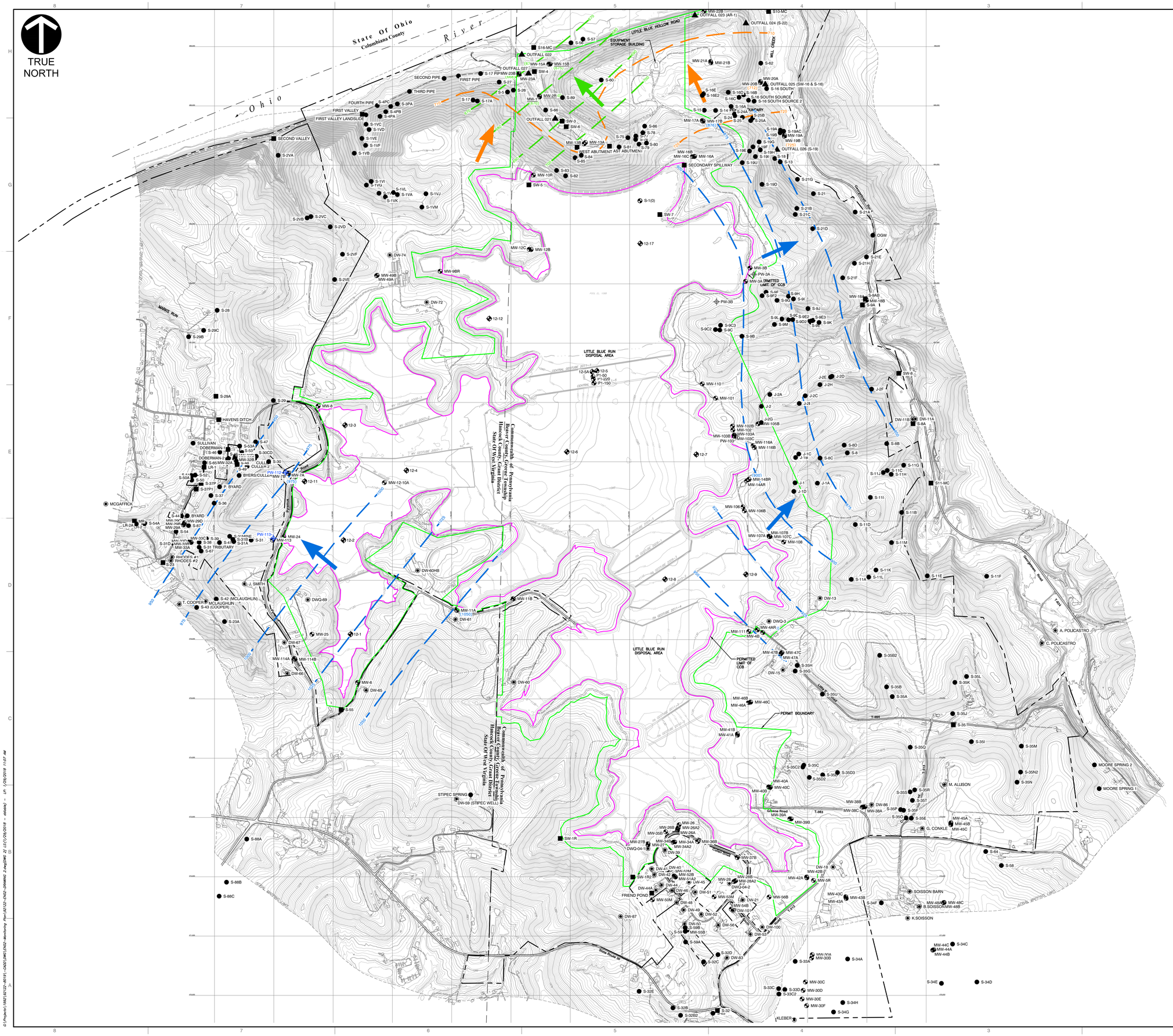
Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
Ph: 412.429.2324 · 800.365.2324 · Fax: 412.429.2114
www.cecinc.com

FIRSTENERGY GENERATION, LLC
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
LITTLE BLUE RUN DISPOSAL AREA
BEAVER COUNTY, PENNSYLVANIA

DRAWN BY:	DWD	CHECKED BY:	RAE	APPROVED BY:	MLO*
DATE:	7/11/2017	DWG SCALE:	1"=600'	PROJECT NO:	92-122.8019

ANNUAL HIGH GROUNDWATER LEVELS

DRAWING NO.: 1



REVISION RECORD

NO	DATE	DESCRIPTION

SUBMITTAL RECORD

NO	DATE	DESCRIPTION

LEGEND

— — —	FIRSTENERGY GENERATION, LLC PROPERTY LINE
—	PERMITTED LIMIT OF CCR
1100	EXISTING TOPOGRAPHIC CONTOUR
—	PERMIT BOUNDARY
═ ═ ═	EXISTING ACCESS ROADS
═	EXISTING ROADWAY
GEOTUBE	EXISTING GEOTUBE (MARCH 2013)
◕	MONITORING WELL
⊕	PUMPING WELL
◉	DOMESTIC WELL
▲	PERMITTED OUTFALL
●	SPRING
■	SURFACE WATER SAMPLE
⊕ 12-1	NESTED VIBRATING WIRE PIEZOMETERS
— — —	EQUIPOTENTIAL LINE FOR FREEPORT AQUIFER
→	DIRECTION OF GROUNDWATER FLOW IN FREEPORT AQUIFER
(1050)	MEASURED GROUNDWATER ELEVATION – FREEPORT AQUIFER
— — —	EQUIPOTENTIAL LINE FOR KITTANNING AQUIFER
→	DIRECTION OF GROUNDWATER FLOW IN KITTANNING AQUIFER
(1050)	MEASURED GROUNDWATER ELEVATION – KITTANNING AQUIFER
— — —	EQUIPOTENTIAL LINE FOR CLARION AQUIFER
→	DIRECTION OF GROUNDWATER FLOW IN CLARION AQUIFER
(1050)	MEASURED GROUNDWATER ELEVATION – CLARION AQUIFER

REFERENCES

1. EXISTING TOPOGRAPHY AND SITE FEATURES BASED ON AERIAL MAPPING PREPARED BY NOR EAST MAPPING, DATED: NOVEMBER 10, 2003 AND MARCH 19, 2010.
2. EXISTING CCB TOPOGRAPHY AND GEOTUBES WITHIN IMPOUNDMENT ARE BASED ON A APRIL, 2012 GROUND SURVEY PERFORMED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

SCALE IN FEET
0 600 1200

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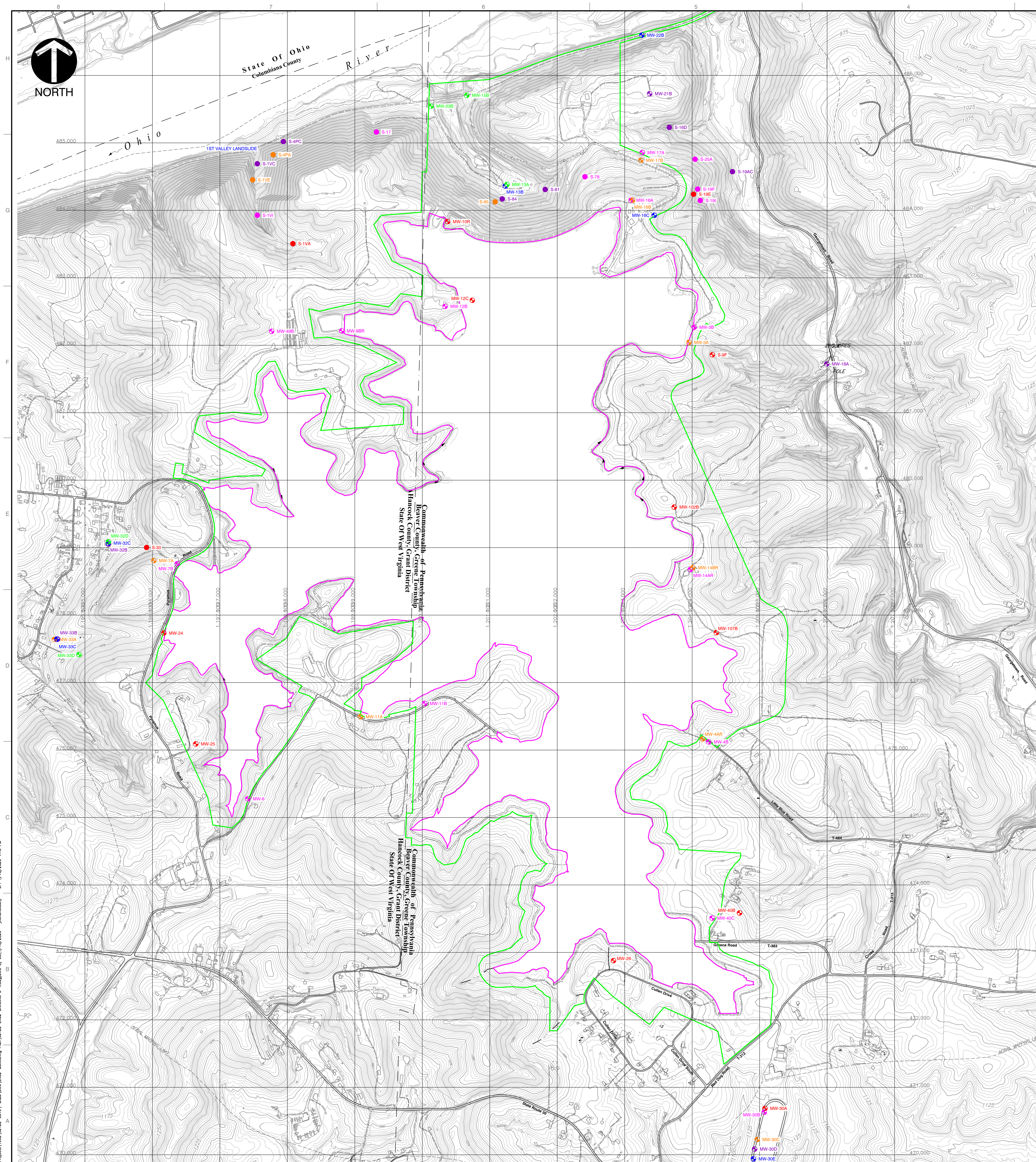
LITTLE BLUE RUN DISPOSAL AREA
BEAVER COUNTY, PENNSYLVANIA

DRAWN BY:	DWD	CHECKED BY:	RAE	APPROVED BY:	MLO*
DATE:	7/11/2017	DWG SCALE:	1"=600'	PROJECT NO:	92-122.8019

POTENTIOMETRIC CONTOUR MAP

DRAWING NO.: 2



REVISION RECORD

NO	DATE	DESCRIPTION

LEGEND

- PERMITTED LIMIT OF CCR
- 1100 EXISTING TOPOGRAPHIC CONTOUR
- PERMIT BOUNDARY
- EXISTING ACCESS ROADS
- EXISTING ROADWAY
- EXISTING TRIBUTARY

MONITORING LOCATIONS

- MONITORING WELL
- SPRING

MONITORED AQUIFER

- MIDDLE GLENSHAW AQUIFER
- LOWER GLENSHAW AQUIFER
- FREEPORT AQUIFER
- WORTHINGTON AQUIFER
- KITTANNING AQUIFER
- CLARION AQUIFER

SCALE IN FEET

0 600 1200

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FIRSTENERGY GENERATION, LLC
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
LITTLE BLUE RUN DISPOSAL AREA
BEAVER COUNTY, PENNSYLVANIA

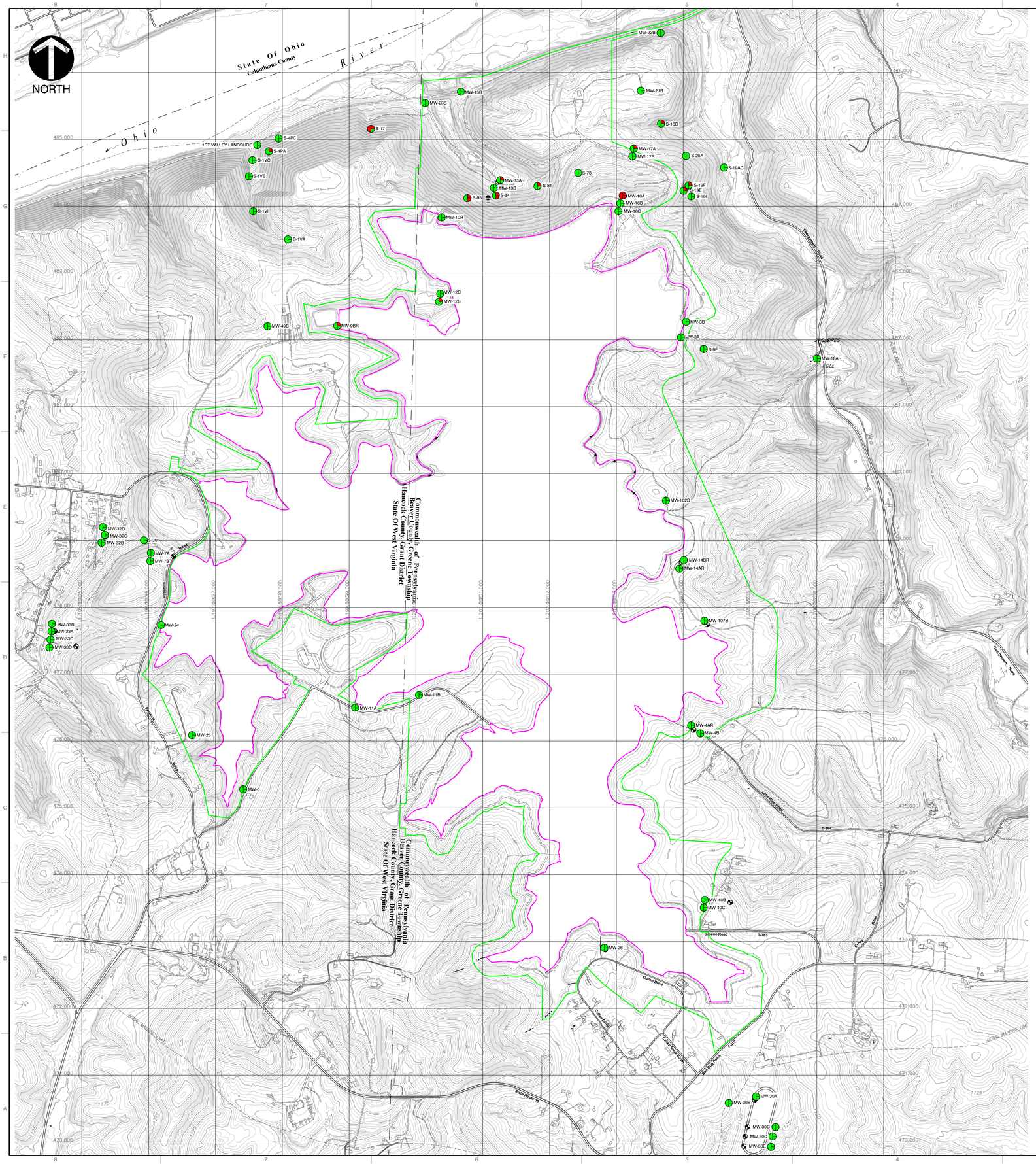
DRAWN BY: JML	CHECKED BY: RAE	APPROVED BY: MLO*
DATE: 05/14/2019	DWG SCALE: 1"=600'	PROJECT NO: 92-122.8019

CCR RULE MONITORING NETWORK

DRAWING NO.: 3

REVISION RECORD

NO	DATE	DESCRIPTION
△		
△		
△		
△		



LEGEND

🟪	PERMITTED LIMIT OF CCR
—— 1100 ——	EXISTING TOPOGRAPHIC CONTOUR
🟩	PERMIT BOUNDARY
═══════	EXISTING ACCESS ROADS
═══════	EXISTING ROADWAY
—— · · · ——	EXISTING TRIBUTARY

COMPLIANCE STATUS

Li–GWPS
Li–SHS
AS GWPS/SHS

RED – INDICATES SSL > GWPS OR SHS

GREEN – INDICATES COMPLIANCE STATUS WITH GWPS OR SHS

SCALE IN FEET
0 600 1200

*HAND SIGNATURE ON FILE

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FIRSTENERGY GENERATION, LLC
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
LITTLE BLUE RUN DISPOSAL AREA
BEAVER COUNTY, PENNSYLVANIA

DRAWN BY:	DWD	CHECKED BY:	RAE	APPROVED BY:	MLO*
DATE:	7/11/2017	DWG SCALE:	1"=600'	PROJECT NO:	92-122.8019

STATUS OF AS AND LI COMPLIANCE
WITH GWPS AND SHS

DRAWING NO.: 4

G:\Projects\1992\92122-8019\-CADD\DWG\EN02-Monitoring Plan\92122-EN02-DRAWING 3-4.dwg{DWG 4} LS:(1/10/2020 - jhendrickson) - LP: 1/10/2020 1:11 PM

APPENDIX A

ACM DEMONSTRATION FOR 60-DAY EXTENSION

COAL COMBUSTION RESIDUALS RULE
ASSESSMENT OF CORRECTIVE MEASURES
DEMONSTRATION FOR 60-DAY EXTENSION

FirstEnergy Generation, LLC
Little Blue Run Disposal Facility
Greene Township, Beaver County, PA / Grant District, Hancock County, WV
April 15, 2019

DEMONSTRATION

To satisfy 40 CFR § 257.95(g)(1), FirstEnergy Generation, LLC is currently in the process of characterizing the nature and extent of two constituents including arsenic and lithium that have been detected at statistically significant levels above groundwater protection standards at the Little Blue Run Disposal Facility ("Little Blue Run"). As allowed under 40 CFR § 257.96(a), an additional 60 days is required to collect a sufficient amount of data to support an accurate assessment of corrective measures. As a result, the Assessment of Corrective Measures Report for Little Blue Run will now be completed by June 14, 2019 instead of April 15, 2019.

CERTIFICATION

We hereby certify to the best of knowledge, information, and belief that the above demonstration meets the requirements of 40 CFR § 257.96(a).

Rick J. Buffalini
Name of Professional Engineer

Signature

041196-E	PA	4-11-19
Registration No.	Registration State	Date

Mark L. Orzechowski
Name of Professional Geologist

Signature

003964	PA	4-11-2019
Registration No.	Registration State	Date

APPENDIX B

ANALYTICAL DATA SUMMARY

MIDDLE GLENSHAW

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	143.92	144.18
Water Elevation (ft AMSL):	957.70	957.44
Monitoring Point:	**MW-10R**	**MW-10R**
Date Sampled:	**4/17/19**	**10/28/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.44	7.81
Dissolved Metals (mg/L)		
Antimony	<0.002	0.00037 J *
Arsenic	0.00099 J	0.00076 J B
Barium	0.019	0.02
Beryllium	<0.001	<0.001 B *
Boron	0.35	0.4
Cadmium	<0.001	<0.001
Calcium	180	180
Chromium	0.0011 J	0.0012 J
Cobalt	0.00016 J	0.00012 J
Lead	<0.001	<0.001
Lithium	0.054	0.058
Magnesium	290	280
Mercury	<0.0002	<0.0002
Molybdenum	0.0028 J	0.0022 J
Potassium	7.8	7.3
Selenium	<0.005	<0.005
Sodium	310	300
Thallium	<0.001	<0.001 B
Total Metals (mg/L)		
Antimony	0.00053 J	<0.002 *
Arsenic	0.0016	0.00075 J B
Barium	0.044	0.02
Beryllium	<0.001	<0.001 B *
Boron	0.33	0.38
Cadmium	0.00022 J	<0.001
Calcium	170	170
Chromium	0.018	0.0016 J
Cobalt	0.0013	0.00011 J
Lead	0.0028	0.00023 J
Lithium	0.052	0.052
Magnesium	280	270
Mercury	<0.0002	<0.0002
Molybdenum	0.0028 J	0.0021 J
Potassium	8.3	7.2
Selenium	<0.005	<0.005
Sodium	300	290
Thallium	<0.001	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	320	320
Chloride	270	270
Fluoride	0.22 J	0.17 J
Laboratory pH (S.U.)	7.5 HF	7.9 HF
Sulfate	1200	1400
Total Dissolved Solids (TDS)	2600	2700
Turbidity (NTU)	14	1.6
Radium-226 (pCi/L)	0.333	<0.108
Radium-228 (pCi/L)	<0.457	1.03
Ra-226 + 228 combined (pCi/L)	0.79	1.14

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	69.31	80.33
Water Elevation (ft AMSL):	1083.97	1072.95
Monitoring Point:	**MW-12C**	**MW-12C**
Date Sampled:	**4/19/19**	**10/30/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.6	7.18
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	<0.001	<0.001
Barium	0.024	0.023
Beryllium	<0.001	<0.001
Boron	1.1	1.1
Cadmium	<0.001	<0.001
Calcium	200	270
Chromium	<0.002	<0.002
Cobalt	0.00052	0.0005
Lead	<0.001	<0.001
Lithium	0.061	0.063 B
Magnesium	68	88
Mercury	<0.0002	<0.0002
Molybdenum	0.0026 J	0.0023 J
Potassium	6.1	6.5
Selenium	<0.005	<0.005
Sodium	130 B	150
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00024 J	<0.001
Barium	0.025	0.023
Beryllium	<0.001	<0.001
Boron	1.1	1.2
Cadmium	<0.001	<0.001
Calcium	200	270
Chromium	0.0018 J	0.0011 J
Cobalt	0.0006	0.0006
Lead	0.0011	0.00086 J
Lithium	0.06	0.066 B
Magnesium	67	89
Mercury	<0.0002	<0.0002
Molybdenum	0.0025 J	0.0022 J
Potassium	6.3	6.6
Selenium	<0.005	<0.005
Sodium	130 B	150
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	260	230
Chloride	65	79
Fluoride	0.31	0.17
Laboratory pH (S.U.)	7.4 HF	7.6 HF
Sulfate	660	960 H
Total Dissolved Solids (TDS)	1400	1800
Turbidity (NTU)	8.7	3.9
Radium-226 (pCi/L)	0.112	<0.105
Radium-228 (pCi/L)	<0.131	<0.263
Ra-226 + 228 combined (pCi/L)	<0.243	<0.368

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	32.09	32.98
Water Elevation (ft AMSL):	1088.29	1087.40
Monitoring Point:	**MW-24**	**MW-24**
Date Sampled:	**5/6/19**	**11/1/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.29	7.53
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00019 J	<0.001
Barium	0.039	0.06
Beryllium	<0.001	<0.001 B
Boron	0.16	0.19
Cadmium	<0.001	<0.001
Calcium	150	220
Chromium	0.0007 J	<0.002
Cobalt	0.00016 J	<0.0005
Lead	<0.001	0.0002 J
Lithium	0.016	0.022
Magnesium	53	69
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	3.3	4.1
Selenium	<0.005	<0.005
Sodium	67	100
Thallium	<0.001	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00022 J	<0.001
Barium	0.044	0.06
Beryllium	<0.001	<0.001 B
Boron	0.17	0.19
Cadmium	<0.001	<0.001
Calcium	170	230
Chromium	0.0018 J	0.00086 J
Cobalt	0.00022 J	0.00012 J
Lead	0.00075 J	0.00022 J
Lithium	0.018	0.023
Magnesium	58	72
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	3.6	4.3
Selenium	<0.005	<0.005
Sodium	75	110
Thallium	<0.001	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	160	160
Chloride	170	270
Fluoride	0.33	0.16
Laboratory pH (S.U.)	7.6 HF	7.7 HF
Sulfate	460	740
Total Dissolved Solids (TDS)	1400	1800
Turbidity (NTU)	14	3.3
Radium-226 (pCi/L)	0.421	0.394
Radium-228 (pCi/L)	0.399	<0.253
Ra-226 + 228 combined (pCi/L)	0.82	0.647

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	63.18	64.98
Water Elevation (ft AMSL):	1155.54	1153.74
Monitoring Point:	**MW-25**	**MW-25**
Date Sampled:	**4/25/19**	**10/23/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.54	7.57
Dissolved Metals (mg/L)		
Antimony	0.004	<0.002
Arsenic	0.015	0.00036 J B
Barium	0.28	0.28
Beryllium	0.0085	<0.001 B *
Boron	0.11	0.087 B
Cadmium	0.0083	<0.001
Calcium	64	65
Chromium	0.0091	<0.002
Cobalt	0.0076	<0.0005
Lead	0.0085	<0.001
Lithium	0.021	0.013
Magnesium	24	24
Mercury	<0.0002	<0.0002
Molybdenum	0.008	<0.005
Potassium	3.7	3.3
Selenium	0.018	<0.005
Sodium	46	42
Thallium	0.017	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00044 J	0.0005 J B
Barium	0.26	0.29
Beryllium	<0.001	<0.001 B *
Boron	0.089	0.092 B
Cadmium	<0.001	<0.001
Calcium	61	66
Chromium	0.0019 J	0.0017 J
Cobalt	0.00022 J	0.00047 J
Lead	0.00068 J	0.0016
Lithium	0.014	0.014
Magnesium	22	24
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	3.3	3.3
Selenium	<0.005	<0.005
Sodium	44	42
Thallium	<0.001	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	270	270
Chloride	4.8	4.1
Fluoride	0.11	0.11
Laboratory pH (S.U.)	7.7 HF	7.6 HF
Sulfate	44	42
Total Dissolved Solids (TDS)	330	350
Turbidity (NTU)	4.4	9.4
Radium-226 (pCi/L)	0.343	0.487
Radium-228 (pCi/L)	<0.255 *	<0.173
Ra-226 + 228 combined (pCi/L)	0.598	0.66

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	45.56	49.85
Water Elevation (ft AMSL):	1149.45	1145.16
Monitoring Point:	**MW-26**	**MW-26**
Date Sampled:	**4/24/19**	**10/4/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	6.88	7.22
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	<0.001	<0.001 B
Barium	0.027	0.032
Beryllium	<0.001	0.00013 J
Boron	0.13	0.13
Cadmium	<0.001	<0.001
Calcium	88	94
Chromium	0.001 J	0.0016 J B
Cobalt	<0.0005	0.00018 J
Lead	<0.001	0.00032 J B
Lithium	0.01	0.016
Magnesium	29	30
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	2	2 B
Selenium	<0.005	<0.005
Sodium	31 B	34 B
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00018 J	0.00023 J B
Barium	0.027	0.032
Beryllium	<0.001	<0.001
Boron	0.12	0.13
Cadmium	<0.001	<0.001
Calcium	89	95
Chromium	0.0015 J	0.0014 J B
Cobalt	<0.0005	<0.0005
Lead	0.00023 J	0.00024 J B
Lithium	0.01	0.015
Magnesium	29	30
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	2	1.9 B
Selenium	<0.005	<0.005
Sodium	32 B	35 B
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	260	260
Chloride	12	13
Fluoride	0.21	0.17
Laboratory pH (S.U.)	7.5 HF	7.6 HF
Sulfate	120	140
Total Dissolved Solids (TDS)	450	520
Turbidity (NTU)	1	0.97
Radium-226 (pCi/L)	<0.0885	0.261
Radium-228 (pCi/L)	<0.305	<0.455
Ra-226 + 228 combined (pCi/L)	<0.394	0.716

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	55.71	57.89
Water Elevation (ft AMSL):	1093.12	1090.94
Monitoring Point:	**MW-30A**	**MW-30A**
Date Sampled:	**5/2/19**	**10/30/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	9.15	9.22
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00024 J	0.00017 J
Barium	0.029	0.03
Beryllium	<0.001	<0.001
Boron	0.26	0.26
Cadmium	<0.001	<0.001
Calcium	0.78	0.76
Chromium	<0.002	<0.002
Cobalt	<0.0005	<0.0005
Lead	<0.001	<0.001
Lithium	0.0057	<0.005 B
Magnesium	0.14 J	0.15 J
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	0.56	0.5
Selenium	<0.005	<0.005
Sodium	230	230
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00036 J	0.00023 J
Barium	0.033	0.031
Beryllium	<0.001	<0.001
Boron	0.27	0.27
Cadmium	<0.001	<0.001
Calcium	0.93	0.81
Chromium	0.001 J	<0.002
Cobalt	0.00018 J	<0.0005
Lead	0.00068 J	<0.001
Lithium	0.0069	<0.005 B
Magnesium	0.2 J	0.15 J
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	0.57	0.5
Selenium	<0.005	<0.005
Sodium	230	230
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	470	460
Chloride	11	10
Fluoride	2.2	2
Laboratory pH (S.U.)	9.1 HF	9.1 HF
Sulfate	16	16
Total Dissolved Solids (TDS)	550	530
Turbidity (NTU)	15	4.8
Radium-226 (pCi/L)	<0.111	<-0.00427
Radium-228 (pCi/L)	<-0.0554	<0.241
Ra-226 + 228 combined (pCi/L)	<0.0555	<0.237

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	71.84	74.74
Water Elevation (ft AMSL):	1105.94	1103.04
Monitoring Point:	**MW-40B**	**MW-40B**
Date Sampled:	**5/22/19**	**10/22/19**
CCR Rule Sample Event	**2**	3
Field Parameters		
pH (S.U.)	9.1	8.81
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00036 J	<0.001
Barium	0.067	0.068
Beryllium	<0.001 B	<0.001
Boron	0.27 B	0.27
Cadmium	<0.001	<0.001
Calcium	0.8	0.78
Chromium	<0.002	<0.002
Cobalt	<0.0005	<0.0005
Lead	<0.001	<0.001
Lithium	0.0045 J	0.0083
Magnesium	0.16 J	0.13 J
Mercury	<0.0002	<0.0002 B
Molybdenum	<0.005	<0.005
Potassium	0.63	0.58
Selenium	<0.005	0.0026 J
Sodium	190 B	200
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00086 J	0.00037 J
Barium	0.11	0.077
Beryllium	0.00027 J B	<0.001
Boron	0.27 B	0.26
Cadmium	<0.001	<0.001
Calcium	1.9	1.1
Chromium	0.0047	0.0014 J
Cobalt	0.0013	0.00049 J
Lead	0.0022	0.0007 J
Lithium	0.0089	0.0081
Magnesium	0.96	0.35 J
Mercury	<0.0002	<0.0002 B
Molybdenum	<0.005	<0.005
Potassium	1.7	0.89
Selenium	<0.005	0.0028 J
Sodium	190 B	200
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	370	360
Chloride	33	36
Fluoride	1.6	1.6
Laboratory pH (S.U.)	9 HF	8.9 HF
Sulfate	4.3	5.8
Total Dissolved Solids (TDS)	510	460
Turbidity (NTU)	130	0.2 J
Radium-226 (pCi/L)	<0.0736	<0.0259
Radium-228 (pCi/L)	<0.408	<0.286
Ra-226 + 228 combined (pCi/L)	<0.482	<0.312

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	62.66	65.39
Water Elevation (ft AMSL):	1071.95	1069.22
Monitoring Point:	**MW-102B**	**MW-102B**
Date Sampled:	**4/23/19**	**10/22/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	6.1	7.45
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00029 J	<0.001
Barium	0.013	0.013
Beryllium	<0.001	<0.001
Boron	0.25	0.23
Cadmium	<0.001	<0.001
Calcium	240	250
Chromium	0.001 J	<0.002
Cobalt	0.00021 J	<0.0005
Lead	<0.001	<0.001
Lithium	0.036	0.041
Magnesium	76	72
Mercury	<0.0002 B	<0.0002 B
Molybdenum	<0.005	<0.005
Potassium	5.9	5.5
Selenium	<0.005	0.0022 J
Sodium	520	520
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00029 J	<0.001
Barium	0.014	0.013
Beryllium	<0.001	<0.001
Boron	0.25	0.22
Cadmium	<0.001	<0.001
Calcium	240	250
Chromium	0.0012 J	<0.002
Cobalt	0.00022 J	<0.0005
Lead	<0.001	<0.001
Lithium	0.037	0.041
Magnesium	76	72
Mercury	<0.0002 B	<0.0002 B
Molybdenum	<0.005	<0.005
Potassium	5.9	5.5
Selenium	<0.005	0.0016 J
Sodium	520	520
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	190	190
Chloride	240	250
Fluoride	0.22 J	0.22 J
Laboratory pH (S.U.)	7.8 HF	7.7 HF
Sulfate	1500	1500
Total Dissolved Solids (TDS)	2500	2600
Turbidity (NTU)	8.1	29
Radium-226 (pCi/L)	<0.0749	<0.0842
Radium-228 (pCi/L)	<0.0636	<-0.0362
Ra-226 + 228 combined (pCi/L)	<0.138	<0.0480

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	58.74	62.02
Water Elevation (ft AMSL):	1095.46	1092.18
Monitoring Point:	**MW-107B**	**MW-107B**
Date Sampled:	**4/23/19**	**10/24/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.74	7.62
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002 *
Arsenic	0.0002 J	0.00019 J
Barium	0.032	0.034
Beryllium	<0.001	<0.001 *
Boron	0.15	0.18
Cadmium	<0.001	<0.001
Calcium	36	41
Chromium	0.0014 J	<0.002
Cobalt	<0.0005	<0.0005
Lead	<0.001	<0.001
Lithium	0.018	0.018
Magnesium	8.7	9.8
Mercury	<0.0002 B	<0.0002
Molybdenum	<0.005	<0.005
Potassium	2.5	2.4
Selenium	<0.005	<0.005
Sodium	340	300 B
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002 *
Arsenic	<0.001	0.00036 J
Barium	0.032	0.061
Beryllium	<0.001	0.00009 J *
Boron	0.15	0.2
Cadmium	<0.001	<0.001
Calcium	36	41
Chromium	0.0014 J	0.0012 J
Cobalt	<0.0005	0.00033 J
Lead	<0.001	0.00047 J
Lithium	0.018	0.019
Magnesium	8.8	9.9
Mercury	<0.0002 B	<0.0002
Molybdenum	<0.005	<0.005
Potassium	2.5	2.5
Selenium	<0.005	<0.005
Sodium	330	310 B
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	250	250
Chloride	170	160
Fluoride	0.56	0.61
Laboratory pH (S.U.)	8 HF	7.8 HF
Sulfate	310	290
Total Dissolved Solids (TDS)	990	880
Turbidity (NTU)	1.7	4.2
Radium-226 (pCi/L)	<0.0334	<0.0353
Radium-228 (pCi/L)	<0.214	<0.309
Ra-226 + 228 combined (pCi/L)	<0.248	<0.344

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft	1035	1035
Monitoring Point:	**S-1VA**	**S-1VA**
Date Sampled:	**4/24/19**	**10/29/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	6.51	7.85
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00031 J	0.0004 J
Barium	0.021	0.03
Beryllium	<0.001	<0.001
Boron	0.041 J B	0.049 J
Cadmium	<0.001	<0.001
Calcium	16	16
Chromium	0.00081 J	<0.002
Cobalt	<0.0005	<0.0005
Lead	<0.001	<0.001
Lithium	0.0021 J	<0.005
Magnesium	6.5	6.9
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	1.3	1.3
Selenium	<0.005	<0.005
Sodium	3.1	2.8
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00046 J	0.00071 J
Barium	0.024	0.034
Beryllium	<0.001	<0.001
Boron	0.045 J B	0.05 J
Cadmium	<0.001	<0.001
Calcium	16	15
Chromium	0.001 J	0.001 J
Cobalt	0.0003 J	0.00049 J
Lead	0.00044 J	0.00067 J
Lithium	0.0025 J	<0.005
Magnesium	6.5	7
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	1.3	1.3
Selenium	<0.005	<0.005
Sodium	3.4	2.8
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	29	38
Chloride	0.92 J	0.95 J
Fluoride	0.038 J	0.061 J
Laboratory pH (S.U.)	7.5 HF	7.3 HF
Sulfate	37	30
Total Dissolved Solids (TDS)	83	1200
Turbidity (NTU)	4.4	8
Radium-226 (pCi/L)	<0.00701	<-0.0586
Radium-228 (pCi/L)	<0.136	<0.289
Ra-226 + 228 combined (pCi/L)	<0.143	<0.231

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft	1011	1011
Monitoring Point:	**S-9F**	**S-9F**
Date Sampled:	**4/17/19**	**10/28/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.03	7.13
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002 *
Arsenic	0.00024 J	0.00028 J
Barium	0.02	0.035 B
Beryllium	<0.001	<0.001
Boron	1.3 B	2.2
Cadmium	<0.001	<0.001
Calcium	110	200
Chromium	0.00091 J	<0.002
Cobalt	0.00015 J	0.00034 J
Lead	<0.001	<0.001
Lithium	0.013	0.0079
Magnesium	31	54
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	7.4 B	13
Selenium	<0.005	<0.005
Sodium	200	330
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002 *
Arsenic	0.00027 J	0.00041 J
Barium	0.021	0.036 B
Beryllium	<0.001	<0.001
Boron	1.3 B	2.2
Cadmium	<0.001	<0.001
Calcium	110	210
Chromium	0.00079 J	0.0006 J
Cobalt	0.00024 J	0.00048 J
Lead	0.00021 J	0.00073 J
Lithium	0.012	0.0081
Magnesium	32	55
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	7.4 B	13
Selenium	<0.005	<0.005
Sodium	190	330
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	41	46
Chloride	57	120
Fluoride	0.079 J	0.061 J
Laboratory pH (S.U.)	7.3 HF	7.3 HF
Sulfate	630	1200
Total Dissolved Solids (TDS)	1000	1400
Turbidity (NTU)	0.82 J	3.3
Radium-226 (pCi/L)	<-0.0312	0.116
Radium-228 (pCi/L)	<0.0293	<0.430
Ra-226 + 228 combined (pCi/L)	<-0.00183	<0.545

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft	999	999
Monitoring Point:	**S-19E**	**S-19E**
Date Sampled:	**4/24/19**	**10/28/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.07	6.87
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00031 J	<0.001
Barium	0.017	0.019
Beryllium	0.00043 J B	<0.001 *
Boron	2.2 B	2.5
Cadmium	<0.001	<0.001
Calcium	430	470
Chromium	0.00068 J	<0.002
Cobalt	0.00047 J	0.00048 J
Lead	<0.001	<0.001
Lithium	0.092	0.087
Magnesium	42	45
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	46	48
Selenium	<0.005	<0.005
Sodium	510	590
Thallium	0.00013 J B	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00024 J	<0.001
Barium	0.017	0.02
Beryllium	<0.001 B	<0.001 *
Boron	2.1 B	2.4
Cadmium	<0.001	<0.001
Calcium	430	480
Chromium	0.00087 J	<0.002
Cobalt	0.00045 J	0.00048 J
Lead	<0.001	<0.001
Lithium	0.089	0.092
Magnesium	41	46
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	46	49
Selenium	<0.005	<0.005
Sodium	520	590
Thallium	<0.001 B	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	90	97
Chloride	280	310
Fluoride	0.27	0.16 J
Laboratory pH (S.U.)	7.5 HF	7.5 HF
Sulfate	2000	2100
Total Dissolved Solids (TDS)	3600	3600
Turbidity (NTU)	0.07 J	0.29 J
Radium-226 (pCi/L)	<-0.00787	<-0.0442
Radium-228 (pCi/L)	0.672 *	<-0.0880
Ra-226 + 228 combined (pCi/L)	0.664	<-0.132

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft	1067	1067
Monitoring Point:	**S-30**	**S-30**
Date Sampled:	**4/24/19**	**10/28/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.55	7.67
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002 *
Arsenic	0.00041 J	0.00035 J B
Barium	0.031	0.037
Beryllium	0.0006 J B	<0.001 B *
Boron	0.23 B	0.3
Cadmium	<0.001	<0.001
Calcium	32	47
Chromium	0.001 J	0.00079 J
Cobalt	0.00012 J	<0.0005
Lead	<0.001	<0.001
Lithium	0.0086	0.0038 J
Magnesium	6.6	8.4
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	3.4	3
Selenium	0.0028 J	0.0022 J
Sodium	38	36
Thallium	0.00025 J B	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	<0.002 *
Arsenic	0.00032 J	0.00086 J B
Barium	0.035	0.056
Beryllium	0.0002 J B	<0.001 B *
Boron	0.23 B	0.3
Cadmium	<0.001	<0.001
Calcium	34	47
Chromium	0.0007 J	0.0012 J
Cobalt	0.00024 J	0.00093
Lead	0.00031 J	0.0022
Lithium	0.0069	0.0041 J
Magnesium	6.9	8.4
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	3.5	3
Selenium	0.0025 J	0.0021 J
Sodium	39	35
Thallium	<0.001 B	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	53	89
Chloride	47	28
Fluoride	0.091 J	0.076 J
Laboratory pH (S.U.)	7.6 HF	7.9 HF
Sulfate	68	77
Total Dissolved Solids (TDS)	250	260
Turbidity (NTU)	4.6	68
Radium-226 (pCi/L)	<0.0518	<-0.108
Radium-228 (pCi/L)	<-0.109	<0.122
Ra-226 + 228 combined (pCi/L)	<-0.0575	<0.0139

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

LOWER GLENSHAW

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	42.42	43.24
Water Elevation (ft AMSL):	1059.45	1058.63
Monitoring Point:	**MW-3B**	**MW-3B**
Date Sampled:	**4/19/19**	**11/4/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	6.68	6.85
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00059 J	0.00058 J
Barium	0.012	0.012
Beryllium	<0.001	0.00046 J
Boron	2.4	2.2
Cadmium	<0.001	<0.001
Calcium	540	570
Chromium	0.00083 J	<0.002
Cobalt	0.0032	0.0022
Lead	<0.001	0.00035 J
Lithium	0.041	0.039
Magnesium	130	120
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	18	16 B
Selenium	<0.005	<0.005
Sodium	530	470
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.001	0.00095 J
Barium	0.018	0.013
Beryllium	<0.001	0.00049 J
Boron	2.5	2.3
Cadmium	<0.001	<0.001
Calcium	550	590
Chromium	0.00088 J	<0.002
Cobalt	0.0032	0.0024
Lead	0.0013	0.00089 J
Lithium	0.041	0.042
Magnesium	130	130
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	18	17 B
Selenium	<0.005	<0.005
Sodium	530	490
Thallium	<0.001	0.00013 J
Other Constituents (mg/L)		
Total Alkalinity	150	160
Chloride	390	370
Fluoride	0.11 J	0.12 J
Laboratory pH (S.U.)	7.1 HF	7.4 HF
Sulfate	2300	2200
Total Dissolved Solids (TDS)	3700	3500
Turbidity (NTU)	28	16
Radium-226 (pCi/L)	<0.0511	<0.0617
Radium-228 (pCi/L)	<0.178	0.556
Ra-226 + 228 combined (pCi/L)	<0.229	0.618

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	60.38	62.93
Water Elevation (ft AMSL):	1122.35	1119.80
Monitoring Point:	**MW-4B**	**MW-4B**
Date Sampled:	**5/3/19**	**11/1/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	8.93	8.78
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00027 J	0.00018 J
Barium	0.022	0.023
Beryllium	0.00033 J	0.00022 J B
Boron	0.31	0.23
Cadmium	<0.001	<0.001
Calcium	8.1	6.7
Chromium	<0.002	<0.002
Cobalt	<0.0005	<0.0005
Lead	<0.001	<0.001
Lithium	0.018	0.015
Magnesium	2	1.8
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	2	1.8
Selenium	<0.005	<0.005
Sodium	630	570
Thallium	0.00015 J	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	<0.001	<0.001
Barium	0.022	0.024
Beryllium	0.00011 J	<0.001 B
Boron	0.28	0.23
Cadmium	<0.001	<0.001
Calcium	8.2	6.5
Chromium	<0.002	<0.002
Cobalt	<0.0005	<0.0005
Lead	<0.001	<0.001
Lithium	0.018	0.016
Magnesium	2	1.8
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	2	1.8
Selenium	<0.005 F1 F2	<0.005
Sodium	620	550
Thallium	<0.001	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	230	240
Chloride	250	230
Fluoride	0.73	0.56
Laboratory pH (S.U.)	8.4 HF	8.2 HF
Sulfate	870	810
Total Dissolved Solids (TDS)	1800	1700
Turbidity (NTU)	0.21 J	0.37 J
Radium-226 (pCi/L)	<-0.0156	<0.0302
Radium-228 (pCi/L)	<0.410	<0.366
Ra-226 + 228 combined (pCi/L)	<0.394	<0.396

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	62.69	64.63
Water Elevation (ft AMSL):	1114.33	1112.39
Monitoring Point:	**MW-6**	**MW-6**
Date Sampled:	**4/23/19**	**10/23/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	8.66	8.73
Dissolved Metals (mg/L)		
Antimony	0.00038 J	0.00044 J
Arsenic	0.00088 J	0.00086 J B
Barium	0.044	0.044
Beryllium	<0.001	<0.001 B *
Boron	0.3	0.3 B
Cadmium	<0.001	<0.001
Calcium	2.2	2.1
Chromium	0.00069 J	0.00065 J
Cobalt	<0.0005	<0.0005
Lead	0.0002 J	<0.001
Lithium	0.0058	0.0073
Magnesium	0.44 J	0.42 J
Mercury	<0.0002 B	<0.0002
Molybdenum	0.0023 J	0.0023 J
Potassium	1.2	1.3
Selenium	<0.005	<0.005
Sodium	390	390
Thallium	<0.001	<0.001 B
Total Metals (mg/L)		
Antimony	0.00035 J	0.0007 J
Arsenic	0.00099 J	0.0011 B
Barium	0.051	0.05
Beryllium	<0.001	<0.001 B *
Boron	0.31	0.32 B
Cadmium	<0.001	<0.001
Calcium	2.4	2.4
Chromium	0.0017 J	0.0016 J
Cobalt	0.00035 J	0.0002 J
Lead	0.0024	0.0012
Lithium	0.0059	0.0083
Magnesium	0.54	0.48 J
Mercury	<0.0002 B	<0.0002
Molybdenum	0.0022 J	0.0023 J
Potassium	1.4	1.4
Selenium	<0.005	<0.005
Sodium	400	410
Thallium	<0.001	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	680	680
Chloride	50	53
Fluoride	3.2	3.3
Laboratory pH (S.U.)	8.5 HF	8.5 HF
Sulfate	55	56
Total Dissolved Solids (TDS)	920	910
Turbidity (NTU)	23	19
Radium-226 (pCi/L)	<0.0368	<0.184
Radium-228 (pCi/L)	<0.293	<0.207
Ra-226 + 228 combined (pCi/L)	<0.330	<0.391

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	139.80	141.50
Water Elevation (ft AMSL):	980.31	978.61
Monitoring Point:	**MW-7B**	**MW-7B**
Date Sampled:	**4/23/19**	**10/31/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.65	7.59
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00058 J	0.0008 J
Barium	0.035	0.024
Beryllium	<0.001	0.00017 J B
Boron	0.29	0.29
Cadmium	<0.001	<0.001
Calcium	84	61
Chromium	<0.002	<0.002
Cobalt	0.00028 J	0.00023 J
Lead	<0.001	<0.001
Lithium	0.022	0.022
Magnesium	20	14
Mercury	<0.0002 B	<0.0002
Molybdenum	<0.005	<0.005
Potassium	3.4	2.9
Selenium	<0.005	<0.005
Sodium	380	330
Thallium	<0.001	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00082 J	0.0013
Barium	0.035	0.036
Beryllium	<0.001	<0.001 B
Boron	0.29	0.28
Cadmium	<0.001	<0.001
Calcium	83	60
Chromium	0.001 J	<0.002
Cobalt	0.00035 J	0.00036 J
Lead	0.00044 J	0.00079 J
Lithium	0.022	0.022
Magnesium	19	14
Mercury	<0.0002 B	<0.0002
Molybdenum	<0.005	<0.005
Potassium	3.4	2.9
Selenium	<0.005	<0.005
Sodium	380	320
Thallium	<0.001	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	290	290
Chloride	140	130
Fluoride	1.1	1
Laboratory pH (S.U.)	7.8 HF	7.7 HF
Sulfate	570	480
Total Dissolved Solids (TDS)	1300	1200
Turbidity (NTU)	15	20
Radium-226 (pCi/L)	0.141	<0.136
Radium-228 (pCi/L)	<0.273	<0.00567
Ra-226 + 228 combined (pCi/L)	<0.413	<0.142

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	39.22	40.95
Water Elevation (ft AMSL):	1059.40	1057.67
Monitoring Point:	**MW-9BR**	**MW-9BR**
Date Sampled:	**4/24/19**	**11/1/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.37	7.42
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	<0.001	<0.001
Barium	0.013	0.015
Beryllium	<0.001	<0.001 B
Boron	0.37	0.43
Cadmium	<0.001	<0.001
Calcium	130	93
Chromium	0.0007 J	<0.002
Cobalt	0.00071	0.00054
Lead	<0.001	<0.001
Lithium	0.051	0.049
Magnesium	32	22
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	9.1	6.8
Selenium	<0.005	<0.005
Sodium	410 B	360
Thallium	<0.001	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00022 J	<0.001
Barium	0.015	0.02
Beryllium	<0.001	<0.001 B
Boron	0.37	0.41
Cadmium	<0.001	<0.001
Calcium	130	90
Chromium	0.0018 J	<0.002
Cobalt	0.0007	0.00043 J
Lead	0.00082 J	<0.001
Lithium	0.051	0.048
Magnesium	32	22
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	8.9	6.7
Selenium	<0.005	<0.005
Sodium	420 B	350
Thallium	<0.001	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	330	300
Chloride	260	210
Fluoride	0.32	0.23
Laboratory pH (S.U.)	7.4 HF	7.5 HF
Sulfate	660	600
Total Dissolved Solids (TDS)	1600	1500
Turbidity (NTU)	12	5.3
Radium-226 (pCi/L)	<0.00770	<0.0221
Radium-228 (pCi/L)	0.602	0.651
Ra-226 + 228 combined (pCi/L)	0.61	0.673

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	35.98	40.14
Water Elevation (ft AMSL):	1121.80	1117.64
Monitoring Point:	**MW-11B**	**MW-11B**
Date Sampled:	**4/23/19**	**10/23/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.72	7.92
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00046 J	0.00058 J B
Barium	0.14	0.15
Beryllium	<0.001	<0.001 B
Boron	0.19	0.3 J
Cadmium	<0.001	<0.001
Calcium	46	44
Chromium	0.00067 J	0.0011 J
Cobalt	0.00012 J	0.00014 J
Lead	<0.001	<0.001
Lithium	0.009	0.012
Magnesium	11	10
Mercury	<0.0002 B	<0.0002
Molybdenum	<0.005	<0.005
Potassium	2.2	2.1
Selenium	<0.005	<0.005
Sodium	170	190
Thallium	<0.001	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00051 J	0.0005 J B
Barium	0.14	0.15
Beryllium	<0.001	<0.001 B
Boron	0.19	0.34 J
Cadmium	<0.001	<0.001
Calcium	46	43
Chromium	0.00077 J	<0.002
Cobalt	0.0003 J	0.00018 J
Lead	0.001	0.00051 J
Lithium	0.0088	0.01
Magnesium	11	10
Mercury	<0.0002 B	<0.0002
Molybdenum	<0.005	<0.005
Potassium	2.3	2.1
Selenium	<0.005	<0.005
Sodium	170	190
Thallium	<0.001	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	430	460
Chloride	17	20
Fluoride	1.3	1.7
Laboratory pH (S.U.)	8.2 HF	8 HF
Sulfate	30	19
Total Dissolved Solids (TDS)	540	570
Turbidity (NTU)	2.4	1.4
Radium-226 (pCi/L)	<0.0745	0.159
Radium-228 (pCi/L)	<0.402	<0.131
Ra-226 + 228 combined (pCi/L)	<0.476	<0.289

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	121.05	127.18
Water Elevation (ft AMSL):	1033.16	1027.03
Monitoring Point:	**MW-12B**	**MW-12B**
Date Sampled:	**5/3/19**	**10/30/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.03	7.03
Dissolved Metals (mg/L)		
Antimony	0.00043 J	0.0015 J
Arsenic	0.00034 J	0.00021 J
Barium	0.014	0.016
Beryllium	0.00023 J	<0.001
Boron	1.3	1.3
Cadmium	<0.001	<0.001
Calcium	250	260
Chromium	0.00062 J	<0.002
Cobalt	0.00068	0.00064
Lead	0.00032 J	<0.001
Lithium	0.076	0.084 B
Magnesium	75	77
Mercury	<0.0002	<0.0002
Molybdenum	0.005	0.0056
Potassium	14	14
Selenium	<0.005	<0.005
Sodium	340	360
Thallium	0.00019 J	0.00016 J
Total Metals (mg/L)		
Antimony	0.00053 J	0.00044 J
Arsenic	0.00031 J	0.00064 J
Barium	0.015	0.023
Beryllium	<0.001	<0.001
Boron	1.2	1.1
Cadmium	<0.001	<0.001
Calcium	280	260
Chromium	<0.002	0.0011 J
Cobalt	0.00071	0.00058
Lead	0.0023	0.013
Lithium	0.082	0.087 B
Magnesium	81	78
Mercury	<0.0002	<0.0002
Molybdenum	0.0051	0.0044 J
Potassium	14	12
Selenium	<0.005	<0.005
Sodium	350	410
Thallium	<0.001	0.00017 J
Other Constituents (mg/L)		
Total Alkalinity	310	380
Chloride	190	200
Fluoride	0.35 J	0.24 J
Laboratory pH (S.U.)	7.5 HF	7.5 HF
Sulfate	1100	1000
Total Dissolved Solids (TDS)	2100	2200
Turbidity (NTU)	2.9	7.9
Radium-226 (pCi/L)	0.253	0.337
Radium-228 (pCi/L)	0.612	1.08
Ra-226 + 228 combined (pCi/L)	0.865	1.42

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	69.06	70.15
Water Elevation (ft AMSL):	1089.65	1088.56
Monitoring Point:	**MW-14AR**	**MW-14AR**
Date Sampled:	**4/23/19**	**10/23/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.01	7.32
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00018 J	<0.001 B
Barium	0.023	0.02
Beryllium	<0.001	<0.001 B *
Boron	0.39	0.44 B
Cadmium	<0.001	<0.001
Calcium	24	24
Chromium	0.00074 J	0.00058 J
Cobalt	<0.0005	<0.0005
Lead	<0.001	<0.001
Lithium	0.046	0.045
Magnesium	11	11
Mercury	<0.0002 B	<0.0002
Molybdenum	<0.005	<0.005
Potassium	4.7	4.4
Selenium	<0.005	<0.005
Sodium	590	580
Thallium	<0.001	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00027 J	<0.001 B
Barium	0.026	0.022
Beryllium	<0.001	<0.001 B *
Boron	0.38	0.43 B
Cadmium	<0.001	<0.001
Calcium	23	24
Chromium	0.0017 J	0.0011 J
Cobalt	0.00022 J	0.00013 J
Lead	0.0006 J	0.00023 J
Lithium	0.044	0.045
Magnesium	11	11
Mercury	<0.0002 B	<0.0002
Molybdenum	<0.005	<0.005
Potassium	4.6	4.4
Selenium	<0.005	<0.005
Sodium	580	580
Thallium	<0.001	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	350	350
Chloride	250	260
Fluoride	0.19 J	0.15 J
Laboratory pH (S.U.)	7.3 HF	7.2 HF
Sulfate	580	620
Total Dissolved Solids (TDS)	1600	1600
Turbidity (NTU)	91	5.8
Radium-226 (pCi/L)	<0.0345	<-0.0247
Radium-228 (pCi/L)	<-0.492	<-0.0152
Ra-226 + 228 combined (pCi/L)	<-0.457	<-0.0399

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	164.71	165.59
Water Elevation (ft AMSL):	963.23	962.35
Monitoring Point:	**MW-16A**	**MW-16A**
Date Sampled:	**4/19/19**	**10/18/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.76	8.21
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.02	0.014
Barium	0.027	0.027
Beryllium	<0.001	<0.001
Boron	1.1	0.95
Cadmium	<0.001	<0.001
Calcium	590	560
Chromium	0.00076 J	<0.002
Cobalt	0.00049 J	0.000083 J
Lead	<0.001	<0.001
Lithium	0.3	0.29
Magnesium	54	51
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	96	87
Selenium	<0.005	<0.005
Sodium	370	370
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	0.00044 J	<0.002
Arsenic	0.033	0.023
Barium	0.026	0.029
Beryllium	<0.001	<0.001
Boron	1.1	0.94
Cadmium	<0.001	<0.001
Calcium	580	580
Chromium	0.00068 J	<0.002
Cobalt	0.00051	0.000093 J
Lead	<0.001	<0.001
Lithium	0.29	0.29
Magnesium	54	52
Mercury	<0.0002	<0.0002
Molybdenum	0.0016 J	0.0012 J
Potassium	94	88
Selenium	<0.005	0.00082 J
Sodium	370	370
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	51	110
Chloride	410	450
Fluoride	0.6	0.5
Laboratory pH (S.U.)	8.8 HF	8 HF
Sulfate	1700	1900
Total Dissolved Solids (TDS)	3200	3000
Turbidity (NTU)	0.21 J	0.14 J
Radium-226 (pCi/L)	0.152	<0.0925
Radium-228 (pCi/L)	0.822	<0.228
Ra-226 + 228 combined (pCi/L)	0.974	<0.321

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	34.75	34.89	34.84
Water Elevation (ft AMSL):	944.95	944.81	944.86
Monitoring Point:	**MW-17A**	**MW-17A**	**MW-17A**
Date Sampled:	**1/29/19**	**4/9/19**	**10/18/19**
CCR Rule Sample Event	**1**	**2**	**3**
Field Parameters			
pH (S.U.)	6.73	7.05	7.05
Dissolved Metals (mg/L)			
Antimony	<0.002	<0.002	<0.002
Arsenic	0.00018 J	0.00019 J	0.0002 J
Barium	0.012	0.011	0.015
Beryllium	<0.001	<0.001	<0.001
Boron	2.5 B	2.1	2.3
Cadmium	<0.001	0.00039 J	<0.001
Calcium	470	460	530
Chromium	0.00094 J B	0.00082 J	<0.002
Cobalt	0.00024 J	0.00034 J	<0.0005
Lead	<0.001	<0.001	<0.001
Lithium	0.078	0.072	0.085
Magnesium	67	65	82
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	0.00075 J	0.004 J	0.0039 J
Potassium	26	24	27
Selenium	0.0021 J	0.0016 J	0.002 J
Sodium	550	480	550
Thallium	<0.001	<0.001	<0.001
Total Metals (mg/L)			
Antimony	<0.002	<0.002	<0.002
Arsenic	0.00023 J	0.00029 J	0.0002 J
Barium	0.012	0.012	0.015
Beryllium	<0.001	<0.001	<0.001
Boron	2.4 B	2.2	2.4
Cadmium	<0.001	0.00037 J	<0.001
Calcium	460	470	520
Chromium	0.001 J B	0.0013 J	<0.002
Cobalt	0.0004 J	0.00048 J	0.000095 J
Lead	<0.001	<0.001	0.00042 J
Lithium	0.077	0.076	0.08
Magnesium	66	67	79
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	0.0013 J	0.0043 J	0.0041 J
Potassium	26	25	27
Selenium	0.0019 J	0.0019 J	0.0011 J
Sodium	550	500	540
Thallium	<0.001	<0.001	<0.001
Other Constituents (mg/L)			
Total Alkalinity	85	91	94
Chloride	280	320	300
Fluoride	0.41	0.25	0.31
Laboratory pH (S.U.)	6.8 HF	7.1 HF	7.1 HF
Sulfate	2000	2300	2400
Total Dissolved Solids (TDS)	3700	3200	3800
Turbidity (NTU)	0.45 J	0.99	2
Radium-226 (pCi/L)	--	<0.0401	<-0.0271
Radium-228 (pCi/L)	--	<0.0391	<0.367
Ra-226 + 228 combined (pCi/L)	--	<0.0792	<0.340

Footnotes:
HF - Sample was prepped or analyzed beyond the specified holding time
J - Result is less than the RL but greater than or equal to the MDL
B - Compound was found in the blank and sample.
* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	58.53	61.62
Water Elevation (ft AMSL):	1090.31	1087.22
Monitoring Point:	**MW-30B**	**MW-30B**
Date Sampled:	**5/2/19**	**10/30/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	8.84	8.86
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00038 J	0.00055 J
Barium	0.084	0.09
Beryllium	<0.001	<0.001
Boron	0.2	0.2
Cadmium	<0.001	<0.001
Calcium	1	1.1
Chromium	0.00074 J	0.00083 J
Cobalt	<0.0005	<0.0005
Lead	<0.001	<0.001
Lithium	0.0077	<0.005 B
Magnesium	0.12 J	0.16 J
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	0.65	0.66
Selenium	<0.005	<0.005
Sodium	230	250
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00048 J	0.00093 J
Barium	0.14	0.18
Beryllium	0.00021 J	0.0002 J
Boron	0.2	0.21
Cadmium	<0.001	<0.001
Calcium	2.5	3.8
Chromium	0.0039	0.0066
Cobalt	0.00044 J	0.001
Lead	0.002	0.005
Lithium	0.0078	<0.005 B
Magnesium	0.42 J	0.67
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	1	1.5
Selenium	<0.005	<0.005
Sodium	230	250
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	450	460
Chloride	31	32
Fluoride	2	1.8
Laboratory pH (S.U.)	8.8 HF	8.8 HF
Sulfate	20	18
Total Dissolved Solids (TDS)	560	660
Turbidity (NTU)	54	170
Radium-226 (pCi/L)	<0.0309	0.241
Radium-228 (pCi/L)	<0.736 G	0.763
Ra-226 + 228 combined (pCi/L)	<0.766	1

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

G - Sample MDC is greater than the requested RL

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	123.90	147.51
Water Elevation (ft AMSL):	1053.74	1030.13
Monitoring Point:	**MW-40C**	**MW-40C**
Date Sampled:	**5/31/19**	**10/23/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	8.51	8.73
Dissolved Metals (mg/L)		
Antimony	0.00072 J	0.001 J
Arsenic	0.0016	0.0013 B
Barium	0.39	0.46
Beryllium	0.00011 J	<0.001 B
Boron	0.28	0.33
Cadmium	<0.001	<0.001
Calcium	3.9	3
Chromium	0.00068 J	<0.002
Cobalt	<0.0005	0.000087 J
Lead	<0.001	<0.001
Lithium	0.0097	0.011
Magnesium	1	0.74
Mercury	<0.0002	<0.0002 B
Molybdenum	0.057	0.053
Potassium	2.8	2.3
Selenium	<0.005	<0.005
Sodium	440	460
Thallium	<0.001	<0.001 B
Total Metals (mg/L)		
Antimony	0.00072 J	0.00077 J
Arsenic	0.0023	0.0047 B
Barium	0.5	0.78
Beryllium	0.00049 J	0.0011 B
Boron	0.29	0.34
Cadmium	<0.001	<0.001
Calcium	4.7	6.7
Chromium	0.0085	0.025
Cobalt	0.0021	0.012
Lead	0.0026	0.012
Lithium	0.015	0.024
Magnesium	1.8	4
Mercury	<0.0002	<0.0002 F1 B
Molybdenum	0.057	0.051
Potassium	4.3	4.6
Selenium	<0.005	<0.005
Sodium	440	450
Thallium	<0.001	0.00036 J B
Other Constituents (mg/L)		
Total Alkalinity	860	910
Chloride	20	29
Fluoride	2.9	3.1
Laboratory pH (S.U.)	8.4 HF	8.6 HF
Sulfate	7.8	9.7
Total Dissolved Solids (TDS)	1100	1100
Turbidity (NTU)	190	480
Radium-226 (pCi/L)	0.456	4.07
Radium-228 (pCi/L)	1.27	4.48
Ra-226 + 228 combined (pCi/L)	1.73	8.55

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	36.36	36.18	207.34
Water Elevation (ft AMSL):	1128.39	1128.57	957.414
Monitoring Point:	**MW-49B**	**MW-49B**	**MW-49B**
Date Sampled:	**1/29/19**	**5/8/19**	**11/4/19**
CCR Rule Sample Event	**1**	**2**	**3**
Field Parameters			
pH (S.U.)	7.18	8.89	7.23
Dissolved Metals (mg/L)			
Antimony	<0.002	0.0033	0.0011 J
Arsenic	0.00017 J	0.003	0.00048 J
Barium	0.11	0.31	0.21
Beryllium	<0.001	<0.001	0.00049 J
Boron	0.025 J	0.15	0.055 J
Cadmium	<0.001	<0.001	<0.001
Calcium	43	6.1	13
Chromium	<0.002	<0.002	<0.002
Cobalt	<0.0005	0.00013 J	<0.0005
Lead	<0.001	0.00018 J	<0.001
Lithium	0.0065	0.0095	0.0084
Magnesium	16	1.9	4.3
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	0.00061 J	0.024	0.0018 J
Potassium	1.6	1.6	1.2 B
Selenium	<0.005	0.0025 J	0.0085
Sodium	17	230	110
Thallium	<0.001	<0.001	0.00018 J
Total Metals (mg/L)			
Antimony	<0.002	0.0015 J	0.00074 J
Arsenic	0.00019 J	0.0025	0.00057 J
Barium	0.12	0.41	0.2
Beryllium	<0.001	0.00091 J	0.00073 J
Boron	0.042 J B	0.11	0.048 J
Cadmium	<0.001	<0.001	<0.001
Calcium	49	19	15
Chromium	0.00033 J B	0.0053	0.0012 J
Cobalt	<0.0005	0.0027	0.00031 J
Lead	<0.001	0.0051	0.0008 J
Lithium	0.0072	0.012	0.009
Magnesium	19	8	5.4
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	0.00079 J	0.0098	0.0018 J
Potassium	1.8	3.1	1.1 B
Selenium	<0.005	0.0012 J	0.0083
Sodium	19	150	92
Thallium	<0.001	0.00012 J	0.00045 J
Other Constituents (mg/L)			
Total Alkalinity	180	420	230
Chloride	3.6	7	5.1 F1
Fluoride	0.12	1.5	0.094 J
Laboratory pH (S.U.)	7.7 HF	8.9 HF	8.2 HF
Sulfate	58	34	54 F1
Total Dissolved Solids (TDS)	250	610	280
Turbidity (NTU)	0.71 J	170	53
Radium-226 (pCi/L)	--	0.448	0.354
Radium-228 (pCi/L)	--	0.769	<0.707
Ra-226 + 228 combined (pCi/L)	--	1.22	1.06

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft AMSL):	948	948	948
Monitoring Point:	**S-1VI**	**S-1VI**	**S-1VI**
Date Sampled:	**1/29/19**	**4/24/19**	**10/29/19**
CCR Rule Sample Event	**1**	**2**	**3**
Field Parameters			
pH (S.U.)	7.71	6.45	7.67
Dissolved Metals (mg/L)			
Antimony	<0.002	<0.002	<0.002
Arsenic	<0.001	<0.001	0.00021 J
Barium	0.072 B	0.076	0.076
Beryllium	<0.001 *	<0.001	<0.001
Boron	0.041 J	0.045 J B	0.1
Cadmium	<0.001	<0.001	<0.001
Calcium	27	30	50
Chromium	<0.002	0.00079 J	<0.002
Cobalt	<0.0005	<0.0005	<0.0005
Lead	<0.001	<0.001	<0.001
Lithium	0.0033 J	0.0051	0.0047 J
Magnesium	6	6.8	13
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	<0.005	<0.005	<0.005
Potassium	0.91	1.2	2.4
Selenium	<0.005	<0.005	<0.005
Sodium	4.4	5.6	22
Thallium	<0.001	<0.001	<0.001
Total Metals (mg/L)			
Antimony	<0.002	<0.002	<0.002
Arsenic	<0.001	<0.001	0.00027 J
Barium	0.073 B	0.071	0.08
Beryllium	<0.001 *	<0.001	<0.001
Boron	0.044 J	0.045 J B	0.12
Cadmium	<0.001	<0.001	<0.001
Calcium	27	30	51
Chromium	0.00068 J	0.001 J	<0.002
Cobalt	0.000098 J	<0.0005	0.00013 J
Lead	<0.001	<0.001	0.00022 J
Lithium	0.0026 J	0.0054	0.0043 J
Magnesium	6	6.8	13
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	<0.005	<0.005	<0.005
Potassium	0.94	1.2	2.4
Selenium	<0.005	<0.005	<0.005
Sodium	4.3	5.5	23
Thallium	<0.001	<0.001	<0.001
Other Constituents (mg/L)			
Total Alkalinity	34	46	68
Chloride	3.8	4	18
Fluoride	0.047 J	0.05 J	0.071 J
Laboratory pH (S.U.)	7.8 HF	7.9 HF	8 HF
Sulfate	42	47	120
Total Dissolved Solids (TDS)	140	130	270
Turbidity (NTU)	2.9	2.6	3.4
Radium-226 (pCi/L)	--	<-0.0328	<0.00436
Radium-228 (pCi/L)	--	<-0.0202	<0.126
Ra-226 + 228 combined (pCi/L)	--	<-0.0530	<0.130

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft AMSL):	938	938	938
Monitoring Point:	**S-17**	**S-17**	**S-17**
Date Sampled:	**1/29/19**	**4/24/19**	**10/24/19**
CCR Rule Sample Event	**1**	**2**	**3**
Field Parameters			
pH (S.U.)	7.22	6.73	7.22
Dissolved Metals (mg/L)			
Antimony	0.0024	0.0018 J	0.0033
Arsenic	0.085	0.059	0.089
Barium	0.023 B	0.022	0.02
Beryllium	<0.001 *	0.00018 J B	<0.001
Boron	2	1.8 B	2.1
Cadmium	<0.001	<0.001	<0.001
Calcium	410	390	490
Chromium	<0.002	0.0009 J	<0.002
Cobalt	0.00061	0.0016	0.00066
Lead	<0.001	0.00034 J	<0.001
Lithium	0.27	0.24	0.28
Magnesium	18	17	18
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	0.02	0.014	0.023
Potassium	77	72	85
Selenium	<0.005	0.00083 J	0.001 J
Sodium	710	630	710
Thallium	<0.001	<0.001 B	0.00029 J B
Total Metals (mg/L)			
Antimony	0.0024	0.0019 J	0.0024
Arsenic	0.078	0.069	0.072
Barium	0.023 B	0.022	0.019
Beryllium	<0.001 *	0.00021 J B	0.000092 J
Boron	2	1.8 B	2.1
Cadmium	<0.001	<0.001	<0.001
Calcium	400	390	490
Chromium	0.001 J	0.00098 J	<0.002
Cobalt	0.00064	0.0016	0.00079
Lead	<0.001	0.00047 J	0.00016 J
Lithium	0.26	0.23	0.28
Magnesium	17	17	18
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	0.019	0.015	0.017
Potassium	75	72	86
Selenium	0.00084 J	0.0011 J	0.0012 J
Sodium	700	620	720
Thallium	<0.001	<0.001 B	0.00067 J B
Other Constituents (mg/L)			
Total Alkalinity	13	<5	8.3
Chloride	310	300	350
Fluoride	0.58	0.53	0.59
Laboratory pH (S.U.)	7 HF	3.7 HF	4.1 HF
Sulfate	2100	2200	2400
Total Dissolved Solids (TDS)	3900	3500	3800
Turbidity (NTU)	220	57	270
Radium-226 (pCi/L)	--	<0.0409	<0.0780
Radium-228 (pCi/L)	--	<0.358 *	<0.247
Ra-226 + 228 combined (pCi/L)	--	<0.399	<0.325

Footnotes:
HF - Sample was prepped or analyzed beyond the specified holding time
J - Result is less than the RL but greater than or equal to the MDL
B - Compound was found in the blank and sample.
* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft AMSL):	970	970	970
Monitoring Point:	**S-19F**	**S-19F**	**S-19F**
Date Sampled:	**1/29/19**	**4/24/19**	**10/28/19**
CCR Rule Sample Event	**1**	**2**	**3**
Field Parameters			
pH (S.U.)	6.73	7.04	6.85
Dissolved Metals (mg/L)			
Antimony	<0.002	<0.002	<0.002 *
Arsenic	0.00018 J	0.00024 J	0.00026 J B
Barium	0.016 B	0.016	0.019
Beryllium	<0.001 *	<0.001 B	<0.001 B *
Boron	2.1	2 B	2.7
Cadmium	<0.001	<0.001	<0.001
Calcium	420	420	510
Chromium	<0.002	0.00063 J	<0.002
Cobalt	0.00035 J	0.00033 J	0.00035 J
Lead	<0.001	<0.001	<0.001
Lithium	0.081	0.084	0.085
Magnesium	42	41	48
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	<0.005	<0.005	<0.005
Potassium	42	42	50
Selenium	<0.005	<0.005	<0.005
Sodium	520	490	590
Thallium	<0.001	<0.001 B	<0.001 B
Total Metals (mg/L)			
Antimony	<0.002	<0.002	<0.002 *
Arsenic	0.00023 J	0.00021 J	0.00041 J B
Barium	0.017 B F1 F2	0.016	0.019
Beryllium	<0.001 *	<0.001 B	0.00021 J B *
Boron	2.2	2 B	2.7
Cadmium	<0.001	<0.001	<0.001
Calcium	440	410	510
Chromium	<0.002	<0.002	0.00069 J
Cobalt	0.0003 J	0.00032 J	0.00045 J
Lead	<0.001 F2 F1	<0.001	0.00018 J
Lithium	0.081	0.083	0.086
Magnesium	43	40	49
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	<0.005	<0.005	<0.005
Potassium	43	41	50
Selenium	<0.005	<0.005	<0.005
Sodium	540	470	600
Thallium	<0.001	<0.001 B	0.00031 J B
Other Constituents (mg/L)			
Total Alkalinity	77	90	86
Chloride	290	270	300
Fluoride	0.32	0.19 J	0.17 J
Laboratory pH (S.U.)	7.9 HF	7.5 HF	7.3 HF
Sulfate	1900	2000	2100
Total Dissolved Solids (TDS)	3600	3400	3500
Turbidity (NTU)	0.39 J	0.08 J	0.24 J
Radium-226 (pCi/L)	--	<0.00756	<-0.0262
Radium-228 (pCi/L)	--	<0.0212	<0.134
Ra-226 + 228 combined (pCi/L)	--	<0.0288	<0.108

Footnotes:
HF - Sample was prepped or analyzed beyond the specified holding time
J - Result is less than the RL but greater than or equal to the MDL
B - Compound was found in the blank and sample.
* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft AMSL):	940	940	940
Monitoring Point:	**S-19I**	**S-19I**	**S-19I**
Date Sampled:	**1/29/19**	**4/24/19**	**10/28/19**
CCR Rule Sample Event	**1**	**2**	**3**
Field Parameters			
pH (S.U.)	7.16	7.02	6.99
Dissolved Metals (mg/L)			
Antimony	<0.002	<0.002	<0.002 *
Arsenic	<0.001	0.00022 J	<0.001 B
Barium	0.025 B	0.023	0.028
Beryllium	<0.001 *	<0.001 B	<0.001 B *
Boron	1.3	1.3 B	1.8
Cadmium	<0.001	<0.001	<0.001
Calcium	290	280	440
Chromium	<0.002	0.00061 J	<0.002
Cobalt	0.00025 J	0.00021 J	0.00026 J
Lead	<0.001	<0.001	<0.001
Lithium	0.038	0.037	0.051
Magnesium	29	27	41
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	<0.005	<0.005	<0.005
Potassium	13	14	18
Selenium	<0.005	0.0012 J	0.0015 J
Sodium	270	260	360
Thallium	0.00016 J	0.00018 J B	0.00036 J B
Total Metals (mg/L)			
Antimony	<0.002	<0.002	<0.002 *
Arsenic	<0.001	0.00023 J	<0.001 B
Barium	0.024 B	0.023	0.028
Beryllium	<0.001 *	<0.001 B	<0.001 B *
Boron	1.4	1.3 B	1.8
Cadmium	<0.001	<0.001	<0.001
Calcium	300	280	440
Chromium	<0.002	0.00059 J	<0.002
Cobalt	0.00021 J	0.00021 J	0.00028 J
Lead	<0.001	<0.001	<0.001
Lithium	0.041	0.038	0.05
Magnesium	29	27	41
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	<0.005	<0.005	<0.005
Potassium	13	14	18
Selenium	<0.005	0.0012 J	0.0016 J
Sodium	270	260	360
Thallium	0.00015 J	0.00018 J B	0.00036 J B
Other Constituents (mg/L)			
Total Alkalinity	190	180	160
Chloride	150	140	210
Fluoride	0.11	0.15 J	0.11 J
Laboratory pH (S.U.)	7.8 HF	7.4 HF	7.5 HF
Sulfate	1000	1100	1500
Total Dissolved Solids (TDS)	2000	1900	2600
Turbidity (NTU)	0.41 J	0.2 J	0.36 J
Radium-226 (pCi/L)	--	<0.0136	<-0.00794
Radium-228 (pCi/L)	--	<0.110 *	<-0.201
Ra-226 + 228 combined (pCi/L)	--	<0.123	<-0.209

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft AMSL):	922	922	922
Monitoring Point:	**S-25A**	**S-25A**	**S-25A**
Date Sampled:	**1/29/19**	**4/24/19**	**10/28/19**
CCR Rule Sample Event	**1**	**2**	**3**
Field Parameters			
pH (S.U.)	6.95	7.2	7.12
Dissolved Metals (mg/L)			
Antimony	<0.002	<0.002	<0.002
Arsenic	0.0003 J	0.00028 J	0.00028 J
Barium	0.02 B	0.017	0.018
Beryllium	<0.001 *	<0.001 B	<0.001 *
Boron	0.8	0.65 B	0.6
Cadmium	<0.001	<0.001	<0.001
Calcium	240	210	350
Chromium	<0.002	0.00069 J	<0.002
Cobalt	0.00058	0.00045 J	0.00064
Lead	<0.001	<0.001	<0.001
Lithium	0.035	0.029	0.039
Magnesium	29	25	49
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	<0.005	<0.005	<0.005
Potassium	8.2	7.2	7.3
Selenium	<0.005	<0.005	0.00088 J
Sodium	190	160	240
Thallium	0.00014 J	0.00016 J B	0.00032 J B
Total Metals (mg/L)			
Antimony	<0.002	<0.002	<0.002
Arsenic	0.00039 J	0.00025 J	0.00094 J
Barium	0.021 B	0.017	0.017
Beryllium	<0.001 *	<0.001 B	<0.001 *
Boron	0.83	0.68 B	0.58
Cadmium	<0.001	<0.001	<0.001
Calcium	250	220	340
Chromium	<0.002	<0.002	<0.002
Cobalt	0.0006	0.00043 J	0.0017
Lead	<0.001	<0.001	<0.001
Lithium	0.038	0.029	0.039
Magnesium	30	25	49
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	<0.005	<0.005	<0.005
Potassium	8.5	7.3	7.2
Selenium	<0.005	<0.005	0.00095 J
Sodium	190	160	230
Thallium	0.00015 J	0.00014 J B	0.00033 J B
Other Constituents (mg/L)			
Total Alkalinity	130	110	130
Chloride	120	110	190
Fluoride	0.1	0.049 J	0.074 J
Laboratory pH (S.U.)	7.5 HF	7.3 HF	7.5 HF
Sulfate	880	760	1100
Total Dissolved Solids (TDS)	1600	1400	2100
Turbidity (NTU)	1.7	0.43 J	0.59 J
Radium-226 (pCi/L)	--	<0.0855	0.133
Radium-228 (pCi/L)	--	0.460 *	<0.166
Ra-226 + 228 combined (pCi/L)	--	0.546	<0.299

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft AMSL):	928	928	928
Monitoring Point:	**S-78**	**S-78**	**S-78**
Date Sampled:	**1/10/19**	**4/24/19**	**10/24/19**
CCR Rule Sample Event	**1**	**2**	**3**
Field Parameters			
pH (S.U.)	8.44	6.95	7.39
Dissolved Metals (mg/L)			
Antimony	0.00025 J	<0.002	<0.002
Arsenic	0.013	0.0094	0.012
Barium	0.025	0.024	0.032
Beryllium	<0.001	0.000092 J B	<0.001 *
Boron	1.7	1.4 B	1
Cadmium	<0.001	<0.001	<0.001
Calcium	510	450	560
Chromium	0.00052 J	0.00068 J	0.001 J
Cobalt	0.00035 J	0.00048 J	0.00044 J
Lead	<0.001	<0.001	<0.001
Lithium	0.15	0.12	0.092
Magnesium	59	53	58
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	0.0011 J	0.00099 J	0.0026 J
Potassium	52	39	62
Selenium	<0.005	<0.005	<0.005
Sodium	430	360	470 B
Thallium	<0.001	<0.001 B	<0.001
Total Metals (mg/L)			
Antimony	0.00028 J	<0.002	<0.002
Arsenic	0.011	0.0055	0.016
Barium	0.025	0.024	0.029
Beryllium	<0.001	0.00012 J B	<0.001 *
Boron	1.7	1.4 B	1.1
Cadmium	<0.001	<0.001	<0.001
Calcium	490	440	560
Chromium	0.00068 J	0.00064 J	0.00063 J
Cobalt	0.00062	0.001	0.00046 J
Lead	<0.001	<0.001	<0.001
Lithium	0.14	0.11	0.094
Magnesium	57	53	57
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	0.0015 J	0.0011 J	0.0046 J
Potassium	50	38	62
Selenium	<0.005	<0.005	<0.005
Sodium	410	350	480 B
Thallium	<0.001	<0.001 B	<0.001
Other Constituents (mg/L)			
Total Alkalinity	120	120	81
Chloride	330	270	400
Fluoride	0.35	0.34	0.44
Laboratory pH (S.U.)	8.4 HF	7.4 HF	7.4 HF
Sulfate	1900	1700	2100
Total Dissolved Solids (TDS)	3300	3000	3400
Turbidity (NTU)	360	67	35
Radium-226 (pCi/L)	--	<0.0103	<-0.0384
Radium-228 (pCi/L)	--	<0.245 *	<0.239
Ra-226 + 228 combined (pCi/L)	--	<0.255	<0.201

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

FREEPORT

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	109.71	107.19
Water Elevation (ft AMSL):	986.74	989.26
Monitoring Point:	**MW-3A**	**MW-3A**
Date Sampled:	**4/19/19**	**11/4/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	6.42	6.96
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002 B *
Arsenic	0.00033 J	0.00031 J B
Barium	0.042	0.043
Beryllium	<0.001	<0.001 B *
Boron	0.48	0.57 B
Cadmium	<0.001	<0.001 B
Calcium	170	170
Chromium	0.00064 J	<0.002 B
Cobalt	0.00018 J	0.00066 B
Lead	<0.001	<0.001 B
Lithium	0.018	0.018
Magnesium	54	54
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005 B
Potassium	4.2	4.9
Selenium	<0.005	<0.005 B
Sodium	220	210 B
Thallium	<0.001	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	0.00039 J B *
Arsenic	0.00063 J	0.00066 J B
Barium	0.074	0.072 B
Beryllium	<0.001	<0.001 B *
Boron	0.5	0.61 B
Cadmium	<0.001	<0.001 B
Calcium	170	160
Chromium	0.00082 J	0.00073 J B
Cobalt	0.00066	0.0012 B
Lead	0.0017	0.0061 B
Lithium	0.018	0.018
Magnesium	55	55
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005 B
Potassium	4.2	5
Selenium	<0.005	<0.005 B
Sodium	230	220 B
Thallium	<0.001	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	240	260
Chloride	130	120
Fluoride	0.27	0.16
Laboratory pH (S.U.)	7.5 HF	7.9 HF
Sulfate	1100	620
Total Dissolved Solids (TDS)	1400	1300
Turbidity (NTU)	3.1	5.4
Radium-226 (pCi/L)	<0.107	<0.0361
Radium-228 (pCi/L)	<0.171	0.442
Ra-226 + 228 combined (pCi/L)	<0.278	0.478

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	232.07	233.11
Water Elevation (ft AMSL):	951.22	950.18
Monitoring Point:	**MW-4AR**	**MW-4AR**
Date Sampled:	**4/25/19**	**11/1/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.89	8
Dissolved Metals (mg/L)		
Antimony	0.0079	<0.002
Arsenic	0.031	0.0022
Barium	0.36	0.33
Beryllium	0.016	<0.001 B
Boron	0.39	0.29
Cadmium	0.016	<0.001
Calcium	6.9	4.9
Chromium	0.016	<0.002
Cobalt	0.014	<0.0005
Lead	0.016	<0.001
Lithium	0.041	0.028
Magnesium	2.4	1.5
Mercury	<0.0002	<0.0002
Molybdenum	0.015	<0.005
Potassium	3.3	2.2
Selenium	0.033 *	<0.005
Sodium	750	630
Thallium	0.03	<0.001 B
Total Metals (mg/L)		
Antimony	0.0021	<0.002
Arsenic	0.009	0.0022
Barium	0.36	0.33
Beryllium	0.004	<0.001 B
Boron	0.35	0.29
Cadmium	0.0037	<0.001
Calcium	7.5	5.3
Chromium	0.0055	<0.002
Cobalt	0.0037	0.00019 J
Lead	0.0042	0.00034 J
Lithium	0.029	0.029
Magnesium	2.2	1.5
Mercury	<0.0002	<0.0002
Molybdenum	0.0036 J	<0.005
Potassium	2.7	2.2
Selenium	0.0078 *	<0.005
Sodium	750	640
Thallium	0.007	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	1200	1200
Chloride	260	240
Fluoride	1.5	1.2
Laboratory pH (S.U.)	8.1 HF	8 HF
Sulfate	2.2 J	1.5 J
Total Dissolved Solids (TDS)	1700	1700
Turbidity (NTU)	17	51
Radium-226 (pCi/L)	0.411	0.232
Radium-228 (pCi/L)	0.460 *	<0.308
Ra-226 + 228 combined (pCi/L)	0.871	0.54

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	219.91	229.21
Water Elevation (ft AMSL):	900.65	891.35
Monitoring Point:	**MW-7A**	**MW-7A**
Date Sampled:	**4/23/19**	**10/29/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	8.04	7.59
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00097 J	0.00059 J
Barium	0.57	0.65
Beryllium	<0.001	0.00012 J
Boron	0.25	0.24
Cadmium	<0.001	<0.001
Calcium	5	5.5
Chromium	0.00093 J	<0.002
Cobalt	<0.0005	<0.0005
Lead	<0.001	<0.001
Lithium	0.02	0.021
Magnesium	1.4	1.5
Mercury	<0.0002 B	<0.0002
Molybdenum	0.00072 J	<0.005
Potassium	2.5	2.5
Selenium	<0.005	<0.005
Sodium	530	540
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.0012	0.00062 J
Barium	0.58	0.66
Beryllium	<0.001	0.00015 J
Boron	0.24	0.25
Cadmium	<0.001	<0.001
Calcium	4.9	5.4
Chromium	0.0012 J	0.00088 J
Cobalt	0.00014 J	0.000093 J
Lead	0.0013	0.0004 J
Lithium	0.02	0.022
Magnesium	1.5	1.5
Mercury	<0.0002 B	<0.0002
Molybdenum	<0.005	<0.005
Potassium	2.5	2.6
Selenium	<0.005	<0.005
Sodium	530	540
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	940	950
Chloride	120	110
Fluoride	2.5	2.3
Laboratory pH (S.U.)	8.2 HF	8.1 HF
Sulfate	3.2	1.8
Total Dissolved Solids (TDS)	1200	1300
Turbidity (NTU)	13	12
Radium-226 (pCi/L)	0.594	0.619
Radium-228 (pCi/L)	0.595	<0.405
Ra-226 + 228 combined (pCi/L)	1.19	1.02

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	88.03	88.15
Water Elevation (ft AMSL):	1055.56	1055.44
Monitoring Point:	**MW-11A**	**MW-11A**
Date Sampled:	**4/23/19**	**10/23/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.86	7.85
Dissolved Metals (mg/L)		
Antimony	0.00055 J	0.00054 J
Arsenic	0.0021	0.0024 B
Barium	1.3	1.3
Beryllium	<0.001	0.00017 J B
Boron	0.31	0.36 J
Cadmium	<0.001	<0.001
Calcium	17	19
Chromium	0.0011 J	0.00087 J
Cobalt	0.00015 J	0.00018 J
Lead	0.00022 J	0.00036 J
Lithium	0.062	0.065
Magnesium	5.2	5.6
Mercury	<0.0002 B	<0.0002
Molybdenum	<0.005	<0.005
Potassium	5.9	5.9
Selenium	<0.005	<0.005
Sodium	1400	1500
Thallium	<0.001	0.0002 J B
Total Metals (mg/L)		
Antimony	0.00052 J	0.00052 J
Arsenic	0.0027	0.0029 B
Barium	1.3	1.4
Beryllium	<0.001	<0.001 B
Boron	0.3	0.38 J
Cadmium	<0.001	<0.001
Calcium	18	19
Chromium	0.0012 J	0.00084 J
Cobalt	0.00015 J	0.00016 J
Lead	0.0027	0.0023
Lithium	0.064	0.065
Magnesium	5.4	5.7
Mercury	<0.0002 B	<0.0002
Molybdenum	<0.005	<0.005
Potassium	5.9	5.8
Selenium	<0.005	<0.005
Sodium	1500	1500
Thallium	<0.001	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	920	910
Chloride	1600	1700
Fluoride	0.61	0.78
Laboratory pH (S.U.)	7.9 HF	7.9 HF
Sulfate	5.2	2.9 J
Total Dissolved Solids (TDS)	3000	3600
Turbidity (NTU)	12	12
Radium-226 (pCi/L)	1.11	0.768
Radium-228 (pCi/L)	0.948	0.526
Ra-226 + 228 combined (pCi/L)	2.05	1.29

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	185.24	188.23
Water Elevation (ft AMSL):	975.70	972.71
Monitoring Point:	**MW-14BR**	**MW-14BR**
Date Sampled:	**4/23/19**	**10/23/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	8.73	8.82
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00024 J	0.00018 J B
Barium	0.091	0.097
Beryllium	<0.001	<0.001 B *
Boron	0.23	0.26 B
Cadmium	<0.001	<0.001
Calcium	2.7	2.9
Chromium	0.00088 J	0.00068 J
Cobalt	<0.0005	<0.0005
Lead	0.00025 J	<0.001
Lithium	0.012	0.013
Magnesium	0.56	0.66
Mercury	<0.0002 B	<0.0002
Molybdenum	<0.005	<0.005
Potassium	1.4	1.4
Selenium	<0.005	<0.005
Sodium	390	390
Thallium	<0.001	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00026 J	0.00019 J B
Barium	0.097	0.098
Beryllium	<0.001	<0.001 B *
Boron	0.23	0.26 B
Cadmium	<0.001	<0.001
Calcium	2.6	2.7
Chromium	0.0017 J	0.0014 J
Cobalt	0.00027 J	0.00038 J
Lead	0.00056 J	0.00077 J
Lithium	0.013	0.013
Magnesium	0.58	0.64
Mercury	<0.0002 B	<0.0002
Molybdenum	<0.005	<0.005
Potassium	1.5	1.4
Selenium	<0.005	<0.005
Sodium	390	390
Thallium	<0.001	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	520	520
Chloride	190	200
Fluoride	1.2	1.2
Laboratory pH (S.U.)	8.8 HF	8.7 HF
Sulfate	2.3	2
Total Dissolved Solids (TDS)	900	880
Turbidity (NTU)	17	17
Radium-226 (pCi/L)	<0.0614	<0.0398
Radium-228 (pCi/L)	<0.107	0.448
Ra-226 + 228 combined (pCi/L)	<0.169	0.488

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	258.53	255.15
Water Elevation (ft AMSL):	868.98	872.36
Monitoring Point:	**MW-16B**	**MW-16B**
Date Sampled:	**4/29/19**	**10/28/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	9.02	8.71
Dissolved Metals (mg/L)		
Antimony	0.0015 J	0.0011 J *
Arsenic	0.0019	0.0016 B
Barium	0.1	0.11
Beryllium	<0.001	<0.001 B *
Boron	0.2	0.25
Cadmium	<0.001	<0.001
Calcium	2.2	2.7
Chromium	0.0072	0.0024
Cobalt	0.000091 J	<0.0005
Lead	0.00024 J	0.00017 J
Lithium	0.012	0.011
Magnesium	0.51	0.56
Mercury	<0.0002	<0.0002
Molybdenum	0.0019 J	0.0019 J
Potassium	2.3	3.2
Selenium	<0.005	<0.005
Sodium	240	260
Thallium	<0.001	<0.001 B
Total Metals (mg/L)		
Antimony	0.0024	0.0012 J *
Arsenic	0.0024	0.0018 B
Barium	0.13	0.13
Beryllium	<0.001	<0.001 B *
Boron	0.23	0.28
Cadmium	<0.001	<0.001
Calcium	3.1	4
Chromium	0.029	0.012
Cobalt	0.00029 J	0.00042 J
Lead	0.0016	0.0015
Lithium	0.014	0.011
Magnesium	0.65	0.71
Mercury	<0.0002	<0.0002
Molybdenum	0.0023 J	0.0017 J
Potassium	2.3	2.5
Selenium	<0.005	<0.005
Sodium	250	260
Thallium	<0.001	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	430	420
Chloride	37	33
Fluoride	0.97	0.9
Laboratory pH (S.U.)	8.9 HF	8.9 HF
Sulfate	60	54
Total Dissolved Solids (TDS)	630	600
Turbidity (NTU)	14	39
Radium-226 (pCi/L)	<0.0902	<0.131
Radium-228 (pCi/L)	<-0.344 *	<-0.122 G
Ra-226 + 228 combined (pCi/L)	<-0.254	<0.00905

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

G - Sample MDC is greater than the requested RL

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	100.66	100.90
Water Elevation (ft AMSL):	877.36	877.12
Monitoring Point:	**MW-17B**	**MW-17B**
Date Sampled:	**4/9/19**	**10/18/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.05	7.37
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00088 J	0.00021 J
Barium	0.023	0.041
Beryllium	<0.001	<0.001
Boron	0.28	0.3
Cadmium	<0.001	<0.001
Calcium	190	240
Chromium	0.00079 J	<0.002
Cobalt	0.00019 J	0.00039 J
Lead	<0.001	<0.001
Lithium	0.023	0.037
Magnesium	41	46
Mercury	<0.0002	<0.0002
Molybdenum	0.0014 J	0.0013 J
Potassium	9.6	11
Selenium	<0.005	<0.005
Sodium	180	220
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00085 J	0.00018 J
Barium	0.024	0.039
Beryllium	<0.001	<0.001
Boron	0.3	0.33
Cadmium	<0.001	<0.001
Calcium	190	230
Chromium	<0.002	<0.002
Cobalt	0.0002 J	0.00074
Lead	<0.001	<0.001
Lithium	0.024	0.036
Magnesium	42	46
Mercury	<0.0002	<0.0002
Molybdenum	0.0015 J	0.0014 J
Potassium	9.8	11
Selenium	<0.005	<0.005
Sodium	190	220
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	220	210
Chloride	240	280
Fluoride	0.28	0.29
Laboratory pH (S.U.)	7.5 HF	7.6 HF
Sulfate	500	660
Total Dissolved Solids (TDS)	1300	1500
Turbidity (NTU)	10	0.6 J
Radium-226 (pCi/L)	0.111	<0.0709
Radium-228 (pCi/L)	<0.220	<0.235
Ra-226 + 228 combined (pCi/L)	0.331	<0.306

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	327.50	219.50
Water Elevation (ft AMSL):	820.76	928.76
Monitoring Point:	**MW-30C**	**MW-30C**
Date Sampled:	**5/2/19**	**10/30/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.65	7.29
Dissolved Metals (mg/L)		
Antimony	0.0021	0.0032
Arsenic	0.0022	0.002
Barium	1.3	1.2
Beryllium	<0.001	<0.001
Boron	0.3	0.28
Cadmium	<0.001	<0.001
Calcium	17	18
Chromium	0.0011 J	0.00069 J
Cobalt	0.001	0.0016
Lead	0.00025 J	<0.001
Lithium	0.062	0.063 B
Magnesium	4.6	4.6
Mercury	<0.0002	<0.0002
Molybdenum	0.0038 J	0.002 J
Potassium	5	4.5
Selenium	<0.005	<0.005
Sodium	1100	1100
Thallium	<0.001	0.00023 J
Total Metals (mg/L)		
Antimony	0.0027	0.0038
Arsenic	0.0032	0.0026
Barium	1.4	1.3
Beryllium	<0.001	0.0002 J
Boron	0.3	0.28
Cadmium	<0.001	<0.001
Calcium	18	18
Chromium	0.0039	0.0034
Cobalt	0.0014	0.0018
Lead	0.0017	0.00029 J
Lithium	0.064	0.065 B
Magnesium	4.7	4.7
Mercury	<0.0002	<0.0002
Molybdenum	0.0041 J	0.003 J
Potassium	5.6	4.8
Selenium	<0.005	<0.005
Sodium	1100	1100
Thallium	<0.001	0.00069 J
Other Constituents (mg/L)		
Total Alkalinity	690	650
Chloride	1300	1200
Fluoride	0.93	0.61
Laboratory pH (S.U.)	7.8 HF	7.9 HF
Sulfate	41	54
Total Dissolved Solids (TDS)	2600	2600
Turbidity (NTU)	61	12
Radium-226 (pCi/L)	2.49	1.8
Radium-228 (pCi/L)	1.88 G	1.83
Ra-226 + 228 combined (pCi/L)	4.37	3.63

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

G - Sample MDC is greater than the requested RL

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	73.24	79.62
Water Elevation (ft AMSL):	928.43	922.05
Monitoring Point:	**MW-33A**	**MW-33A**
Date Sampled:	**4/25/19**	**10/10/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7	7.37
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	<0.001	<0.001
Barium	0.1	0.35 B
Beryllium	0.00011 J	<0.001
Boron	0.2	0.16
Cadmium	<0.001	<0.001
Calcium	69	65
Chromium	<0.002	0.00067 J
Cobalt	0.00082	0.00016 J
Lead	0.00035 J	<0.001
Lithium	0.0074	0.012
Magnesium	17	15
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	3.8	4
Selenium	<0.005	<0.005
Sodium	72	72
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00021 J	0.00021 J
Barium	0.12	0.36 B
Beryllium	0.00015 J	<0.001
Boron	0.2	0.16
Cadmium	<0.001	<0.001
Calcium	68	64
Chromium	0.00075 J	0.0007 J
Cobalt	0.00091	0.00026 J
Lead	0.00068 J	0.00016 J
Lithium	0.0092	0.011
Magnesium	16	14
Mercury	<0.0002	<0.0002 B
Molybdenum	<0.005	<0.005
Potassium	3.9	4
Selenium	<0.005	<0.005
Sodium	70	72
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	68	180
Chloride	43	55
Fluoride	0.1	0.11
Laboratory pH (S.U.)	7 HF	7.2 HF
Sulfate	230	290
Total Dissolved Solids (TDS)	460	450
Turbidity (NTU)	2.4	5.3
Radium-226 (pCi/L)	<0.113	0.333
Radium-228 (pCi/L)	<-0.0730*	<0.123
Ra-226 + 228 combined (pCi/L)	<0.0404	<0.456

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft AM	819	--
Monitoring Point:	**S-1VE**	**S-1VE**
Date Sampled:	**4/24/19**	**11/21/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	6.89	Dry
Dissolved Metals (mg/L)		
Antimony	<0.002	--
Arsenic	0.00036 J	--
Barium	0.036	--
Beryllium	0.00034 J	--
Boron	0.18 B	--
Cadmium	<0.001	--
Calcium	36	--
Chromium	0.00085 J	--
Cobalt	0.00015 J	--
Lead	0.00019 J	--
Lithium	0.005	--
Magnesium	13	--
Mercury	<0.0002	--
Molybdenum	<0.005	--
Potassium	1.8	--
Selenium	<0.005	--
Sodium	38	--
Thallium	0.00032 J	--
Total Metals (mg/L)		
Antimony	<0.002	--
Arsenic	0.00017 J	--
Barium	0.037	--
Beryllium	<0.001	--
Boron	0.15 B	--
Cadmium	<0.001	--
Calcium	34	--
Chromium	0.00061 J	--
Cobalt	<0.0005	--
Lead	<0.001	--
Lithium	0.0035 J	--
Magnesium	13	--
Mercury	<0.0002	--
Molybdenum	<0.005	--
Potassium	1.7	--
Selenium	<0.005	--
Sodium	37	--
Thallium	<0.001	--
Other Constituents (mg/L)		
Total Alkalinity	42	--
Chloride	17	--
Fluoride	0.1	--
Laboratory pH (S.U.)	7.8 HF	--
Sulfate	140	--
Total Dissolved Solids (TDS)	250	--
Turbidity (NTU)	2.3	--
Radium-226 (pCi/L)	<-0.0253	--
Radium-228 (pCi/L)	<-0.0237	--
Ra-226 + 228 combined (pCi/L)	<-0.0490	--

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

G - Sample MDC is greater than the requested RL

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft	847	847
Monitoring Point:	**S-4PA**	**S-4PA**
Date Sampled:	**4/24/19**	**10/29/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	6.95	7.01
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00031 J	0.00022 J
Barium	0.024	0.041
Beryllium	<0.001	<0.001
Boron	0.8 B	1
Cadmium	<0.001	<0.001
Calcium	190	290
Chromium	0.00086 J	<0.002
Cobalt	0.00018 J	0.0002 J
Lead	<0.001	<0.001
Lithium	0.065	0.074
Magnesium	40	57
Mercury	<0.0002	<0.0002
Molybdenum	0.0021 J	0.0024 J
Potassium	23	30
Selenium	<0.005	<0.005
Sodium	290	390
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00038 J	0.00029 J
Barium	0.024	0.042
Beryllium	0.00009 J	<0.001
Boron	0.8 B	1
Cadmium	<0.001	<0.001
Calcium	180	280
Chromium	0.00082 J	0.00084 J
Cobalt	0.00026 J	0.0003 J
Lead	0.00016 J	0.00021 J
Lithium	0.065	0.074
Magnesium	39	57
Mercury	<0.0002	<0.0002
Molybdenum	0.0022 J	0.0022 J
Potassium	23	30
Selenium	<0.005	<0.005
Sodium	280	390
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	80	97
Chloride	170	250
Fluoride	0.36	0.22 J
Laboratory pH (S.U.)	7.9 HF	7.8 HF
Sulfate	980	1300
Total Dissolved Solids (TDS)	1600	2300
Turbidity (NTU)	1.5	3.2
Radium-226 (pCi/L)	<0.0181	<0.0247
Radium-228 (pCi/L)	<-0.302	<0.183
Ra-226 + 228 combined (pCi/L)	<-0.284	<0.208

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft	820	820
Monitoring Point:	**S-85**	**S-85**
Date Sampled:	**4/24/19**	**10/24/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7	7.18
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.0023	0.0018
Barium	0.017	0.016
Beryllium	0.00011 J B	<0.001
Boron	2.8 B	2.7
Cadmium	<0.001	<0.001
Calcium	440	470
Chromium	<0.002	<0.002
Cobalt	0.00039 J	0.00012 J
Lead	<0.001	<0.001
Lithium	0.31	0.29
Magnesium	38	37
Mercury	<0.0002	<0.0002
Molybdenum	0.011	0.011
Potassium	73	69
Selenium	<0.005	<0.005
Sodium	470	420
Thallium	<0.001 B	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.0031	0.0024
Barium	0.018	0.016
Beryllium	0.00017 J B	<0.001
Boron	2.7 B	2.7
Cadmium	<0.001	<0.001
Calcium	440	460
Chromium	0.00087 J	<0.002
Cobalt	0.00048 J	0.00022 J
Lead	<0.001	<0.001
Lithium	0.31	0.29
Magnesium	38	37
Mercury	<0.0002	<0.0002
Molybdenum	0.011	0.01
Potassium	72	68
Selenium	<0.005	<0.005
Sodium	460	420
Thallium	<0.001 B	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	49	51
Chloride	270	280
Fluoride	0.77	0.75
Laboratory pH (S.U.)	7.6 HF	7.5 HF
Sulfate	2000	2100
Total Dissolved Solids (TDS)	3200	3200
Turbidity (NTU)	0.88	1.1
Radium-226 (pCi/L)	0.195	<0.0494
Radium-228 (pCi/L)	1.29 *	<0.376
Ra-226 + 228 combined (pCi/L)	1.48	<0.425

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

WORTHINGTON

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	16.50	17.42
Water Elevation (ft AMSL):	771.72	770.80
Monitoring Point:	**MW-18A**	**MW-18A**
Date Sampled:	**4/25/19**	**10/17/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	6.46	6.55
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00025 J	0.00022 J B
Barium	0.042	0.048
Beryllium	0.00023 J	<0.001 B
Boron	0.049 J	0.044 J B
Cadmium	<0.001	<0.001
Calcium	45	51
Chromium	0.001 J	0.00065 J
Cobalt	0.0022	0.003
Lead	<0.001	<0.001
Lithium	0.011	0.014
Magnesium	14	16
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005 B
Potassium	2.3	2.5
Selenium	<0.005	<0.005
Sodium	54	43
Thallium	<0.001	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00033 J	0.00028 J B
Barium	0.038	0.043
Beryllium	0.00013 J	<0.001 B
Boron	0.036 J	0.036 J B
Cadmium	<0.001	<0.001
Calcium	71	71
Chromium	0.00065 J	<0.002
Cobalt	0.0042	0.0045
Lead	<0.001	<0.001
Lithium	0.014	0.014
Magnesium	21	22
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005 B
Potassium	2.7	2.8
Selenium	<0.005	<0.005
Sodium	39	37
Thallium	<0.001	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	97	100
Chloride	43	23
Fluoride	0.073 J	0.083 J
Laboratory pH (S.U.)	6.6 HF	6.8 HF
Sulfate	160	80
Total Dissolved Solids (TDS)	400	440
Turbidity (NTU)	47	33
Radium-226 (pCi/L)	<0.0726	<0.0106
Radium-228 (pCi/L)	<-0.282*	<0.638
Ra-226 + 228 combined (pCi/L)	<-0.210	<0.649

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	202.16	198.71
Water Elevation (ft AMSL):	752.92	756.37
Monitoring Point:	**MW-21B**	**MW-21B**
Date Sampled:	**4/29/19**	**10/28/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.56	8.21
Dissolved Metals (mg/L)		
Antimony	0.00089 J	0.00039 J *
Arsenic	0.00066 J	0.00045 J B
Barium	0.4	0.42
Beryllium	<0.001	<0.001 B *
Boron	0.33	0.39
Cadmium	<0.001	<0.001
Calcium	7.2	7.1
Chromium	0.0024	0.00068 J
Cobalt	0.00053	0.00058
Lead	0.00017 J	<0.001
Lithium	0.023	0.022
Magnesium	1.5	1.4
Mercury	<0.0002	<0.0002
Molybdenum	0.0008 J	0.00073 J
Potassium	3.8	4.2
Selenium	0.0035 J	0.0019 J
Sodium	530	590
Thallium	0.00012 J	<0.001 B
Total Metals (mg/L)		
Antimony	0.0012 J	0.00055 J *
Arsenic	0.00067 J	0.0018 B
Barium	0.4	0.49
Beryllium	0.00025 J	0.00025 J B *
Boron	0.35	0.38
Cadmium	0.00021 J	<0.001
Calcium	7.8	7.9
Chromium	0.0046	0.014
Cobalt	0.00058	0.006
Lead	0.00079 J	0.0047
Lithium	0.023	0.024
Magnesium	1.6	2.1
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	4.2	5.2
Selenium	0.0049 J	0.0027 J
Sodium	550	590
Thallium	0.00028 J	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	870	850
Chloride	270	260
Fluoride	2.3	1.9
Laboratory pH (S.U.)	7.8 HF	7.8 HF
Sulfate	16	11
Total Dissolved Solids (TDS)	1400	1400
Turbidity (NTU)	11	23
Radium-226 (pCi/L)	0.277	0.581
Radium-228 (pCi/L)	<0.0675 *	1.23 G
Ra-226 + 228 combined (pCi/L)	<0.345	1.81

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL .

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

G - Sample MDC is greater than the requested RL

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	160.98	164.55
Water Elevation (ft AMSL):	987.33	983.71
Monitoring Point:	**MW-30D**	**MW-30D**
Date Sampled:	**5/2/19**	**10/29/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	8.65	8.59
Dissolved Metals (mg/L)		
Antimony		
Arsenic	<0.001	<0.001
Barium	0.05	0.05
Beryllium	<0.001	<0.001
Boron	0.24	0.25
Cadmium	<0.001	<0.001
Calcium	2.1	2.1
Chromium	0.0009 J	<0.002
Cobalt	<0.0005	<0.0005
Lead	<0.001	<0.001
Lithium	0.011	0.0093
Magnesium	0.31 J	0.3 J
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	1.5	1.5
Selenium	<0.005	<0.005
Sodium	320	330
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00024 J	<0.001
Barium	0.057	0.051
Beryllium	<0.001	0.0001 J
Boron	0.24	0.25
Cadmium	<0.001	<0.001
Calcium	3.3	2.2
Chromium	0.0042	<0.002
Cobalt	0.0002 J	<0.0005
Lead	0.01	0.00019 J
Lithium	0.011	0.0092
Magnesium	0.47 J	0.32 J
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	1.6	1.5
Selenium	<0.005	<0.005
Sodium	330	330
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	380	370
Chloride	230	220
Fluoride	1.7	1.6
Laboratory pH (S.U.)	8.5 HF	8.4 HF
Sulfate	0.48 J	1.3
Total Dissolved Solids (TDS)	790	800
Turbidity (NTU)	1.6	2.6
Radium-226 (pCi/L)	<0.0825	<0.0108
Radium-228 (pCi/L)	0.458	<0.256
Ra-226 + 228 combined (pCi/L)	0.54	<0.267

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	92.90	96.04
Water Elevation (ft AMSL):	899.12	895.98
Monitoring Point:	**MW-32B**	**MW-32B**
Date Sampled:	**4/17/19**	**10/15/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	6.52	7.11
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.0024	0.0023
Barium	0.081	0.081
Beryllium	<0.001	0.00011 J
Boron	0.08	0.085
Cadmium	<0.001	<0.001
Calcium	80	80
Chromium	0.001 J	0.00066 J
Cobalt	0.00011 J	0.000099 J
Lead	<0.001	<0.001
Lithium	0.014	0.015
Magnesium	22	21
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	3.4	3.1
Selenium	<0.005	<0.005
Sodium	38	36
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.003	0.0025
Barium	0.084	0.081
Beryllium	<0.001	0.00014 J
Boron	0.081	0.091
Cadmium	<0.001	<0.001
Calcium	81	81
Chromium	0.0036	0.0014 J
Cobalt	0.00019 J	0.00017 J
Lead	<0.001	<0.001
Lithium	0.014	0.016
Magnesium	23	21
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	3.4	3.1
Selenium	<0.005	<0.005
Sodium	39	36
Thallium	<0.001	0.00015 J
Other Constituents (mg/L)		
Total Alkalinity	200	200
Chloride	54	59
Fluoride	0.17	0.19
Laboratory pH (S.U.)	7.3 HF	7.5 HF
Sulfate	71	75
Total Dissolved Solids (TDS)	400	410
Turbidity (NTU)	22	39
Radium-226 (pCi/L)	0.5	0.298
Radium-228 (pCi/L)	0.738	<0.291
Ra-226 + 228 combined (pCi/L)	1.24	0.589

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	118.24	122.98
Water Elevation (ft AMSL):	882.73	877.99
Monitoring Point:	**MW-33B**	**MW-33B**
Date Sampled:	**4/16/19**	**10/9/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.98	7.9
Dissolved Metals (mg/L)		
Antimony	0.00058 J	0.00059 J
Arsenic	0.0015	0.0011
Barium	0.25	0.19
Beryllium	<0.001	<0.001
Boron	0.14 B	0.15
Cadmium	<0.001	<0.001
Calcium	30	31
Chromium	<0.002	<0.002
Cobalt	<0.0005	<0.0005
Lead	<0.001	<0.001
Lithium	0.012	0.017
Magnesium	7.1	6.8
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005 B
Potassium	2.7	2.6
Selenium	<0.005	<0.005
Sodium	160 B	160
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	0.00072 J	0.0007 J
Arsenic	0.0018	0.0014
Barium	0.26	0.19
Beryllium	<0.001	<0.001
Boron	0.14 B	0.17
Cadmium	<0.001	<0.001
Calcium	31	30
Chromium	0.00098 J	<0.002
Cobalt	0.0002 J	0.00016 J
Lead	0.0005 J	0.00016 J
Lithium	0.013	0.018
Magnesium	7.1	6.7
Mercury	<0.0002	<0.0002 B
Molybdenum	<0.005	<0.005 B
Potassium	2.7	2.6
Selenium	<0.005	<0.005
Sodium	160 B	160
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	310	290
Chloride	44	52
Fluoride	0.57	0.5
Laboratory pH (S.U.)	8.2 HF	8.1 HF
Sulfate	31	63
Total Dissolved Solids (TDS)	430	480
Turbidity (NTU)	3	1.5
Radium-226 (pCi/L)	0.439	0.183
Radium-228 (pCi/L)	<-0.112	0.522
Ra-226 + 228 combined (pCi/L)	<0.327	0.706

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft	751	751
Monitoring Point:	**S-1VC**	**S-1VC**
Date Sampled:	**4/24/19**	**10/29/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	6.48	7.17
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00026 J	0.00035 J
Barium	0.022	0.044
Beryllium	<0.001	<0.001
Boron	0.6 B	0.68
Cadmium	<0.001	<0.001
Calcium	140	230
Chromium	0.00058 J	0.00066 J
Cobalt	0.00014 J	0.00018 J
Lead	<0.001	<0.001
Lithium	0.031	0.037
Magnesium	41	63
Mercury	<0.0002	<0.0002
Molybdenum	0.00082 J	0.00094 J
Potassium	13	17
Selenium	<0.005	<0.005
Sodium	230	310
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00025 J	0.00032 J
Barium	0.022	0.045
Beryllium	<0.001	<0.001
Boron	0.59 B	0.68
Cadmium	<0.001	<0.001
Calcium	140	230
Chromium	0.00067 J	0.00069 J
Cobalt	0.00014 J	0.0002 J
Lead	<0.001	<0.001
Lithium	0.031	0.037
Magnesium	40	65
Mercury	<0.0002	<0.0002
Molybdenum	0.00081 J	0.001 J
Potassium	13	17
Selenium	<0.005	<0.005
Sodium	230	310
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	94	130
Chloride	150	220
Fluoride	0.28	0.17
Laboratory pH (S.U.)	7.8 HF	7.7 HF
Sulfate	750	1000
Total Dissolved Solids (TDS)	1400	1800
Turbidity (NTU)	0.29 J	0.64 J
Radium-226 (pCi/L)	<0.0595	<0.112
Radium-228 (pCi/L)	<-0.294	0.78
Ra-226 + 228 combined (pCi/L)	<-0.235	0.891

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft AMSL):	786	786	786
Monitoring Point:	**S-4PC**	**S-4PC**	**S-4PC**
Date Sampled:	**1/29/19**	**4/24/19**	**10/29/19**
CCR Rule Sample Event	**1**	**2**	**3**
Field Parameters			
pH (S.U.)	6.44	7.12	7.06
Dissolved Metals (mg/L)			
Antimony	<0.002	<0.002	<0.002
Arsenic	<0.001	0.00021 J	0.00053 J
Barium	0.033 B	0.034	0.049
Beryllium	<0.001 *	<0.001	0.00032 J B
Boron	0.75	0.93 B	1.4
Cadmium	<0.001	<0.001	<0.001
Calcium	120	130	210
Chromium	0.00066 J	<0.002	<0.002
Cobalt	0.00014 J	0.00018 J	0.00024 J
Lead	<0.001	<0.001	<0.001
Lithium	0.034	0.045	0.049
Magnesium	20	23	32
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	<0.005	<0.005	0.00072 J
Potassium	16	20	26
Selenium	<0.005	<0.005	<0.005
Sodium	240	260	360 B
Thallium	<0.001	<0.001	<0.001
Total Metals (mg/L)			
Antimony	<0.002	<0.002	<0.002
Arsenic	0.00024 J	0.00043 J	0.00064 J
Barium	0.033 B	0.041	0.049
Beryllium	<0.001 *	<0.001	0.00051 J B
Boron	0.71	0.89 B	1.3
Cadmium	<0.001	<0.001	<0.001
Calcium	120	140	200
Chromium	<0.002	0.001 J	<0.002
Cobalt	0.00022 J	0.00042 J	0.00021 J
Lead	0.00019 J	0.00051 J	0.00029 J
Lithium	0.031	0.044	0.049
Magnesium	19	23	30
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	<0.005	<0.005	0.00094 J
Potassium	15	20	24
Selenium	<0.005	<0.005	<0.005
Sodium	220	250	340 B
Thallium	<0.001	<0.001	0.00023 J
Other Constituents (mg/L)			
Total Alkalinity	53	53	87
Chloride	110	130	200
Fluoride	0.23	0.3	0.19
Laboratory pH (S.U.)	7.5 HF	7.5 HF	7.6 HF
Sulfate	640	760	980
Total Dissolved Solids (TDS)	1200	1300	1800
Turbidity (NTU)	8.7	7.8	22
Radium-226 (pCi/L)	--	<0.0509	<0.0462
Radium-228 (pCi/L)	--	<0.0548	<0.182
Ra-226 + 228 combined (pCi/L)	--	<0.106	<0.228

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft	805	805
Monitoring Point:	**S-16D**	**S-16D**
Date Sampled:	**4/23/19**	**10/29/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	6.82	7.1
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	<0.001	<0.001
Barium	0.013	0.024
Beryllium	<0.001	0.00017 J B
Boron	0.56	0.77
Cadmium	<0.001	<0.001
Calcium	260	450
Chromium	<0.002	<0.002
Cobalt	0.00022 J	0.000082 J
Lead	<0.001	<0.001
Lithium	0.059	0.069
Magnesium	47	58
Mercury	<0.0002	<0.0002
Molybdenum	0.0018 J	0.0028 J
Potassium	19	34
Selenium	<0.005	<0.005
Sodium	150 B	250 B
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00018 J	0.00018 J
Barium	0.013	0.024
Beryllium	<0.001	0.00023 J B
Boron	0.56	0.74
Cadmium	<0.001	<0.001
Calcium	260	430
Chromium	0.0007 J	<0.002
Cobalt	0.00024 J	0.000099 J
Lead	<0.001	<0.001
Lithium	0.059	0.067
Magnesium	46	55
Mercury	<0.0002	<0.0002
Molybdenum	0.0018 J	0.0027 J
Potassium	19	33
Selenium	<0.005	<0.005
Sodium	150 B	240 B
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	79	120
Chloride	170	310
Fluoride	0.27	0.29
Laboratory pH (S.U.)	7.9 HF	7.9 HF
Sulfate	830	1400
Total Dissolved Solids (TDS)	1600	2600
Turbidity (NTU)	0.11 J	0.33 J
Radium-226 (pCi/L)	<0.0571	<-0.00770
Radium-228 (pCi/L)	<-0.0221	<0.210
Ra-226 + 228 combined (pCi/L)	<0.0350	<0.203

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft	744	744
Monitoring Point:	**S-19AC**	**S-19AC**
Date Sampled:	**4/24/19**	**10/29/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.44	7.38
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00024 J	0.00037 J
Barium	0.022	0.033
Beryllium	<0.001 B	<0.001 B
Boron	0.12 B	0.14
Cadmium	<0.001	<0.001
Calcium	51	71
Chromium	0.00077 J	<0.002
Cobalt	0.000084 J	0.000091 J
Lead	<0.001	<0.001
Lithium	0.012	0.0073
Magnesium	12	14
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	2.6	3.4
Selenium	<0.005	<0.005
Sodium	35	95 B
Thallium	<0.001 B	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.0011	0.0009 J
Barium	0.028	0.037
Beryllium	<0.001 B	0.00016 J B
Boron	0.13 B	0.17
Cadmium	<0.001	<0.001
Calcium	51	83
Chromium	0.00098 J	<0.002
Cobalt	0.00026 J	0.00027 J
Lead	0.00092 J	0.00063 J
Lithium	0.013	0.0095
Magnesium	12	16
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	2.6	4.1
Selenium	<0.005	<0.005
Sodium	35	110 B
Thallium	<0.001 B	<0.001
Other Constituents (mg/L)		
Total Alkalinity	36	88
Chloride	36	110
Fluoride	0.11	0.12
Laboratory pH (S.U.)	7.5 HF	7.6 HF
Sulfate	150	270
Total Dissolved Solids (TDS)	340	670
Turbidity (NTU)	11	13
Radium-226 (pCi/L)	<0.0701	<-0.0316
Radium-228 (pCi/L)	<0.485 *	<0.121
Ra-226 + 228 combined (pCi/L)	0.555	<0.0890

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft A	--	--
Monitoring Point:	**S-81**	**S-81**
Date Sampled:	**4/24/19**	**10/24/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	Dry	Dry
Dissolved Metals (mg/L)		
Antimony	--	--
Arsenic	--	--
Barium	--	--
Beryllium	--	--
Boron	--	--
Cadmium	--	--
Calcium	--	--
Chromium	--	--
Cobalt	--	--
Lead	--	--
Lithium	--	--
Magnesium	--	--
Mercury	--	--
Molybdenum	--	--
Potassium	--	--
Selenium	--	--
Sodium	--	--
Thallium	--	--
Total Metals (mg/L)		
Antimony	--	--
Arsenic	--	--
Barium	--	--
Beryllium	--	--
Boron	--	--
Cadmium	--	--
Calcium	--	--
Chromium	--	--
Cobalt	--	--
Lead	--	--
Lithium	--	--
Magnesium	--	--
Mercury	--	--
Molybdenum	--	--
Potassium	--	--
Selenium	--	--
Sodium	--	--
Thallium	--	--
Other Constituents (mg/L)		
Total Alkalinity	--	--
Chloride	--	--
Fluoride	--	--
Laboratory pH (S.U.)	--	--
Sulfate	--	--
Total Dissolved Solids (TDS)	--	--
Turbidity (NTU)	--	--
Radium-226 (pCi/L)	--	--
Radium-228 (pCi/L)	--	--
Ra-226 + 228 combined (pCi/L)	--	--

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft	776	776
Monitoring Point:	**S-84**	**S-84**
Date Sampled:	**4/24/19**	**10/24/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	6.94	7.18
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.0017	0.0027
Barium	0.018	0.019
Beryllium	0.00023 J B	<0.001
Boron	2.8 B	2.7
Cadmium	<0.001	<0.001
Calcium	440	490
Chromium	0.00089 J	<0.002
Cobalt	0.00058	0.00032 J
Lead	<0.001	<0.001
Lithium	0.31	0.33
Magnesium	35	34
Mercury	<0.0002	<0.0002
Molybdenum	0.011	0.011
Potassium	76	78
Selenium	0.0012 J	<0.005
Sodium	440	400
Thallium	<0.001 B	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.0025	0.0031
Barium	0.019	0.019
Beryllium	0.00041 J B	<0.001
Boron	2.7 B	2.8
Cadmium	<0.001	<0.001
Calcium	440	490
Chromium	<0.002	<0.002
Cobalt	0.00065	0.00037 J
Lead	0.00019 J	0.0002 J
Lithium	0.32	0.33
Magnesium	35	35
Mercury	<0.0002	<0.0002
Molybdenum	0.011	0.011
Potassium	75	78
Selenium	0.0011 J	<0.005
Sodium	430	400
Thallium	0.00018 J B	0.00013 J B
Other Constituents (mg/L)		
Total Alkalinity	54	57
Chloride	270	290
Fluoride	0.85	0.91
Laboratory pH (S.U.)	7.3 HF	7.3 HF
Sulfate	1900	2100
Total Dissolved Solids (TDS)	3400	3700
Turbidity (NTU)	2.9	3.2
Radium-226 (pCi/L)	<0.0547	0.182
Radium-228 (pCi/L)	0.739 *	0.542
Ra-226 + 228 combined (pCi/L)	0.794	0.724

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

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Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	52.54	53.09
Water Elevation (ft AMSL):	693.33	693.28
Monitoring Point:	**MW-13B**	**MW-13B**
Date Sampled:	**4/11/19**	**10/17/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.23	7.14
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00058 J	0.001 B
Barium	0.024	0.022
Beryllium	<0.001	<0.001 B
Boron	0.67 B	0.55 B
Cadmium	<0.001	<0.001
Calcium	260	260
Chromium	0.0011 J	0.00075 J
Cobalt	0.0036	0.0017
Lead	<0.001	<0.001
Lithium	0.063	0.057
Magnesium	69	66
Mercury	<0.0002	<0.0002
Molybdenum	0.00084 J	<0.005 B
Potassium	11	10
Selenium	<0.005	<0.005
Sodium	470	430
Thallium	<0.001	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.0006 J	0.00085 J B
Barium	0.024	0.026
Beryllium	<0.001	<0.001 B
Boron	0.65 B	0.56 B
Cadmium	<0.001	<0.001
Calcium	250	260
Chromium	0.0014 J	0.0011 J
Cobalt	0.0035	0.0014
Lead	<0.001	<0.001
Lithium	0.061	0.057
Magnesium	67	66
Mercury	<0.0002	<0.0002
Molybdenum	0.00082 J	0.001 J B
Potassium	11	11
Selenium	<0.005	<0.005
Sodium	450	480
Thallium	<0.001	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	150	150
Chloride	430	490
Fluoride	0.34	0.42
Laboratory pH (S.U.)	7.4 HF	7.5 HF
Sulfate	1100	1200
Total Dissolved Solids (TDS)	2300	2500
Turbidity (NTU)	1.1	10
Radium-226 (pCi/L)	<0.0506	<0.0622
Radium-228 (pCi/L)	<0.0512	<0.297
Ra-226 + 228 combined (pCi/L)	<0.102	<0.359

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	375.36	374.26
Water Elevation (ft AMSL):	751.88	752.98
Monitoring Point:	**MW-16C**	**MW-16C**
Date Sampled:	**4/30/19**	**10/28/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.36	Insufficient
Dissolved Metals (mg/L)		Recovery
Antimony	<0.002	--
Arsenic	0.0048	--
Barium	0.24	--
Beryllium	<0.001	--
Boron	0.32	--
Cadmium	<0.001	--
Calcium	16	--
Chromium	0.0018 J	--
Cobalt	0.00017 J	--
Lead	0.00017 J	--
Lithium	0.034	--
Magnesium	4.2	--
Mercury	<0.0002	--
Molybdenum	0.00079 J	--
Potassium	7.4	--
Selenium	<0.005	--
Sodium	1100	--
Thallium	<0.001	--
Total Metals (mg/L)		
Antimony	0.0016 J	--
Arsenic	0.0065	--
Barium	0.24	--
Beryllium	<0.001	--
Boron	0.32	--
Cadmium	<0.001	--
Calcium	16	--
Chromium	0.0046	--
Cobalt	0.00027 J	--
Lead	0.00077 J	--
Lithium	0.034	--
Magnesium	4.2	--
Mercury	<0.0002	--
Molybdenum	0.00096 J	--
Potassium	7.2	--
Selenium	<0.005	--
Sodium	1100	--
Thallium	<0.001	--
Other Constituents (mg/L)		
Total Alkalinity	1300	--
Chloride	850	--
Fluoride	0.67	--
Laboratory pH (S.U.)	7.5 HF	--
Sulfate	3	--
Total Dissolved Solids (TDS)	2800	--
Turbidity (NTU)	25	--
Radium-226 (pCi/L)	0.759	--
Radium-228 (pCi/L)	0.553	--
Ra-226 + 228 combined (pCi/L)	1.31	--

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	42.80	45.91
Water Elevation (ft AMSL):	701.80	698.69
Monitoring Point:	**MW-22B**	**MW-22B**
Date Sampled:	**4/11/19**	**10/23/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.81	7.12
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	<0.001	<0.001 B
Barium	0.018	0.019
Beryllium	<0.001	<0.001 B *
Boron	0.5 B	0.45 B
Cadmium	<0.001	<0.001
Calcium	120	120
Chromium	<0.002	<0.002
Cobalt	0.0011	0.0014
Lead	<0.001	<0.001
Lithium	0.034	0.031
Magnesium	40	38
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	5.8	5.2
Selenium	<0.005	<0.005
Sodium	180	170
Thallium	<0.001	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00021 J	0.00017 J B
Barium	0.018	0.021
Beryllium	<0.001	<0.001 B *
Boron	0.51 B	0.45 B
Cadmium	<0.001	<0.001
Calcium	120	130
Chromium	0.00066 J	<0.002
Cobalt	0.0012	0.0017
Lead	<0.001	<0.001
Lithium	0.035	0.032
Magnesium	40	40
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	5.8	5.4
Selenium	<0.005	<0.005
Sodium	180	180
Thallium	<0.001	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	150	190
Chloride	120	140
Fluoride	0.2	0.26
Laboratory pH (S.U.)	7.3 HF	7.4 HF
Sulfate	470	440
Total Dissolved Solids (TDS)	1100	1000
Turbidity (NTU)	3	3.8
Radium-226 (pCi/L)	<0.0333	<0.00989
Radium-228 (pCi/L)	<0.0252	<0.233
Ra-226 + 228 combined (pCi/L)	<0.0585	<0.243

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	177.19	227.02
Water Elevation (ft AMSL):	971.43	921.60
Monitoring Point:	**MW-30E**	**MW-30E**
Date Sampled:	**5/21/19**	**11/1/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	6.96	7.49
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00057 J	0.00023 J
Barium	7.3	6.8
Beryllium	0.00014 J B	<0.001 B
Boron	0.28 B	0.29
Cadmium	<0.001	<0.001
Calcium	260	200
Chromium	0.0013 J	<0.002
Cobalt	0.00079	0.00024 J
Lead	<0.001	<0.001
Lithium	0.13	0.14
Magnesium	74	59
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	23	19
Selenium	<0.005	<0.005
Sodium	4500 B	3700
Thallium	0.00014 J	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00062 J	0.00048 J
Barium	8	7.5
Beryllium	0.0002 J B	<0.001 B
Boron	0.28 B	0.29
Cadmium	<0.001	<0.001
Calcium	280	220
Chromium	0.0013 J	<0.002
Cobalt	0.0011	0.00033 J
Lead	0.00019 J	<0.001
Lithium	0.14	0.14
Magnesium	79	63
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	24	20
Selenium	<0.005	<0.005
Sodium	4600 B	3800
Thallium	0.00018 J	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	270	280
Chloride	8600	7200
Fluoride	<2.5 *	0.73 J
Laboratory pH (S.U.)	7.8 HF	7.7 HF
Sulfate	17 J	23 J
Total Dissolved Solids (TDS)	14000	11000
Turbidity (NTU)	13	58
Radium-226 (pCi/L)	37.5	16.4
Radium-228 (pCi/L)	27.6	9.27
Ra-226 + 228 combined (pCi/L)	65.1	25.6

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	106.09	111.65
Water Elevation (ft AMSL):	885.24	879.68
Monitoring Point:	**MW-32C**	**MW-32C**
Date Sampled:	**4/19/19**	**10/15/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	8.2	7.3
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00087 J	0.00091 J
Barium	0.13	0.13
Beryllium	<0.001	<0.001
Boron	0.081	0.081
Cadmium	<0.001	<0.001
Calcium	82	81
Chromium	0.00058 J	<0.002
Cobalt	0.00021 J	<0.0005
Lead	<0.001	<0.001
Lithium	0.014	0.015
Magnesium	22	21
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	3.4	2.9
Selenium	<0.005	<0.005
Sodium	50 B	46
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.0014	0.00098 J
Barium	0.14	0.13
Beryllium	<0.001	<0.001
Boron	0.08 B	0.093
Cadmium	<0.001	<0.001
Calcium	82	75
Chromium	0.0031 B	0.0011 J
Cobalt	0.00049 J	0.00022 J
Lead	0.0006 J	0.00023 J
Lithium	0.013	0.015
Magnesium	23	20
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	3.2	2.9
Selenium	<0.005	<0.005
Sodium	47	50
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	200	200
Chloride	54	62
Fluoride	0.17	0.17
Laboratory pH (S.U.)	7.4 HF	7.5 HF
Sulfate	76	85
Total Dissolved Solids (TDS)	430	420
Turbidity (NTU)	34	25
Radium-226 (pCi/L)	0.264	0.255
Radium-228 (pCi/L)	1.33	<0.280
Ra-226 + 228 combined (pCi/L)	1.59	0.535

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	129.10	133.20
Water Elevation (ft AMSL):	871.31	867.21
Monitoring Point:	**MW-33C**	**MW-33C**
Date Sampled:	**4/17/19**	**10/10/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	8.72	8.62
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00071 J	0.00043 J
Barium	0.1	0.12 B
Beryllium	<0.001	<0.001
Boron	0.31	0.3
Cadmium	<0.001	<0.001
Calcium	2.7	3.1
Chromium	0.0019 J	0.00088 J
Cobalt	<0.0005	<0.0005
Lead	<0.001	<0.001
Lithium	0.018	0.02
Magnesium	0.61	0.64
Mercury	<0.0002	<0.0002
Molybdenum	0.0012 J	<0.005
Potassium	2.4	2.3
Selenium	<0.005	<0.005
Sodium	450	470
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	0.00035 J	<0.002
Arsenic	0.0013	0.00049 J
Barium	0.13	0.13 B
Beryllium	0.00024 J	<0.001
Boron	0.31	0.31
Cadmium	<0.001	<0.001
Calcium	3.7	3.4
Chromium	0.017	0.0023
Cobalt	0.0028	0.0003 J
Lead	0.0047	0.00036 J
Lithium	0.02	0.022
Magnesium	1.5	0.77
Mercury	<0.0002	<0.0002 B
Molybdenum	0.0016 J	<0.005
Potassium	2.9	2.5
Selenium	<0.005	<0.005
Sodium	420	480
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	620	630
Chloride	150	270
Fluoride	3.6	3.3
Laboratory pH (S.U.)	8.3 HF	8.4 HF
Sulfate	3.2	2
Total Dissolved Solids (TDS)	980	1100
Turbidity (NTU)	100	6.4
Radium-226 (pCi/L)	<-0.0147	0.313
Radium-228 (pCi/L)	<0.214 G	<0.0533
Ra-226 + 228 combined (pCi/L)	<0.199	<0.366

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

G - Sample MDC is greater than the requested RL

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Approx. Discharge Elevation (ft AMSL):	731	731	731
Monitoring Point:	**First Valley Landslide**	**First Valley Landslide**	**First Valley Landslide**
Date Sampled:	**2/21/19**	**4/24/19**	**10/29/19**
CCR Rule Sample Event	**1**	**2**	**3**
Field Parameters			
pH (S.U.)	6.69	6.82	7.02
Dissolved Metals (mg/L)			
Antimony	<0.002	<0.002	<0.002
Arsenic	0.0002 J	0.00034 J	0.00042 J
Barium	0.012	0.026	0.05
Beryllium	<0.001	0.00014 J	<0.001
Boron	0.44	0.69 B	0.73
Cadmium	<0.001	<0.001	<0.001
Calcium	97	160	230
Chromium	<0.002	0.00058 J	0.0006 J
Cobalt	0.000092 J	0.00029 J	0.0013
Lead	<0.001	<0.001	<0.001
Lithium	0.028	0.052	0.044
Magnesium	26	48	68
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	0.00084 J	0.0013 J	0.0013 J
Potassium	9	16	18
Selenium	<0.005	<0.005	<0.005
Sodium	160	280	350
Thallium	<0.001	<0.001	<0.001
Total Metals (mg/L)			
Antimony	<0.002	<0.002	<0.002
Arsenic	0.00019 J	0.00039 J	0.00051 J
Barium	0.013	0.028	0.049
Beryllium	<0.001	0.0002 J	<0.001
Boron	0.42	0.71 B	0.71
Cadmium	<0.001	<0.001	<0.001
Calcium	96	160	220
Chromium	<0.002	<0.002	<0.002
Cobalt	0.0001 J	0.0004 J	0.0011
Lead	<0.001	0.00022 J	0.00037 J
Lithium	0.026	0.052	0.044
Magnesium	27	48	68
Mercury	<0.0002	<0.0002	<0.0002
Molybdenum	<0.005	0.0013 J	0.0012 J
Potassium	8.8	16	18
Selenium	<0.005	<0.005	<0.005
Sodium	160	280	360
Thallium	<0.001	0.00013 J	<0.001
Other Constituents (mg/L)			
Total Alkalinity	74	110	130
Chloride	97	160	230
Fluoride	0.24	0.24	0.18
Laboratory pH (S.U.)	7.6 HF	7.5 HF	7.3 HF
Sulfate	510	880	1100
Total Dissolved Solids (TDS)	970	1600	2100
Turbidity (NTU)	1.2	0.35 J	11
Radium-226 (pCi/L)	--	<-0.0196	<0.0464
Radium-228 (pCi/L)	--	1.07	<0.0836
Ra-226 + 228 combined (pCi/L)	--	1.05	<0.130

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

CLARION

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	41.47	41.74
Water Elevation (ft AMSL):	704.90	704.63
Monitoring Point:	**MW-13A**	**MW-13A**
Date Sampled:	**4/11/19**	**10/17/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	6.69	7.55
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00023 J	<0.001 B
Barium	0.024	0.025
Beryllium	<0.001	<0.001 B
Boron	2.9 B	2.7 B
Cadmium	<0.001	<0.001
Calcium	440	440
Chromium	0.0011 J	0.00073 J
Cobalt	0.00038 J	0.00025 J
Lead	<0.001	<0.001
Lithium	0.4	0.38
Magnesium	99	95
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005 B
Potassium	37	35
Selenium	<0.005	<0.005
Sodium	2100 *	2100
Thallium	<0.001	<0.001 B
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00018 J	<0.001 B
Barium	0.025	0.024
Beryllium	<0.001	<0.001 B
Boron	3 B	2.7 B
Cadmium	<0.001	<0.001
Calcium	450	440
Chromium	0.00082 J	0.00075 J
Cobalt	0.00039 J	0.00039 J
Lead	<0.001	<0.001
Lithium	0.42	0.37
Magnesium	100	96
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005 B
Potassium	38	35
Selenium	<0.005	<0.005
Sodium	2200	2100
Thallium	<0.001	<0.001 B
Other Constituents (mg/L)		
Total Alkalinity	210	210
Chloride	2900	3300
Fluoride	0.89 J	0.53
Laboratory pH (S.U.)	7.8 HF	7.5 HF
Sulfate	1600	1800
Total Dissolved Solids (TDS)	6800	7300
Turbidity (NTU)	0.06 J	0.23 J
Radium-226 (pCi/L)	0.103	0.121
Radium-228 (pCi/L)	2.17	1.93
Ra-226 + 228 combined (pCi/L)	2.28	2.05

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	71.18	71.46
Water Elevation (ft AMSL):	667.93	667.65
Monitoring Point:	**MW-15B**	**MW-15B**
Date Sampled:	**4/18/19**	**10/18/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	6.71	7.34
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00042 J	0.00027 J
Barium	0.056	0.051
Beryllium	<0.001	0.000087 J
Boron	0.46 B	0.41
Cadmium	<0.001	<0.001
Calcium	500	510
Chromium	0.0016 J B	<0.002
Cobalt	0.0004 J	<0.0005
Lead	<0.001	0.00055 J
Lithium	0.19	0.19
Magnesium	140	130
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	24	22
Selenium	<0.005	<0.005
Sodium	2800	2600
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00037 J	0.00022 J
Barium	0.053	0.053
Beryllium	<0.001	0.000095 J
Boron	0.44 B	0.44
Cadmium	<0.001	<0.001
Calcium	490	520
Chromium	0.0014 J B	<0.002
Cobalt	0.0004 J	<0.0005
Lead	<0.001	<0.001
Lithium	0.19	0.19
Magnesium	140	140
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	23	22
Selenium	<0.005	<0.005
Sodium	2700	2600
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	290	300
Chloride	4500	4400
Fluoride	0.4	0.45 J
Laboratory pH (S.U.)	7.3 HF	7.3 HF
Sulfate	770	700
Total Dissolved Solids (TDS)	7300	7100
Turbidity (NTU)	34	80
Radium-226 (pCi/L)	0.179	0.154
Radium-228 (pCi/L)	1.91	2.6
Ra-226 + 228 combined (pCi/L)	2.09	2.76

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	68.75	68.83
Water Elevation (ft AMSL):	668.12	668.04
Monitoring Point:	**MW-23B**	**MW-23B**
Date Sampled:	**4/9/19**	**10/18/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.01	6.87
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00044 J	<0.001
Barium	28	27
Beryllium	<0.001	<0.001
Boron	0.21	0.19
Cadmium	<0.001	<0.001
Calcium	310	300
Chromium	0.0012 J	<0.002
Cobalt	0.00063	0.00011 J
Lead	<0.001	<0.001
Lithium	0.13	0.13
Magnesium	99	87
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	27	24
Selenium	<0.005	<0.005
Sodium	1400	1300
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00039 J	<0.001
Barium	29	28
Beryllium	<0.001	<0.001
Boron	0.21	0.2
Cadmium	<0.001	<0.001
Calcium	330	310
Chromium	0.0013 J	<0.002
Cobalt	0.00072	0.00011 J
Lead	0.00023 J	0.0006 J
Lithium	0.14	0.13
Magnesium	100	91
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	<0.005
Potassium	27	24
Selenium	<0.005	<0.005
Sodium	1500	1400
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	160	160
Chloride	3000	2700
Fluoride	<0.5	0.13 J c
Laboratory pH (S.U.)	6.9 HF	7.2 HF
Sulfate	6.4	4 J c
Total Dissolved Solids (TDS)	5000	5700
Turbidity (NTU)	35	9.1
Radium-226 (pCi/L)	9.7	10.3
Radium-228 (pCi/L)	9.53	10.3
Ra-226 + 228 combined (pCi/L)	19.2	20.6

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	87.62	89.83
Water Elevation (ft AMSL):	903.27	901.06
Monitoring Point:	**MW-32D**	**MW-32D**
Date Sampled:	**4/19/19**	**10/15/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.94	7.64
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00039 J	0.00037 J
Barium	0.075	0.11
Beryllium	<0.001	0.00028 J
Boron	0.07 J	0.1
Cadmium	<0.001	<0.001
Calcium	97	60
Chromium	<0.002	<0.002
Cobalt	0.00026 J	0.00019 J
Lead	<0.001	<0.001
Lithium	0.013	0.015
Magnesium	27	16
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	0.0017 J
Potassium	3	2.5
Selenium	<0.005	<0.005
Sodium	27 B	130
Thallium	<0.001	0.00016 J
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00088 J	0.0005 J
Barium	0.084	0.09
Beryllium	<0.001	<0.001
Boron	0.067 J B	0.08
Cadmium	<0.001	<0.001
Calcium	97	71
Chromium	0.0011 J B	<0.002
Cobalt	0.0003 J	0.00019 J
Lead	0.00019 J	0.00017 J
Lithium	0.012	0.014
Magnesium	28	19
Mercury	<0.0002	<0.0002
Molybdenum	<0.005	0.0015 J
Potassium	2.9	2.5
Selenium	<0.005	<0.005
Sodium	29	110
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	180	230
Chloride	65	100
Fluoride	0.16	0.24
Laboratory pH (S.U.)	7.6 HF	7.9 HF
Sulfate	100	100
Total Dissolved Solids (TDS)	440	540
Turbidity (NTU)	25	5
Radium-226 (pCi/L)	0.147	<0.141
Radium-228 (pCi/L)	<0.329	<0.162
Ra-226 + 228 combined (pCi/L)	0.476	<0.302

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

Appendix B
Analytical Data Summary
Little Blue Run Disposal Area

Depth to Water (ft):	234.06	147.64
Water Elevation (ft AMSL):	765.13	851.55
Monitoring Point:	**MW-33D**	**MW-33D**
Date Sampled:	**5/1/19**	**10/10/19**
CCR Rule Sample Event	**2**	**3**
Field Parameters		
pH (S.U.)	7.56	7.54
Dissolved Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00053 J	0.0004 J
Barium	0.96	0.39 B
Beryllium	<0.001	<0.001
Boron	0.24	0.21
Cadmium	<0.001	<0.001
Calcium	120	74
Chromium	0.00097 J	0.00087 J
Cobalt	0.00071	0.00083
Lead	<0.001	<0.001
Lithium	0.086	0.048
Magnesium	29	18
Mercury	<0.0002	<0.0002
Molybdenum	0.0012 J	<0.005
Potassium	14	8.4
Selenium	<0.005	<0.005
Sodium	2300	1200
Thallium	<0.001	<0.001
Total Metals (mg/L)		
Antimony	<0.002	<0.002
Arsenic	0.00054 J	0.00043 J
Barium	0.96	0.39 B
Beryllium	<0.001	<0.001
Boron	0.24	0.22
Cadmium	<0.001	<0.001
Calcium	120	73
Chromium	0.0011 J	0.0012 J
Cobalt	0.00075	0.00085
Lead	0.00037 J	0.00027 J
Lithium	0.084	0.05
Magnesium	29	18
Mercury	<0.0002	<0.0002 B
Molybdenum	0.00092 J	<0.005
Potassium	14	8.4
Selenium	<0.005	<0.005
Sodium	2300	1200
Thallium	<0.001	<0.001
Other Constituents (mg/L)		
Total Alkalinity	360	350
Chloride	4000	1800
Fluoride	0.31 J	0.35 J
Laboratory pH (S.U.)	7.7 HF	7.7 HF
Sulfate	50	110
Total Dissolved Solids (TDS)	4700	3200
Turbidity (NTU)	12	12
Radium-226 (pCi/L)	2.51	1.87
Radium-228 (pCi/L)	2.01	1.19
Ra-226 + 228 combined (pCi/L)	4.52	3.06

Footnotes:

HF - Sample was prepped or analyzed beyond the specified holding time

J - Result is less than the RL but greater than or equal to the MDL

B - Compound was found in the blank and sample.

* - RPD of the LCS and LCSD exceeds the control limits

APPENDIX C

ASSESSMENT MONITORING – STATISTICAL ANALYSES (MIDDLE GLENSHAW)

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **MW-102B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 1		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 2		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 3		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 4		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 5		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 6		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 7		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 8		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	21	None	N / Y	MCL	CI-Log	LCL	0.00019	0.010	NO
01/01/2016	11/04/2019	14	0	None	N / N	MCL	CI-NPAR	LCL	0.013	2.0	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.21	4.0	NO
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **MW-102B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 9		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 10		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 11		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 12		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 13		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 14		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 15		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.030	0.040	NO
01/01/2016	11/04/2019	14	43	None	N / N	MCL	CI-NPAR	LCL	0.00014	0.10	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00026	0.015	NO
01/01/2016	11/04/2019	12	42	None	N / N	MCL	CI-NPAR	LCL	0.024	5.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00055	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO

Confidence interval not calculated because all compliance data are non-detect.

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **MW-107B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 16		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 17		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 18		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 19		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 20		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 21		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 22		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 23		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	36	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00018	0.010	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.035	2.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	14	64	Upward	N / N	MCL	CB-LinReg	LCB	0.00035	0.10	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.58	4.0	NO
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **MW-107B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 24		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 25		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 26		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 27		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 28		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 29		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 30		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	N / Y	MCL	CI-Log	LCL	0.013	0.040	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00014	0.10	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00026	0.015	NO
01/01/2016	11/04/2019	13	62	None	N / N	MCL	CI-NPAR	LCL	0.068	5.0	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00055	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO

Confidence interval not calculated because all compliance data are non-detect.

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **MW-10R**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 31		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 32		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 33		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 34		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 35		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 36		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 37		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 38		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-LinReg	LCB	-.00069	0.010	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.028	2.0	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	64	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	57	Downward	N / Y	MCL	CB-TheilSen	LCB	-.0016	0.0060	NO
Normality test of residuals failed, switched to Theil-Sen											
01/01/2016	11/04/2019	14	0	None	N / Y	MCL	CI-Log	LCL	0.0019	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.15	4.0	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **MW-10R**

Background Data Information

Start		End	Count	Percent ND	Normal/ Lognormal
Run Id:	39		Parameter:	Lithium, total mg/L	
---		---	---	---	---
Run Id:	40		Parameter:	Mo, tot mg/L	
---		---	---	---	---
Run Id:	41		Parameter:	Pb, tot mg/L	
---		---	---	---	---
Run Id:	42		Parameter:	Ra-226,228, tot pCi/L	
---		---	---	---	---
Run Id:	43		Parameter:	Sb, tot mg/L	
---		---	---	---	---
Run Id:	44		Parameter:	Se, tot mg/L	
---		---	---	---	---
Run Id:	45		Parameter:	Tl, tot mg/L	
---		---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.035	0.040	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0019	0.10	NO
01/01/2016	11/04/2019	14	43	Downward	N / N	MCL	CB-TheilSen	LCB	-.0030	0.015	NO
Normality test of residuals failed, switched to Theil-Sen											
01/01/2016	11/04/2019	13	8	None	N / Y	MCL	CI-Log	LCL	0.60	5.0	NO
01/01/2016	11/04/2019	14	7	Downward	Y / Y	MCL	CB-LinReg	LCB	-.00016	0.0060	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	71	None	N / Y	MCL	CI-NPAR	LCL	0.00041	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **MW-12C**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 46		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 47		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 48		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 49		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 50		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 51		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 52		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 53		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	14	None	Y / N	MCL	CI-Nrml Mean	LCL	0.00029	0.010	NO
01/01/2016	11/04/2019	14	0	None	Y / N	MCL	CI-Nrml Mean	LCL	0.021	2.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-LinReg	LCB	0.00039	0.0060	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	7	None	Y / N	MCL	CI-Nrml Mean	LCL	0.0014	0.10	NO
01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-LinReg	LCB	-.080	4.0	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **MW-12C**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 54		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 55		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 56		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 57		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 58		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 59		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 60		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	Downward	N / Y	MCL	CB-TheilSen	LCB	-.12	0.040	NO
Normality test of residuals failed, switched to Theil-Sen											
01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-LinReg	LCB	-.0013	0.10	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	0	None	N / N	MCL	CI-NPAR	LCL	0.00093	0.015	NO
01/01/2016	11/04/2019	13	15	None	N / Y	MCL	CI-Log	LCL	0.39	5.0	NO
01/01/2016	11/04/2019	14	64	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	64	None	N / N	MCL	CI-NPAR	LCL	0.00055	0.050	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0020	NO

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **MW-24**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 61		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 62		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 63		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 64		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 65		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 66		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 67		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 68		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	21	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00019	0.010	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.049	2.0	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	14	50	Upward	Y / N	MCL	CB-LinReg	LCB	0.00084	0.10	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.20	4.0	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **MW-24**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 69		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 70		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 71		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 72		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 73		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 74		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 75		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.013	0.040	NO
01/01/2016	11/04/2019	14	36	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00033	0.10	NO
01/01/2016	11/04/2019	14	21	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00046	0.015	NO
01/01/2016	11/04/2019	13	8	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.39	5.0	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00041	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO

Confidence interval not calculated because all compliance data are non-detect.

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **MW-26**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 76		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 77		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 78		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 79		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 80		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 81		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 82		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 83		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	43	None	Y / N	MCL	CI-Nrml Mean	LCL	0.00016	0.010	NO
01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-LinReg	LCB	0.015	2.0	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	14	29	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00058	0.10	NO
01/01/2016	11/04/2019	14	7	Upward	Y / N	MCL	CB-LinReg	LCB	0.14	4.0	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **MW-26**

Background Data Information

Start		End	Count	Percent ND	Normal/ Lognormal
Run Id:	84		Parameter:	Lithium, total mg/L	
---		---	---	---	---
Run Id:	85		Parameter:	Mo, tot mg/L	
---		---	---	---	---
Run Id:	86		Parameter:	Pb, tot mg/L	
---		---	---	---	---
Run Id:	87		Parameter:	Ra-226,228, tot pCi/L	
---		---	---	---	---
Run Id:	88		Parameter:	Sb, tot mg/L	
---		---	---	---	---
Run Id:	89		Parameter:	Se, tot mg/L	
---		---	---	---	---
Run Id:	90		Parameter:	Tl, tot mg/L	
---		---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.010	0.040	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00014	0.10	NO
01/01/2016	11/04/2019	14	64	None	N / N	MCL	CI-NPAR	LCL	0.00025	0.015	NO
01/01/2016	11/04/2019	13	38	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.16	5.0	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	79	None	N / Y	MCL	CI-NPAR	LCL	0.00041	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO

Confidence interval not calculated because all compliance data are non-detect.

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **MW-40B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 91		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 92		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 93		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 94		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 95		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 96		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 97		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 98		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00042	0.010	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.079	2.0	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	14	50	None	N / Y	MCL	CI-Log	LCL	0.00034	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	1.1	4.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **MW-40B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 99		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 100		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 101		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 102		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 103		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 104		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 105		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	62	None	N / N	MCL	CI-NPAR	LCL	0.0025	0.040	NO
01/01/2016	11/04/2019	14	36	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00030	0.10	NO
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.00026	0.015	NO
01/01/2016	11/04/2019	13	54	None	N / N	MCL	CI-NPAR	LCL	0.15	5.0	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00041	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO

Confidence interval not calculated because all compliance data are non-detect.

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **S-19E**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 106		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 107		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 108		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 109		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 110		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 111		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 112		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 113		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	36	None	N / Y	MCL	CI-Log	LCL	0.00017	0.010	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.017	2.0	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	14	None	Y / N	MCL	CI-Nrml Mean	LCL	0.00043	0.0060	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / N	MCL	CI-Nrml Mean	LCL	0.17	4.0	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **S-19E**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 114		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 115		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 116		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 117		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 118		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 119		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 120		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.075	0.040	YES
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00014	0.10	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00026	0.015	NO
01/01/2016	11/04/2019	13	77	None	N / N	MCL	CI-NPAR	LCL	0.069	5.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00041	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO

Confidence interval not calculated because all compliance data are non-detect.

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **S-1VA**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 121		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 122		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 123		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 124		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 125		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 126		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 127		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 128		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	12	8	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00024	0.010	NO
01/01/2016	11/04/2019	12	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.019	2.0	NO
01/01/2016	11/04/2019	12	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	12	92	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	12	83	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	12	58	Upward	N / Y	MCL	CB-LinReg	LCB	0.00040	0.10	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	11	9	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.036	4.0	NO
01/01/2016	11/04/2019	12	75	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **S-1VA**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 129		Parameter: Lithium, total mg/L		
---	---	---	---	---
Run Id: 130		Parameter: Mo, tot mg/L		
---	---	---	---	---
Run Id: 131		Parameter: Pb, tot mg/L		
---	---	---	---	---
Run Id: 132		Parameter: Ra-226,228, tot pCi/L		
---	---	---	---	---
Run Id: 133		Parameter: Sb, tot mg/L		
---	---	---	---	---
Run Id: 134		Parameter: Se, tot mg/L		
---	---	---	---	---
Run Id: 135		Parameter: Tl, tot mg/L		
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	11	91	None	N / N	MCL	CI-NPAR	LCL	0.0025	0.040	NO
01/01/2016	11/04/2019	12	83	None	N / N	MCL	CI-NPAR	LCL	0.00014	0.10	NO
01/01/2016	11/04/2019	12	83	None	N / N	MCL	CI-NPAR	LCL	0.00026	0.015	NO
01/01/2016	11/04/2019	12	67	None	N / N	MCL	CI-NPAR	LCL	0.0055	5.0	NO
01/01/2016	11/04/2019	12	100	None	N / N	MCL	100%ND	LCL	0.0	0.0060	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	12	92	None	N / N	MCL	CI-NPAR	LCL	0.00041	0.050	NO
01/01/2016	11/04/2019	12	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **S-30**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 136		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 137		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 138		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 139		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 140		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 141		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 142		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 143		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	8	None	N / Y	MCL	CI-Log	LCL	0.00020	0.010	NO
01/01/2016	11/04/2019	13	0	None	N / Y	MCL	CI-Log	LCL	0.030	2.0	NO
01/01/2016	11/04/2019	13	85	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	13	92	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	13	77	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	13	69	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.067	4.0	NO
01/01/2016	11/04/2019	13	77	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **S-30**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 144		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 145		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 146		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 147		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 148		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 149		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 150		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	54	None	N / N	MCL	CI-NPAR	LCL	0.0025	0.040	NO
01/01/2016	11/04/2019	13	85	None	N / N	MCL	CI-NPAR	LCL	0.00014	0.10	NO
01/01/2016	11/04/2019	13	69	None	N / N	MCL	CI-NPAR	LCL	0.00026	0.015	NO
01/01/2016	11/04/2019	13	77	None	N / N	MCL	CI-NPAR	LCL	0.0070	5.0	NO
01/01/2016	11/04/2019	13	77	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	13	0	None	N / Y	MCL	CI-Log	LCL	0.0015	0.050	NO
01/01/2016	11/04/2019	13	92	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0020	NO

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **S-9F**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 151		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 152		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 153		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 154		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 155		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 156		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 157		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 158		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00033	0.010	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.020	2.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000048	0.0040	NO
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	21	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00034	0.0060	NO
01/01/2016	11/04/2019	14	71	None	N / Y	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	14	14	None	Y / N	MCL	CI-Nrml Mean	LCL	0.040	4.0	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **S-9F**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 159		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 160		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 161		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 162		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 163		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 164		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 165		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	23	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0051	0.040	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00014	0.10	NO
01/01/2016	11/04/2019	14	36	None	N / Y	MCL	CI-Log	LCL	0.00029	0.015	NO
01/01/2016	11/04/2019	13	62	None	N / N	MCL	CI-NPAR	LCL	-.022	5.0	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	50	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00062	0.050	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0020	NO

Little Blue Run

Middle Glenshaw - Assessment Stats

Location Id: **S-9F**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL

UCL - Upper Confidence Level Value
UCB - Upper Confidence Band Value at Last Sample Date
LCL - Lower Confidence Level Value
LCB - Lower Confidence Band Value at Last Sample Date
Mean - Compliance Data Mean
Median - Compliance Data Median
Each - When background is based on Last, Median, Minimum Detection Limit
PARA TI - Parametric Tolerance Interval
NPARA TI - Non Parametric Tolerance Interval
CI-Nrml - Confidence Interval around Normal Mean
CI-Log - Confidence Interval around Log Normal Mean
CI-NPARA - Non Parametric Confidence Interval around Median
CB-LinReg - Confidence Band around Linear Regression
CB-TheilSen - Confidence Band around Theil-Sen line

APPENDIX D

ASSESSMENT MONITORING – STATISTICAL ANALYSES (LOWER GLENSHAW)

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-12B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 1		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 2		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 3		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 4		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 5		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 6		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 7		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 8		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	7	None	Y / N	MCL	CI-Nrml Mean	LCL	0.00039	0.010	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.016	2.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	64	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00061	0.0060	NO
01/01/2016	11/04/2019	14	71	Upward	N / N	MCL	CB-TheilSen	LCB	0.00015	0.10	NO
Normality test of residuals failed, switched to Theil-Sen											
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.30	4.0	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-12B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 9		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 10		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 11		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 12		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 13		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 14		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 15		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.069	0.040	YES
01/01/2016	11/04/2019	14	7	None	Y / N	MCL	CI-Nrml Mean	LCL	0.0036	0.10	NO
01/01/2016	11/04/2019	14	7	None	N / Y	MCL	CI-Log	LCL	0.0026	0.015	NO
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.86	5.0	NO
01/01/2016	11/04/2019	14	36	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	64	None	N / N	MCL	CI-NPAR	LCL	0.00055	0.050	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0020	NO

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-14AR**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 16		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 17		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 18		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 19		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 20		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 21		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 22		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 23		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	29	Downward	Y / Y	MCL	CB-LinReg	LCB	-.00061	0.010	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-LinReg	LCB	-.025	2.0	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	43	Downward	N / Y	MCL	CB-LinReg	LCB	-.0010	0.0060	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	21	None	N / Y	MCL	CI-Log	LCL	0.00052	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.10	4.0	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-14AR**

Background Data Information

Start		End	Count	Percent ND	Normal/ Lognormal
Run Id:	24		Parameter:	Lithium, total mg/L	
---		---	---	---	---
Run Id:	25		Parameter:	Mo, tot mg/L	
---		---	---	---	---
Run Id:	26		Parameter:	Pb, tot mg/L	
---		---	---	---	---
Run Id:	27		Parameter:	Ra-226,228, tot pCi/L	
---		---	---	---	---
Run Id:	28		Parameter:	Sb, tot mg/L	
---		---	---	---	---
Run Id:	29		Parameter:	Se, tot mg/L	
---		---	---	---	---
Run Id:	30		Parameter:	Tl, tot mg/L	
---		---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
Run Id: 24 Parameter: Lithium, total mg/L											
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.034	0.040	NO
Run Id: 25 Parameter: Mo, tot mg/L											
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00014	0.10	NO
Run Id: 26 Parameter: Pb, tot mg/L											
01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-LinReg	LCB	-.0011	0.015	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
Run Id: 27 Parameter: Ra-226,228, tot pCi/L											
01/01/2016	11/04/2019	13	54	None	N / N	MCL	CI-NPAR	LCL	0.048	5.0	NO
Run Id: 28 Parameter: Sb, tot mg/L											
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
Run Id: 29 Parameter: Se, tot mg/L											
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00041	0.050	NO
Run Id: 30 Parameter: Tl, tot mg/L											
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-16A**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 31		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 32		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 33		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 34		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 35		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 36		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 37		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 38		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.028	0.010	YES
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.025	2.0	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	14	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00040	0.0060	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.44	4.0	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-16A**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 39		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 40		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 41		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 42		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 43		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 44		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 45		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.25	0.040	YES
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0017	0.10	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.015	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	13	15	None	N / N	MCL	CI-NPAR	LCL	0.16	5.0	NO
01/01/2016	11/04/2019	14	7	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00040	0.0060	NO
01/01/2016	11/04/2019	14	79	None	N / Y	MCL	CI-NPAR	LCL	0.00041	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-17A**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 46		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 47		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 48		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 49		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 50		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 51		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 52		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 53		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	25	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.010	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0096	2.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	50	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.0050	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	-.00030	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	50	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.15	4.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	75	N/A	N / N	MCL	CI-NPAR	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-17A**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 54		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 55		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 56		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 57		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 58		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 59		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 60		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
Run Id: 54			Parameter:	Lithium, total mg/L							
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.070	0.040	YES
Trend-based confidence intervals not considered due to insufficient data.											
Run Id: 55			Parameter:	Mo, tot mg/L							
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	-.0016	0.10	NO
Trend-based confidence intervals not considered due to insufficient data.											
Run Id: 56			Parameter:	Pb, tot mg/L							
01/01/2016	11/04/2019	4	75	N/A	Y / Y	MCL	CI-NPAR	LCL	0.0	0.015	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											
Run Id: 57			Parameter:	Ra-226,228, tot pCi/L							
01/01/2016	11/04/2019	2	50	N/A	N / N	MCL	CI-NPAR	LCL	0.0	5.0	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 2. Required 7.											
Run Id: 58			Parameter:	Sb, tot mg/L							
01/01/2016	11/04/2019	4	100	N/A	Y / Y	MCL	100%ND	LCL	0.0	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
Run Id: 59			Parameter:	Se, tot mg/L							
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.00014	0.050	NO
Trend-based confidence intervals not considered due to insufficient data.											
Run Id: 60			Parameter:	Tl, tot mg/L							
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-3B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 61		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 62		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 63		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 64		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 65		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 66		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 67		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 68		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0011	0.010	NO
01/01/2016	11/04/2019	14	0	Downward	N / Y	MCL	CB-TheilSen	LCB	-.011	2.0	NO
Normality test of residuals failed, switched to Theil-Sen											
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-TheilSen	LCB	0.0013	0.0060	NO
Normality test of residuals failed, switched to Theil-Sen											
01/01/2016	11/04/2019	14	57	Upward	Y / Y	MCL	CB-LinReg	LCB	0.00025	0.10	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	7	None	N / Y	MCL	CI-Log	LCL	0.058	4.0	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-3B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 69		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 70		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 71		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 72		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 73		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 74		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 75		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.034	0.040	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00014	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0016	0.015	NO
01/01/2016	11/04/2019	13	31	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.32	5.0	NO
01/01/2016	11/04/2019	14	64	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	86	None	N / Y	MCL	CI-NPAR	LCL	0.00041	0.050	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0020	NO

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-40C**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 76		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 77		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 78		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 79		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 80		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 81		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 82		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 83		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0020	0.010	NO
01/01/2016	11/04/2019	14	0	None	N / Y	MCL	CI-Log	LCL	0.12	2.0	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	14	64	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / N	MCL	CI-Nrml Mean	LCL	1.4	4.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-40C**

Background Data Information

Start		End	Count	Percent ND	Normal/ Lognormal
Run Id:	84		Parameter:	Lithium, total mg/L	
---		---	---	---	---
Run Id:	85		Parameter:	Mo, tot mg/L	
---		---	---	---	---
Run Id:	86		Parameter:	Pb, tot mg/L	
---		---	---	---	---
Run Id:	87		Parameter:	Ra-226,228, tot pCi/L	
---		---	---	---	---
Run Id:	88		Parameter:	Sb, tot mg/L	
---		---	---	---	---
Run Id:	89		Parameter:	Se, tot mg/L	
---		---	---	---	---
Run Id:	90		Parameter:	Tl, tot mg/L	
---		---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	Upward	N / Y	MCL	CB-TheilSen	LCB	0.010	0.040	NO
Normality test of residuals failed, switched to Theil-Sen											
01/01/2016	11/04/2019	14	0	None	Y / N	MCL	CI-Nrml Mean	LCL	0.033	0.10	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00026	0.015	NO
01/01/2016	11/04/2019	13	38	None	N / N	MCL	CI-NPAR	LCL	0.13	5.0	NO
01/01/2016	11/04/2019	14	7	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00075	0.0060	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00055	0.050	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0020	NO

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-49B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 91		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 92		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 93		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 94		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 95		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 96		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 97		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 98		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	25	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.010	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	-.11	2.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	50	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.0040	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	Y / Y	MCL	100%ND	LCL	0.0	0.0050	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	50	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	25	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	N / Y	MCL	CI-Log	LCL	0.0087	4.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	75	N/A	N / N	MCL	CI-NPAR	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-49B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 99		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 100		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 101		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 102		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 103		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 104		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 105		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0035	0.040	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	25	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	50	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.015	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	2	0	N/A	N / N	MCL	CI-NPAR	LCL	0.0	5.0	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 2. Required 7.											
01/01/2016	11/04/2019	4	50	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	50	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.050	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	50	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-4B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 106		Parameter:	As, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.010	NO

Confidence interval not calculated because all compliance data are non-detect.

Run Id: 107		Parameter:	Ba, tot mg/L	
---	---	---	---	---

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-LinReg	LCB	0.017	2.0	NO

Trend & Residuals after subtracting trend are normal, with equal variance.

Run Id: 108		Parameter:	Be, tot mg/L	
---	---	---	---	---

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO

Run Id: 109		Parameter:	Cd,tot mg/L	
---	---	---	---	---

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO

Run Id: 110		Parameter:	Co, tot mg/L	
---	---	---	---	---

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000077	0.0060	NO

Run Id: 111		Parameter:	Cr, tot mg/L	
---	---	---	---	---

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	100	None	Y / Y	MCL	100%ND	LCL	0.0	0.10	NO

Confidence interval not calculated because all compliance data are non-detect.

Run Id: 112		Parameter:	F, tot mg/L	
---	---	---	---	---

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	None	N / N	MCL	CI-NPAR	LCL	0.56	4.0	NO

Run Id: 113		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-4B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 114		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 115		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 116		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 117		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 118		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 119		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 120		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	N / N	MCL	CI-NPAR	LCL	0.012	0.040	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00014	0.10	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.015	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	13	77	None	N / N	MCL	CI-NPAR	LCL	0.018	5.0	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.050	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-7B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 121		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 122		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 123		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 124		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 125		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 126		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 127		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 128		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	Downward	N / Y	MCL	CB-TheilSen	LCB	-.0039	0.010	NO
Normality test of residuals failed, switched to Theil-Sen											
01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-TheilSen	LCB	0.00078	2.0	NO
Normality test of residuals failed, switched to Theil-Sen											
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	64	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	14	79	Upward	N / N	MCL	CB-LinReg	LCB	0.00020	0.10	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-LinReg	LCB	-.081	4.0	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-7B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 129		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 130		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 131		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 132		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 133		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 134		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 135		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	N / N	MCL	CI-NPAR	LCL	0.0081	0.040	NO
01/01/2016	11/04/2019	14	14	None	N / Y	MCL	CI-Log	LCL	0.00070	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0014	0.015	NO
01/01/2016	11/04/2019	13	38	None	N / N	MCL	CI-NPAR	LCL	0.21	5.0	NO
01/01/2016	11/04/2019	14	14	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00029	0.0060	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00041	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO

Confidence interval not calculated because all compliance data are non-detect.

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-9BR**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 136		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 137		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 138		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 139		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 140		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 141		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 142		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 143		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	57	None	N / N	MCL	CI-NPAR	LCL	0.000075	0.010	NO
01/01/2016	11/04/2019	14	0	None	N / Y	MCL	CI-Log	LCL	0.015	2.0	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00066	0.0060	NO
01/01/2016	11/04/2019	14	50	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	14	7	None	Y / N	MCL	CI-Nrml Mean	LCL	0.20	4.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **MW-9BR**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 144		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 145		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 146		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 147		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 148		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 149		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 150		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.043	0.040	YES
01/01/2016	11/04/2019	14	57	None	N / N	MCL	CI-NPAR	LCL	0.00014	0.10	NO
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.00026	0.015	NO
01/01/2016	11/04/2019	13	38	None	N / N	MCL	CI-NPAR	LCL	0.14	5.0	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00041	0.050	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0020	NO

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **S-17**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 151		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 152		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 153		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 154		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 155		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 156		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 157		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 158		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.041	0.010	YES
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.016	2.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	25	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.0040	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.000068	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	50	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.48	4.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **S-17**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 159		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 160		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 161		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 162		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 163		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 164		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 165		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.16	0.040	YES
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0067	0.10	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	50	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.015	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	2	100	N/A	N / N	MCL	100%ND	LCL	0.0	5.0	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0016	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	25	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.050	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	75	N/A	N / Y	MCL	CI-NPAR	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **S-19F**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 166		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 167		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 168		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 169		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 170		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 171		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 172		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 173		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.000058	0.010	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.013	2.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	75	N/A	Y / Y	MCL	CI-NPAR	LCL	0.0	0.0040	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.00012	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	75	N/A	Y / Y	MCL	CI-NPAR	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0065	4.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **S-19F**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 174		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 175		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 176		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 177		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 178		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 179		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 180		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.055	0.040	YES
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	75	N/A	Y / Y	MCL	CI-NPAR	LCL	0.0	0.015	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											
01/01/2016	11/04/2019	2	100	N/A	N / N	MCL	100%ND	LCL	0.0	5.0	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	75	N/A	N / N	MCL	CI-NPAR	LCL	0.0	0.050	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											
01/01/2016	11/04/2019	4	75	N/A	Y / Y	MCL	CI-NPAR	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **S-19I**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 181		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 182		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 183		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 184		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 185		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 186		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 187		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 188		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	50	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.010	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.019	2.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	-.00018	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	50	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.027	4.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	75	N/A	N / N	MCL	CI-NPAR	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **S-19I**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 189		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 190		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 191		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 192		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 193		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 194		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 195		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.025	0.040	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.015	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	2	100	N/A	N / N	MCL	100%ND	LCL	0.0	5.0	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	25	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.050	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0000036	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **S-1VI**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 196		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 197		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 198		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 199		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 200		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 201		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 202		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 203		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	75	N/A	N / Y	MCL	CI-NPAR	LCL	0.0	0.010	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.064	2.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	50	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	50	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.025	4.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	75	N/A	N / N	MCL	CI-NPAR	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **S-1VI**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 204		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 205		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 206		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 207		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 208		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 209		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 210		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	25	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.040	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	75	N/A	Y / Y	MCL	CI-NPAR	LCL	0.0	0.015	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											
01/01/2016	11/04/2019	2	100	N/A	N / N	MCL	100%ND	LCL	0.0	5.0	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.050	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **S-25A**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 211		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 212		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 213		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 214		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 215		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 216		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 217		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 218		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	-.00014	0.010	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	N / N	MCL	CI-NPAR	LCL	0.0	2.0	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	-.00034	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.019	4.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **S-25A**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 219		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 220		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 221		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 222		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 223		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 224		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 225		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.025	0.040	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	75	N/A	N / N	MCL	CI-NPAR	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.015	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	2	50	N/A	N / N	MCL	CI-NPAR	LCL	0.0	5.0	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 2. Required 7.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	75	N/A	Y / Y	MCL	CI-NPAR	LCL	0.0	0.050	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.000010	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **S-78**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 226		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 227		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 228		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 229		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 230		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 231		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 232		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 233		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	-.00023	0.010	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.021	2.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	75	N/A	Y / Y	MCL	CI-NPAR	LCL	0.0	0.0040	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											
01/01/2016	11/04/2019	4	100	N/A	Y / Y	MCL	100%ND	LCL	0.0	0.0050	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.00018	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	25	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.26	4.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	Y / Y	MCL	100%ND	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **S-78**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 234		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 235		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 236		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 237		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 238		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 239		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 240		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	3	0	N/A	Y / Y	MCL	N/A	LCL	0.0	0.040	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data. Count = 3. Required 4.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	-.0014	0.10	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.015	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	2	100	N/A	N / N	MCL	100%ND	LCL	0.0	5.0	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	75	N/A	Y / Y	MCL	CI-NPAR	LCL	0.0	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.050	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Lower Glenshaw - Assessment Stats

Location Id: **S-78**

Background Data Information					Compliance Data Information											
Start	End	Count	Percent ND	Normal/ Lognormal	Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL

UCL - Upper Confidence Level Value
UCB - Upper Confidence Band Value at Last Sample Date
LCL - Lower Confidence Level Value
LCB - Lower Confidence Band Value at Last Sample Date
Mean - Compliance Data Mean
Median - Compliance Data Median
Each - When background is based on Last, Median, Minimum Detection Limit
PARA TI - Parametric Tolerance Interval
NPARA TI - Non Parametric Tolerance Interval
CI-Nrml - Confidence Interval around Normal Mean
CI-Log - Confidence Interval around Log Normal Mean
CI-NPARA - Non Parametric Confidence Interval around Median
CB-LinReg - Confidence Band around Linear Regression
CB-TheilSen - Confidence Band around Theil-Sen line

APPENDIX E

ASSESSMENT MONITORING – STATISTICAL ANALYSES (FREEPORT)

Little Blue Run

Freeport - Assessment Stats

Location Id: **MW-14BR**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 1		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 2		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 3		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 4		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 5		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 6		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 7		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 8		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	7	Downward	N / Y	MCL	CB-LinReg	LCB	-.00086	0.010	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-LinReg	LCB	0.039	2.0	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	36	Downward	N / Y	MCL	CB-LinReg	LCB	-.0020	0.0060	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	7	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00080	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	1.1	4.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Freeport - Assessment Stats

Location Id: **MW-14BR**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 9	Parameter: Lithium, total mg/L			
01/01/2016	01/01/2018	52	0.00	N / N
Required number of background samples for non-parametric tolerance interval not met(52). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 10	Parameter: Mo, tot mg/L			
---	---	---	---	---
Run Id: 11	Parameter: Pb, tot mg/L			
---	---	---	---	---
Run Id: 12	Parameter: Ra-226,228, tot pCi/L			
01/01/2016	01/01/2018	55	10.91	N / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 13	Parameter: Sb, tot mg/L			
---	---	---	---	---
Run Id: 14	Parameter: Se, tot mg/L			
---	---	---	---	---
Run Id: 15	Parameter: Tl, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	12	0	N/A	---	NPPI	N/A	Median	0.013	0.061	NO
01/01/2016	11/04/2019	14	29	Downward	Y / Y	MCL	CB-LinReg	LCB	-.00042	0.10	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-LinReg	LCB	-.0020	0.015	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	13	38	None	Y / Y	PARA TI	CI-Nrml Mean	LCL	0.26	6.1	NO
01/01/2016	11/04/2019	14	14	Downward	Y / Y	MCL	CB-LinReg	LCB	-.00062	0.0060	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00041	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Freeport - Assessment Stats

Location Id: **MW-16B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 16		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 17		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 18		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 19		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 20		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 21		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 22		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 23		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0014	0.010	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.10	2.0	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	14	0	None	N / Y	MCL	CI-Log	LCL	0.0026	0.10	NO
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.84	4.0	NO
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Freeport - Assessment Stats

Location Id: **MW-16B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 24	Parameter: Lithium, total mg/L			
01/01/2016	01/01/2018	52	0.00	N / N
Required number of background samples for non-parametric tolerance interval not met(52). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 25	Parameter: Mo, tot mg/L			
---	---	---	---	---
Run Id: 26	Parameter: Pb, tot mg/L			
---	---	---	---	---
Run Id: 27	Parameter: Ra-226,228, tot pCi/L			
01/01/2016	01/01/2018	55	10.91	N / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 28	Parameter: Sb, tot mg/L			
---	---	---	---	---
Run Id: 29	Parameter: Se, tot mg/L			
---	---	---	---	---
Run Id: 30	Parameter: Tl, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	N/A	---	NPPI	N/A	Median	0.0090	0.061	NO
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0014	0.10	NO
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.00026	0.015	NO
01/01/2016	11/04/2019	13	46	Downward	N / Y	PARA TI	CB-LinReg	LCB	-.72	6.1	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00066	0.0060	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00055	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Freeport - Assessment Stats

Location Id: **MW-17B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 31		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 32		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 33		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 34		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 35		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 36		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 37		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 38		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	None	Y / N	MCL	CI-Nrml Mean	LCL	0.00061	0.010	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.025	2.0	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	14	100	None	Y / Y	MCL	100%ND	LCL	0.0	0.10	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.23	4.0	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Freeport - Assessment Stats

Location Id: **MW-17B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 39	Parameter: Lithium, total mg/L			
01/01/2016	01/01/2018	52	0.00	N / N
Required number of background samples for non-parametric tolerance interval not met(52). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 40	Parameter: Mo, tot mg/L			
---	---	---	---	---
Run Id: 41	Parameter: Pb, tot mg/L			
---	---	---	---	---
Run Id: 42	Parameter: Ra-226,228, tot pCi/L			
01/01/2016	01/01/2018	55	10.91	N / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 43	Parameter: Sb, tot mg/L			
---	---	---	---	---
Run Id: 44	Parameter: Se, tot mg/L			
---	---	---	---	---
Run Id: 45	Parameter: Tl, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	N/A	---	NPPI	N/A	Median	0.022	0.061	NO
01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-TheilSen	LCB	0.00081	0.10	NO
Normality test of residuals failed, switched to Theil-Sen											
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00026	0.015	NO
01/01/2016	11/04/2019	13	23	None	Y / Y	PARA TI	CI-Nrml Mean	LCL	0.23	6.1	NO
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00041	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Freeport - Assessment Stats

Location Id: **MW-33A**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 46		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 47		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 48		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 49		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 50		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 51		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 52		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 53		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	12	17	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00026	0.010	NO
01/01/2016	11/04/2019	13	0	None	Y / N	MCL	CI-Nrml Mean	LCL	0.39	2.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	64	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	14	50	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00036	0.10	NO
01/01/2016	11/04/2019	12	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.15	4.0	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Freeport - Assessment Stats

Location Id: **MW-33A**

Background Data Information

Compliance Data Information

Start	End	Count	Percent ND	Normal/ Lognormal	Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
Run Id: 54	Parameter: Lithium, total mg/L															
01/01/2016	01/01/2018	52	0.00	N / N	01/01/2016	11/04/2019	12	0	N/A	---	NPPI	N/A	Median	0.0097	0.061	NO
Required number of background samples for non-parametric tolerance interval not met(52). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.																
Run Id: 55	Parameter: Mo, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.10	NO
					Confidence interval not calculated because all compliance data are non-detect.											
Run Id: 56	Parameter: Pb, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	14	14	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00092	0.015	NO
Run Id: 57	Parameter: Ra-226,228, tot pCi/L															
01/01/2016	01/01/2018	55	10.91	N / Y	01/01/2016	11/04/2019	13	15	None	Y / N	PARA TI	CI-Nrml Mean	LCL	0.46	6.1	NO
Background-based GWPS higher than limit-based GWPS.																
Run Id: 58	Parameter: Sb, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	14	64	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
Run Id: 59	Parameter: Se, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.050	NO
					Confidence interval not calculated because all compliance data are non-detect.											
Run Id: 60	Parameter: Tl, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0020	NO

Little Blue Run

Freeport - Assessment Stats

Location Id: **MW-3A**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 61		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 62		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 63		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 64		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 65		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 66		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 67		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 68		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00030	0.010	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.045	2.0	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	50	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.19	4.0	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Freeport - Assessment Stats

Location Id: **MW-3A**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 69	Parameter: Lithium, total mg/L			
01/01/2016	01/01/2018	52	0.00	N / N
Required number of background samples for non-parametric tolerance interval not met(52). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 70	Parameter: Mo, tot mg/L			
---	---	---	---	---
Run Id: 71	Parameter: Pb, tot mg/L			
---	---	---	---	---
Run Id: 72	Parameter: Ra-226,228, tot pCi/L			
01/01/2016	01/01/2018	55	10.91	N / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 73	Parameter: Sb, tot mg/L			
---	---	---	---	---
Run Id: 74	Parameter: Se, tot mg/L			
---	---	---	---	---
Run Id: 75	Parameter: Tl, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
Run Id: 69	Parameter: Lithium, total mg/L										
01/01/2016	11/04/2019	13	0	N/A	---	NPPI	N/A	Median	0.015	0.061	NO
Switched to Non Parametric test due to high percent of NDs.											
Run Id: 70	Parameter: Mo, tot mg/L										
01/01/2016	11/04/2019	14	21	None	Y / N	MCL	CI-Nrml Mean	LCL	0.00033	0.10	NO
Run Id: 71	Parameter: Pb, tot mg/L										
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0021	0.015	NO
Run Id: 72	Parameter: Ra-226,228, tot pCi/L										
01/01/2016	11/04/2019	13	46	None	N / Y	PARA TI	CI-NPAR	LCL	0.065	6.1	NO
Switched to Non Parametric test due to high percent of NDs.											
Run Id: 73	Parameter: Sb, tot mg/L										
01/01/2016	11/04/2019	14	50	None	N / Y	MCL	CI-Log	LCL	0.00017	0.0060	NO
Run Id: 74	Parameter: Se, tot mg/L										
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.050	NO
Confidence interval not calculated because all compliance data are non-detect.											
Run Id: 75	Parameter: Tl, tot mg/L										
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Freeport - Assessment Stats

Location Id: **MW-4AR**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 76		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 77		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 78		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 79		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 80		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 81		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 82		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 83		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	None	N / N	MCL	CI-NPAR	LCL	0.0022	0.010	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.32	2.0	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	29	None	N / Y	MCL	CI-Log	LCL	0.00030	0.0060	NO
01/01/2016	11/04/2019	12	17	None	N / Y	MCL	CI-Log	LCL	0.00049	0.10	NO
01/01/2016	11/04/2019	12	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	1.3	4.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Freeport - Assessment Stats

Location Id: **MW-4AR**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 84	Parameter: Lithium, total mg/L			
01/01/2016	01/01/2018	52	0.00	N / N
Required number of background samples for non-parametric tolerance interval not met(52). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 85	Parameter: Mo, tot mg/L			
---	---	---	---	---
Run Id: 86	Parameter: Pb, tot mg/L			
---	---	---	---	---
Run Id: 87	Parameter: Ra-226,228, tot pCi/L			
01/01/2016	01/01/2018	55	10.91	N / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 88	Parameter: Sb, tot mg/L			
---	---	---	---	---
Run Id: 89	Parameter: Se, tot mg/L			
---	---	---	---	---
Run Id: 90	Parameter: Tl, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
Run Id: 84	Parameter: Lithium, total mg/L										
01/01/2016	11/04/2019	12	0	N/A	---	NPPI	N/A	Median	0.022	0.061	NO
Run Id: 85	Parameter: Mo, tot mg/L										
01/01/2016	11/04/2019	14	43	None	N / N	MCL	CI-NPAR	LCL	0.00014	0.10	NO
Run Id: 86	Parameter: Pb, tot mg/L										
01/01/2016	11/04/2019	14	0	None	Y / N	MCL	CI-Nrml Mean	LCL	0.0014	0.015	NO
Run Id: 87	Parameter: Ra-226,228, tot pCi/L										
01/01/2016	11/04/2019	13	8	None	Y / Y	PARA TI	CI-Nrml Mean	LCL	0.54	6.1	NO
Run Id: 88	Parameter: Sb, tot mg/L										
01/01/2016	11/04/2019	14	7	None	N / Y	MCL	CI-Log	LCL	0.00031	0.0060	NO
Run Id: 89	Parameter: Se, tot mg/L										
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00041	0.050	NO
Run Id: 90	Parameter: Tl, tot mg/L										
01/01/2016	11/04/2019	13	92	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0020	NO

Little Blue Run

Freeport - Assessment Stats

Location Id: **MW-7A**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 91		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 92		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 93		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 94		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 95		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 96		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 97		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 98		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-LinReg	LCB	0.00048	0.010	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.51	2.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	14	29	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00046	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	2.0	4.0	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Freeport - Assessment Stats

Location Id: **MW-7A**

Background Data Information

Compliance Data Information

Start	End	Count	Percent ND	Normal/ Lognormal	Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
Run Id: 99	Parameter: Lithium, total mg/L															
01/01/2016	01/01/2018	52	0.00	N / N	01/01/2016	11/04/2019	13	0	N/A	---	NPPI	N/A	Median	0.016	0.061	NO
Required number of background samples for non-parametric tolerance interval not met(52). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.																
Run Id: 100	Parameter: Mo, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	14	14	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00074	0.10	NO
Run Id: 101	Parameter: Pb, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	14	0	None	Y / N	MCL	CI-Nrml Mean	LCL	0.0016	0.015	NO
Run Id: 102	Parameter: Ra-226,228, tot pCi/L															
01/01/2016	01/01/2018	55	10.91	N / Y	01/01/2016	11/04/2019	13	0	None	Y / Y	PARA TI	CI-Nrml Mean	LCL	0.72	6.1	NO
Background-based GWPS higher than limit-based GWPS.																
Run Id: 103	Parameter: Sb, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	14	14	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00031	0.0060	NO
Run Id: 104	Parameter: Se, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00041	0.050	NO
Run Id: 105	Parameter: Tl, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.																

Little Blue Run

Freeport - Assessment Stats

Location Id: **S-1VE**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 106		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 107		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 108		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 109		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 110		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 111		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 112		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 113		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	11	36	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00015	0.010	NO
01/01/2016	11/04/2019	11	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.043	2.0	NO
01/01/2016	11/04/2019	11	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	11	91	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	11	100	None	N / N	MCL	100%ND	LCL	0.0	0.0060	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	11	82	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	11	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.099	4.0	NO
01/01/2016	11/04/2019	11	64	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Freeport - Assessment Stats

Location Id: **S-1VE**

Background Data Information

Compliance Data Information

Start	End	Count	Percent ND	Normal/ Lognormal	Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
Run Id: 114	Parameter: Lithium, total mg/L															
01/01/2016	01/01/2018	52	0.00	N / N	01/01/2016	11/04/2019	10	0	N/A	---	NPPI	N/A	Median	0.0025	0.061	NO
Required number of background samples for non-parametric tolerance interval not met(52). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.																
Run Id: 115	Parameter: Mo, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	11	100	None	N / N	MCL	100%ND	LCL	0.0	0.10	NO
					Confidence interval not calculated because all compliance data are non-detect.											
Run Id: 116	Parameter: Pb, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	11	100	None	N / N	MCL	100%ND	LCL	0.0	0.015	NO
					Confidence interval not calculated because all compliance data are non-detect.											
Run Id: 117	Parameter: Ra-226,228, tot pCi/L															
01/01/2016	01/01/2018	55	10.91	N / Y	01/01/2016	11/04/2019	10	60	None	N / Y	PARA TI	CI-NPAR	LCL	-.024	6.1	NO
Background-based GWPS higher than limit-based GWPS.																
Run Id: 118	Parameter: Sb, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	11	82	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
Run Id: 119	Parameter: Se, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	11	82	None	N / N	MCL	CI-NPAR	LCL	0.00055	0.050	NO
Run Id: 120	Parameter: Tl, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	11	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
					Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Freeport - Assessment Stats

Location Id: **S-4PA**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 121		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 122		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 123		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 124		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 125		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 126		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 127		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 128		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	7	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00026	0.010	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.030	2.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	36	None	N / Y	MCL	CI-Log	LCL	0.00031	0.0060	NO
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.29	4.0	NO
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Freeport - Assessment Stats

Location Id: **S-4PA**

Background Data Information

Compliance Data Information

Start	End	Count	Percent ND	Normal/ Lognormal	Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
Run Id: 129	Parameter: Lithium, total mg/L															
01/01/2016	01/01/2018	52	0.00	N / N	01/01/2016	11/04/2019	13	0	N/A	---	NPPI	N/A	Median	0.097	0.061	YES
Required number of background samples for non-parametric tolerance interval not met(52). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.																
Run Id: 130	Parameter: Mo, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-LinReg	LCB	0.0012	0.10	NO
					Trend & Residuals after subtracting trend are normal, with equal variance.											
Run Id: 131	Parameter: Pb, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	14	50	None	N / Y	MCL	CI-Log	LCL	0.00018	0.015	NO
Run Id: 132	Parameter: Ra-226,228, tot pCi/L															
01/01/2016	01/01/2018	55	10.91	N / Y	01/01/2016	11/04/2019	13	54	None	N / Y	PARA TI	CI-NPAR	LCL	-.044	6.1	NO
Background-based GWPS higher than limit-based GWPS.																
Run Id: 133	Parameter: Sb, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
Run Id: 134	Parameter: Se, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00041	0.050	NO
Run Id: 135	Parameter: Tl, tot mg/L															
---	---	---	---	---	01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0020	NO

Little Blue Run

Freeport - Assessment Stats

Location Id: **S-85**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 136		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 137		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 138		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 139		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 140		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 141		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 142		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 143		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0023	0.010	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.017	2.0	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	29	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00034	0.0060	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	14	0	None	N / N	MCL	CI-NPAR	LCL	0.66	4.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Freeport - Assessment Stats

Location Id: **S-85**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 144	Parameter: Lithium, total mg/L			
01/01/2016	01/01/2018	52	0.00	N / N
Required number of background samples for non-parametric tolerance interval not met(52). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 145	Parameter: Mo, tot mg/L			
---	---	---	---	---
Run Id: 146	Parameter: Pb, tot mg/L			
---	---	---	---	---
Run Id: 147	Parameter: Ra-226,228, tot pCi/L			
01/01/2016	01/01/2018	55	10.91	N / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 148	Parameter: Sb, tot mg/L			
---	---	---	---	---
Run Id: 149	Parameter: Se, tot mg/L			
---	---	---	---	---
Run Id: 150	Parameter: Tl, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
Run Id: 144	Parameter: Lithium, total mg/L										
01/01/2016	11/04/2019	13	0	N/A	---	NPPI	N/A	Median	0.30	0.061	YES
Run Id: 145	Parameter: Mo, tot mg/L										
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.010	0.10	NO
Run Id: 146	Parameter: Pb, tot mg/L										
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.015	NO
Confidence interval not calculated because all compliance data are non-detect.											
Run Id: 147	Parameter: Ra-226,228, tot pCi/L										
01/01/2016	11/04/2019	13	8	None	Y / Y	PARA TI	CI-Nrml Mean	LCL	0.57	6.1	NO
Run Id: 148	Parameter: Sb, tot mg/L										
01/01/2016	11/04/2019	14	64	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
Run Id: 149	Parameter: Se, tot mg/L										
01/01/2016	11/04/2019	14	79	None	N / Y	MCL	CI-NPAR	LCL	0.00041	0.050	NO
Run Id: 150	Parameter: Tl, tot mg/L										
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Freeport - Assessment Stats

Location Id: **S-85**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL

UCL - Upper Confidence Level Value
UCB - Upper Confidence Band Value at Last Sample Date
LCL - Lower Confidence Level Value
LCB - Lower Confidence Band Value at Last Sample Date
Mean - Compliance Data Mean
Median - Compliance Data Median
Each - When background is based on Last, Median, Minimum Detection Limit
PARA TI - Parametric Tolerance Interval
NPARA TI - Non Parametric Tolerance Interval
CI-Nrml - Confidence Interval around Normal Mean
CI-Log - Confidence Interval around Log Normal Mean
CI-NPARA - Non Parametric Confidence Interval around Median
CB-LinReg - Confidence Band around Linear Regression
CB-TheilSen - Confidence Band around Theil-Sen line

APPENDIX F

ASSESSMENT MONITORING – STATISTICAL ANALYSES (WORTHINGTON)

Little Blue Run

Worthington - Assessment Stats

Location Id: **MW-18A**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 1		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 2		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 3		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 4		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 5		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 6		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 7		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 8		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	31	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00018	0.010	NO
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.041	2.0	NO
01/01/2016	11/04/2019	13	92	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	13	92	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0032	0.0060	NO
01/01/2016	11/04/2019	13	92	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	13	8	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.037	4.0	NO
01/01/2016	11/04/2019	13	69	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Worthington - Assessment Stats

Location Id: **MW-18A**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 9		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 10		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 11		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 12		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 13		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 14		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 15		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	12	8	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0070	0.040	NO
01/01/2016	11/04/2019	13	92	None	N / N	MCL	CI-NPAR	LCL	0.00014	0.10	NO
01/01/2016	11/04/2019	13	100	None	N / N	MCL	100%ND	LCL	0.0	0.015	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	12	67	None	N / N	MCL	CI-NPAR	LCL	0.063	5.0	NO
01/01/2016	11/04/2019	13	62	None	N / Y	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	13	100	None	N / N	MCL	100%ND	LCL	0.0	0.050	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	13	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Worthington - Assessment Stats

Location Id: **MW-21B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 16		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 17		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 18		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 19		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 20		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 21		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 22		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 23		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	14	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00026	0.010	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.33	2.0	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	64	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	43	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0019	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	2.0	4.0	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Worthington - Assessment Stats

Location Id: **MW-21B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 24		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 25		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 26		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 27		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 28		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 29		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 30		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.018	0.040	NO
01/01/2016	11/04/2019	14	14	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00042	0.10	NO
01/01/2016	11/04/2019	14	57	None	N / N	MCL	CI-NPAR	LCL	0.00026	0.015	NO
01/01/2016	11/04/2019	12	17	None	N / Y	MCL	CI-Log	LCL	0.33	5.0	NO
01/01/2016	11/04/2019	14	14	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00023	0.0060	NO
01/01/2016	11/04/2019	14	29	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0014	0.050	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0020	NO

Little Blue Run

Worthington - Assessment Stats

Location Id: **MW-32B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 31		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 32		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 33		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 34		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 35		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 36		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 37		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 38		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0014	0.010	NO
01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-LinReg	LCB	0.061	2.0	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	57	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	14	50	None	N / Y	MCL	CI-Log	LCL	0.00036	0.10	NO
01/01/2016	11/04/2019	14	0	None	N / Y	MCL	CI-Log	LCL	0.15	4.0	NO
01/01/2016	11/04/2019	14	64	None	Y / Y	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Worthington - Assessment Stats

Location Id: **MW-32B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 39		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 40		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 41		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 42		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 43		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 44		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 45		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	12	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.011	0.040	NO
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.00014	0.10	NO
01/01/2016	11/04/2019	14	57	None	N / Y	MCL	CI-NPAR	LCL	0.00026	0.015	NO
01/01/2016	11/04/2019	12	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	1.0	5.0	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00041	0.050	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0020	NO

Little Blue Run

Worthington - Assessment Stats

Location Id: **MW-33B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 46		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 47		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 48		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 49		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 50		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 51		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 52		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 53		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	Downward	Y / Y	MCL	CB-TheilSen	LCB	-.0028	0.010	NO
Normality test of residuals failed, switched to Theil-Sen											
01/01/2016	11/04/2019	14	0	Upward	Y / Y	MCL	CB-LinReg	LCB	0.20	2.0	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	14	43	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00037	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.38	4.0	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Worthington - Assessment Stats

Location Id: **MW-33B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 54		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 55		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 56		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 57		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 58		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 59		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 60		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	Upward	N / Y	MCL	CB-LinReg	LCB	0.012	0.040	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	14	None	N / Y	MCL	CI-Log	LCL	0.00040	0.10	NO
01/01/2016	11/04/2019	14	57	None	N / N	MCL	CI-NPAR	LCL	0.00026	0.015	NO
01/01/2016	11/04/2019	13	38	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.20	5.0	NO
01/01/2016	11/04/2019	14	7	Downward	N / Y	MCL	CB-TheilSen	LCB	-.0014	0.0060	NO
Normality test of residuals failed, switched to Theil-Sen											
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00055	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Worthington - Assessment Stats

Location Id: **S-16D**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 61		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 62		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 63		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 64		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 65		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 66		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 67		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 68		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	21	None	N / Y	MCL	CI-Log	LCL	0.00018	0.010	NO
01/01/2016	11/04/2019	14	0	None	N / Y	MCL	CI-Log	LCL	0.020	2.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	36	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00023	0.0060	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.25	4.0	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Worthington - Assessment Stats

Location Id: **S-16D**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 69		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 70		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 71		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 72		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 73		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 74		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 75		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	Y / N	MCL	CI-Nrml Mean	LCL	0.051	0.040	YES
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0018	0.10	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00026	0.015	NO
01/01/2016	11/04/2019	12	50	None	N / N	MCL	CI-NPAR	LCL	-.0061	5.0	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0060	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.00055	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Worthington - Assessment Stats

Location Id: **S-19AC**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 76		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 77		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 78		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 79		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 80		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 81		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 82		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 83		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00075	0.010	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.028	2.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	50	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.090	4.0	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Worthington - Assessment Stats

Location Id: **S-19AC**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 84		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 85		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 86		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 87		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 88		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 89		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 90		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0090	0.040	NO
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.00014	0.10	NO
01/01/2016	11/04/2019	14	21	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00075	0.015	NO
01/01/2016	11/04/2019	13	38	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.20	5.0	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00055	0.050	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0020	NO

Little Blue Run

Worthington - Assessment Stats

Location Id: **S-1VC**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 91		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 92		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 93		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 94		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 95		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 96		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 97		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 98		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	15	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00020	0.010	NO
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.024	2.0	NO
01/01/2016	11/04/2019	13	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	13	92	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	13	77	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	13	77	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.21	4.0	NO
01/01/2016	11/04/2019	13	62	None	Y / Y	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Worthington - Assessment Stats

Location Id: **S-1VC**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 99		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 100		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 101		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 102		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 103		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 104		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 105		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	12	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.030	0.040	NO
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00089	0.10	NO
01/01/2016	11/04/2019	13	92	None	N / N	MCL	CI-NPAR	LCL	0.00026	0.015	NO
01/01/2016	11/04/2019	12	50	None	N / N	MCL	CI-NPAR	LCL	-.12	5.0	NO
01/01/2016	11/04/2019	13	77	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	13	62	None	N / Y	MCL	CI-NPAR	LCL	0.00055	0.050	NO
01/01/2016	11/04/2019	13	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO

Confidence interval not calculated because all compliance data are non-detect.

Little Blue Run

Worthington - Assessment Stats

Location Id: **S-4PC**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 106		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 107		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 108		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 109		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 110		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 111		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 112		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 113		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	-.00029	0.010	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.024	2.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	75	N/A	Y / Y	MCL	CI-NPAR	LCL	0.0	0.0040	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	-.00051	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	50	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.13	4.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Worthington - Assessment Stats

Location Id: **S-4PC**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 114		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 115		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 116		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 117		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 118		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 119		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 120		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.024	0.040	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	50	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	-.0012	0.015	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	2	100	N/A	N / N	MCL	100%ND	LCL	0.0	5.0	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.050	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	75	N/A	Y / Y	MCL	CI-NPAR	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											

Little Blue Run

Worthington - Assessment Stats

Location Id: **S-81**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 121		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 122		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 123		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 124		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 125		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 126		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 127		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 128		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.000074	0.010	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.018	2.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	100	N/A	Y / Y	MCL	100%ND	LCL	0.0	0.0050	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.00019	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	Y / Y	MCL	100%ND	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.071	4.0	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	75	N/A	N / N	MCL	CI-NPAR	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											

Little Blue Run

Worthington - Assessment Stats

Location Id: **S-81**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 129		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 130		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 131		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 132		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 133		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 134		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 135		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.046	0.040	YES
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.0010	0.10	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.015	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	100	N/A	N / N	MCL	100%ND	LCL	0.0	5.0	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	4	75	N/A	N / N	MCL	CI-NPAR	LCL	0.0	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 4. Required 7.											
01/01/2016	11/04/2019	4	0	N/A	Y / Y	MCL	CI-Nrml Mean	LCL	0.00065	0.050	NO
Trend-based confidence intervals not considered due to insufficient data.											
01/01/2016	11/04/2019	4	100	N/A	Y / Y	MCL	100%ND	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Worthington - Assessment Stats

Location Id: **S-84**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 136		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 137		Parameter:	Ba, tot mg/L	
---	---	---	---	---
Run Id: 138		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 139		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 140		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 141		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 142		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 143		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0028	0.010	NO
01/01/2016	11/04/2019	14	0	Downward	N / N	MCL	CB-TheilSen	LCB	-.0022	2.0	NO
Normality test of residuals failed, switched to Theil-Sen											
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	7	None	N / Y	MCL	CI-Log	LCL	0.00048	0.0060	NO
01/01/2016	11/04/2019	14	100	None	Y / Y	MCL	100%ND	LCL	0.0	0.10	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	0	None	N / N	MCL	CI-NPAR	LCL	0.76	4.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Worthington - Assessment Stats

Location Id: **S-84**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 144		Parameter:	Lithium, total mg/L	
---	---	---	---	---
Run Id: 145		Parameter:	Mo, tot mg/L	
---	---	---	---	---
Run Id: 146		Parameter:	Pb, tot mg/L	
---	---	---	---	---
Run Id: 147		Parameter:	Ra-226,228, tot pCi/L	
---	---	---	---	---
Run Id: 148		Parameter:	Sb, tot mg/L	
---	---	---	---	---
Run Id: 149		Parameter:	Se, tot mg/L	
---	---	---	---	---
Run Id: 150		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.31	0.040	YES
01/01/2016	11/04/2019	14	0	None	N / N	MCL	CI-NPAR	LCL	0.010	0.10	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00025	0.015	NO
01/01/2016	11/04/2019	13	0	None	N / N	MCL	CI-NPAR	LCL	0.79	5.0	NO
01/01/2016	11/04/2019	14	36	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00019	0.0060	NO
01/01/2016	11/04/2019	14	86	None	N / Y	MCL	CI-NPAR	LCL	0.00041	0.050	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0020	NO

Little Blue Run

Worthington - Assessment Stats

Location Id: **S-84**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL

UCL - Upper Confidence Level Value
UCB - Upper Confidence Band Value at Last Sample Date
LCL - Lower Confidence Level Value
LCB - Lower Confidence Band Value at Last Sample Date
Mean - Compliance Data Mean
Median - Compliance Data Median
Each - When background is based on Last, Median, Minimum Detection Limit
PARA TI - Parametric Tolerance Interval
NPARA TI - Non Parametric Tolerance Interval
CI-Nrml - Confidence Interval around Normal Mean
CI-Log - Confidence Interval around Log Normal Mean
CI-NPARA - Non Parametric Confidence Interval around Median
CB-LinReg - Confidence Band around Linear Regression
CB-TheilSen - Confidence Band around Theil-Sen line

APPENDIX G

ASSESSMENT MONITORING – STATISTICAL ANALYSES (KITTANNING)

Little Blue Run

Kittanning - Assessment Stats

Location Id: **1st Valley Land**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 1	Parameter: As, tot mg/L			
01/01/2016	01/01/2018	27	3.70	N / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 2	Parameter: Ba, tot mg/L			
01/01/2016	01/01/2018	27	0.00	N / N
Required number of background samples for non-parametric tolerance interval not met(27). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 3	Parameter: Be, tot mg/L			
---	---	---	---	---
Run Id: 4	Parameter: Cd,tot mg/L			
---	---	---	---	---
Run Id: 5	Parameter: Co, tot mg/L			
---	---	---	---	---
Run Id: 6	Parameter: Cr, tot mg/L			
---	---	---	---	---
Run Id: 7	Parameter: F, tot mg/L			
01/01/2016	01/01/2018	27	3.70	N / Y
Background-based GWPS higher than limit-based GWPS.				

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	3	0	N/A	Y / Y	PARA TI	N/A	LCL	0.0	0.020	NO
Insufficient data to perform trend test. Insufficient compliance data. Count = 3. Required 4.											
01/01/2016	11/04/2019	3	0	N/A	---	NPPI	N/A	Median	0.028	7.0	NO
01/01/2016	11/04/2019	3	67	N/A	N / N	MCL	CI-NPAR	LCL	0.0	0.0040	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data to run CI-NPAR. Count = 3. Required 7.											
01/01/2016	11/04/2019	3	100	N/A	Y / Y	MCL	100%ND	LCL	0.0	0.0050	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	3	0	N/A	Y / Y	MCL	N/A	LCL	0.0	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data. Count = 3. Required 4.											
01/01/2016	11/04/2019	3	100	N/A	Y / N	MCL	100%ND	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	3	0	N/A	N / N	PARA TI	CI-NPAR	LCL	0.0	22.	NO
Insufficient data to perform trend test. Insufficient compliance data to run CI-NPAR. Count = 3. Required 7.											

Little Blue Run

Kittanning - Assessment Stats

Location Id: **1st Valley Land**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 8	Parameter: Hg, tot mg/L			
---	---	---	---	---
Run Id: 9	Parameter: Lithium, total mg/L			
01/01/2016	01/01/2018	24	0.00	N / N
Required number of background samples for non-parametric tolerance interval not met(24). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 10	Parameter: Mo, tot mg/L			
---	---	---	---	---
Run Id: 11	Parameter: Pb, tot mg/L			
---	---	---	---	---
Run Id: 12	Parameter: Ra-226,228, tot pCi/L			
01/01/2016	01/01/2018	24	8.33	N / N
Required number of background samples for non-parametric tolerance interval not met(24). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 13	Parameter: Sb, tot mg/L			
---	---	---	---	---
Run Id: 14	Parameter: Se, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	3	100	N/A	Y / Y	MCL	100%ND	LCL	0.0	0.0020	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	3	0	N/A	---	NPPI	N/A	Median	0.044	0.13	NO
01/01/2016	11/04/2019	3	33	N/A	Y / Y	MCL	N/A	LCL	0.0	0.10	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data. Count = 3. Required 4.											
01/01/2016	11/04/2019	3	33	N/A	Y / Y	MCL	N/A	LCL	0.0	0.015	NO
Trend-based confidence intervals not considered due to insufficient data. Insufficient compliance data. Count = 3. Required 4.											
01/01/2016	11/04/2019	2	0	N/A	---	NPPI	N/A	Median	0.56	49.	NO
01/01/2016	11/04/2019	3	100	N/A	N / N	MCL	100%ND	LCL	0.0	0.0060	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	3	100	N/A	Y / Y	MCL	100%ND	LCL	0.0	0.050	NO
Trend-based confidence intervals not considered due to insufficient data. Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Kittanning - Assessment Stats

Location Id: **1st Valley Land**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 15		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	3	67	N/A	N / N	MCL	CI-NPAR	LCL	0.0	0.0020	NO

Trend-based confidence intervals not considered due to insufficient data.
Insufficient compliance data to run CI-NPAR. Count = 3. Required 7.

Little Blue Run

Kittanning - Assessment Stats

Location Id: **MW-13B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 16	Parameter: As, tot mg/L			
01/01/2016	01/01/2018	27	3.70	N / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 17	Parameter: Ba, tot mg/L			
01/01/2016	01/01/2018	27	0.00	N / N
Required number of background samples for non-parametric tolerance interval not met(27). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 18	Parameter: Be, tot mg/L			
---	---	---	---	---
Run Id: 19	Parameter: Cd,tot mg/L			
---	---	---	---	---
Run Id: 20	Parameter: Co, tot mg/L			
---	---	---	---	---
Run Id: 21	Parameter: Cr, tot mg/L			
---	---	---	---	---
Run Id: 22	Parameter: F, tot mg/L			
01/01/2016	01/01/2018	27	3.70	N / Y
Background-based GWPS higher than limit-based GWPS.				

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
Run Id: 16	Parameter: As, tot mg/L										
01/01/2016	11/04/2019	14	0	Downward	Y / Y	PARA TI	CB-LinReg	LCB	-.00031	0.020	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
Run Id: 17	Parameter: Ba, tot mg/L										
01/01/2016	11/04/2019	14	0	N/A	---	NPPI	N/A	Median	0.026	7.0	NO
Run Id: 18	Parameter: Be, tot mg/L										
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
Run Id: 19	Parameter: Cd,tot mg/L										
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Confidence interval not calculated because all compliance data are non-detect.											
Run Id: 20	Parameter: Co, tot mg/L										
01/01/2016	11/04/2019	14	0	None	N / Y	MCL	CI-Log	LCL	0.0015	0.0060	NO
Run Id: 21	Parameter: Cr, tot mg/L										
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
Run Id: 22	Parameter: F, tot mg/L										
01/01/2016	11/04/2019	14	0	None	Y / Y	PARA TI	CI-Nrml Mean	LCL	0.30	22.	NO

Little Blue Run

Kittanning - Assessment Stats

Location Id: **MW-13B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 23	Parameter: Hg, tot mg/L			
---	---	---	---	---
Run Id: 24	Parameter: Lithium, total mg/L			
01/01/2016	01/01/2018	24	0.00	N / N
Required number of background samples for non-parametric tolerance interval not met(24). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 25	Parameter: Mo, tot mg/L			
---	---	---	---	---
Run Id: 26	Parameter: Pb, tot mg/L			
---	---	---	---	---
Run Id: 27	Parameter: Ra-226,228, tot pCi/L			
01/01/2016	01/01/2018	24	8.33	N / N
Required number of background samples for non-parametric tolerance interval not met(24). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 28	Parameter: Sb, tot mg/L			
---	---	---	---	---
Run Id: 29	Parameter: Se, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
Run Id: 23	Parameter: Hg, tot mg/L										
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO
Run Id: 24	Parameter: Lithium, total mg/L										
01/01/2016	11/04/2019	13	0	N/A	---	NPPI	N/A	Median	0.062	0.13	NO
Run Id: 25	Parameter: Mo, tot mg/L										
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00084	0.10	NO
Run Id: 26	Parameter: Pb, tot mg/L										
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.015	NO
Confidence interval not calculated because all compliance data are non-detect.											
Run Id: 27	Parameter: Ra-226,228, tot pCi/L										
01/01/2016	11/04/2019	13	0	N/A	---	NPPI	N/A	Median	0.55	49.	NO
Run Id: 28	Parameter: Sb, tot mg/L										
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0060	NO
Confidence interval not calculated because all compliance data are non-detect.											
Run Id: 29	Parameter: Se, tot mg/L										
01/01/2016	11/04/2019	14	71	None	N / Y	MCL	CI-NPAR	LCL	0.00041	0.050	NO

Little Blue Run

Kittanning - Assessment Stats

Location Id: **MW-13B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 30		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO

Confidence interval not calculated because all compliance data are non-detect.

Little Blue Run

Kittanning - Assessment Stats

Location Id: **MW-16C**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 31	Parameter: As, tot mg/L			
01/01/2016	01/01/2018	27	3.70	N / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 32	Parameter: Ba, tot mg/L			
01/01/2016	01/01/2018	27	0.00	N / N
Required number of background samples for non-parametric tolerance interval not met(27). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 33	Parameter: Be, tot mg/L			
---	---	---	---	---
Run Id: 34	Parameter: Cd,tot mg/L			
---	---	---	---	---
Run Id: 35	Parameter: Co, tot mg/L			
---	---	---	---	---
Run Id: 36	Parameter: Cr, tot mg/L			
---	---	---	---	---
Run Id: 37	Parameter: F, tot mg/L			
01/01/2016	01/01/2018	27	3.70	N / Y
Background-based GWPS higher than limit-based GWPS.				

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	Downward	Y / Y	PARA TI	CB-LinReg	LCB	-.0024	0.020	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	13	0	N/A	---	NPPI	N/A	Median	0.27	7.0	NO
01/01/2016	11/04/2019	13	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	13	85	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	13	85	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	13	8	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0017	0.10	NO
01/01/2016	11/04/2019	13	15	None	Y / N	PARA TI	CI-Nrml Mean	LCL	0.27	22.	NO

Little Blue Run

Kittanning - Assessment Stats

Location Id: **MW-16C**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 38	Parameter: Hg, tot mg/L			
---	---	---	---	---
Run Id: 39	Parameter: Lithium, total mg/L			
01/01/2016	01/01/2018	24	0.00	N / N
Required number of background samples for non-parametric tolerance interval not met(24). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 40	Parameter: Mo, tot mg/L			
---	---	---	---	---
Run Id: 41	Parameter: Pb, tot mg/L			
---	---	---	---	---
Run Id: 42	Parameter: Ra-226,228, tot pCi/L			
01/01/2016	01/01/2018	24	8.33	N / N
Required number of background samples for non-parametric tolerance interval not met(24). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 43	Parameter: Sb, tot mg/L			
---	---	---	---	---
Run Id: 44	Parameter: Se, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
Run Id: 38	Parameter: Hg, tot mg/L										
01/01/2016	11/04/2019	13	85	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO
Run Id: 39	Parameter: Lithium, total mg/L										
01/01/2016	11/04/2019	12	0	N/A	---	NPPI	N/A	Median	0.031	0.13	NO
Run Id: 40	Parameter: Mo, tot mg/L										
01/01/2016	11/04/2019	12	42	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00031	0.10	NO
Run Id: 41	Parameter: Pb, tot mg/L										
01/01/2016	11/04/2019	13	62	None	N / N	MCL	CI-NPAR	LCL	0.00026	0.015	NO
Run Id: 42	Parameter: Ra-226,228, tot pCi/L										
01/01/2016	11/04/2019	12	0	N/A	---	NPPI	N/A	Median	1.7	49.	NO
Run Id: 43	Parameter: Sb, tot mg/L										
01/01/2016	11/04/2019	13	31	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00022	0.0060	NO
Run Id: 44	Parameter: Se, tot mg/L										
01/01/2016	11/04/2019	13	92	None	N / N	MCL	CI-NPAR	LCL	0.00055	0.050	NO

Little Blue Run

Kittanning - Assessment Stats

Location Id: **MW-16C**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 45		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO

Confidence interval not calculated because all compliance data are non-detect.

Little Blue Run

Kittanning - Assessment Stats

Location Id: **MW-22B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 46	Parameter: As, tot mg/L			
01/01/2016	01/01/2018	27	3.70	N / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 47	Parameter: Ba, tot mg/L			
01/01/2016	01/01/2018	27	0.00	N / N
Required number of background samples for non-parametric tolerance interval not met(27). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 48	Parameter: Be, tot mg/L			
---	---	---	---	---
Run Id: 49	Parameter: Cd,tot mg/L			
---	---	---	---	---
Run Id: 50	Parameter: Co, tot mg/L			
---	---	---	---	---
Run Id: 51	Parameter: Cr, tot mg/L			
---	---	---	---	---
Run Id: 52	Parameter: F, tot mg/L			
01/01/2016	01/01/2018	27	3.70	N / Y
Background-based GWPS higher than limit-based GWPS.				

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	43	None	N / Y	PARA TI	CI-Log	LCL	0.00015	0.020	NO
01/01/2016	11/04/2019	14	0	N/A	---	NPPI	N/A	Median	0.021	7.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000087	0.0040	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0011	0.0060	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	PARA TI	CI-Nrml Mean	LCL	0.19	22.	NO

Little Blue Run

Kittanning - Assessment Stats

Location Id: **MW-22B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 53	Parameter: Hg, tot mg/L			
---	---	---	---	---
Run Id: 54	Parameter: Lithium, total mg/L			
01/01/2016	01/01/2018	24	0.00	N / N
Required number of background samples for non-parametric tolerance interval not met(24). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 55	Parameter: Mo, tot mg/L			
---	---	---	---	---
Run Id: 56	Parameter: Pb, tot mg/L			
---	---	---	---	---
Run Id: 57	Parameter: Ra-226,228, tot pCi/L			
01/01/2016	01/01/2018	24	8.33	N / N
Required number of background samples for non-parametric tolerance interval not met(24). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 58	Parameter: Sb, tot mg/L			
---	---	---	---	---
Run Id: 59	Parameter: Se, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
Run Id: 53	Parameter: Hg, tot mg/L										
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO
Run Id: 54	Parameter: Lithium, total mg/L										
01/01/2016	11/04/2019	13	0	N/A	---	NPPI	N/A	Median	0.034	0.13	NO
Run Id: 55	Parameter: Mo, tot mg/L										
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00014	0.10	NO
Run Id: 56	Parameter: Pb, tot mg/L										
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00025	0.015	NO
Run Id: 57	Parameter: Ra-226,228, tot pCi/L										
01/01/2016	11/04/2019	13	0	N/A	---	NPPI	N/A	Median	0.30	49.	NO
Run Id: 58	Parameter: Sb, tot mg/L										
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
Run Id: 59	Parameter: Se, tot mg/L										
01/01/2016	11/04/2019	14	64	None	N / N	MCL	CI-NPAR	LCL	0.00055	0.050	NO

Little Blue Run

Kittanning - Assessment Stats

Location Id: **MW-22B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 60		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO

Confidence interval not calculated because all compliance data are non-detect.

Little Blue Run

Kittanning - Assessment Stats

Location Id: **MW-32C**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 61	Parameter: As, tot mg/L			
01/01/2016	01/01/2018	27	3.70	N / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 62	Parameter: Ba, tot mg/L			
01/01/2016	01/01/2018	27	0.00	N / N
Required number of background samples for non-parametric tolerance interval not met(27). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 63	Parameter: Be, tot mg/L			
---	---	---	---	---
Run Id: 64	Parameter: Cd,tot mg/L			
---	---	---	---	---
Run Id: 65	Parameter: Co, tot mg/L			
---	---	---	---	---
Run Id: 66	Parameter: Cr, tot mg/L			
---	---	---	---	---
Run Id: 67	Parameter: F, tot mg/L			
01/01/2016	01/01/2018	27	3.70	N / Y
Background-based GWPS higher than limit-based GWPS.				

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	None	N / Y	PARA TI	CI-Log	LCL	0.0012	0.020	NO
01/01/2016	11/04/2019	14	0	N/A	---	NPPI	N/A	Median	0.18	7.0	NO
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	14	29	None	N / Y	MCL	CI-Log	LCL	0.00030	0.0060	NO
01/01/2016	11/04/2019	14	7	None	N / Y	MCL	CI-Log	LCL	0.00064	0.10	NO
01/01/2016	11/04/2019	14	0	Downward	Y / Y	PARA TI	CB-LinReg	LCB	-.033	22.	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											

Little Blue Run

Kittanning - Assessment Stats

Location Id: **MW-32C**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 68	Parameter: Hg, tot mg/L			
---	---	---	---	---
Run Id: 69	Parameter: Lithium, total mg/L			
01/01/2016	01/01/2018	24	0.00	N / N
Required number of background samples for non-parametric tolerance interval not met(24). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 70	Parameter: Mo, tot mg/L			
---	---	---	---	---
Run Id: 71	Parameter: Pb, tot mg/L			
---	---	---	---	---
Run Id: 72	Parameter: Ra-226,228, tot pCi/L			
01/01/2016	01/01/2018	24	8.33	N / N
Required number of background samples for non-parametric tolerance interval not met(24). Switched to Two Sample test. Background-based GWPS higher than limit-based GWPS.				
Run Id: 73	Parameter: Sb, tot mg/L			
---	---	---	---	---
Run Id: 74	Parameter: Se, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO
01/01/2016	11/04/2019	13	0	N/A	---	NPPI	N/A	Median	0.012	0.13	NO
01/01/2016	11/04/2019	14	29	None	N / Y	MCL	CI-Log	LCL	0.00037	0.10	NO
01/01/2016	11/04/2019	14	29	None	N / Y	MCL	CI-Log	LCL	0.00036	0.015	NO
01/01/2016	11/04/2019	13	0	N/A	---	NPPI	N/A	Median	1.3	49.	NO
01/01/2016	11/04/2019	14	64	None	N / Y	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00041	0.050	NO

Little Blue Run

Kittanning - Assessment Stats

Location Id: **MW-32C**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 75		Parameter:	Tl, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0020	NO

Little Blue Run

Kittanning - Assessment Stats

Location Id: **MW-32C**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL

UCL - Upper Confidence Level Value
UCB - Upper Confidence Band Value at Last Sample Date
LCL - Lower Confidence Level Value
LCB - Lower Confidence Band Value at Last Sample Date
Mean - Compliance Data Mean
Median - Compliance Data Median
Each - When background is based on Last, Median, Minimum Detection Limit
PARA TI - Parametric Tolerance Interval
NPARA TI - Non Parametric Tolerance Interval
CI-Nrml - Confidence Interval around Normal Mean
CI-Log - Confidence Interval around Log Normal Mean
CI-NPARA - Non Parametric Confidence Interval around Median
CB-LinReg - Confidence Band around Linear Regression
CB-TheilSen - Confidence Band around Theil-Sen line

APPENDIX H

ASSESSMENT MONITORING – STATISTICAL ANALYSES (CLARION)

Little Blue Run

Clarion - Assessment Stats

Location Id: **MW-13A**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 1		Parameter:	As, tot mg/L	
---	---	---	---	---
Run Id: 2		Parameter:	Ba, tot mg/L	
01/01/2016	01/01/2018	15	0.00	Y / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 3		Parameter:	Be, tot mg/L	
---	---	---	---	---
Run Id: 4		Parameter:	Cd,tot mg/L	
---	---	---	---	---
Run Id: 5		Parameter:	Co, tot mg/L	
---	---	---	---	---
Run Id: 6		Parameter:	Cr, tot mg/L	
---	---	---	---	---
Run Id: 7		Parameter:	F, tot mg/L	
---	---	---	---	---
Run Id: 8		Parameter:	Hg, tot mg/L	
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	50	None	N / N	MCL	CI-NPAR	LCL	0.000075	0.010	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	PARA TI	CI-Nrml Mean	LCL	0.024	36.	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00011	0.0040	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	29	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00043	0.0060	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	14	7	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.22	4.0	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Clarion - Assessment Stats

Location Id: **MW-13A**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 9	Parameter: Lithium, total mg/L			
01/01/2016	01/01/2018	14	0.00	Y / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 10	Parameter: Mo, tot mg/L			
---	---	---	---	---
Run Id: 11	Parameter: Pb, tot mg/L			
---	---	---	---	---
Run Id: 12	Parameter: Ra-226,228, tot pCi/L			
01/01/2016	01/01/2018	14	7.14	Y / N
Background-based GWPS higher than limit-based GWPS.				
Run Id: 13	Parameter: Sb, tot mg/L			
---	---	---	---	---
Run Id: 14	Parameter: Se, tot mg/L			
---	---	---	---	---
Run Id: 15	Parameter: Tl, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	Y / Y	PARA TI	CI-Nrml Mean	LCL	0.34	0.30	YES
01/01/2016	11/04/2019	14	64	None	N / Y	MCL	CI-NPAR	LCL	0.00014	0.10	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.015	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	13	0	None	Y / Y	PARA TI	CI-Nrml Mean	LCL	1.9	100.	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	64	None	N / N	MCL	CI-NPAR	LCL	0.00055	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Clarion - Assessment Stats

Location Id: **MW-15B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 16	Parameter: As, tot mg/L			
---	---	---	---	---
Run Id: 17	Parameter: Ba, tot mg/L			
01/01/2016	01/01/2018	15	0.00	Y / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 18	Parameter: Be, tot mg/L			
---	---	---	---	---
Run Id: 19	Parameter: Cd,tot mg/L			
---	---	---	---	---
Run Id: 20	Parameter: Co, tot mg/L			
---	---	---	---	---
Run Id: 21	Parameter: Cr, tot mg/L			
---	---	---	---	---
Run Id: 22	Parameter: F, tot mg/L			
---	---	---	---	---
Run Id: 23	Parameter: Hg, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	7	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00019	0.010	NO
01/01/2016	11/04/2019	14	0	Downward	Y / Y	PARA TI	CB-LinReg	LCB	0.042	36.	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000095	0.0040	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	29	None	Y / N	MCL	CI-Nrml Mean	LCL	0.00030	0.0060	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	14	7	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.053	4.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Clarion - Assessment Stats

Location Id: **MW-15B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 24	Parameter: Lithium, total mg/L			
01/01/2016	01/01/2018	14	0.00	Y / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 25	Parameter: Mo, tot mg/L			
---	---	---	---	---
Run Id: 26	Parameter: Pb, tot mg/L			
---	---	---	---	---
Run Id: 27	Parameter: Ra-226,228, tot pCi/L			
01/01/2016	01/01/2018	14	7.14	Y / N
Background-based GWPS higher than limit-based GWPS.				
Run Id: 28	Parameter: Sb, tot mg/L			
---	---	---	---	---
Run Id: 29	Parameter: Se, tot mg/L			
---	---	---	---	---
Run Id: 30	Parameter: Tl, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	Y / Y	PARA TI	CI-Nrml Mean	LCL	0.15	0.30	NO
01/01/2016	11/04/2019	14	57	None	N / Y	MCL	CI-NPAR	LCL	0.00014	0.10	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.015	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	13	0	None	Y / N	PARA TI	CI-Nrml Mean	LCL	1.9	100.	NO
01/01/2016	11/04/2019	14	43	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00019	0.0060	NO
01/01/2016	11/04/2019	14	64	None	N / N	MCL	CI-NPAR	LCL	0.00055	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Clarion - Assessment Stats

Location Id: **MW-23B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 31	Parameter: As, tot mg/L			
---	---	---	---	---
Run Id: 32	Parameter: Ba, tot mg/L			
01/01/2016	01/01/2018	15	0.00	Y / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 33	Parameter: Be, tot mg/L			
---	---	---	---	---
Run Id: 34	Parameter: Cd,tot mg/L			
---	---	---	---	---
Run Id: 35	Parameter: Co, tot mg/L			
---	---	---	---	---
Run Id: 36	Parameter: Cr, tot mg/L			
---	---	---	---	---
Run Id: 37	Parameter: F, tot mg/L			
---	---	---	---	---
Run Id: 38	Parameter: Hg, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	14	Downward	Y / Y	MCL	CB-LinReg	LCB	-.00030	0.010	NO
Trend & Residuals after subtracting trend are normal, with equal variance.											
01/01/2016	11/04/2019	14	0	None	Y / Y	PARA TI	CI-Nrml Mean	LCL	22.	36.	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0050	NO
01/01/2016	11/04/2019	12	0	None	Y / N	MCL	CI-Nrml Mean	LCL	0.00045	0.0060	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	14	7	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.082	4.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Clarion - Assessment Stats

Location Id: **MW-23B**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 39	Parameter: Lithium, total mg/L			
01/01/2016	01/01/2018	14	0.00	Y / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 40	Parameter: Mo, tot mg/L			
---	---	---	---	---
Run Id: 41	Parameter: Pb, tot mg/L			
---	---	---	---	---
Run Id: 42	Parameter: Ra-226,228, tot pCi/L			
01/01/2016	01/01/2018	14	7.14	Y / N
Background-based GWPS higher than limit-based GWPS.				
Run Id: 43	Parameter: Sb, tot mg/L			
---	---	---	---	---
Run Id: 44	Parameter: Se, tot mg/L			
---	---	---	---	---
Run Id: 45	Parameter: Tl, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	Y / Y	PARA TI	CI-Nrml Mean	LCL	0.12	0.30	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00014	0.10	NO
01/01/2016	11/04/2019	14	79	None	N / N	MCL	CI-NPAR	LCL	0.00026	0.015	NO
01/01/2016	11/04/2019	13	8	None	N / N	PARA TI	CI-NPAR	LCL	19.	100.	NO
01/01/2016	11/04/2019	14	50	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.00019	0.0060	NO
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.00055	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO

Confidence interval not calculated because all compliance data are non-detect.

Little Blue Run

Clarion - Assessment Stats

Location Id: **MW-32D**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 46	Parameter: As, tot mg/L			
---	---	---	---	---
Run Id: 47	Parameter: Ba, tot mg/L			
01/01/2016	01/01/2018	15	0.00	Y / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 48	Parameter: Be, tot mg/L			
---	---	---	---	---
Run Id: 49	Parameter: Cd,tot mg/L			
---	---	---	---	---
Run Id: 50	Parameter: Co, tot mg/L			
---	---	---	---	---
Run Id: 51	Parameter: Cr, tot mg/L			
---	---	---	---	---
Run Id: 52	Parameter: F, tot mg/L			
---	---	---	---	---
Run Id: 53	Parameter: Hg, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.0012	0.010	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	PARA TI	CI-Nrml Mean	LCL	0.081	36.	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0040	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0050	NO
Confidence interval not calculated because all compliance data are non-detect.											
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.00024	0.0060	NO
01/01/2016	11/04/2019	14	71	None	N / N	MCL	CI-NPAR	LCL	0.00015	0.10	NO
01/01/2016	11/04/2019	14	0	None	Y / Y	MCL	CI-Nrml Mean	LCL	0.13	4.0	NO
01/01/2016	11/04/2019	14	93	None	N / N	MCL	CI-NPAR	LCL	0.000020	0.0020	NO

Little Blue Run

Clarion - Assessment Stats

Location Id: **MW-32D**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal
Run Id: 54	Parameter: Lithium, total mg/L			
01/01/2016	01/01/2018	14	0.00	Y / Y
Background-based GWPS higher than limit-based GWPS.				
Run Id: 55	Parameter: Mo, tot mg/L			
---	---	---	---	---
Run Id: 56	Parameter: Pb, tot mg/L			
---	---	---	---	---
Run Id: 57	Parameter: Ra-226,228, tot pCi/L			
01/01/2016	01/01/2018	14	7.14	Y / N
Background-based GWPS higher than limit-based GWPS.				
Run Id: 58	Parameter: Sb, tot mg/L			
---	---	---	---	---
Run Id: 59	Parameter: Se, tot mg/L			
---	---	---	---	---
Run Id: 60	Parameter: Tl, tot mg/L			
---	---	---	---	---

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL
01/01/2016	11/04/2019	13	0	None	N / Y	PARA TI	CI-Log	LCL	0.0097	0.30	NO
01/01/2016	11/04/2019	14	43	None	N / Y	MCL	CI-Log	LCL	0.00031	0.10	NO
01/01/2016	11/04/2019	14	14	Downward	Y / Y	MCL	CB-TheilSen	LCB	-.0017	0.015	NO
Normality test of residuals failed, switched to Theil-Sen											
01/01/2016	11/04/2019	13	23	None	Y / Y	PARA TI	CI-Nrml Mean	LCL	0.41	100.	NO
01/01/2016	11/04/2019	14	86	None	N / N	MCL	CI-NPAR	LCL	0.000088	0.0060	NO
01/01/2016	11/04/2019	14	71	None	N / Y	MCL	CI-NPAR	LCL	0.00041	0.050	NO
01/01/2016	11/04/2019	14	100	None	N / N	MCL	100%ND	LCL	0.0	0.0020	NO
Confidence interval not calculated because all compliance data are non-detect.											

Little Blue Run

Clarion - Assessment Stats

Location Id: **MW-32D**

Background Data Information

Start	End	Count	Percent ND	Normal/ Lognormal

Compliance Data Information

Start	End	Count	Percent ND	Trend	Normal/ Lognormal	GWPS Basis	Comparison Test	Compare To	Comparison Value	GWPS	SSL

UCL - Upper Confidence Level Value
UCB - Upper Confidence Band Value at Last Sample Date
LCL - Lower Confidence Level Value
LCB - Lower Confidence Band Value at Last Sample Date
Mean - Compliance Data Mean
Median - Compliance Data Median
Each - When background is based on Last, Median, Minimum Detection Limit
PARA TI - Parametric Tolerance Interval
NPARA TI - Non Parametric Tolerance Interval
CI-Nrml - Confidence Interval around Normal Mean
CI-Log - Confidence Interval around Log Normal Mean
CI-NPARA - Non Parametric Confidence Interval around Median
CB-LinReg - Confidence Band around Linear Regression
CB-TheilSen - Confidence Band around Theil-Sen line