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STATISTICAL METHODS CERTIFICATION REPORT UPDATE

for

**ASH BASIN 6, BRUNNER ISLAND
YORK COUNTY, PENNSYLVANIA**

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1. INTRODUCTION

1.1 Overview

Geosyntec Consultants (Geosyntec) has prepared this *Statistical Methods Certification Report Update* (Report) for Brunner Island, LLC for Ash Basin 6 (AB6) at the Brunner Island Steam Electric Station (Brunner Island) located in York County, Pennsylvania. The purpose of this Report is to document the updates to the statistical methods that have been established for evaluating groundwater quality data collected at AB6. Statistical methods for evaluating groundwater quality data collected at AB6 were originally selected and certified by Advanced GeoServices Corp. (AGC) in October 2017 (AGC, 2017). In June 2021, the statistical methods and certification were updated by Geosyntec (Geosyntec, 2021). This revision reflects the establishment of a corrective action monitoring program at the site in June 2025 (V.F. Britton Group, 2025).

As required by 40 CFR 257.93(f)(6), certification from a qualified Professional Engineer (P.E.) is provided in **Attachment 1** indicating that the updated statistical methods presented herein are appropriate for evaluating groundwater monitoring data collected from AB6. This certification will be placed in the facility operating record as required by 40 CFR 257.105(h)(4) and then posted to the public internet site as required by 40 CFR 257.107(h)(3). Notification of the certification to the state director is also required, and will be completed, pursuant to 40 CFR 257.106(h)(3).

1.2 Federal CCR Rule Statistical Method Requirements

The requirements for statistical analysis of groundwater quality data collected under the CCR Rule are given in 40 CFR 257.93(f) through (h). A summary of those requirements is provided below.

The owner or operator must:

- (f) Select one of the statistical methods specified in the Section to evaluate the data. Those statistical methods include: (i) a parametric analysis of variance (ANOVA); (ii) an ANOVA based on ranks; (iii) a tolerance or prediction interval procedure; (iv) a control chart approach; or (v) other statistical test method meeting the performance standards of 40 CFR 257.93(g).
- (g) The statistical method chosen must comply with the following performance standards, as appropriate:
 - Be appropriate for the data distribution (e.g., normal, non-normal, or log-normal);
 - Use specified levels for Type I errors for ANOVA test, if selected;
 - Unless an ANOVA is the chosen statistical method, the selected test and associated statistical parameters must be as effective as any other approach in the section for evaluating the data;
 - Account for non-detect data; and

- If necessary, include procedures to control or correct for seasonal variation, spatial variability, and temporal correlation.
- (h) Using the selected statistical method, determine if there is a statistically significant increase over background values for each constituent.

1.3 Statistical Guidance and Software

The statistical methods identified in this Report were selected based on the suggested framework and recommendations contained in *Statistical Analysis of Groundwater Data at RCRA Facilities – Unified Guidance* (Unified Guidance) (USEPA, 2009). The Unified Guidance provides details on the statistical methods and performance standards required under the CCR Rule for detection, assessment and corrective Action Monitoring Programs. More specifically, it provides the technical details on key statistical concepts, such as independence, stationarity, outliers, data distributions, handling of non-detects, establishing and updating background concentrations, and identifying statistically significant increases (SSIs) in analyte concentrations from background and statistically significant levels (SSLs) above groundwater protection standards (GWPS).

The primary software that will be used to conduct the statistical evaluations is ChemStat©, Version 6.3 developed by Starpoint Software, Inc. of Cincinnati, Ohio. ChemStat© contains statistical and graphical capabilities that were developed specifically for evaluation of groundwater quality data in accordance with the Unified Guidance.

2. GROUNDWATER MONITORING

2.1 Monitoring Network

The CCR Rule groundwater monitoring system at AB6 initially consisted of one off-site background monitoring well (MW-BG-1) and eight compliance monitoring wells/piezometers (MW-6-2, MW-6-3N, MW-6-4, MW-6-6, MW-6-7, MW-6-8, MW-8-2 and PZ-6-5B) near the perimeter of the basin, as described in the *Annual Groundwater Monitoring and Corrective Action Report - 2020* (AGC, 2021). Two piezometers (PZ-A3 and PZ-C3), installed in 2024 as part of the groundwater recovery system, were added to the groundwater monitoring system (V.F. Britton Group, 2025).

Monitoring wells/piezometers are installed in the shallow fractured bedrock aquifer. Summary details for each monitoring well/piezometer are presented in **Table 1**.

2.2 Groundwater Quality Data

In accordance with Section 257.94 of the CCR Rule, baseline concentrations of Appendix III and IV constituents were measured at each monitoring well during eight quarterly sampling events conducted from April 2016 to July 2017. Monitoring of Appendix III and IV constituents, on a semiannual basis, has been completed at AB6 from 2018 to 2025.

2.3 Groundwater Monitoring Programs

A detection monitoring program for Appendix III constituents began in October 2017. SSIs above background groundwater concentrations for several Appendix III constituents were identified for several compliance wells under the Detection Monitoring Program. Therefore, an assessment monitoring program was triggered and initiated early in 2018. GWPS for Appendix IV constituents were established in September 2018. SSLs above the GWPS were identified for arsenic, lithium, and molybdenum between 2018 and 2025. Groundwater monitoring transitioned from an assessment monitoring program to a corrective action monitoring program in June 2025. Groundwater sampling as part of the corrective action monitoring program occurred for the first time in October 2025. Groundwater monitoring is currently used to help evaluate the performance of the remedial measures implemented (or in progress) to date (i.e., source ash removal and associated dewatering) in addressing the Appendix IV SSLs.

3. DATA REVIEW AND PREPARATION

The procedures described below will be used to prepare the background dataset for each Appendix III and IV constituent.

3.1 Datasets Comparison

To assess if the existing background datasets could be updated by incorporating new background data, the datasets for each Appendix III and IV constituent will be compared using the Wilcoxon Non-Parametric Rank test at a 99% significance level. If the comparison test does not indicate a statistical difference, the new data will be pooled with the existing background data to calculate updated prediction and tolerance limits. If a statistically significant difference between the datasets is detected, the data will be reviewed to evaluate the cause of the difference and identify which dataset is more representative of background conditions at the time.

3.2 Handling Non-Detect Data

Non-detect results will be replaced with a numerical value. The numerical value for each non-detect result will be the laboratory reporting limit (RL). The RL is considered the lowest level that can be reasonably achieved by the laboratory within specified limits of precision and accuracy during routine operating conditions. Replacing non-detect values with the RL is a conservative estimate of the sample concentration. The laboratory reported value for estimated concentrations (J-flagged) will be retained in all datasets. Blind duplicate results will not be incorporated into the dataset for statistical analysis.

3.3 Temporal and Spatial Variation

The data will be evaluated for statistically significant temporal trends using a two-sided Mann-Kendall test at a 99% significance level. Seasonality in the dataset will be tested using Seasonal Kendall Analysis at a 99% significance level. If a significant trend is detected, consideration will be given to removing the trending data or transforming the dataset, if possible, before proceeding with analysis.

Since there is only one background well for AB6, assessment of spatial variability between background wells will not be required.

3.4 Outliers Identification

Potential outliers in the dataset for each constituent will be evaluated using Dixon's Outlier Test, if there are 25 or fewer data points, or Rosner's Outlier Test, if there are more than 25 data points, at a 99% significance level. If an outlier is identified by the tests, consideration will be given to removing it from the dataset. However, as discussed in the Unified Guidance, care should be taken in removing outliers from the dataset. An outlier will only be removed if there is evidence suggesting it is truly an outlier concentration not representative of groundwater quality.

3.5 Population Distribution Testing

The data will be tested for normality using Shapiro-Wilks (50 or fewer measurements) or Shapiro-Francia (more than 50 measurements) normality tests at a 95% significance level. If the data are not normally distributed, then the data will be tested for lognormal distribution. If the data are neither normally nor lognormally distributed, nonparametric methods will be used.

4. DETECTION MONITORING STATISTICS

4.1 Overview

Interwell prediction limits were selected as the statistical method to evaluate SSIs over background for each Appendix III constituent. Prediction limits are an approved CCR Rule statistical method listed in 40 CFR 257.93(f)(3) and are widely used in the industry as a preferred statistical method.

Prediction limits will be used to calculate the upper limit of possible future background values for each Appendix III constituent as well as the lower limit for pH, based on the background monitoring well dataset and a specified number of future statistical comparisons. The calculated upper limit is termed the upper prediction limit (UPL) and the lower limit for pH is termed the lower prediction limit (LPL). Data collected from each compliance monitoring well will then be compared to the UPL or LPL to evaluate if there is an SSI or statistical significance decrease (SSD).

Although interwell prediction limits have been selected for data analysis, other statistical analysis methods approved under 40 CFR 257.93(f), such as analysis of variance, control charts, or intrawell analyses might be used to evaluate Appendix III data at a later date, if justified. Procedures used for those analyses will be consistent with CCR rule requirements and the Unified Guidance. This would require another update to this statistical methods selection certification.

4.2 Background Dataset

Data collected from the background monitoring well MW-BG-1 between April 2016 and April 2025 were used to establish the interwell background groundwater prediction limit(s) for each Appendix III constituent following the April 2025 monitoring event. The established prediction limits were presented in the *2025 Annual Groundwater Monitoring and Corrective Action Report* (2025 Annual GMCA Report) (Geosyntec, 2026). Appendix III data available at MW-BG-1 are summarized in **Table 2**.

As additional samples are collected in the future, prediction limits for the background dataset might be periodically updated. As recommended in the Unified Guidance, background prediction limits could be updated every four to eight measurements (i.e., every two to four years if samples are collected semi-annually). Before accepting new data into the background dataset, the new data will be compared to the existing data in accordance with Section 3.1.

4.3 Calculating Prediction Limits

An upper prediction limit (UPL) with four future observations will be calculated for each Appendix III constituent, as well as the lower prediction limit (LPL) for pH. For normally or lognormally distributed data, including datasets that fit normality using the Kaplan-Meier or robust regression on order statistics (ROS) methods, a 95% UPL will be calculated using a one-sided parametric prediction limit function for each Appendix III constituent, except pH. For pH, a two-

sided parametric prediction limit function will be used to calculate an UPL and LPL. For lognormally distributed data, prediction limits will be calculated on the transformed data. For non-normally distributed data or data containing over 50% non-detects, non-parametric prediction limits will be calculated. Per the Unified Guidance, the non-parametric UPL will be the maximum concentration detected in the background dataset. For pH only, the non-parametric LPL will be the minimum value detected in the background dataset.

4.4 Identifying Statistically Significant Increases

To identify an SSI above interwell background in compliance wells, the Appendix III data generated during each monitoring event from each compliance monitoring well will be individually compared to the prediction limits. If an Appendix III constituent concentration is detected above the UPL, that concentration will be considered an SSI above background. For pH, compliance well measurements will also be compared to the LPL. If below the LPL, the measurement will be considered a statistically significant decrease below background.

5. ASSESSMENT MONITORING STATISTICS

5.1 Overview

Assessment monitoring in accordance with 40 CFR 257.95 was initiated at AB6 in May 2018 following the detection of Appendix III constituent SSIs above background groundwater concentrations. GWPS for Appendix IV constituents were established in September 2018.

As required by the Unified Guidance, tolerance limits were selected as the method to establish background concentrations for all Appendix IV constituents for comparison to a fixed standard, such as a drinking water limit, in order to establish the GWPS. Appendix IV data collected from each compliance monitoring well will also be compared to the upper tolerance limits (UTLs) to evaluate SSIs over background for Appendix IV constituents.

To identify statistically significant levels (SSLs) above the GWPS, the Unified Guidance indicates that the lower confidence limit (LCL) of the mean concentration for the dataset for a given well/constituent pair should be compared to the GWPS. This is because the GWPS is based on a lifetime of exposure (i.e., average) and the null hypothesis for the Assessment Monitoring SSL statistical testing is that there is not a GWPS exceedance. Therefore, an SSL occurs only when the LCL exceeds the GWPS.

5.2 Background Dataset

Data collected from the background monitoring well MW-BG-1 between April 2016 and April 2025 were used to establish the UTL for each Appendix IV constituent following the April 2025 monitoring event. The established UTLs were presented in the 2025 Annual GMCA Report. Appendix IV data available at MW-BG-1 are summarized in **Table 2**.

As additional samples are collected in the future, UTLs for the background dataset might be periodically updated. As recommended in the Unified Guidance, background UTLs could be updated every four to eight measurements (i.e., every two to four years if samples are collected semi-annually). Before accepting new data into the background dataset, the new data will be compared to the existing data in accordance with Section 3.1.

5.3 Calculating Upper Tolerance Limits

An UTL will be calculated for each Appendix IV constituent. For normally or lognormally distributed data, including datasets that fit normality using the Kaplan-Meier or robust ROS methods, a 95% UTL will be calculated using a one-sided tolerance limit function for each Appendix IV constituent. For lognormally distributed data, UTLs will be calculated on the transformed data. For non-normally distributed data or data containing over 50% non-detects, non-parametric UTLs will be calculated with a minimum coverage of 80%. Per the Unified Guidance, the non-parametric UTL will typically be the maximum concentration detected in the background

dataset. For constituents that were not detected in the background well, UTLs will not be calculated.

5.4 Identifying Statistically Significant Increases

To identify a statistically significant increase above background in compliance wells, the Appendix IV data generated during each monitoring event from each compliance monitoring well will be individually compared to the UTLs. If an Appendix IV constituent concentration is detected above the UTL, that concentration will be considered an SSI above background.

For constituents with no calculated UTLs, the data will be evaluated under the Double Quantification Rule (DQR). The DQR states that two consecutive detections at or above the reporting limit constitute an SSI.

5.5 Development of Updated Groundwater Protection Standards

GWPS for Appendix IV constituents were established in September 2018. In accordance with 40 CFR 257.95(h)(1), the selected GWPS were the maximum contaminant levels (MCLs) (or USEPA RSL if no MCL has been promulgated) or the background UTL concentrations, whichever was greater.

To determine if the established GWPS will require an update, the calculated UTLs will be compared to the GWPS. If the UTLs are lower than the GWPS, no changes to the GWPS will be required.

5.6 Derivation of Lower Confidence Limits

A lower confidence limit (LCL) of the mean concentration will be calculated for the compliance well-constituent pairs of detected Appendix IV constituents that have had at least one exceedance of the GWPS. Appendix IV data available at each of the ten compliance wells/piezometers are summarized in **Table 2**.

Several data preparation and review steps will be completed to calculate LCLs. The procedures listed below, which are detailed in Section 3, will be used for each compliance well-constituent pair of Appendix IV constituent to calculate a LCL.

- Replacement of non-detect results with the laboratory reporting limit;
- Trend and seasonality evaluation;
- Outlier identification and removal; and
- Population distribution testing.

If the population distribution testing indicates the data are normally or lognormally distributed, a parametric 95% LCL will be calculated for each retained constituent at each compliance monitoring well. For lognormally distributed data, a LCL will be calculated on the transformed data. When non-normally distributed, the LCLs will be calculated using non-parametric methods, which typically corresponds to the second smallest result in the dataset.

5.7 Identification of Statistically Significant Levels

To identify an SSL, the LCL of each Appendix IV constituent will be compared to the GWPS. If a LCL is above the GWPS, that constituent will be considered an SSL above the GWPS.

6. CORRECTIVE ACTION MONITORING STATISTICS

6.1 Overview

Groundwater monitoring transitioned from an assessment monitoring program to a corrective action monitoring program in June 2025.

The Unified Guidance indicates that the upper confidence limit (UCL) of the mean concentration for the data set for a given well/constituent pair under a corrective action monitoring program should be compared to the GWPS to identify SSLs above the GWPS. This is because the GWPS is based on a lifetime of exposure (i.e., average) and the null hypothesis for the Corrective Action SSL statistical testing is that there is a GWPS exceedance and is presumed to be the case unless demonstrated otherwise.

6.2 Derivation of Upper Confidence Limits

An UCL of the mean concentration will be calculated for the compliance well-constituent pairs of detected Appendix IV constituents that have had at least one exceedance of the GWPS. Appendix IV data available at each of the eight compliance wells are summarized in **Table 2**.

Several data preparation and review steps will be completed to calculate UCLs. The procedures listed below, which are detailed in Section 3, will be used for each compliance well-constituent pair of Appendix IV constituent to calculate an UCL.

- Replacement of non-detect results with the laboratory reporting limit;
- Trend and seasonality evaluation;
- Outlier identification and removal; and
- Population distribution testing.

If the population distribution testing indicates the data are normally or lognormally distributed, a parametric 95% UCL will be calculated for each retained constituent at each compliance monitoring well. For lognormally distributed data, an UCL will be calculated on the transformed data. When non-normally distributed, the UCLs will be calculated using non-parametric methods.

6.3 Identification of Statistically Significant Levels

To identify an SSL, the UCL of each Appendix IV constituent will be compared to the GWPS. If an UCL is above the GWPS, that constituent will be considered an SSL above the GWPS.

7. REFERENCES

- Advanced GeoServices Corp., 2017. *Selection of Statistical Method Certification Groundwater Monitoring Sampling and Analysis Program, Ash Basin 6, U.S. EPA Coal Combustion Residuals (CCR) Rule, Brunner Island Steam Electric Station, east Manchester Township, York County, Pennsylvania*, October 2017.
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TABLES

**TABLE 1
MONITORING WELL AND PIEZOMETER CONSTRUCTION DETAILS**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Well ID	Installation Date	Northing (ft)	Easting (ft)	Well Depth (ft bgs)	Ground Surface Elevation (ft)	Top of Casing Elevation (ft)	Inner Casing Diameter (in)	Top of Screen Elevation (ft)	Bottom of Screen Elevation (ft)	Screen Length (ft)
MW-BG1	3/10/2016	273606.08	2262789.65	60.0	321.48	323.51	4	281.48	261.48	20
MW-6-2	11/19/1984	272854.60	226762.29	30.0	280.01	280.97	4	255.01	250.01	5
MW-6-3N	4/5/2011	273750.58	226995.77	23.0	262.65	264.13	4	249.65	239.65	10
MW-6-4	11/15/1984	274465.13	2267808.87	30.5	262.84	264.19	4	237.34	232.34	5
MW-6-6	9/23/2011	273374.54	2266989.93	20.5	263.94	265.39	4	253.44	243.44	10
MW-6-7	3/8/2016	273586.27	2268131.38	18.0	261.99	263.48	4	253.99	243.99	10
MW-6-8	3/8/2016	271967.13	2268837.26	22.0	206.02	260.77	4	194.02	184.02	10
MW-8-2	11/20/1984	275454.02	2266992.05	20.0	269.33	270.74	4	259.33	249.33	10
PZ-6-5B	9/17/2011	274568.22	2265658.22	35.0	270.58	273.44	4	245.58	235.58	10
PZ-A3	11/27/2024	270904.19	2265811.59	29.6	259.76	261.53	2	240.16	230.16	10
PZ-C3	11/25/2024	273554.23	2266221.14	40.4	259.64	262.18	2	229.24	219.24	10

Notes:

in - inches

ft - feet

ft bgs - feet below ground surface

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
APRIL 2016**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	4/26/2016		4/26/2016		4/26/2016		4/26/2016		4/26/2016		4/26/2016		4/26/2016		4/26/2016		4/26/2016	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	15.6		23.2		21.6		20.6		10.8		21.2		3.7		29.1		23.6	
	Fluoride	mg/L	0.0	J	0.2		1.4		0.1		0.1		0.5		0.0	J	1.0		0.1	
	pH	SU	7.3	H	6.7	H	7.6	H	7.6	H	7.0	H	6.4	H	6.7	H	7.0	H	7.2	H
	Sulfate	mg/L	23.3		45.6		113.0		126.0		102.0		175.0		30.3		135.0		381.0	
	Total Dissolved Solids	mg/L	372.0	H	301.0	H	304.0	H	305.0	H	500.0	H	351.0	H	258.0	H	340.0	H	756.0	H
Metals	Boron	µg/L	12.4	J	192.0		423.0		143.0		172.0		776.0		18.7	J	442.0		332.0	
	Calcium	mg/L	111.0		51.3		69.8		65.1		134.0		82.3		52.2		76.7		145.0	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.0	J	0.2		1.4		0.1		0.1		0.5		0.0	J	1.0		0.1	
Metals	Antimony	µg/L	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	0.7	J	2.0	U	2.0	U	2.0	U
	Arsenic	µg/L	0.1	J	1.2		228.0		0.9		0.5	J	1.5		0.8		0.1	J	0.5	J
	Barium	µg/L	351.0		55.6		44.8		3.4		50.0		70.6		43.0		28.0		48.6	
	Beryllium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
	Cadmium	µg/L	0.2	U	0.2	U	0.2	J	0.1	J	0.2	U	0.1	J	0.2	U	0.2	U	0.0	J
	Chromium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Cobalt	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	3.1	J	5.0	U	5.0	U
	Lead	µg/L	0.5	U	0.5	U	0.1	J	2.2		0.5	U	0.5	U	0.1	J	0.5	U	0.5	U
	Lithium	µg/L	6.0		20.9		70.0		3.4		9.6		64.8		3.0		21.1		11.2	
	Mercury	µg/L	0.1	U	0.0	J	0.0	J	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
	Molybdenum	µg/L	5.0	U	2.2	J	306.0		140.0		5.0	U	239.0		1.7	J	287.0		61.1	
	Selenium	µg/L	0.2	U	0.1	J	0.1	J	0.0	J	0.2	U	0.2	J	0.2	J	0.2	U	0.2	U
Thallium	µg/L	0.5	U	0.5	U	0.2	J	0.5	U	0.5	U	0.5	U	0.1	J	0.5	U	0.5	U	
Radionuclides	Radium-226	pCi/L	0.16	L-HML	0.32	L-HML	0.22	L-HML	-0.05	L-HML	0.23	L-HML	-0.05	L-HML	0.24	L-HML	1.00	L-HML	0.15	L-HML
	Radium-228	pCi/L	0.47	L-HML	0.21	L-HML	0.01	L-HML	0.23	L-HML	0.33	L-HML	0.18	L-HML	0.38	L-HML	0.55	L-HML	0.36	L-HML

Notes:

U - The constituent was not detected above the method detection limit and is shown as less than the reporting limit.

J - The constituent was detected and the associated numerical value is estimated.

H - Analysis performed outside holding time.

L-HML - analyzed by Hawk Mountain Laboratories.

"-" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
JUNE 2016**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	6/6/2016		6/7/2016		6/7/2016		6/8/2016		6/14/2016		6/15/2016		6/15/2016		6/6/2016		6/14/2016	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	15.3		23.1		22.2		20.5		11.5		22.8		2.3		28.9		24.7	
	Fluoride	mg/L	0.0	J	0.2		1.4		0.1		0.1		0.8		0.0	J	1.0		0.2	
	pH	SU	7.3	H	6.7	H	7.6	H	7.5	H	6.9	H	6.5	H	6.7	H	7.0	H	7.2	H
	Sulfate	mg/L	23.7		45.3		116.0		126.0		104.0		137.0		25.6		134.0		364.0	
	Total Dissolved Solids	mg/L	387.0	H	306.0	H	312.0	H	308.0	H	514.0	H	325.0	H	261.0	H	377.0	H	693.0	H
Metals	Boron	µg/L	11.9	J	196.0		430.0		141.0		193.0		813.0		31.2		484.0		353.0	
	Calcium	mg/L	112.0		52.1		69.6		64.6		133.0		74.2		43.6		77.7		141.0	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.0	J	0.2		1.4		0.1		0.1		0.8		0.0	J	1.0		0.2	
Metals	Antimony	µg/L	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	0.7	J	2.0	U	2.0	U	2.0	U
	Arsenic	µg/L	0.1	J	1.3		262.0		0.8		0.2	J	3.0		3.8		0.5	U	0.2	J
	Barium	µg/L	335.0		58.3		45.3		3.6		46.1		58.2		35.5		29.0		53.7	
	Beryllium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
	Cadmium	µg/L	0.2	U	0.2	U	0.2	J	0.1	J	0.2	U	0.2	J	0.2	U	0.2	U	0.2	U
	Chromium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Cobalt	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	3.8	J	1.0	J	5.0	U
	Lead	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
	Lithium	µg/L	5.0		19.4		63.0		3.1		9.1		71.4		3.7		19.9		10.7	
	Mercury	µg/L	0.1	U	0.1	U	0.0	J, H	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
	Molybdenum	µg/L	5.0	U	2.1	J	312.0		138.0		5.0	U	335.0		5.0	U	309.0		76.2	
	Selenium	µg/L	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.3		0.1	J	0.2	U	0.2	U
Thallium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.2	J	0.1	J	0.5	U	0.5	U	
Radionuclides	Radium-226	pCi/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Radium-228	pCi/L	0.43		0.62		0.44		0.45		1.00	U	1.00	U	0.35		0.70		1.00	U

Notes:

U - The constituent was not detected above the method detection limit and is shown as less than the reporting limit.

J - The constituent was detected and the associated numerical value is estimated.

H - Analysis performed outside holding time.

"-" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
SEPTEMBER 2016**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	9/12/2016		9/14/2016		9/20/2016		9/13/2016		9/14/2016		9/13/2016		9/13/2016		9/12/2016		9/14/2016	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	14.7		22.5		21.6		19.6		10.4		26.2		3.7		28.1		23.6	
	Fluoride	mg/L	0.0	J	0.2		1.3		0.1		0.1		1.0		0.1		1.0		0.1	
	pH	SU	7.4	H	6.8	H	7.6	H	7.3	H	7.1	H	6.7	H	6.8	H	6.9	H	7.9	H
	Sulfate	mg/L	21.6		43.0		108.0		128.0		98.0		70.5		23.7		132.0		335.0	
	Total Dissolved Solids	mg/L	393.0	H	312.0	H	308.0	H	356.0	H	509.0	H	293.0	H	333.0	H	356.0	H	741.0	H
Metals	Boron	µg/L	7.0	J	194.0		422.0		104.0		204.0		627.0		30.4		525.0		348.0	
	Calcium	mg/L	111.0		50.8		67.9		66.7		134.0		66.2		57.7		78.8		140.0	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.0	J	0.2		1.3		0.1		0.1		1.0		0.1		1.0		0.1	
Metals	Antimony	µg/L	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	1.2	J	2.0	U	0.4	J	2.0	U
	Arsenic	µg/L	0.2	J	1.2		219.0		0.8		0.3	J	7.7		0.8		0.3	J	0.5	J
	Barium	µg/L	325.0		58.4		44.2		5.1		47.8		42.0		44.4		32.3		47.4	
	Beryllium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
	Cadmium	µg/L	0.2	U	0.0	J	0.2	J	0.0	J	0.2	U	0.3		0.1	J	0.2	J	0.1	J
	Chromium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Cobalt	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	1.7	J	1.1	J	5.0	U
	Lead	µg/L	0.5	U	0.5	U	0.2	J	0.5	U	0.5	U	0.3	J	0.5	U	0.5	U	0.5	U
	Lithium	µg/L	5.2		20.0		72.5		3.7		9.9		56.1		3.1		24.4		10.5	
	Mercury	µg/L	0.1	U	0.1	U	0.0	J	0.1	U	0.1	U	0.1	U	0.1	U	0.0	J	0.1	U
	Molybdenum	µg/L	5.0	U	2.2	J	317.0		108.0		5.0	U	323.0		1.2	J	306.0		76.3	
	Selenium	µg/L	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.5		0.2	J	0.0	J	0.2	U
Thallium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	J	0.5	U	0.1	J	0.5	U	
Radionuclides	Radium-226	pCi/L	0.82	U	0.12	U	0.16	U	1.19	U	0.89	U	1.08	U	0.93	U	0.75	U	0.96	U
	Radium-228	pCi/L	0.56		0.87		1.04		0.51		0.78		0.88	U	0.81		0.98	U	0.62	

Notes:

U - The constituent was not detected above the method detection limit and is shown as less than the reporting limit.

J - The constituent was detected and the associated numerical value is estimated.

H - Analysis performed outside holding time.

"-" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
DECEMBER 2016**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	12/5/2016		12/7/2016		12/13/2016		12/6/2016		12/7/2016		12/6/2016		12/6/2016		12/5/2016		12/5/2016	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	13.3		23.1		21.9		19.8		10.9		20.2		9.5		27.7		25.2	
	Fluoride	mg/L	0.1		0.2		1.4		0.2		0.1		0.8		0.1		1.0		0.2	
	pH	SU	7.4	H	6.8	H	7.7	H	7.3	H	7.1	H	6.4	H	6.4	H	6.9	H	7.2	H
	Sulfate	mg/L	19.5		42.0		105.0		131.0		96.7		69.2		24.9		137.0		337.0	
	Total Dissolved Solids	mg/L	368.0	H	296.0	H	282.0	H	376.0	H	502.0	H	264.0	H	269.0	H	364.0	H	722.0	H
Metals	Boron	µg/L	9.4	J	206.0		420.0		91.5		222.0		575.0		24.8		513.0		374.0	
	Calcium	mg/L	107.0		51.6		66.7		70.9		133.0		65.9		48.5		81.0		138.0	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.1		0.2		1.4		0.2		0.1		0.8		0.1		1.0		0.2	
Metals	Antimony	µg/L	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	1.0	J	2.0	U	2.0	U	2.0	U
	Arsenic	µg/L	0.2	J	1.0		218.0		0.8		0.3	J	5.2		0.4	J	0.2	J	0.5	J
	Barium	µg/L	327.0		54.9		43.7		5.5		39.4		49.3		51.8		30.2		47.5	
	Beryllium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
	Cadmium	µg/L	0.2	U	0.2	U	0.1	J	0.1	J	0.2	U	0.2		0.1	J	0.2		0.0	J
	Chromium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Cobalt	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Lead	µg/L	0.5	U	0.5	U	0.5	U	0.1	J	0.5	U	0.5	U	0.1	J	0.5	U	0.5	U
	Lithium	µg/L	5.1		20.4		75.0		3.7		10.5		63.8		3.0		23.0		11.8	
	Mercury	µg/L	0.1	U	0.0	J	0.0	J	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
	Molybdenum	µg/L	5.0	U	2.4	J	331.0		114.0		5.0	U	286.0		5.0	U	326.0		77.3	
	Selenium	µg/L	0.2	U	0.1	J	0.2	U	0.2	U	0.2	U	1.4		0.1	J	0.0	J	0.2	U
Thallium	µg/L	0.5	U	0.1	J	0.5	U	0.5	U	0.5	U	0.2	J	0.5	U	0.5	U	0.5	U	
Radionuclides	Radium-226	pCi/L	0.92	U	0.87	U	0.67	U	1.03	U	0.47	U	0.96	U	0.94	U	0.68	U	0.49	U
	Radium-228	pCi/L	0.72		0.64		1.34	U	0.60		0.67	U	0.58		0.89	U	0.71		0.67	U

Notes:

U - The constituent was not detected above the method detection limit and is shown as less than the reporting limit.

J - The constituent was detected and the associated numerical value is estimated.

H - Analysis performed outside holding time.

"-" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
MARCH 2017**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	3/6/2017		3/7/2017		3/7/2017		3/8/2017		3/7/2017		3/8/2017		3/8/2017		3/6/2017		3/6/2017	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	13.6		22.7		22.2		29.6		11.2		19.7		9.1		29.0		27.0	
	Fluoride	mg/L	0.0	J	0.2		1.4		0.1		0.1		0.4		0.0	J	0.9		0.2	
	pH	SU	7.9	H	6.8	H	7.6	H	7.6	H	7.0	H	6.9	H	6.5	H	7.2	H	7.7	H
	Sulfate	mg/L	20.8		41.1		106.0		177.0		99.4		100.0		23.3		137.0		336.0	
	Total Dissolved Solids	mg/L	358.0	H	303.0	H	298.0	H	342.0	H	496.0	H	299.0	H	185.0	H	361.0	H	707.0	H
Metals	Boron	µg/L	10.6	J	204.0		430.0		124.0		205.0		543.0		19.9	J	436.0		369.0	
	Calcium	mg/L	106.0		51.0		67.2		67.3		132.0		65.3		31.8		81.1		137.0	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.0	J	0.2		1.4		0.1		0.1		0.4		0.0	J	0.9		0.2	
Metals	Antimony	µg/L	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	0.5	J	2.0	U	2.0	U	2.0	U
	Arsenic	µg/L	0.1	J	0.9		221.0		0.7		0.4	J	9.8		0.3	J	0.1	J	0.3	J
	Barium	µg/L	335.0		47.4		42.7		3.7		40.9		125.0		40.1		28.3		45.1	
	Beryllium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
	Cadmium	µg/L	0.2	U	0.2	U	0.1	J	0.1	J	0.2	U	0.1	J	0.2	U	0.2	J	0.0	J
	Chromium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Cobalt	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Lead	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.1	J	0.5	U	0.2	J	0.5	U	0.5	U
	Lithium	µg/L	5.0		20.2		67.5		3.3		9.8		43.7		3.1		18.6		11.1	
	Mercury	µg/L	0.1	U	0.1	U	0.0	J	0.1	U	0.1	U	0.0	J	0.1	U	0.1	U	0.0	J
	Molybdenum	µg/L	5.0	U	1.9	J	328.0		111.0		5.0	U	104.0		7.0		297.0		70.0	
	Selenium	µg/L	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.3		0.1	J	0.2	U	0.2	U
	Thallium	µg/L	0.5	U	0.5	U	0.2	J	0.5	U	0.5	U	0.3	J	0.1	J	0.1	J	0.5	U
Radionuclides	Radium-226	pCi/L	0.32	L-HML, U	0.45	L-HML, U	0.42	L-HML, U	0.49	L-HML, U	0.35	L-HML, U	0.38	L-HML, U	0.38	L-HML, U	0.29	L-HML, U	0.31	L-HML, U
	Radium-228	pCi/L	0.38	L-HML	0.41	L-HML	0.32	L-HML, U	0.34	L-HML, U	0.29	L-HML, U	1.09	L-HML	0.62	L-HML	0.56	L-HML	0.48	L-HML

Notes:

U - The constituent was not detected above the method detection limit and is shown as less than the reporting limit.

J - The constituent was detected and the associated numerical value is estimated.

H - Analysis performed outside holding time.

L-HML - analyzed by Hawk Mountain Laboratories.

"-" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
APRIL 2017**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	4/25/2017		4/25/2017		4/25/2017		4/25/2017		4/25/2017		4/25/2017		4/25/2017		4/24/2017		4/25/2017	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	14.5		23.2		22.6		19.6		11.4		28.3		9.9		30.3		28.1	
	Fluoride	mg/L	0.0	J	0.2		1.4		0.1		0.1		0.6		0.1		0.9		0.2	
	pH	SU	8.0	H	7.0	H	7.8	H	7.7	H	7.6	H	7.8	H	7.0	H	7.4	H	7.3	H
	Sulfate	mg/L	21.4		41.6		107.0		128.0		101.0		102.0		46.3		136.0		329.0	
	Total Dissolved Solids	mg/L	375.0	H	299.0	H	310.0	H	320.0	H	522.0	H	375.0	H	194.0	H	382.0	H	709.0	H
Metals	Boron	µg/L	10.0	J	204.0		431.0		132.0		206.0		606.0		21.2		440.0		374.0	
	Calcium	mg/L	113.0		51.3		68.0		67.6		137.0		78.3		33.5		84.1		137.0	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.0	J	0.2		1.4		0.1		0.1		0.6		0.1		0.9		0.2	
Metals	Antimony	µg/L	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
	Arsenic	µg/L	0.2	J	1.1		231.0		0.8		0.4	J	12.8		0.3	J	0.1	J	0.4	J
	Barium	µg/L	346.0		54.4		43.8		3.9		46.1		114.0		33.5		31.3		44.9	
	Beryllium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
	Cadmium	µg/L	0.2	U	0.2	U	0.1	J	0.1	J	0.2	U	0.1	J	0.0	J	0.2		0.2	U
	Chromium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Cobalt	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Lead	µg/L	0.5	U	0.5	U	0.1	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
	Lithium	µg/L	4.6		20.0		66.2		3.0		9.5		39.5		2.9		16.9		10.0	
	Mercury	µg/L	0.1	U	0.0	J	0.0	J	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
	Molybdenum	µg/L	5.0	U	2.0	J	314.0		106.0		5.0	U	93.0		4.3	J	288.0		65.6	
	Selenium	µg/L	0.2	U	0.0	J	0.2	U	0.2	U	0.2	U	0.1	J	0.1	J	0.2	U	0.2	U
Thallium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	
Radionuclides	Radium-226	pCi/L	0.33	L-HML, U	0.43	L-HML, U	0.25	L-HML, U	0.36	L-HML, U	0.66	L-HML	0.28	L-HML, U	0.40	L-HML, U	0.67	L-HML, U	0.29	L-HML, U
	Radium-228	pCi/L	0.45	L-HML	0.62	L-HML	0.63	L-HML	0.50	L-HML	0.36	L-HML, U	0.35	L-HML, U	0.35	L-HML, U	0.58	L-HML	0.30	L-HML, U

Notes:

U - The constituent was not detected above the method detection limit and is shown as less than the reporting limit.

J - The constituent was detected and the associated numerical value is estimated.

H - Analysis performed outside holding time.

L-HML - analyzed by Hawk Mountain Laboratories.

"-" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
JUNE 2017**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	6/5/2017		6/6/2017		6/13/2017		6/6/2017		6/7/2017		6/6/2017		6/7/2017		6/6/2017		6/7/2017	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	14.2		23.0		21.9		19.0		11.2		21.1		4.7		31.5		28.6	
	Fluoride	mg/L	0.0	J	0.2		1.3		0.1		0.1		0.3		0.0	J	0.9		0.1	
	pH	SU	7.4	H	6.7	H	7.6	H	7.6	H	7.0	H	6.5	H	6.7	H	7.0	H	7.2	H
	Sulfate	mg/L	20.8		41.2		103.0		126.0		99.7		157.0		22.1		134.0		325.0	
	Total Dissolved Solids	mg/L	370.0	H	311.0	H	325.0	H	332.0	H	521.0	H	364.0	H	236.0	H	377.0	H	755.0	H
Metals	Boron	µg/L	29.5		197.0		429.0		124.0		204.0		834.0		31.3		470.0		356.0	
	Calcium	mg/L	108.0		51.7		67.7		66.1		134.0		79.0		37.9		78.8		133.0	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.0	J	0.2		1.3		0.1		0.1		0.3		0.0	J	0.9		0.1	
Metals	Antimony	µg/L	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	0.6	J	2.0	U	2.0	U	2.0	U
	Arsenic	µg/L	0.2	J	1.1		226.0		0.9		0.2	J	6.3		0.3	J	0.2	J	0.3	J
	Barium	µg/L	320.0		54.9		42.5		3.5		45.1		119.0		35.1		29.2		46.4	
	Beryllium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
	Cadmium	µg/L	0.1	J	0.2	U	0.1	J	0.1	J	0.2	U	0.1	J	0.0	J	0.2	J	0.0	J
	Chromium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Cobalt	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Lead	µg/L	0.2	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
	Lithium	µg/L	5.3		19.9		66.6		2.9		9.5		58.5		3.4		21.4		11.4	
	Mercury	µg/L	0.0	J	0.1	U	0.0	J	0.1	U	0.1	U	0.1	U	0.0	J	0.0	J	0.0	J
	Molybdenum	µg/L	5.0	U	2.0	J	309.0		113.0		5.0	U	191.0		8.9		293.0		77.2	
	Selenium	µg/L	0.2	U	0.0	J	0.2	U	0.2	U	0.2	U	0.2	J	0.1	J	0.1	J	0.0	J
Thallium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.2	J	0.1	J	0.5	U	0.5	U	
Radionuclides	Radium-226	pCi/L	0.26	L-HML, U	0.30	L-HML, U	0.30	L-HML	0.29	L-HML, U	0.43	L-HML	0.30	L-HML, U	0.35	L-HML, U	0.33	L-HML, U	0.33	L-HML, U
	Radium-228	pCi/L	0.30	L-HML, U	0.45	L-HML, U	0.33	L-HML, U	0.72	L-HML	0.87	L-HML	0.31	L-HML, U	0.64	L-HML	0.99	L-HML	0.51	L-HML

Notes:

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L-HML - analyzed by Hawk Mountain Laboratories.

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mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
JULY 2017**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	7/25/2017		7/25/2017		7/25/2017		7/25/2017		7/25/2017		7/25/2017		7/25/2017		7/27/2017		7/25/2017	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	14.4		23.3		22.6		19.0		11.4		21.8		5.3		29.4		28.9	
	Fluoride	mg/L	0.0	J	0.2		1.3		0.1		0.1		0.7		0.0	J	0.9		0.2	
	pH	SU	7.4	H	6.7	H	7.7	H	7.6	H	6.9	H	6.5	H	6.3	H	7.0	H	7.2	H
	Sulfate	mg/L	21.1		42.8		103.0		126.0		101.0		107.0		22.2		134.0		314.0	
	Total Dissolved Solids	mg/L	383.0	H	345.0	H	361.0	H	340.0	H	563.0	H	318.0	H	222.0	H	391.0	H	785.0	H
Metals	Boron	µg/L	14.6	J	219.0		456.0		136.0		209.0		816.0		37.2		503.0		388.0	
	Calcium	mg/L	105.0		51.6		67.7		64.5		132.0		66.7		30.9		77.2		128.0	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.0	J	0.2		1.3		0.1		0.1		0.7		0.0	J	0.9		0.2	
Metals	Antimony	µg/L	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	0.9	J	2.0	U	2.0	U	2.0	U
	Arsenic	µg/L	0.1	J	1.5		231.0		0.7		0.3	J	3.4		0.5	J	0.2	J	0.5	
	Barium	µg/L	324.0		63.3		42.7		3.7		47.7		61.6		39.1		30.5		46.8	
	Beryllium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
	Cadmium	µg/L	0.2	U	0.1	J	0.2	J	0.1	J	0.2	U	0.2	J	0.1	J	0.2		0.2	U
	Chromium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Cobalt	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Lead	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
	Lithium	µg/L	4.8		22.1		71.3		3.2		10.0		64.4		3.7		20.8		11.8	
	Mercury	µg/L	0.1	U	0.0	J	0.0	J	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
	Molybdenum	µg/L	5.0	U	2.1	J	320.0		133.0		5.0	U	303.0		6.1		300.0		76.6	
	Selenium	µg/L	0.0	J	0.2	U	0.2	U	0.2	U	0.2	U	0.3		0.2	J	0.2	U	0.2	U
	Thallium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.2	J	0.5	U	0.5	U	0.5	U
Radionuclides	Radium-226	pCi/L	0.78	L-HML	0.84	L-HML	0.39	L-HML, U	0.41	L-HML, U	1.01	L-HML	0.58	L-HML, U	0.50	L-HML, U	0.52	L-HML, U	0.76	L-HML
	Radium-228	pCi/L	0.43	L-HML	0.33	L-HML, U	0.39	L-HML, U	0.40	L-HML, U	0.91	L-HML	0.30	L-HML, U	0.43	L-HML	0.32	L-HML, U	0.38	L-HML, U

Notes:

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J - The constituent was detected and the associated numerical value is estimated.

H - Analysis performed outside holding time.

L-HML - analyzed by Hawk Mountain Laboratories.

"-" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
SEPTEMBER 2017**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	9/11/2017		9/13/2017		9/13/2017		9/12/2017		9/13/2017		9/12/2017		9/12/2017		9/11/2017		9/12/2017	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	14.4		23.8		23.3		19.5		11.7		16.6		6.3		29.5		30.0	
	Fluoride	mg/L	0.0	J, S	0.2		1.4		0.1		0.1		0.7		0.0	J	0.9		0.1	
	pH	SU	7.4	H	6.9	H	7.6	H	7.5	H	7.0	H	6.5	H	6.2	H	7.0	H	7.3	H
	Sulfate	mg/L	21.0		44.2		105.0		130.0		104.0		73.4		21.6		137.0		312.0	
	Total Dissolved Solids	mg/L	375.0	H	320.0	H	298.0	H	333.0	H	560.0	H	279.0	H	200.0	H	389.0	H	772.0	H
Metals	Boron	µg/L	13.9	J	207.0		436.0		142.0		231.0		672.0		45.2		539.0		415.0	
	Calcium	mg/L	111.0		51.6		65.8		67.9		139.0		62.5		31.8		80.9		140.0	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	--		--		--		--		--		--		--		--		--	
Metals	Antimony	µg/L	--		--		--		--		--		--		--		--		--	
	Arsenic	µg/L	--		--		--		--		--		--		--		--		--	
	Barium	µg/L	--		--		--		--		--		--		--		--		--	
	Beryllium	µg/L	--		--		--		--		--		--		--		--		--	
	Cadmium	µg/L	--		--		--		--		--		--		--		--		--	
	Chromium	µg/L	--		--		--		--		--		--		--		--		--	
	Cobalt	µg/L	--		--		--		--		--		--		--		--		--	
	Lead	µg/L	--		--		--		--		--		--		--		--		--	
	Lithium	µg/L	--		--		--		--		--		--		--		--		--	
	Mercury	µg/L	--		--		--		--		--		--		--		--		--	
	Molybdenum	µg/L	--		--		--		--		--		--		--		--		--	
	Selenium	µg/L	--		--		--		--		--		--		--		--		--	
Thallium	µg/L	--		--		--		--		--		--		--		--		--		
Radionuclides	Radium-226	pCi/L	--		--		--		--		--		--		--		--		--	
	Radium-228	pCi/L	--		--		--		--		--		--		--		--		--	

Notes:

U - The constituent was not detected above the method detection limit and is shown as less than the reporting limit.

J - The constituent was detected and the associated numerical value is estimated.

H - Analysis performed outside holding time.

"--" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
FEBRUARY 2018**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	2/12/2018		2/14/2018		2/14/2018		2/13/2018		2/14/2018		2/13/2018		2/13/2018		2/12/2018		2/15/2018	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	--		--		--		--		--		--		--		--		--	
	Fluoride	mg/L	--		--		--		--		--		--		--		--		--	
	pH	SU	--		--		--		--		--		--		--		--		--	
	Sulfate	mg/L	--		--		--		--		--		--		--		--		--	
	Total Dissolved Solids	mg/L	--		--		--		--		--		--		--		--		--	
Metals	Boron	µg/L	--		--		--		--		--		--		--		--		--	
	Calcium	mg/L	--		--		--		--		--		--		--		--		--	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.1		0.2		1.3		0.2		0.1		0.5		0.1		0.9		0.2	
Metals	Antimony	µg/L	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	0.4	J	2.0	U	2.0	U	2.0	U
	Arsenic	µg/L	0.2	J	0.9		230.0		0.9		0.3	J	4.2		0.4	J	0.2	J	0.4	J
	Barium	µg/L	297.0		51.9		43.0		3.7		38.9		57.2		40.8		28.7		40.3	
	Beryllium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
	Cadmium	µg/L	0.2	U	0.1	J	0.1	J	0.0	J	0.2	U	0.1	J	0.2	U	0.2	J	0.2	U
	Chromium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Cobalt	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Lead	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.1	J	0.5	U	0.5	U	0.5	U	0.5	U
	Lithium	µg/L	4.8		20.4		65.8		3.1		10.9		29.2		3.0		16.6		12.4	
	Mercury	µg/L	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
	Molybdenum	µg/L	5.0	U	2.2	J	298.0		138.0		5.0	U	74.5		3.1	J	281.0		62.0	
	Selenium	µg/L	0.2	U	0.0	J	0.2	U	0.2	U	0.2	U	0.2	U	0.2	J	0.0	J	0.0	J
Thallium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	
Radionuclides	Radium-226	pCi/L	0.46	L-HML	0.33	L-HML, U	0.34	L-HML, U	0.32	L-HML, U	0.41	L-HML, U	0.53	L-HML	0.35	L-HML, U	0.22	L-HML, U	0.31	L-HML, U
	Radium-228	pCi/L	0.53	L-HML	0.52	L-HML	0.59	L-HML	0.30	L-HML, U	0.29	L-HML, U	1.28	L-HML	0.89	L-HML	0.34	L-HML, U	0.37	L-HML, U

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pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
MAY 2018**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	5/7/2018		5/8/2018		5/8/2018		5/9/2018		5/8/2018		5/9/2018		5/9/2018		5/16/2018		5/8/2018	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	12.6		23.7		23.0		18.2		12.7		18.5		2.4		30.1		31.2	
	Fluoride	mg/L	0.0	J	0.2		1.2		0.1		0.1		0.4		0.0	J	0.8		0.2	
	pH	SU	7.4	H	6.7	H	7.7	H	7.6	H	6.9	H	6.4	H	6.5	H	7.1	H	7.4	H
	Sulfate	mg/L	20.4		41.8		106.0		128.0		106.0		159.0		26.0		131.0		296.0	
	Total Dissolved Solids	mg/L	384.0	H	311.0	H	339.0	H	340.0	H	540.0	H	367.0	H	188.0	H	355.0	H	649.0	H
Metals	Boron	µg/L	19.4	J	197.0		407.0		142.0		200.0		785.0		16.3	J	407.0		391.0	
	Calcium	mg/L	105.0		49.7		68.6		64.4		132.0		76.1		28.8		75.4		120.0	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.0	J	0.2		1.2		0.1		0.1		0.4		0.0	J	0.8		0.2	
Metals	Antimony	µg/L	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	0.5	J	2.0	U	2.0	U	2.0	U
	Arsenic	µg/L	0.2	J	1.4		228.0		0.8		0.4	J	6.2		0.2	J	0.2	J	0.3	J
	Barium	µg/L	322.0		63.3		44.2		3.2		44.1		106.0		30.5		26.0		39.6	
	Beryllium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
	Cadmium	µg/L	0.2	U	0.2	U	0.1	J	0.2	U	0.2	U	0.1	J	0.2	U	0.2	J	0.2	U
	Chromium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Cobalt	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Lead	µg/L	0.5	U	0.5	U	0.1	J	0.5	U	0.1	J	0.5	U	0.5	U	0.5	U	0.5	U
	Lithium	µg/L	5.1		19.9		69.0		2.9		10.6		43.6		2.6		17.6		11.9	
	Mercury	µg/L	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
	Molybdenum	µg/L	5.0	U	2.0	J	285.0		125.0		5.0	U	174.0		1.1	J	244.0		61.3	
	Selenium	µg/L	0.2	U	0.2	U	0.1	J	0.2	U	0.1	J	0.2	J	0.1	J	0.2	U	0.2	U
	Thallium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.1	J	0.5	U	0.5	U	0.5	U
Radionuclides	Radium-226	pCi/L	0.45	L-HML, U	0.53	L-HML, U	0.45	L-HML, U	0.32	L-HML, U	0.49	L-HML, U	0.43	L-HML, U	0.39	L-HML, U	0.40	L-HML, U	0.39	L-HML, U
	Radium-228	pCi/L	0.51	L-HML	0.53	L-HML, U	0.37	L-HML, U	0.27	L-HML, U	0.32	L-HML, U	0.53	L-HML	0.35	L-HML, U	0.30	L-HML, U	0.33	L-HML, U

Notes:

U - The constituent was not detected above the method detection limit and is shown as less than the reporting limit.

J - The constituent was detected and the associated numerical value is estimated.

H - Analysis performed outside holding time.

L-HML - analyzed by Hawk Mountain Laboratories.

"-" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
NOVEMBER 2018**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	11/5/2018		11/6/2018		11/6/2018		11/7/2018		11/6/2018		11/7/2018		11/7/2018		11/5/2018		11/6/2018	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	12.4		24.0		27.4		17.8		12.8		27.5		2.6		31.4		30.7	
	Fluoride	mg/L	0.0	J	0.2		1.3		0.1		0.1		0.5		0.0	J	1.0		0.2	
	pH	SU	7.3	H	6.9	H	7.6	H	7.7	H	7.2	H	7.6	H	6.3	H	6.9	H	7.3	H
	Sulfate	mg/L	22.2		42.4		132.0		129.0		107.0		101.0		24.7		125.0		278.0	
	Total Dissolved Solids	mg/L	407.0	H	295.0	H	322.0	H	318.0	H	523.0	H	366.0	H	155.0	H	344.0	H	615.0	H
Metals	Boron	µg/L	13.7	J	195.0		414.0		137.0		199.0		665.0		26.8		449.0		420.0	
	Calcium	mg/L	106.0		50.4		75.8		64.4		131.0		81.8		29.0		73.9		116.0	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.0	J	0.2		1.3		0.1		0.1		0.5		0.0	J	1.0		0.2	
Metals	Antimony	µg/L	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
	Arsenic	µg/L	0.1	J	1.1		234.0		2.6		0.2	J	11.2		0.4	J	0.2	J	0.3	J
	Barium	µg/L	305.0		54.3		51.6		4.5		45.4		115.0		35.2		26.2		39.6	
	Beryllium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
	Cadmium	µg/L	0.2	U	0.2	U	0.2	J	0.2	J	0.2	U	0.1	J	0.1	J	0.2	J	0.2	U
	Chromium	µg/L	5.0	U	5.0	U	5.0	U	1.2	J	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Cobalt	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Lead	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
	Lithium	µg/L	4.9		19.3		71.1		3.3		9.9		43.2		3.3		24.0		14.1	
	Mercury	µg/L	0.1	U	0.0	J	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
	Molybdenum	µg/L	5.0	U	2.0	J	284.0		253.0		5.0	U	113.0		2.6	J	263.0		47.7	
	Selenium	µg/L	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.1	J	0.1	J	0.2	U	0.2	U
Thallium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.1	J	0.5	U	0.5	U	0.5	U	
Radionuclides	Radium-226	pCi/L	0.38	U	0.46		0.56		0.47	U	0.47	U	0.57		0.59	U	0.43		0.44	
	Radium-228	pCi/L	0.58		0.91	U	1.40	U	1.17	U	1.01	U	0.77	U	0.38		0.49		0.55	

Notes:

U - The constituent was not detected above the method detection limit and is shown as less than the reporting limit.

J - The constituent was detected and the associated numerical value is estimated.

H - Analysis performed outside holding time.

"-" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
FEBRUARY 2019**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	2/11/2019		2/13/2019		2/12/2019		2/13/2019		2/12/2019		2/11/2019		2/11/2019		2/11/2019		2/12/2019	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	11.2		23.8		28.6		16.9		12.6		29.3		3.4		30.2		30.2	
	Fluoride	mg/L	0.0	J	0.2		1.2		0.1		0.1		0.5		0.0	J	0.8		0.2	
	pH	SU	7.3	H	6.7	H	7.5	H	7.5	H	7.0	H	7.7	H	6.5	H	7.0	H	7.2	H
	Sulfate	mg/L	22.2		38.9		147.0		125.0		105.0		95.6		38.2		119.0		280.0	
	Total Dissolved Solids	mg/L	388.0	H	295.0	H	372.0	H	314.0	H	520.0	H	352.0	H	231.0	H	369.0	H	604.0	H
Metals	Boron	µg/L	18.7	J	214.0		429.0		148.0		203.0		612.0		25.4	J	418.0		432.0	
	Calcium	mg/L	113.0		48.7		83.1		65.7		139.0		78.8		39.5		81.0		125.0	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.0	J	0.2		1.2		0.1		0.1		0.5		0.0	J	0.8		0.2	
Metals	Antimony	µg/L	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
	Arsenic	µg/L	0.2	J	1.0		224.0		1.0		0.3	J	14.9		0.3	J	0.3	J	0.4	J
	Barium	µg/L	318.0		47.3		51.9		4.1		39.6		113.0		38.9		27.3		42.8	
	Beryllium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
	Cadmium	µg/L	0.2	U	0.2	U	0.1	J	0.1	J	0.1	J	0.1	J	0.2	U	0.1	J	0.2	U
	Chromium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Cobalt	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Lead	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.3	J	0.5	U	0.5	U	0.5	U	0.1	J
	Lithium	µg/L	5.0		21.2		75.8		3.3		11.0		40.2		4.4		22.1		13.6	
	Mercury	µg/L	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
	Molybdenum	µg/L	5.0	U	1.9	J	269.0		174.0		5.0	U	90.1		3.0	J	217.0		59.0	
	Selenium	µg/L	0.2	U	0.1	J	0.1	J	0.1	J	0.2	U	0.1	J	0.1	J	0.0	J	0.1	J
Thallium	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.1	J	
Radionuclides	Radium-226	pCi/L	0.50	U	0.40		0.18	U	0.46		0.81	U	0.66	U	0.82	U	0.57	U	0.43	U
	Radium-228	pCi/L	0.64		0.51		0.52		0.68		0.92	U	0.88	U	0.89	U	0.84		0.99	U

Notes:

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J - The constituent was detected and the associated numerical value is estimated.

H - Analysis performed outside holding time.

"-" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
AUGUST 2019**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	8/22/2019		8/15/2019		8/15/2019		8/20/2019		8/20/2019		8/20/2019		8/20/2019		8/14/2019		8/20/2019	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	10.0		23.6		29.2		16.4		13.3		25.3		2.2		30.5		27.7	
	Fluoride	mg/L	0.1	J	0.4		1.3		0.2		0.1	J	0.9		0.1	J	1.1		0.2	
	pH	SU	7.1	H	6.7	H	7.3	H	8.0	H	7.3	H	6.9	H	6.6	H	6.5	H	7.7	H
	Sulfate	mg/L	23.0		42.8		180.0		125.0		111.0		99.8		20.6		112.0		257.0	
	Total Dissolved Solids	mg/L	396.0	H	348.0	H	459.0	H	350.0	H	571.0	H	333.0	H	243.0	H	303.0	H	680.0	H
Metals	Boron	µg/L	100.0	U	196.0		395.0		129.0		218.0		899.0		100.0	U	455.0		394.0	
	Calcium	mg/L	109.0		52.2		95.8		66.1		132.0		69.9		45.4		89.1		115.0	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.1	J	0.4		1.3		0.2		0.1	J	0.9		0.1	J	1.1		0.2	
Metals	Antimony	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0.8	J	1.0	U	1.0	U	1.0	U
	Arsenic	µg/L	1.0	U	2.0		189.0		0.7	J	1.0	U	3.7		0.6	J	0.6	J	1.0	U
	Barium	µg/L	325.0		65.6		52.2		3.7		41.6		58.4		35.5		24.2		45.3	
	Beryllium	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Cadmium	µg/L	1.0	U	1.0	U	0.6	J	0.4	J	1.0	U	0.9	J	1.0	U	0.6	J	1.0	U
	Chromium	µg/L	1.1		1.2		0.7	J	0.6	J	1.0	U	1.0	U	1.0		0.9	J	1.2	
	Cobalt	µg/L	0.3	J	0.6	J	0.3	J	0.2	J	0.5	J	0.3	J	3.2		0.7	J	0.6	J
	Lead	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.6		1.0	U
	Lithium	µg/L	4.0		19.5		67.8		2.5		6.9		60.9		2.9		23.5		10.4	
	Mercury	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Molybdenum	µg/L	1.0	U	2.1		290.0		187.0		1.1		375.0		3.3		283.0		67.7	
	Selenium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0.9	J	5.0	U
Thallium	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0.5	J	1.0	U	1.0	U	1.0	U	
Radionuclides	Radium-226	pCi/L	0.64	U	1.00		0.43		0.56	U	0.38		0.43	U	0.75	U	0.63		0.45	
	Radium-228	pCi/L	0.89		0.50		0.66		0.68		0.82		0.79	U	0.74	U	0.62	U	0.56	

Notes:

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J - The constituent was detected and the associated numerical value is estimated.

H - Analysis performed outside holding time.

"-" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
FEBRUARY 2020**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	2/19/2020		2/20/2020		2/23/2020		2/23/2020		2/21/2020		2/21/2020		2/21/2020		2/3/2020		2/19/2020	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	10.0		24.5		30.4		16.0		13.3		2.5		1.4		26.4		28.6	
	Fluoride	mg/L	0.1	J	0.3		1.1		0.2		0.2		0.5		0.1	J	1.0		0.2	
	pH	SU	7.4	H	6.7	H	7.1	H	7.4	H	7.1	H	6.4	H	6.5	H	6.7	H	7.2	H
	Sulfate	mg/L	23.3		40.5		216.0		127.0		114.0		35.5		20.8		106.0		258.0	
	Total Dissolved Solids	mg/L	371.0	H	291.0	H	458.0	H	392.0	H	544.0	H	166.0	H	138.0	H	328.0	H	584.0	H
Metals	Boron	µg/L	100.0	U	--		448.0		165.0		233.0		184.0		100.0	U	395.0		406.0	
	Calcium	mg/L	105.0		54.2		104.0		68.8		143.0		41.3		19.5		74.7		115.0	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.1	J	0.3		1.1		0.2		0.2		0.5		0.1	J	1.0		0.2	
Metals	Antimony	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0.4	J	1.0	U	1.0	U	1.0	U
	Arsenic	µg/L	1.0	U	2.4		211.0		1.0	J	1.0	U	2.2		1.0	U	1.0	U	0.7	J
	Barium	µg/L	346.0		69.2		67.0		3.4		36.0		40.6		20.3		23.5		35.6	
	Beryllium	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Cadmium	µg/L	1.0	U	1.0	U	0.3	J	0.2	J	1.0	U	1.0	U	1.0	U	0.4	J	1.0	U
	Chromium	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	0.5	J	0.6	J	1.0	U	1.0	U	0.4	J
	Cobalt	µg/L	1.0	U	0.5	J	1.0	U	1.0	U	0.2	J	1.0	U	0.2	J	0.6	J	1.0	U
	Lead	µg/L	1.0	U	3.3		10.3		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Lithium	µg/L	5.1		20.9		85.8		3.3		9.8		27.6		3.6		19.6		11.8	
	Mercury	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Molybdenum	µg/L	1.0	U	2.3		244.0		146.0		0.6	J	85.2		1.0	U	275.0		58.6	
	Selenium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	1.1	J	5.0	U	0.9	J	5.0	U
Thallium	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	
Radionuclides	Radium-226	pCi/L	0.51	U	0.53	U	0.69	U	0.47	U	0.62	U	0.84	U	0.47	U	0.73	U	0.73	U
	Radium-228	pCi/L	0.51		0.68		0.89		0.57		0.71	U	0.69	U	1.02		0.87	U	0.77	U

Notes:

U - The constituent was not detected above the method detection limit and is shown as less than the reporting limit.

J - The constituent was detected and the associated numerical value is estimated.

H - Analysis performed outside holding time.

"--" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
AUGUST 2020**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	8/24/2020		8/18/2020		8/19/2020		8/18/2020		8/18/2020		8/18/2020		8/18/2020		8/24/2020		8/20/2020	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	9.2		25.2		31.6		16.3		13.5		15.8		4.0		27.9		33.1	
	Fluoride	mg/L	0.1	J	0.4		1.1		0.2		0.2	J	0.3		0.2	J	1.0		0.3	
	pH	SU	7.4	H	6.9	H	7.5	H	7.4	H	7.1	H	7.0	H	6.3	H	7.1	H	7.2	H
	Sulfate	mg/L	23.6		39.1		232.0		127.0		122.0		82.7		23.4		120.0		256.0	
	Total Dissolved Solids	mg/L	385.0	H	300.0	H	489.0	H	340.0	H	527.0	H	369.0	H	136.0	H	365.0	H	611.0	H
Metals	Boron	µg/L	100.0	U	216.0		424.0		106.0		218.0		679.0		100.0	U	481.0		405.0	
	Calcium	mg/L	107.0		104.0		110.0		68.6		143.0		98.8		18.5		88.9		123.0	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.1	J	0.4		1.1		0.2		0.2	J	0.3		0.2	J	1.0		0.3	
Metals	Antimony	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Arsenic	µg/L	1.0	U	0.7	J	171.0		1.0	U	1.0	U	1.0	J	1.0	U	1.0	U	1.0	U
	Barium	µg/L	291.0		68.6		72.1		5.3		46.3		68.3		27.9		29.7		49.1	
	Beryllium	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0.3	J	1.0	U	1.0	U
	Cadmium	µg/L	1.0	U	1.0	U	1.1		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Chromium	µg/L	2.6		1.0	U	1.0	U	1.0	U	1.0	U	0.6	J	0.5	J	1.0	U	1.0	U
	Cobalt	µg/L	0.4	J	1.0	U	0.1	J	0.1	J	0.1	J	0.4	J	0.8	J	2.1		0.4	J
	Lead	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	0.4	J	1.0	U	1.0	U	1.0	U	1.0	U
	Lithium	µg/L	5.4		23.1		100.0		3.2		8.4		14.5		4.4		26.2		10.6	
	Mercury	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Molybdenum	µg/L	1.0	U	1.9		256.0		84.2		1.1		43.9		0.4	J	254.0		79.2	
	Selenium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	1.4	J	5.0	U	5.0	U	5.0	U
Thallium	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	
Radionuclides	Radium-226	pCi/L	0.78	U	0.50	U	0.46		0.61	U	0.61	U	0.72	U	0.81	U	0.96	U	0.91	U
	Radium-228	pCi/L	0.69		0.97		0.78		1.03	U	1.05	U	0.63		0.93		0.71		0.72	

Notes:

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µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
JANUARY 2021**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	2/10/2021		1/27/2021		1/27/2021		2/10/2021		2/6/2021		2/6/2021		2/6/2021		1/25/2021		2/8/2021	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	8.53		25.2		31.6		13.6		13.1		2.02		1.84		27.2		31.5	
	Fluoride	mg/L	0.04	J	0.21		1.07		0.20		0.17	J	0.42		0.04	J	0.94		0.24	
	pH	SU	7.39	H	6.70	H	7.48	H	7.37	H	7.20	H	6.34	H	6.69	H	6.90	H	7.28	H
	Sulfate	mg/L	22.7		39.4		233.0		115		121		20.2		25.5		133		247	
	Total Dissolved Solids	mg/L	364		285		478		376		524		128		155		378		594	
Metals	Boron	µg/L	100	U	221		380		102		278		99.0	J	100	U	433		443	
	Calcium	mg/L	106		54.4		113		64.8		146		32.5		26.2		87.9		122	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.04	J	0.21		1.07		0.20		0.17	J	0.42		0.04	J	0.94		0.24	
Metals	Antimony	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0.42	J	1.0	U	1.0	U	1.0	U
	Arsenic	µg/L	1.0	U	1.0		199		0.80	J	1.0	U	2.25		1.0	U	1.0	U	0.67	J
	Barium	µg/L	299		54.2		65.1		5.21		35.0		38.0		25.0		27.9		37.3	
	Beryllium	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Cadmium	µg/L	1.0	U	1.0	U	0.35	J	0.17	J	1.0	U	0.24	J	1.0	U	0.59	J	0.21	J
	Chromium	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0.57	J	1.0	U	1.0	U	1.15	
	Cobalt	µg/L	1.0	U	0.45	J	1.0	U	1.0	U	0.17	J	1.0	U	0.29	J	0.32	J	1.0	U
	Lead	µg/L	1.0	U	1.0	U	1.0	U	0.40	J	1.0	U	1.0	U	1.0	U	0.36	J	1.0	U
	Lithium	µg/L	2.93		13.7		58.9		1.76		5.67		16.1		2.45		13.2		6.15	
	Mercury	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Molybdenum	µg/L	1.0	U	2.74		253		49.7		1.47		84.4		0.83	J	265		62.9	
	Selenium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	2.14	J	5.0	U	5.0	U	5.0	U
Thallium	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	
Radionuclides	Radium-226	pCi/L	0.778	U	0.737	U	1.05	U	0.557	U	0.870	U	0.758	U	0.606	U	0.682	U	0.890	U
	Radium-228	pCi/L	0.858	U	0.636		0.925	U	0.878	U	0.633		0.898	U	0.836	U	0.832	U	0.609	

Notes:

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H - Analysis performed outside holding time.

"-" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
JULY 2021**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	7/20/2021		7/20/2021		7/26/2021		7/20/2021		7/26/2021		7/26/2021		7/26/2021		7/19/2021		7/26/2021	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	8.60		23.6		26.8		15.1		12.2		10.2		2.53		25.7		25.9	
	Fluoride	mg/L	0.20	U	0.33		1.09		0.23		0.17	J	0.29		0.18	J	0.94		0.22	
	pH	SU	7.39	H1	6.68	H1	7.21	H1	7.32	H1	6.96	H1	6.98	H1	6.31	H1	7.04	H1	7.15	H1
	Sulfate	mg/L	23.2		51.2		207		119		120		45.5		22.0		126		222	
	Total Dissolved Solids	mg/L	359		317		508		379		559		317		151		392		598	
Metals	Boron	µg/L	100	U	192		404		61.0	J	233		435.0		100	U	464		388	
	Calcium	mg/L	94.5		54.0		108		65.7		143		65.6		21.8		90.0		125	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.20	U	0.33		1.09		0.23		0.17	J	0.29		0.18	J	0.94		0.22	
Metals	Antimony	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Arsenic	µg/L	1.0	U	1.2		189		0.65	J	1.0	U	1.19		1.0	U	1.0	U	1.0	U
	Barium	µg/L	306		55.2		63.1		8.87		33.4		64.6		39.9		32.7		39.5	
	Beryllium	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Cadmium	µg/L	1.0	U	1.0	U	0.26	J	1.0	U	1.0	U	1.0	U	0.3	J	0.31	J	1.0	U
	Chromium	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Cobalt	µg/L	1.0	U	0.17	J	1.0	U	1.0	U	1.00	U	1.0	U	1.38		0.54	J	1.0	U
	Lead	µg/L	1.0	U	1.0	U	1.0	U	0.34	J	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Lithium	µg/L	4.20		16.9		73.6		2.18		8.70		16.5		3.96		19.4		9.93	
	Mercury	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Molybdenum	µg/L	3.4		2.37		231		32.2		1.29		54.7		0.57	J	294		61.2	
	Selenium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	3.13	J	5.0	U	5.0	U	5.0	U
Thallium	µg/L	0.35	J	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0.47	J	1.0	U	
Radionuclides	Radium-226	pCi/L	0.620	U	0.146	U	0.871	U	0.499	U	0.156	U	0.669	U	0.650	U	0.725	U	0.584	U
	Radium-228	pCi/L	0.488		0.477		0.828	U	0.929		0.747	U	1.10	U	0.663		0.749		1.20	U

Notes:

U - The constituent was not detected above the method detection limit and is shown as less than the reporting limit.

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H1 - Analysis performed outside holding time.

"-" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
APRIL 2022**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	4/19/2022		4/12/2022		4/14/2022		4/13/2022		4/12/2022		4/13/2022		4/15/2022		4/19/2022		4/14/2022	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	7.28		24.6		30.5		15.2		12.3		7.5		1.51		24.3		30.4	
	Fluoride	mg/L	0.07	J	0.28		1.08		0.20		0.12	J	0.43		0.10	J	0.93		0.15	J
	pH	SU	7.65	H1	6.76	H1	7.52	H1	7.64	H1	7.05	H1	7.31	H1	6.79	H1	7.17	H1	7.35	H1
	Sulfate	mg/L	22.8		40.9		234		124		123		36.8		22.4		143		237	
	Total Dissolved Solids	mg/L	372		291		487		376		525		293		166		414		590	
Metals	Boron	µg/L	100	U	203		382		83.0	J	248		243.0		100	U	405		361	
	Calcium	mg/L	231.0		57.1		151		96.2		161		126.0		57.9		204.0		169	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.07	J	0.28		1.08		0.20		0.12	J	0.43		0.10	J	0.93		0.15	J
Metals	Antimony	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0.2	J	1.0	U
	Arsenic	µg/L	1.0	U	0.9	J	208		0.69	J	1.0	U	2.40		1.0	U	1.0	U	1.0	U
	Barium	µg/L	368		46.0		74.3		4.87		33.7		73.9		29.7		33.6		47.0	
	Beryllium	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Cadmium	µg/L	1.0	U	1.0	U	0.29	J	1.0	U	1.0	U	1.0	U	1.0	U	0.36	J	1.0	U
	Chromium	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	0.4	J	1.0	U	1.0	U	0.1	J	1.0	U
	Cobalt	µg/L	1.0	U	1.00	U	1.0	U	1.0	U	0.19	J	1.0	U	0.50	J	0.41	J	1.0	U
	Lead	µg/L	1.0	U	1.0	U	1.0	U	1.00	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Lithium	µg/L	4.61		20.1		78.3		1.76		9.89		19.6		4.16		19.7		8.39	
	Mercury	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Molybdenum	µg/L	1.0	U	2.90		253		36.0		6.50		78.5		0.35	J	304		67.6	
	Selenium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	2.30	J	5.0	U	5.0	U	5.0	U
Thallium	µg/L	1.00	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0.3	J	0.31	J	1.0	U	
Radionuclides	Radium-226	pCi/L	1.07	U	0.861	U	0.965	U	1.00	U	0.783	U	0.841	U	0.766	U	1.07	U	0.888	U
	Radium-228	pCi/L	1.11		0.451		0.485		1.05		0.523		0.841	U	0.416		1.07	U	0.888	U

Notes:

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H1 - Analysis performed outside holding time.

"-" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
OCTOBER 2022**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	10/19/2022		10/12/2022		10/13/2022		10/11/2022		10/12/2022		10/11/2022		10/12/2022		10/17/2022		10/11/2022	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	6.94		25.1		29.6		13.5		12.0		1.2		1.17		26.9		30.9	
	Fluoride	mg/L	0.16	J	0.10	J	1.04		0.16	J	0.22		0.36		0.07	J	1.11		0.17	J
	pH	SU	7.29	H1	6.73	H1	7.30	H1	7.07	H1	6.85	H1	6.49	H1	6.61	H1	6.97	H1	7.37	H1
	Sulfate	mg/L	22.2		40.4		243		122		130		24.4		18.0		147		243	
	Total Dissolved Solids	mg/L	329		295		498		384		545		195		114		392		613	
Metals	Boron	µg/L	100	U	189		383		58.0	J	238		191.0		100	U	493		385	
	Calcium	mg/L	108.0		48.0		131		75.9		171		43.9		18.3		110.0		133	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.16	J	0.10	J	1.04		0.16	J	0.22		0.36		0.07	J	1.11		0.17	J
Metals	Antimony	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0.5	J	1.0	U	1.0	U	1.0	U
	Arsenic	µg/L	1.0	U	1.0	J	189		0.57	J	0.6	J	1.99		0.7	J	1.0	U	0.6	J
	Barium	µg/L	329		60.9		64.2		19.60		61.9		69.5		26.1		35.1		44.7	
	Beryllium	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Cadmium	µg/L	1.0	U	1.0	U	0.43	J	1.0	U	1.0	U	0.4	J	1.0	U	0.62	J	0.2	J
	Chromium	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0.5	J	0.9	J	1.0	U	1.0	U
	Cobalt	µg/L	1.0	U	0.30	J	1.0	U	1.0	U	0.42	J	1.0	U	0.72	J	0.71	J	1.0	U
	Lead	µg/L	1.0	U	1.0	U	1.0	U	1.00	U	1.0	U	1.0	U	1.0	U	0.3	J	1.0	U
	Lithium	µg/L	3.97		19.6		82.0		1.35		1.00	U	26.6		2.81		19.8		7.12	
	Mercury	µg/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
	Molybdenum	µg/L	1.1		4.79		223		40.0		2.21		113.0		2.27		256		72.5	
	Selenium	µg/L	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	4.78	J	5.0	U	5.0	U	5.0	U
Thallium	µg/L	0.25	J	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.00	U	1.0	U	
Radionuclides	Radium-226	pCi/L	0.746	U	0.666	U	0.545	U	0.478	U	0.504		0.796	U	0.830	U	0.638	U	0.599	U
	Radium-228	pCi/L	0.902	U	0.531	U	0.501	U	0.691	U	0.710		0.953	U	0.866	U	0.945	U	0.517	U

Notes:

U - The constituent was not detected above the method detection limit and is shown as less than the reporting limit.

J - The constituent was detected and the associated numerical value is estimated.

H1 - Analysis performed outside holding time.

"-" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
APRIL 2023**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	4/19/2023		4/10/2023		4/13/2023		4/11/2023		4/11/2023		4/13/2023		4/14/2023		4/13/2023			
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	6.88		24.3		29.5		12.3		13.8		2.26		1.45		24.9		33.0	
	Fluoride	mg/L	0.200	U	0.390		0.990		0.192	J	0.200	U	0.434		0.110	J	0.870		0.200	U
	pH	SU	7.43	H1	6.71	H1	7.44	H1	7.51	H1	7.06	H1	6.75	H1	6.32	H1	7.10	H1	7.31	H1
	Sulfate	mg/L	23.5		42.3		245		117		122		24.3		22.3		180		248	
	Total Dissolved Solids	mg/L	351		304		497		361		531		235		146		456		614	
Metals	Boron	µg/L	100	U	186		409		67.0	J	267		133		19.0	J	397		371	
	Calcium	mg/L	104		54.4		119		66.9		145		67.8		25.1		115		129	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.200	U	0.390		0.990		0.192	J	0.200	U	0.434		0.110	J	0.870		0.200	U
Metals	Antimony	µg/L	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U
	Arsenic	µg/L	1.00	U	0.810	J	155		0.670	J	1.00	U	1.61		1.00	U	1.00	U	1.00	U
	Barium	µg/L	342		50.8		57.2		5.96		2.03		60.8		26.0		31.1		41.2	
	Beryllium	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Cadmium	µg/L	1.00	U	1.00	U	0.270	J	1.00	U	1.00	U	1.00	U	1.00	U	0.40	J	1.00	U
	Chromium	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	0.420	J	1.00	U	1.00	U	1.00	U
	Cobalt	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	0.360	J	1.00	U
	Lead	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Lithium	µg/L	4.26		19.0		68.8		2.53		9.04		17.5		3.55		19.1		7.23	
	Mercury	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Molybdenum	µg/L	0.840	J	1.78		185		31.3		1.00	U	88.3		5.51		280		62.2	
	Selenium	µg/L	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	3.59	J	5.00	U	5.00	U	5.00	U
Thallium	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	0.500	J	1.00	U	1.00	U	
Radionuclides	Radium-226	pCi/L	0.919	U	1.37	U	1.00	U	0.899	U	0.919	U	1.28	U	0.242	U	0.723	U	1.17	U
	Radium-228	pCi/L	0.404		0.697	U	0.817	U	0.491		0.863	U	0.867		0.801		0.490		0.794	U

Notes:

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**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
OCTOBER 2023**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	10/11/2023		10/9/2023		10/11/2023		10/9/2023		10/10/2023		10/11/2023		10/10/2023		10/12/2023		10/11/2023	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	7.07		25.8		31.1		9.07		13.1		13.2		1.53		34.2		35.8	
	Fluoride	mg/L	0.200	U	0.340		1.03		0.230		0.090	J	0.230		0.110	J	0.910		0.110	J
	pH	SU	7.36	H1	6.72	H1	7.33	H1	6.79	H1	6.85	H1	7.06	H1	6.34	H1	6.89	H1	7.09	H1
	Sulfate	mg/L	21.6		45.0		229		89.6		117		45.6		36.0		207		257	
	Total Dissolved Solids	mg/L	339		293		493		309		547		346		175		514		632	
Metals	Boron	µg/L	15.0	J	198		460		58.0	J	289		570		35.0	J	570		439	
	Calcium	mg/L	129		52.8		140		48.2		145		121.0		29.9		130		179	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.200	U	0.340		1.03		0.230		0.090	J	0.230		0.110	J	0.910		0.110	J
Metals	Antimony	µg/L	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U
	Arsenic	µg/L	1.00	U	1.09		171		0.600	J	0.700	J	1.37		0.730	J	1.00	U	3.69	
	Barium	µg/L	320		60.0		61.9		23.3		30.5		73.8		41.8		45.9		46.7	
	Beryllium	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Cadmium	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	0.180	J	1.00	U
	Chromium	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	0.740	J	1.00	U	1.00	U
	Cobalt	µg/L	1.00	U	0.350	J	1.00	U	1.00	U	0.160	J	0.150	J	2.20		0.630	J	1.00	U
	Lead	µg/L	0.170	J	1.00	U	2.00		1.00	U	1.00	U	0.690	J	0.130	J	1.00	U	1.00	U
	Lithium	µg/L	4.45		20.9		72.2		2.70		11.1		13.6		3.64		23.1		7.86	
	Mercury	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Molybdenum	µg/L	1.00	U	2.27		186		4.90		2.89		35.8		1.00	U	244		55.5	
	Selenium	µg/L	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	15.9		5.00	U	5.00	U	5.00	U
Thallium	µg/L	0.280	J	0.290	J	0.300	J	1.00	U	1.00	U	0.280	J	1.00	U	1.00	U	0.250	J	
Radionuclides	Radium-226	pCi/L	0.896	U	0.621	U	1.08	U	0.201	U	0.889	U	0.990	U	1.61	U	1.68	U	1.05	U
	Radium-228	pCi/L	1.03	U	0.383		0.869	U	0.893	U	0.784	U	0.748	U	0.791	U	0.848	U	0.861	U

Notes:

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µg/L - micrograms per liter

mg/L - milligrams per liter

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**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
APRIL 2024**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	4/23/2024		4/15/2024		4/17/2024		4/16/2024		4/16/2024		4/16/2024		4/17/2024		4/19/2024		4/17/2024	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	7.08		25.4		31.2		11.0		13.6		7.67		1.09		26.4		34.8	
	Fluoride	mg/L	0.20	U	0.42		1.04		0.170	J	0.110	J	0.540		0.200		0.830		0.150	J
	pH	SU	7.44	H1	6.86	H1	7.19	H1	7.30	H1	7.00	H1	7.12	H1	6.65	H1	6.92	H1	7.32	H1
	Sulfate	mg/L	22.2		46.8		240		106		124		35.7		18.5		212		268	
	Total Dissolved Solids	mg/L	345		325		504		357		521		289		147		526		654	
Metals	Boron	µg/L	100	U	175		415		53.0	J	209		216		19.0	J	392		373	
	Calcium	mg/L	102		61.8		111		68.8		145		86.5		24.7		123		138	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.200	U	0.420		1.04		0.170	J	0.110	J	0.540		0.200		0.830		0.150	J
Metals	Antimony	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	0.320	J	1.00	U	3.00		1.00	U
	Arsenic	µg/L	1.00	U	0.970	J	150		0.900	J	1.00	U	1.83		1.00	U	1.00	U	1.00	U
	Barium	µg/L	280		43.8		61.4		9.23		25.3		68.0		32.8		39.1		39.7	
	Beryllium	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Cadmium	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Chromium	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Cobalt	µg/L	0.150	J	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Lead	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Lithium	µg/L	3.64		16.2		78.6		1.89		10.9		21.9		2.74		24.6		9.01	
	Mercury	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Molybdenum	µg/L	1.00	U	1.71		254		25.7		1.00	U	81.7		1.00	U	323		69.1	
	Selenium	µg/L	1.11	J	5.00	U	5.00	U	5.00	U	5.00	U	1.94	J	5.00	U	2.55	J	5.00	U
Thallium	µg/L	0.390	J	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	
Radionuclides	Radium-226	pCi/L	0.733		0.913	U	0.791	U	0.941	U	0.929	U	0.632	U	1.00	U	1.24	U	0.686	U
	Radium-228	pCi/L	0.901	U	0.585		0.491		0.708		0.447		0.728	U	0.750	U	0.960	U	0.388	

Notes:

U - The constituent was not detected above the method detection limit and is shown as less than the reporting limit.

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µg/L - micrograms per liter

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OCTOBER 2024**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	10/17/2024		10/14/2024		10/16/2024		10/14/2024		10/15/2024		10/16/2024		10/15/2024		10/17/2024		10/16/2024	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	6.42		25.1		28.8		12.0		12.5		9.26		2.62		37.4		30.9	
	Fluoride	mg/L	0.0600	J	0.330		0.980		0.210		0.130	J	0.230		0.0900	J	0.870		0.120	J
	pH	SU	7.49	H1	6.99	H1	7.44	H1	6.99	H1	6.86	H1	7.19	H1	6.63	H1	7.21	H1	7.32	H1
	Sulfate	mg/L	20.8		45.5		226		118		121		39.1		38.3		223		273	
	Total Dissolved Solids	mg/L	337		305		486		391		529		352		222		614		679	
Metals	Boron	µg/L	13.0	J	179		404		52.0	J	304		429		37.0	J	515		378	
	Calcium	mg/L	97.8		53.6		108		71.0		144		99.0		32.6		147		146	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.0600	J	0.330		0.980		0.210		0.130	J	0.230		0.0900	J	0.870		0.120	J
Metals	Antimony	µg/L	1.00	U	0.510	J	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	0.640	J	1.00	U
	Arsenic	µg/L	1.00	U	1.49		184		1.01		0.430	J	1.80		0.480	J	1.00	U	1.07	
	Barium	µg/L	295		52.2		57.9		14.6		11.5		77.4		44.1		50.7		47.0	
	Beryllium	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Cadmium	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	0.390	J	1.00	U
	Chromium	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Cobalt	µg/L	0.18	J	0.36	J	0.24	J	0.090	J	0.17	J	0.29	J	0.80	J	0.84	J	0.29	J
	Lead	µg/L	0.310	J	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Lithium	µg/L	4.99		20.0		75.3		2.92		10.5		16.8		4.50		23.2		8.67	
	Mercury	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Molybdenum	µg/L	1.00	U	2.58		221		13.5		0.810	J	46.2		0.590	J	293		66.6	
	Selenium	µg/L	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	11.8		5.00	U	5.00	U	5.00	U
Thallium	µg/L	1.00	U	1.00	U	0.360	J	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	
Radionuclides	Radium-226	pCi/L	2.45	U	1.70	U	1.24		2.02	U	1.83	U	1.68	U	1.93	U	1.71	U	1.86	U
	Radium-228	pCi/L	0.421		0.716		0.835	U	0.812	U	0.894	U	0.964	U	0.929	U	0.961	U	0.590	

Notes:

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H1 - Analysis performed outside holding time.

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µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - standard units

Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
APRIL 2025**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance															
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B	
		Date	4/22/2025		4/14/2025		4/16/2025		4/15/2025		4/15/2025		4/15/2025		4/16/2025		4/17/2025		4/16/2025	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																				
General Chemistry	Chloride	mg/L	6.31		23.3		29.3		12.1		24.9		1.00	U	1.28		26.4		30.5	
	Fluoride	mg/L	0.20	U	0.29		1.05		0.20	U	0.20	U	0.44		0.20	U	1.11		0.20	U
	pH	SU	7.53	H1	6.80	H1	7.31	H1	7.23	H1	6.87	H1	6.59	H1	6.61	H1	6.82	H1	7.39	H1
	Sulfate	mg/L	20.3		44.9		226		116		216		16.8		20.2		184		300	
	Total Dissolved Solids	mg/L	326		309		481		389		456		157		142		509		697	
Metals	Boron	µg/L	100	U	185		430		100	U	332		100	U	100	U	411		397	
	Calcium	mg/L	99.4		57.4		115		70		125		45.8		24.2		126		157	
<i>40 CFR Appendix IV to Part 257</i>																				
General Chemistry	Fluoride	mg/L	0.200	U	0.290		1.05		0.200	U	0.200	U	0.440		0.200	U	1.110		0.200	U
Metals	Antimony	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.000	U	1.00	U	1.00	U	1.00	U
	Arsenic	µg/L	1.00	U	1.00	U	139		1.00	U	1.00	U	1.43		1.00	U	1.00	U	1.00	U
	Barium	µg/L	256		37.5		47.6		10.9		7.5		47.4		26.5		29.5		36.8	
	Beryllium	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Cadmium	µg/L	1.00	U	1.00	U	0.27	J	1.00	U	1.00	U	1.00	U	1.00	U	0.40	J	1.00	U
	Chromium	µg/L	1.28		1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Cobalt	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Lead	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	5.23		1.00	U	1.00	U	1.00	U	1.00	U
	Lithium	µg/L	4.21		8.68		69.6		2.33		7.97		20.8		2.75		15.2		7.94	
	Mercury	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Molybdenum	µg/L	1.00	U	1.00	U	180		12.3		1.00	U	89.3		1.00	U	205		49.0	
	Selenium	µg/L	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U
Thallium	µg/L	1.000	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	
Radionuclides	Radium-226	pCi/L	0.763	U	0.909	U	0.841	U	1.050	U	0.806	U	0.919	U	1.150	U	0.643	U	0.787	U
	Radium-228	pCi/L	0.328	U	0.292	U	0.303	U	0.755		0.426	U	0.425	U	1.210		1.010		0.456	

Notes:

U - The constituent was not detected above the method detection limit and is shown as less than the reporting limit.

J - The constituent was detected and the associated numerical value is estimated.

H1 - Analysis performed outside holding time.

"-" - Not analyzed

µg/L - micrograms per liter

mg/L - milligrams per liter

pCi/L - picocuries per liter

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Shaded - Constituent concentration identified at an exceedance above GWPS.

**TABLE 2
APPENDIX III AND IV CONSTITUENTS ANALYTICAL DATA
OCTOBER 2025**

**Ash Basin 6, Brunner Island
York County, Pennsylvania**

Analyte Group	Analyte	Well Type	Background		Compliance																			
		Well ID	MW-BG-1		MW-6-2		MW-6-3N		MW-6-4		MW-6-6		MW-6-7		MW-6-8		MW-8-2		PZ-6-5B		PZ-A3		PZ-C3	
		Date	10/15/2025		10/13/2025		10/15/2025		10/13/2025		10/14/2025		10/25/2025		10/14/2025		10/16/2025		10/15/2025		10/16/2025		10/16/2025	
		Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
<i>40 CFR Appendix III to Part 257</i>																								
General Chemistry	Chloride	mg/L	5.44		22.9		26.2		7.88		11.3		5.51		2.29		29.8		31.2		20.0		19.1	
	Fluoride	mg/L	0.200	U	0.302		0.93		0.243		0.200	U	0.230		0.200	U	0.850		0.200	U	0.422		0.815	
	pH	SU	7.54	H1	6.76	H1	7.40	H1	6.83	H1	6.58	H1	7.19	H1	6.53	H1	6.79	H1	7.30	H1	7.62	H1	7.57	H1
	Sulfate	mg/L	20.3		48.6		219		88.4		93.3		35.3		33.17		215		290		228		147	
	Total Dissolved Solids	mg/L	338		324		487		323		390		372		251		614		719		511		420	
Metals	Boron	µg/L	100	U	180		385		100	U	342		100	U	100	U	509		325		311		322	
	Calcium	mg/L	97.9		59.1		116		52.8		91.9		115		41.2		152		129		129		81.6	
<i>40 CFR Appendix IV to Part 257</i>																								
General Chemistry	Fluoride	mg/L	0.200	U	0.290		1.05		0.200	U	0.200	U	0.440		0.200	U	1.110		0.200	U	0.422		0.815	
Metals	Antimony	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.000	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Arsenic	µg/L	1.00	U	1.00	U	139		1.00	U	1.00	U	1.43		1.00	U	1.00	U	1.00	U	120		4.29	
	Barium	µg/L	256		37.5		47.6		10.9		7.5		47.4		26.5		29.5		36.8		47.8		62.8	
	Beryllium	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Cadmium	µg/L	1.00	U	1.00	U	0.27	J	1.00	U	1.00	U	1.00	U	1.00	U	0.40	J	1.00	U	1.00	U	1.00	U
	Chromium	µg/L	1.28		1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.91	
	Cobalt	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Lead	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	5.23		1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Lithium	µg/L	4.21		8.68		69.6		2.33		7.97		20.8		2.75		15.2		7.94		95.3		18.6	
	Mercury	µg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
	Molybdenum	µg/L	1.00	U	1.00	U	180		12.3		1.00	U	89.3		1.00	U	205		49.0		111		290	
	Selenium	µg/L	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	5.00	U
Thallium	µg/L	1.000	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	
Radionuclides	Radium-226	pCi/L	0.763	U	0.909	U	0.841	U	1.050	U	0.806	U	0.919	U	1.150	U	0.643	U	0.787	U	0.468	U	0.303	U
	Radium-228	pCi/L	0.328	U	0.292	U	0.303		0.755		0.426	U	0.425	U	1.210		1.010		0.456		0.352	U	0.436	U

Notes:

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Shaded - Constituent concentration identified at an exceedance above GWPS.

APPENDIX A
P.E. CERTIFICATION

Certification for Selected Statistical Methods

CCR Unit: Ash Basin 6, Brunner Island, York County, Pennsylvania

Certification:

I, Carrie Hale Pendleton, a qualified professional engineer registered in the Commonwealth of Pennsylvania, have reviewed the information in the *Statistical Methods Certification Report Update for Ash Basin 6, Brunner Island, York County, Pennsylvania* and, based on my review and in my professional opinion, find that the selected statistical methods are appropriate for evaluating groundwater monitoring data for this CCR unit as described in 40 CFR §257.93(f) and (g).

Printed Name: Carrie Hale Pendleton

PE License Number: PE091567 State: Pennsylvania

Signature: C. H. Pendleton

Date: 8 April 2026

Seal:

