2021 Annual Groundwater Monitoring and Corrective Action Report

for Compliance with the Coal Combustion Residuals (CCR) Rule

Gibbons Creek Steam Electric Station

Gibbons Creek Environmental Redevelopment Group, LLC



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FJS

Abbreviation	Definition
AMSL	Above Mean Sea Level
AP	Ash Ponds
ASD	Alternate Source Demonstration
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
cm/s	centimeters per second
EPA	Environmental Protection Agency
EPRI	Electric Power Research Institute
ERCOT	Electric Reliability Council of Texas
GCERG	Gibbons Creek Environmental Redevelopment Group, LLC.
GCSES	Gibbons Creek Steam Electric Station
GWPS	Groundwater Protection Standard
LCL	Lower Confidence Limit
LLDPE	Low-Linear Density Polyethylene
MDL	Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
RCL	Recompacted Clay Liner
RL	Reporting Limit
RPD	Relative Percent Difference
SFL	Site F Landfill
SSI	Statistically Significant Increase
SSL	Statistically Significant Level
SSP	Scrubber Sludge Pond
TAC	Texas Administrative Code
TCEQ	Texas Commission of Environmental Quality
ТМРА	Texas Municipal Power Agency

Table of Abbreviations and Acronyms

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Summary of 40 CFR Section § 257.90(e)(6) Groundwater Monitoring System Requirements and Site-Specific Compliance – Gibbons Creek Steam			
	Electric Station		
§ 257.90(e)(6) A current status of g	section at the beginning of the annual report that provides an overview of the proundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following:	Site F Landfill, Scrubber Sludge Pond, Ash Ponds	
§257.90(e)(6)(i)	At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95.	Assessment Monitoring Program	
§257.90(e)(6)(ii)	At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95.	Assessment Monitoring Program	
§257.90(e)(6)(iii)	If it was determined that there was a statistically significant increase over background for one or more constituents listed in appendix III to this part pursuant to § 257.94(e):	Yes	
§257.90(e)(6)(iii)(A)	Identify those constituents listed in appendix III to this part and the names of the monitoring wells associated with such an increase. Note: Site F Landfill, Scrubber Sludge Pond and Ash Ponds monitoring networks are all currently monitored under the Assessment Monitoring program; therefore, appendix IV constituents with statistically significant increases over background have been included in addition to appendix III constituents.	 Site F Landfill SLF MW-2 Calcium, Chloride, pH, TDS, Beryllium, Cadmium, Cobalt SLF MW-3 Boron, Calcium, Chloride, pH, TDS, Arsenic, Beryllium, Cadmium, Cobalt, Lead, Mercury, Thallium SLF MW-4 Boron, Calcium, Chloride, TDS SLF MW-5 Boron, Calcium, Chloride, pH, TDS, Beryllium, Cadmium, Cobalt, Radium 226+228, Lithium, Thallium SLF MW-6 Calcium, Chloride, pH, TDS, Arsenic, Beryllium, Cadmium, Cobalt, Radium 226+228, Lead, Lithium, Thallium SLF MW-7 Boron, Chloride, pH, TDS, Arsenic, Beryllium, Cadmium, Cobalt, Radium 226+228, Lead, Lithium, Thallium SLF MW-7 Boron, Fluoride, pH, TDS, Arsenic, Beryllium, Cadmium, Chloride, Cobalt Scrubber Sludge Pond & Ash Ponds SSP MW-2 Calcium, Chloride, pH, Arsenic, Beryllium, Cadmium, Cobalt SSP MW-3 Boron, pH, Arsenic, Beryllium, Cadmium, Cobalt, Radium 226+228, Thallium SSP MW-4 pH, Chromium, Molybdenum AP MW-1D Boron, Fluoride, Arsenic, Cobalt, Molybdenum 	

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Summary of 40 CFR Section § 257.90(e)(6) Groundwater Monitoring System Requirements and Site-Specific Compliance – Gibbons Creek Steam Electric Station			
§ 257.90(e)(6) A s current status of g	section at the beginning of the annual report that provides an overview of the roundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following:	Site F Landfill, Scrubber Sludge Pond, Ash Ponds	
\$257.00/c)/(6)/(iii)/(P)	Browide the date when the ecceptment monitoring program was initiated for	 AP MW-3 Boron, pH, Beryllium, Cadmium, Cobalt, Mercury AP MW-4 Boron AP MW-5 Boron, Fluoride, pH, TDS, Arsenic, Beryllium, Cadmium, Cobalt, Mercury, Thallium 	
\$257.90(e)(6)(III)(B)	the CCR unit.	March 2018	
§257.90(e)(6)(iv)	If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in appendix IV to this part pursuant to § 257.95(g) include all of the following:	Yes – Alternate Source Demonstration (ASD) provided as part of the 2019 Annual Groundwater Monitoring & Corrective Action Annual Report. Further discussion of this ASD is provided within this report.	
§257.90(e)(6)(iv)(A)	Identify those constituents listed in appendix IV to this part and the names of the monitoring wells associated with such an increase.	Site F Landfill SLF MW-2 • Cobalt SLF MW-3 • Beryllium, Cadmium, Cobalt, Lead, Thallium SLF MW-5 • Beryllium, Cobalt, Lithium SLF MW-6 • Beryllium, Cadmium, Cobalt, Lithium, Thallium MNW-15 • Beryllium, Cadmium, Cobalt Scrubber Sludge Pond & Ash Ponds SSP MW-2 • Beryllium, Cobalt SSP MW-3 • Beryllium, Cadmium, Cobalt, Radium 226+228, Thallium AP MW-1D • Cobalt AP MW-3 • Cobalt AP MW-5 • Beryllium, Cadmium, Cobalt	
§257.90(e)(6)(iv)(B)	Provide the date when the assessment of corrective measures was initiated for the CCR unit.	N/A – Currently monitored under assessment monitoring.	

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Summary of 40 CFR Section § 257.90(e)(6) Groundwater Monitoring System Requirements and Site-Specific Compliance – Gibbons Creek Steam Electric Station			
§ 257.90(e)(6) A current status of g	section at the beginning of the annual report that provides an overview of the proundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following:	Site F Landfill, Scrubber Sludge Pond, Ash Ponds	
§257.90(e)(6)(iv)(C)	Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit.	N/A – Currently monitored under assessment monitoring.	
§257.90(e)(6)(iv)(D)	Provide the date when the assessment of corrective measures was completed for the CCR unit.	N/A – Currently monitored under assessment monitoring.	
§257.90(e)(6)(v)	Whether a remedy was selected pursuant to § 257.97 during the current annual reporting period, and if so, the date of remedy selection.	N/A – Currently monitored under assessment monitoring.	
§257.90(e)(6)(vi)	Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.	N/A – Currently monitored under assessment monitoring.	

1 Introduction

On April 17, 2015, the United States Environmental Protection Agency (EPA) published the final rule for the regulation and management of coal combustion residual (CCR) under Subtitle D of the Resource Conservation and Recovery Act. The CCR rule is formally promulgated in the U.S. Code of Federal Regulations (CFR), Title 40, Part 257. The rule – effective on October 19, 2015 – applies to electric utilities and independent power producers that fall within North American Industry Codes System code 221112, and facilities that produce or store CCR materials in surface impoundments or landfills (EPA, 2015). The CCR rule defines a set of requirements for the disposal and handling of CCR within units (defined as either landfills or surface impoundments).

The former Gibbons Creek Steam Electric Station (GCSES or Site) is the site of a former coalfired power generation facility located in Anderson, Texas (**Figure 1**). The Texas Municipal Power Agency (TMPA) operated GCSES between 1982 and 2019. The Gibbons Creek Environmental Redevelopment Group, LLC (GCERG) acquired the TMPA property in 2021. At the GCSES, one CCR landfill identified as the Site F Landfill (SFL), and two CCR surface impoundments, the Scrubber Sludge Pond (SSP) and Ash Ponds (AP) are subject to the regulations under 40 CFR §257 Subpart D and Texas Commission of Environmental Quality's (TCEQ) Title 30, Texas Administrative Code (30 TAC), Chapter 352. On June 1, 2021, the EPA signed a Federal Register notice approving of the state permit program for the management of CCR in the state of Texas. The locations of the CCR units are shown on **Figure 2** and **Figure 3**.

The SFL, located northeast of the power generating plant and constructed in 1990 and received solid CCR generated by the GCSES (**Figure 2**). The SSP was constructed and began receiving CCR in 1982. The AP consists of three interconnected ponds (Pond A, B and C) that began operating with the start-up of the GCSES in 1982. See **Figure 3** for location of SSP and AP.

In accordance with 40 CFR §257.91 and TCEQ TAC 30 Chapter 352, TMPA installed a groundwater monitoring system around both the SFL and the SSP/AP CCR units. GCERG has continued implementation of the federal CCR Rule groundwater monitoring program, as required by 40 CFR §257.90-95, as a continuation of the TMPA monitoring program.

2 Facility Description

The GCSES is located at 12824 FM 244 Road, Anderson, Texas 77830. The GCSES was a single unit, 470-megawatt, coal-fired power plant. The GCSES initially operated by burning lignite from the adjacent Gibbons Creek Lignite Mine in 1982. In 1996, the GCSES converted to Powder River Basin coal and the lignite mine was closed. The GCSES was retired from the Electric Reliability Council of Texas (ERCOT) System on October 30, 2019. The Site was obtained by the GCERG in 2021.

The APs are an unlined, interconnected, three-cell impoundment area which are separated by earthen dikes, constructed in 1977 to 1978 as part of the original GCSES construction. These ponds are approximately 260 ft wide, 1,800 ft long and 20 ft deep. The top of the perimeter berms/dikes are at an elevation of approximately 270 feet above mean sea level (AMSL). See **Figure 3** for location of the APs.

The SSP is located to the west of the APs and is a single impoundment constructed in 1977 to 1978. A liner was added to the bottom of the pond in 1983. The pond measurements are approximately 260 feet and 350 feet wide and 615 feet and 635 feet long (measured at the bottom of the impoundment). See **Figure 3** for location of the SSP.

The SFL, located northeast of the power generating plant and constructed in 1990, is approximately 114 acres and received solid CCR generated by the GCSES.

Following the acquisition of the TMPA property in 2021, GCERG has initiated the process of dewatering and removing CCR material from the SSP & AP CCR units as part of pond remediation and clean closure efforts. Dewatering of the SSP/AP CCR units began in June 2021 and removal of ash is anticipated to be completed by January 2022 for the SSP CCR unit and by March 2022 for the AP CCR unit. The CCR material removed from the SSP/AP CCR units is being placed within the SFL CCR unit. In addition, the SFL CCR unit stormwater collection pond is currently being cleaned out, all stormwater control ditches around the area of the coal pile and coal pile runoff pond are being excavated, and the coal pile itself is being removed. All of these excavated materials are being dewatered and placed within the SFL CCR unit.

Upon removal of all CCR materials from the SSP/AP CCR units, the coal pile, coal pile runoff ditches and the SFL CCR unit stormwater collection pond, the SFL CCR unit will be closed with the following capping system:

- 6-inches of erosion layer;
- Underlain by 18-inches of infiltration layer;
- Underlain by a geocomposite;
- Underlain by a 40-mil low-linear density polyethylene (LLDPE) geomembrane layer;
- Underlain by 2-feet of recompacted clay liner (RCL) with a hydraulic conductivity of 1x10⁻⁵ centimeters per second (cm/sec) or slower;
- Underlain by 1-foot of intermediate cover.

All closure activities associated with the SSP/AP CCR units ash removal, SFL stormwater pond cleanout, stormwater ditch cleaning, coal pile removal, and closure of the SFL CCR unit is anticipated to be completed by end of year 2023.

3 Hydrogeology

3.1 Site F Landfill

The SFL is underlain by stratified, heterogeneous layers of clays, silts, and sands of varying thicknesses. Sandstone was observed at some boring locations as well. The elevation of screened intervals in monitoring wells range from approximately 250 feet to 220 feet AMSL. The screened intervals are generally completed in silty sands (SM) with intervals of clayey sands and silts.

Groundwater investigations by others (Wood, 2021) indicated that groundwater flow direction beneath the SFL was generally from the northwest towards the southeast. Groundwater level monitoring completed by Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), using an expanded monitoring network confirmed the general groundwater flow

gradient from northwest to southeast, but influence from the Gibbons Creek Reservoir on groundwater flow direction was observed.

3.2 Scrubber Sludge Pond/Ash Ponds

The SSP/AP CCR units are underlain by interbedded silty and sandy clays, clay, clayey sands and silty sand. Hard sandstone intervals are intermittently present, as are thin lenses of lignite or lignitic silts. Groundwater is considered confined to semi-confined, and generally encountered at depths of 30 to 40 feet below ground surface. The elevation of monitoring well screened intervals ranges from approximately 240 ft to 220 ft AMSL.

Groundwater investigations by others (Wood, 2021) indicated that groundwater flow directions are controlled by the local topography and a groundwater divide exists between the AP CCR unit and the SSP CCR unit. Groundwater level monitoring completed by Amec Foster Wheeler using an expanded monitoring network confirms the presence of the groundwater divide and flow direction to the east beneath the APs. Groundwater flows to the southwest beneath the SSP. The background groundwater quality monitoring well (SSP/AP MW-1) is located on the groundwater divide and provides background data for both networks.

4 Monitoring Well Network

The CCR Rule requires, at a minimum, one upgradient and three downgradient monitoring wells per CCR unit to be completed in the uppermost aquifer. Section 40 CFR §257.90 of the Rule states that the operator: "...may install a multiunit groundwater monitoring system instead of separate groundwater monitoring systems for each CCR unit." In addition, the Rule states that downgradient monitoring wells should be installed to: "accurately represent the quality of groundwater passing the waste boundary of the CCR unit. The downgradient monitoring system must be installed at the waste boundary that ensures detection of groundwater contamination in the uppermost aquifer."

4.1 Site F Landfill

The SFL CCR unit monitoring well network (as shown on **Figure 2**) consist of both monitoring wells and piezometers installed by Amec Foster Wheeler in 2016 and 2017, and wells installed by Black and Veatch in 1988.

The SFL monitoring network consists of the following wells:

- Background Well: MNW-18
- Compliance Wells: SFL MW-2, SFL MW-3, SFL MW-4, SFL MW-5, SFL MW-6, SFL MW-7 and MNW-15
- Piezometers: MNW-11, MNW-16 and MNW-17

4.2 Scrubber Sludge Pond / Ash Ponds

The SSP/AP CCR units monitoring well networks (as shown on **Figure 3**) consist of both monitoring wells and piezometers. The piezometers are used for water level data collection only, groundwater quality samples are only collected from monitoring wells. The monitoring well network includes:



- Background Well: SSP/AP MW-1 (used as background for both AP CCR unit and SSP CCR unit networks)
- Scrubber Sludge Pond Compliance Wells: SSP MW-2, SSP MW-3 and SSP MW-4
- Ash Ponds Compliance Wells: AP MW-1D, AP MW-3, AP MW-4 and AP MW-5
- Piezometers: SSP MW-1, AP MW-1, AP MW-6, AP MW-2, AP PZ-1, AP PZ-2, AP PZ-3 and AP PZ-4

5 Monitoring

TMPA initiated sample collection for background monitoring in June 2016 and completed the eighth round of background sampling, as required by the CCR Rule, in August 2017. In accordance with 40 CFR §257.94(b), one round of detection monitoring was completed in October 2017. A statistical evaluation of the groundwater quality data set for Appendix III constituents resulting from detection monitoring in accordance with 40 CFR § 257.94 was completed in January 2018. The data set used in the evaluation resulted from the collection and laboratory analysis of eight independent samples from background and downgradient wells in accordance with 40 CFR § 257.94(b). The statistical evaluation was completed using the prediction limit method outlined in 40 CFR § 257.93(f)(3) for the monitoring data obtained at the SFL CCR units and the SSP/AP CCR units. The statistical evaluation concluded initial statistically significant increases (SSIs) over background levels for Appendix III constituents at the SFL CCR unit and the SSP/AP CCR units (Wood, 2019). Based upon the results of the statistical evaluation, an assessment monitoring program was implemented in March 2018.

The first two initial rounds of the assessment monitoring program were conducted in March 2018 and June 2018. Groundwater samples were collected from monitoring wells at the SFL CCR unit and the SSP/AP CCR units. During the initial assessment monitoring sampling event (March 2018), the groundwater samples were analyzed for all Appendix III and Appendix IV constituents. During the second assessment monitoring sampling event (June 2018), the groundwater samples were analyzed for all Appendix III constituents and those Appendix IV constituents that were detected at each CCR unit during the March 2018 monitoring event.

Assessment monitoring was continued in 2019, at which point multiple statistically significant levels (SSLs) of Appendix IV constituents were determined to be above their respective groundwater protection standard (GWPS) (Wood, 2020). As part of the 2019 Annual Groundwater Monitoring and Corrective Action Annual Report, and alternate source demonstration (ASD) was submitted (Wood, 2020). This ASD describes the natural conditions in and around the Site, as well as the impact of naturally occurring lignite within the area of the Site and its impact on the groundwater system. As documented in the 2019 ASD evaluation, potential SSLs identified for Appendix IV constituents are attributed to an alternate source under the CCR rule; therefore, no corrective action measures were required and groundwater monitoring under the assessment monitoring program was continued.

The 2021 reporting period consisted of two rounds of semi-annual groundwater sampling for assessment monitoring on the certified monitoring well networks. **Table 1** provides the well identification number, well gradient or use, the dates the samples were collected, and whether the sample was required by the CCR Rule for the background sampling, detection monitoring or assessment monitoring programs.

Table 1: Dates of groundwater samples collected for each well in 2021 and the requiredmonitoring programs for the GCSES facility (40 CFR §257.90(e)(3)

Monitoring Well I.D.	Well Location	Dates Monitored	CCR Rule Monitoring Purpose
AP MW-1	Water Level Only	February 9-10, 2021 July 12-13, 2021	Water Level Monitoring
AP MW-1D	Downgradient	February 9-10, 2021 July 12-13, 2021	Assessment Monitoring
AP MW-2	Water Level Only	February 9-10, 2021 July 12-13, 2021	Water Level Monitoring
AP MW-3	Downgradient	February 9-10, 2021 July 12-13, 2021	Assessment Monitoring
AP MW-4	Downgradient	February 9-10, 2021 July 12-13, 2021	Assessment Monitoring
AP MW-5	Downgradient	February 9-10, 2021 July 12-13, 2021	Assessment Monitoring
AP MW-6	Water Level Only	February 9-10, 2021 July 12-13, 2021	Water Level Monitoring
AP PZ-1	Water Level Only	February 9-10, 2021 July 12-13, 2021	Water Level Monitoring
AP PZ-2	Water Level Only	February 9-10, 2021 July 12-13, 2021	Water Level Monitoring
AP PZ-3	Water Level Only	February 9-10, 2021 July 12-13, 2021	Water Level Monitoring
AP PZ-4	Water Level Only	February 9-10, 2021 July 12-13, 2021	Water Level Monitoring
SSP/AP MW-1	Background/Upgradient	February 9-10, 2021 July 12-13, 2021	Assessment Monitoring
SSP MW-1	Water Level Only	February 9-10, 2021 July 12-13, 2021	Water Level Monitoring
SSP MW-2	Downgradient	February 9-10, 2021 July 12-13, 2021	Assessment Monitoring
SSP MW-3	Downgradient	February 9-10, 2021 July 12-13, 2021	Assessment Monitoring
SSP MW-4	Downgradient	February 9-10, 2021 July 12-13, 2021	Assessment Monitoring
SFL MW-2	Downgradient	February 9-10, 2021 July 12-13, 2021	Assessment Monitoring
SFL MW-3	Downgradient	February 9-10, 2021 July 12-13, 2021	Assessment Monitoring
SFL MW-4	Downgradient	February 9-10, 2021 July 12-13, 2021	Assessment Monitoring
SFL MW-5	Downgradient	February 9-10, 2021 July 12-13, 2021	Assessment Monitoring
SFL MW-6	Downgradient	February 9-10, 2021 July 12-13, 2021	Assessment Monitoring
SFL MW-7	Downgradient	February 9-10, 2021 July 12-13, 2021	Assessment Monitoring
MNW-11	Water Level Only	February 9-10, 2021 July 12-13, 2021	Water Level Monitoring
MNW-15	Downgradient	February 9-10, 2021 July 12-13, 2021	Assessment Monitoring
MNW-16	Water Level Only	February 9-10, 2021 July 12-13, 2021	Water Level Monitoring
MNW-17	Water Level Only	February 9-10, 2021 July 12-13, 2021	Water Level Monitoring
MNW-18	Background/Upgradient	February 9-10, 2021 July 12-13, 2021	Assessment Monitoring

5.1 Water Levels and Sample Collection

Water levels were collected in each well following the Groundwater Monitoring Plan (Amec Foster Wheeler, 2017). Water levels were measured before well purging began. Wells were purged until field parameters (pH, turbidity, conductivity, dissolved oxygen, temperature, and oxidation reduction potential) stabilized. Purging and sampling was conducted using either a peristaltic pump and dedicated tubing or submersible bladder pump with disposal bladder and disposable tubing, depending on the depth of water. The results of field measurements were recorded on field data forms (**Appendix B**), which are maintained as part of the field records. After field parameters stabilized, samples were collected and analyzed for the parameters listed in **Table 2**. Two rounds of assessment monitoring samples were collected from each well in 2021. For quality control, one field duplicate sample was collected during each sample event. Groundwater samples for the February and July 2021 events were delivered under Chain of Custody to Eurofins TestAmerica Laboratories in Pittsburgh, Pennsylvania.

5.2 Analytical Testing

Samples were obtained for assessment monitoring in February and July 2021 and were analyzed for all Appendix III and Appendix IV parameters, as listed in **Table 2**.

Appendix III Constituents	Appendix IV Constituents		
Boron	Antimony	Lead	
Calcium	Arsenic	Lithium	
Chloride	Barium	Mercury	
Fluoride	Beryllium	Molybdenum	
рН	Cadmium	Selenium	
Sulfate	Chromium	Thallium	
Total Dissolved Solids (TDS)	Cobalt	Radium 226 and 228-Combined	
	Fluoride		

Table 2: Constituents of Interest

5.3 Data Validation and Data Management

Data validation was conducted to eliminate data that did not meet validation criteria and designate a data qualifier for any data quality limitation discovered. All samples and quality control were reviewed and evaluated, and no samples were rejected. Most quality control analyses were within reportable limits; however, when quality control was outside limit controls, samples were reported as estimated.

According to the *Practical Guide for Ground-Water Sampling*: "Duplicate sample values which differ by less than ±50% relative percent difference indicates good error control" (Barcelona, 1985). All relative percent difference (RPD) values for both the February and July 2021 sampling events are below the recommended 50 percent.

Laboratory qualifiers were evaluated to determine whether data was acceptable for further analysis. The following qualifiers were noted for some parameters in the Eurofins TestAmerica laboratory report but did not impact the use of data for further analysis.

- B Compound was found in the blank and sample.
 - SSP/AP MW-1 Boron, Lead
 - AP MW-1D Boron
 - AP MW-3 Boron
 - o AP MW-5 Boron, Lead, Thallium
 - All compounds found within the Method Blank were J-flagged; therefore, are assumed values and are not treated as significant.
- J Result is less than the reporting limit (RL) but greater than or equal to the laboratory method detection limit (MDL) and the concentration is an approximate value. Detections with J-flags are not considered as statistically significant results during analysis.
- F1 MS and or MSD recovery exceeds control limits.
 - MNW-15 Mercury
 - Mercury in MNW-15 was non-detect; therefore, no re-sample or reanalysis is necessary.
- H Sample was prepped or analyzed beyond the specified holding time.
 - Total Dissolved Solids AP MW-4, MNW-15, MNW-18, SFL MW-2, SFL MW-3, SFL MW-4, SLF MW-5, SLF MW-6, SFL MW-7, SSP MW-2. SSP MW-3 and SSP MW-4.
 - Values have been evaluated and have been determined to be within the historical ranges for each monitoring well.

6 Monitoring Results

6.1 Water Levels and Groundwater Flow Direction

Water levels at the monitoring wells are provided in **Table 3**. Potentiometric surface maps (**Appendix A - Figures 4** through **Figure 7**) were developed based on water levels measured in February and July 2021. The maps display the groundwater elevations at the monitoring wells/piezometers and the groundwater contours for both the SFL and the SSP/AP CCR units for both February and July 2021. Groundwater beneath the area of the SFL CCR unit is between 252 ft and 266 ft ASML and groundwater flow direction was generally southeasterly. Groundwater beneath the area of the SSP/AP CCR units is between 258 ft and 264 ft ASML.

Groundwater in the area of the SSP/AP CCR units continued to display a groundwater divide between the SSP CCR unit and the AP CCR unit for the February 2021 sampling event. During the July 2021 sampling event, the historically observed groundwater divide between the SSP CCR unit and the AP CCR unit was present, although not as pronounced, which is likely a result of the dewatering activities within the AP CCR unit.

Based on the February 2021 and July 2021 groundwater sampling events, the general groundwater flow patterns observed are consistent with historical observations for the SSP CCR unit (flow to the south-southwest) and the AP CCR unit (flow to the east).

Well ID	TOC Elevation (ft amsl)	Groundwater Elevation (ft amsl) Week of February 8, 2021	Groundwater Elevation (ft amsl) Week of July 12, 2021
AP MW-1 ¹	271.56	258.34	258.53
AP MW-1D	272.04	257.21	257.56
AP MW-2 ¹	274.97	267.46	262.32
AP MW-3	274.68	263.29	262.09
AP MW-4	274.16	260.64	259.47
AP MW-5	274.13	262.04	259.66
AP MW-6 ¹	277.95	261.31	260.92
AP PZ-1 ¹	265.67	259.03	260.31
AP PZ-2 ¹	274.91	254.45	257.84
AP PZ-3 ¹	259.11	253.11	254.35
AP PZ-4 ¹	273.65	263.3	259.62
SSP MW-1 ¹	281.18	265.32	267.23
SSP MW-2	283.66	259.82	260.64
SSP MW-3	283.97	255.79	256.85
SSP MW-4	283.86	259.21	259.38
SSP/AP MW-1	272.53	264.19	264.82
SFL MW-2	268.31	256.74	257.93
SFL MW-3	275.00	256.88	257.08
SFL MW-4	269.53	253.85	254.75
SFL MW-5	276.25	259.81	260.17
SFL MW-6	286.66	268.07	267.66
SFL MW-7	264.63	250.05	251.41
MNW-11 ¹	267.95	247.68	247.25
MNW-15	257.331	251.11	252.45
MNW-16 ¹	263.191	249.07	250.69
MNW-17 ¹	293.724	260.22	264.36
MNW-18	270.755	262.40	262.05

Table 3. Groundwater e	elevations	measured	in	2021
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Note:

¹ Wells are Water Level Only and are not sampled as part of the CCR monitoring networks.

6.2 Water Quality

In February 2021, semi-annual assessment monitoring samples were collected from the certified monitoring well network wells for both the SFL CCR unit and the SSP/AP CCR units. All samples were analyzed for all Appendix III and Appendix IV constituents. Water quality data tables are included in **Appendix C** and laboratory reports are provided in **Appendix D**. In accordance with 40 CFR §257.95(e), downgradient well concentrations from the February 2021 assessment monitoring event were compared against background values, and some concentrations were found to be above their respective background values. In accordance with

40 CFR §257.95(f), detected Appendix IV concentrations in downgradient wells were compared against their respective GWPS. To determine if an exceedance of a GWPS was observed at a statistically significant level, the 95% lower confidence limit (LCL) was calculated for each of the downgradient wells for each of the Appendix IV constituents. The data set used to calculate the LCL included all Appendix IV results from samples collected at the specific well since sampling under the CCR rule commenced. Therefore, most wells had between 8 and 15 sampling events that were used to calculate the LCL. The February 2021 LCL results for the SFL CCR unit are provided in **Table 4** and for the SSP/AP CCR units are provided in **Table 5**. Results that exceeded their respective GWPS are shown in bold and underline.

	GWPS ^[1]	Units	SFL MW-2	SFL MW-3	SFL MW-4	SFL MW-5	SFL MW-6	SFL MW-7	MNW-15
	Appendix IV Constituents – Lower Confidence Levels								
Antimony	0.006	mg/L	0.002	0.002	0.002	0.002	0.002	0.000579	0.002
Arsenic	0.01	mg/L	0.001	0.001	0.001	0.001	0.00836	0.001	0.001
Barium	2	mg/L	0.02	0.01819	0.02138	0.0192	0.0309	0.03115	0.0171
Beryllium	0.004	mg/L	0.00123	<u>0.03309</u>	0.001	<u>0.00947</u>	<u>0.04712</u>	0.001	<u>0.06899</u>
Cadmium	0.005	mg/L	0.000761	0.006559	0.001	0.001	<u>0.009341</u>	0.001	<u>0.06932</u>
Chromium	0.1	mg/L	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Cobalt	0.006	mg/L	0.0005	<u>0.0598</u>	0.0005	<u>0.04671</u>	<u>0.1071</u>	0.0005	<u>0.2759</u>
Fluoride	4	mg/L	0.2	0.5	0.3	0.2	0.5	0.1	0.4
Lead	0.015	mg/L	0.001	<u>0.0183</u>	0.001	0.000725	0.001	0.000211	0.000555
Lithium	0.552 ^[2]	mg/L	0.4334	0.2786	0.3969	<u>0.643</u>	<u>0.622</u>	0.3986	0.06494
Mercury	0.002	mg/L	0.0002	0.001823	0.0002	0.0002	0.0002	0.0002	0.0002
Molybdenum	0.1	mg/L	0.00202	0.005	0.00106	0.0018	0.005	0.005	0.005
Radium 226+228	10.1 ^[2]	pCi/L	7.068	4.464	1.202	9.934	8.23	1.955	0.371
Selenium	0.05	mg/L	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Thallium	0.002	mg/L	0.000612	0.005532	0.001	0.001	0.003057	0.001	0.000739

Bold and underlined concentration indicates an SSL over the GWPS.

^[1] GWPS is established as the U.S. EPA Maximum Contaminant Level (MCL) or the GWPS specified in 40 CFR §257.95(h)(2); unless otherwise specified.

^[2] GWPS is established as the background threshold value (BTV) when the background level is higher than the U.S. EPA MCL or the GWPS specified in 40 CFR §257.95(h)(2).

As shown in **Table 4**, results of the February 2021 sampling event indicated 16 SSLs for the SFL CCR unit for beryllium, cadmium, cobalt, lead, lithium, and thallium in various downgradient wells. The SSLs, except for thallium in SFL MW-3 and SFL MW-6, were previously detected SSLs and discussed in the 2019 ASD as part of the 2019 Annual Groundwater Monitoring and Corrective Action Plan (Wood, 2020).



	GWPS ^[1]	Units	SSP MW-2	SSP MW-3	SSP MW-4	AP MW-1D	AP MW-3	AP MW-4	AP MW-5
	Appendix IV Constituents – Lower Confidence Levels								
Antimony	0.006	mg/L	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Arsenic	0.01	mg/L	0.001	0.001	0.000941	0.001	0.001	0.000628	0.007399
Barium	2	mg/L	0.01821	0.01676	0.01853	0.009559	0.01654	0.01162	0.00941
Beryllium	0.004	mg/L	<u>0.02032</u>	<u>0.1087</u>	0.001	0.001	0.002	0.000436	<u>0.06958</u>
Cadmium	0.005	mg/L	0.001	<u>0.06366</u>	0.001	0.000408	0.001	0.001	<u>0.00769</u>
Chromium	0.1	mg/L	0.002	0.002	0.002	0.002	0.00173	0.002	0.002
Cobalt	0.006	mg/L	<u>0.0571</u>	<u>0.5535</u>	0.000336	0.0005	<u>0.03624</u>	0.0005	<u>0.1456</u>
Fluoride	4	mg/L	0.2	0.5	0.1	0.5571	0.1	0.1	1.1
Lead	0.015	mg/L	0.001	0.001	0.000161	0.001	0.000456	0.000276	0.001
Lithium	1.66 ^[2]	mg/L	0.6851	0.5743	0.8171	0.0243	0.04407	0.7981	0.4203
Mercury	0.002	mg/L	0.0002	0.000162	0.0002	0.0002	0.0002	0.0002	0.0002
Molybdenum	0.1	mg/L	0.005	0.005	0.00321	0.005	0.000848	0.005	0.005
Radium 226+228	5	pCi/L	1.868	<u>27.41</u>	2.415	1.304	1.682	1.229	1.532
Selenium	0.05	mg/L	0.005	0.005	0.005	0.00154	0.005	0.005	0.005
Thallium	0.002	mg/L	0.000148	0.008	0.001	0.00031	0.000267	0.000172	0.001974

Table 5: Evaluation for SSLs over GWPS – February 2021 (Scrubber Sludge and Ash Ponds)

Bold and underlined concentration indicates an SSL over the GWPS.

^[1] GWPS is established as the U.S. EPA Maximum Contaminant Level (MCL) or the GWPS specified in 40 CFR §257.95(h)(2); unless otherwise specified.

^[2] GWPS is established as the background threshold value (BTV) when the background level is higher than the U.S. EPA MCL or the GWPS specified in 40 CFR §257.95(h)(2).

As shown in **Table 5**, results of the February 2021 sampling event indicated 11 SSLs for the SSP/AP CCR units. The SSLs, except for cadmium in AP MW-5 and thallium in SSP MW-3, were previously detected SSLs and discussed in the 2019 ASD (Wood, 2020).

In July 2021, semi-annual assessment monitoring samples were collected from the certified monitoring well network wells and all samples were analyzed for Appendix III and Appendix IV constituents. Water quality data tables are included in **Appendix C** and laboratory reports are provided in **Appendix D**. Downgradient well concentrations from the July 2021 assessment monitoring event were found to be above background values. In accordance with 40 CFR §257.95(f), concentrations in downgradient wells were found to exceed GWPS. Therefore, in accordance with 40 CFR §257.95(g), downgradient well concentrations were statistically evaluated to determine if constituents are detected at SSL above the GWPS. The July 2021 LCL results for the SFL are provided in **Table 6**. Results that exceeded their respective GWPS are shown in bold and underline.



	GWPS ^[1]	Units	SFL MW-2	SFL MW-3	SFL MW-4	SFL MW-5	SFL MW-6	SFL MW-7	MNW-15
	Appendix IV Constituents – Lower Confidence Levels								
Antimony	0.00600	mg/L	0.002	0.002	0.002	0.002	0.002	0.000579	0.002
Arsenic	0.0100	mg/L	0.001	0.001	0.001	0.001	0.008743	0.001	0.001
Barium	2	mg/L	0.02	0.01662	0.02188	0.0192	0.03106	0.03196	0.016
Beryllium	0.00400	mg/L	0.001329	<u>0.03293</u>	0.001	<u>0.009541</u>	<u>0.04702</u>	0.001	<u>0.06965</u>
Cadmium	0.00500	mg/L	0.000761	<u>0.006509</u>	0.001	0.001	<u>0.009417</u>	0.001	<u>0.0388</u>
Chromium	0.100	mg/L	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Cobalt	0.00600	mg/L	<u>0.01265</u>	<u>0.0598</u>	0.0005	<u>0.04706</u>	<u>0.1074</u>	0.0005	<u>0.2788</u>
Fluoride	4	mg/L	0.2	0.5	0.204	0.2	0.5	0.19	0.4
Lead	0.01500	mg/L	0.000272	<u>0.01788</u>	0.001	0.000725	0.001	0.000211	0.000555
Lithium	0.552 ^[2]	mg/L	0.4365	0.2793	0.397	<u>0.643</u>	<u>0.6232</u>	0.3976	0.06711
Mercury	0.00200	mg/L	0.0002	0.001782	0.0002	0.0002	0.0002	0.0002	0.0002
Molybdenum	0.100	mg/L	0.00202	0.005	0.00208	0.0018	0.005	0.005	0.005
Radium 226+228	10.1 ^[2]	pCi/L	7.092	4.451	1.234	10.1	8.561	1.999	0.3817
Selenium	0.0500	mg/L	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Thallium	0.00200	mg/L	0.000865	0.005515	0.001	0.001	0.003079	0.001	0.000901

Table 6: Evaluation for SSLs over GWPS – July 2021 (Site F Landfill)

Bold and underlined concentration indicates an SSL over the GWPS.

^[1] GWPS is established as the U.S. EPA Maximum Contaminant Level (MCL) or the GWPS specified in 40 CFR §257.95(h)(2); unless otherwise specified.

^[2] GWPS is established as the background threshold value (BTV) when the background level is higher than the U.S. EPA MCL or the GWPS specified in 40 CFR §257.95(h)(2).

As shown in **Table 6**, results of the July 2021 sampling event indicated 17 SSLs for the SFL CCR unit for beryllium, cadmium, cobalt, lead, lithium, and thallium in various downgradient wells. The SSLs, except for cobalt in SFL MW-2, were previously detected SSLs and discussed in the 2019 ASD as part of the 2019 Annual Groundwater Monitoring and Corrective Action Plan (Wood, 2020).



	GWPS ^[1]	Units	SSP MW-2	SSP MW-3	SSP MW-4	AP MW-1D	AP MW-3	AP MW-4	AP MW-5
	Appendix IV Constituents – Lower Confidence Levels								
Antimony	0.00600	mg/L	0.002	0.002	0.000415	0.002	0.002	0.002	0.000664
Arsenic	0.0100	mg/L	0.001	0.001	0.000941	0.00756	0.001	0.000628	0.007734
Barium	2	mg/L	0.01991	0.0172	0.0182	0.009948	0.01749	0.01181	0.01066
Beryllium	0.00400	mg/L	<u>0.02169</u>	<u>0.1082</u>	0.001	0.001	0.002	0.000436	<u>0.06833</u>
Cadmium	0.00500	mg/L	0.001	<u>0.06441</u>	0.001	0.000408	0.001	0.001	<u>0.007553</u>
Chromium	0.100	mg/L	0.002	0.002	0.002	0.002	0.00173	0.002	0.002
Cobalt	0.00600	mg/L	<u>0.0571</u>	<u>0.5545</u>	0.000336	<u>0.01221</u>	<u>0.03817</u>	0.0005	<u>0.1472</u>
Fluoride	4	mg/L	0.2	0.466	0.227	0.5676	0.0577	0.1	1.158
Lead	0.01500	mg/L	0.001	0.001	0.000276	0.000256	0.00047	0.000276	0.001
Lithium	1.66 ^[2]	mg/L	0.6905	0.5753	0.7861	0.02407	0.04466	0.7987	0.4193
Mercury	0.00200	mg/L	0.0002	0.000162	0.0002	0.0002	0.0002	0.0002	0.0002
Molybdenum	0.100	mg/L	0.005	0.000667	0.00321	0.01439	0.000848	0.005	0.005
Radium 226+228	5	pCi/L	1.923	<u>27.85</u>	2.295	1.381	1.742	1.212	1.591
Selenium	0.0500	mg/L	0.005	0.005	0.00441	0.00164	0.005	0.005	0.005
Thallium	0.00200	mg/L	0.000516	0.009	0.001	0.000636	0.000271	0.000172	0.001987

Table 7: Evaluation for SSLs over GWPS – July 2021 (Scrubber Sludge and Ash Ponds)

Bold and underlined concentration indicates an SSL over the GWPS.

^[1] GWPS is established as the U.S. EPA Maximum Contaminant Level (MCL) or the GWPS specified in 40 CFR §257.95(h)(2); unless otherwise specified.

^[2] GWPS is established as the background threshold value (BTV) when the background level is higher than the U.S. EPA MCL or the GWPS specified in 40 CFR §257.95(h)(2).

As shown in **Table 7**, results of the July 2021 sampling event indicated 12 SSLs for the SSP/AP CCR units. The SSLs, except for cobalt in AP MW-1D, were previously detected SSLs and discussed in the 2019 ASD as part of the 2019 Annual Groundwater Monitoring and Corrective Action Plan (Wood, 2020).

6.2.1 Expansion of ASD

As described in the 2019 ASD, the solubility of metal species such as beryllium, cobalt, and cadmium is dependent on the pH of the groundwater. The Eh-pH diagrams for beryllium and cobalt were evaluated as part of the 2019 ASD and indicated that the solubility of the metals increased with lower pH ranges. Additionally, the ASD stated geochemical literature indicates that maximum adsorption for cadmium occurs at or above pH 6.5 and as the pH drops into the acidic range then desorption occurs. This was evident with higher metal detections in the wells exhibiting the lowest pH values. The ASD also discussed the low pH groundwater observed in downgradient monitoring wells is likely a result of weathering pyrite in the stringers of lignite coal found throughout the site. Natural acidic seeps are commonly found in lignite deposits, resulting in acidification of surrounding groundwater.

As part of the 2019 ASD, leachate samples collected from the SFL CCR unit in July 2003 were reviewed and showed alkaline characteristics, ranging from 8.6 to 9.7. Landfill wells with detected SSLs (SFL MW-3, SFL MW-5, SFL MW-6, and MNW-15) have pH values ranging from 3.3 to 5.1. The pH of the AP CCR unit was reviewed and showed neutral to slightly basic pH,

ranging from 7.5 to 8.5 or greater, based on historic sampling of the AP CCR unit outfall. SSP CCR unit pH of 7.8 was similar to the AP CCR unit. SSP CCR unit wells with detected SSLs (SSP MW-2, SSP MW-3, AP MW-3, and AP MW-5) have pH values ranging from 3.2 to 5.8. Based on these sample results and the natural weathering of shallow lignite at the site, the low pH groundwater is likely due to natural processes in the uppermost aquifer.

Although cadmium in AP MW-5 was not included in the 2019 ASD, the low pH levels in AP MW-5 are similar to those wells with elevated cadmium and low pH discussed in the ASD (SSP MW-3, SFL MW-3, SFL MW-6, and MNW-15). Therefore, it is concluded that cadmium at AP MW-5 is attributed to the alternate source of lignite deposits and low pH and not a release of the AP CCR unit.

Discussion of thallium was not included in the 2019 ASD. Information on thallium mobility in groundwater suggests that thallium is relatively immobile under typical pH conditions and increases in mobility under acidic conditions, as stated in a technical report by the Electric Power Research Institute (EPRI) dated December 2, 2008 (EPRI, 2008). This is similar to the other metals (beryllium, cobalt, cadmium) discussed in the 2019 ASD that become more mobile in groundwater with low pH, resulting in the higher concentrations observed. This information, coupled with the previously provided ASD, leads to the determination that thallium concentrations at SFL MW-3, SFL MW-6, and SSP MW-3 are a result of natural weathering of shallow lignite and not due to a release from the SFL CCR unit.

As discussed within the 2019 ASD, cobalt concentrations are highly pH-dependent, and concentrations of cobalt increase as pH decreases. Based on the findings provided within the 2019 ASD, the pH within the AP CCR unit is basic, ranging from 7.5 to 8.5 or greater. Based on these values, the AP CCR unit is not a source of low pH groundwater. The cobalt concentrations observed at AP MW-1D are lower than those concentrations which are found within monitoring wells AP MW-3 and AP MW-5, both of which have successfully been shown to have increased cobalt concentrations from an alternate source. In addition, based on the findings of the 2019 ASD, the cobalt concentrations which have been observed at monitoring well SFL MW-2 are determined to be a result of the naturally occurring lignite weathering in the area of the SFL CCR unit. SFL MW-2 Eh-pH conditions are at within the approximate range of groundwater conditions for elevated cobalt concentrations, as discussed in the 2019 ASD.

With the previous 2019 ASD and the applicability of the previous 2019 ASD to the newly identified SSLs over GWPS, the SFL CCR unit and the SSP/AP CCR units will continue to be monitored in accordance with the assessment monitoring program, as specified in 40 CFR §257.95(b).

In 2021, GCERG will continue to monitor groundwater at the Site in accordance with the assessment monitoring program and consistent with 40 CFR §257.93(e).

F)5

7 Summary

The following observations are based on CCR Rule compliance groundwater monitoring program development during 2021:

- GCERG initiated clean closure of the SSP/AP CCR units by implementing dewatering of the CCR units in June 2021 and conducting ash removal, with anticipated completion dates of January 2022 for the SSP CCR unit and March 2022 for the AP CCR unit.
- Removal of coal from the coal pile storage area, excavation of coal pile stormwater runoff devices and cleaning out of the SFL CCR unit stormwater collection pond have been implemented as of June 2021.
- Placement of CCR material removed from the SSP/AP CCR units, coal from the coal pile storage area, excavated material from the coal pile stormwater runoff devices and material removed from the SFL CCR unit stormwater collection pond will be placed within the SFL CCR unit, which will be capped as described in **Section 2**. The final closure of the site is anticipated to be complete at the end of year 2023.
- Water levels were measured at all monitoring wells in February 2021 and July 2021. Potentiometric surfaces were contoured for both the SFL CCR unit and the SSP/AP CCR units for both February and July 2021. A slight variation groundwater flow direction at the SSP/AP CCR units was observed between the February and July 2021 sample events is due to the dewatering of SSP/AP CCR units. Potentiometric surface maps are provided in **Attachment A**.
- All 16 wells of the certified well network for both the SLF CCR unit and SSP/AP CCR units were sampled in February 2021 for the assessment monitoring event. Assessment monitoring data was statistically evaluated, and SSLs above the GWPS were observed at multiple monitoring wells as provided in **Table 4** and **Table 5**.
- All 16 wells of the certified well network were sampled in July 2021 for the assessment monitoring event. Assessment monitoring data was statistically evaluated, and SSLs above the GWPS were observed at multiple monitoring wells as provided in **Table 6** and **Table 7**.
- An expansion of the 2019 ASD for newly determined SSLs has been provided within **Section 6.2.1**.
- The status of the GCSES at the end of 2021 is assessment monitoring. The next semiannual sampling event is anticipated to occur in January 2022.

8 References

- Amec Foster Wheeler Environment & Infrastructure, Inc. *Groundwater Monitoring Plan.* Gibbons Creek Steam Electric Station, Grimes County, Texas. October 16, 2017.
- Barcelona et al, 1985. *Practical Guide for Ground-Water Sampling*. Robert S. Kerr Environmental Research Laboratory and the United States Environmental Protection Agency's Environmental Monitoring System Laboratory. November 1985.
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- EPA, 2015. 40 CFR parts 257; *Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities*; Final Rule, Federal Register Vol. 80, No. 74. Environmental Protection Agency. April 17, 2015.
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Appendix A

Monitoring Networks & Potentiometric Surface Maps



H

GIBBONS CREEK STEAM ELECTRIC STATION GC ENVIRONMENTAL REDEVELOPMENT GROUP SITE LOCATION MAP

2021 GROUNDWATER MONITORING & CORRECTIVE ACTION REPORT

FIGURE

DATE MAY 2021

FIGURE 1



HR

GIBBONS CREEK STEAM ELECTRIC STATION GC ENVIRONMENTAL REDEVELOPMENT GROUP **MONITORING NETWORK - SITE F LANDFILL**

FIGURE

DATE MAY 2021

FIGURE 2

SCALE IN FEET

LEGEND:

MONITORING WELL WASTE BOUNDARY

N

700

1400



H

GIBBONS CREEK STEAM ELECTRIC STATION GC ENVIRONMENTAL REDEVELOPMENT GROUP MONITORING NETWORK - ASH PONDS/SCRUBBER SLUDGE

DATE

MAY 2021

FIGURE 3

800

FIGURE

400 0 400 SCALE IN FEET

N

LEGEND:

MONITORING WELL POND BOUNDARIES



GIBBONS CREEK STEAM ELECTRIC STATION GC ENVIRONMENTAL REDEVELOPMENT GROUP SITE F LANDFILL - FEBRUARY 2021 CONTOUR MAP

H

	N N
600 C	<u> </u>
SCALE IN FEET	
EGEND:	
\otimes	MONITORING WELL
	WASTE BOUNDARY
	GROUNDWATER CONTOUR
	INFERRED GROUNDWATER CONTOUR
	FLOW DIRECTION

1. " * " DENOTES STATIC WATER LEVEL WAS NOT UTILIZED IN GENERATION OF GROUNDWATER CONTOUR MAP DUE TO ANOMALOUS VALUE COMPARED TO SURROUNDING WELLS.

DATE

MAY 2021

FIGURE

FIGURE 4


GIBBONS CREEK STEAM ELECTRIC STATION GC ENVIRONMENTAL REDEVELOPMENT GROUP **H** ASH PONDS/SCRUBBER SLUDGE - FEBRUARY 2021 CONTOUR MAP

DATE

MAY 2021

FIGURE

FIGURE 4

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GIBBONS CREEK STEAM ELECTRIC STATION GC ENVIRONMENTAL REDEVELOPMENT GROUP SITE F LANDFILL - JULY 2021 CONTOUR MAP

H

600	0	600	1200
SCALE IN FEE	Т		
<u>EGEND:</u>			
\bigotimes	MONITORIN	IG WELL	
	WASTE BO	UNDARY	
	GROUNDW	ATER CONTOUR	
	INFERRED	GROUNDWATER (CONTOUR
	FLOW DIRE	CTION	

1. " * " DENOTES STATIC WATER LEVEL WAS NOT UTILIZED IN GENERATION OF GROUNDWATER CONTOUR MAP DUE TO ANOMALOUS VALUE COMPARED TO SURROUNDING WELLS.

DATE

AUGUST 2021

FIGURE

FIGURE 6

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HDR

GIBBONS CREEK STEAM ELECTRIC STATION GC ENVIRONMENTAL REDEVELOPMENT GROUP ASH PONDS/SCRUBBER SLUDGE - JULY 2021 CONTOUR MAP

DATE

AUGUST 2021

FIGURE

FIGURE 7

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Appendix B

Field Forms

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Gibbons Creek Steam Electric Station Site Water Levels

FDS

Sampler: WILL NICHOLSON / JONNITHAN THOMPSON Date: 29 2021 - 2/10/2021 Equipment: CENTECH 100' Decontamination: Alconox with DI Rinse

	Water Level	Bottom of	Prevoius Water	Prevoius Water	
Well	below TOC	Casing	Level Below TOC (06/24/2019)	Level Below TOC (01/14/2019)	Notes
AP PZ-1	6.64	29.002.42	6.39	5.62	No Survey mark
AP PZ-2	20.46	43.21	17.19	17.15	J
AP PZ-3	6.00	43.09	4.59	4.65	
AP PZ-4	10.35	45.31	9.54	8.86	
AP MW-1	13.22	25,10	12.47	12.66	
AP MW-1D	14.83	43.02	14.14	14.1	
AP MW-2	1.51	20,20	6.88	6.65	
AP MW-3	11.39	43.43	10.64	10.68	
AP MW-4	13.52	52.81	13.1	13.16	
AP MW-5	12.09	43.15	11.27	11.38	
AP MW-6	16.04	48.34	16.19	16.33	
SSP/SP MW-1	8.34	43.22	7.32	7.8	
SSP MW-1	15.86	31.85	14.36	14.46	
SSP MW-2	23.84	47.08	21.18	21.82	
SSP MW-3	28.18	48.36	26.35	26.44	
SSP MW-4	24.65	51.58	23.87	23.82	
SFL MW-1	22.50	22.92	20.63	19.43	QUITE POSSIBLY DRY
SFL MW-2	33-311.57	23.84	10.11	10.81	
SFL MW-3	18.12	28.22	16.39	17	
SFL MW-4	15.68	43.05	14.21	14.6	
SFL MW-5	16.44	24.43	15.03	15.8	
SFL MW-6	18.59	23.15	17.31	18.49	
SFL MW-7	14,58	58.32	13.17	12.64	
MNW-11	20.27	47.75	20.87	19.45	
MNW-15	6.22	24	4.02	3.81	
MNW-16	14.12	39.33	12.49	11.94	
MNW-17	33.5	50.30	43.85	34.82	
MNW-18	8.36	51.5	8.37	5.63	

	Low Str	ess Groundwater Sampling	g Data Sheet	WILL NICHOLSON
	Facility Name: Gibbon	s Creek Station	Sampler Name(s):	MOZEMONT WANTANOL
	MW Identification: 🔊	PMW-1D	Date/Time: 7	121 13830
	Sample Number:		PID Readings: N/A	
	Weather Conditions:	42° F MIST	8 MAH NNW	
	Wellhead Inspection:	NO COMMENT		
Visual Inspection:				
1. Survey Mark Present:		(Yes / No	5. Standing/Ponded Water:	Yes /No
2. Collision/Vandalism Damage:		Yes / No	6. Frost Heaving:	Yes / No
3. Casing Degradation:		Yes / No	7. Lock in Place:	(Yes) / No
4. Well Subsidence:		Yes / No		
Ground Water Measurements/P	urge data:			
1. Static Water Level (±0.01 feet [ft.])	14.83	7. Purge Rate (mL/min)	250
2. Intake Depth (±0.01 ft.)		38	7. Water Level Measuring Equip.	GEOTECH
3. Bottom of casing (±0.01 ft.)		43.02	8. Purge Equipment Used	BLADDER
4. Casing Diameter (inches)		2	9. Dedicated? (Yes/No)	Yes / No
5. Actual Volume of Water Purgeo	d (mL)	4500	10. Immiscible layer observed	Yes / No
6. Purge Water Characteristics:			11. Thickness of immiscible layer	NA
Odor NONE	Turbidity	CLEAR	12. Drive Gas (Air/Nitrogen)	(AIR) NITROGEN / N/A
Color CL9AR				

Time	Volume Purged (mL)	Temp (°C)	Conductiv	ity (μs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	рН	Drawdown	N	otes
13:35	-	17.7	141	Ś	144.1	4.39	2.96	6.34	15.09		
13:38	750	19.9	143	7	139.5	0.52	1.82	6.19	15.15		
13:41	1500	22.0	1448		137.4	8.17	1.01	6.16	15.20		
13:44	2250	20.1	1451		136.5	0.08	0.75	6.14	15.20		
13:47	3000	20.0	1451		136.2	0.03	0.60	6.14	15.15		
13:50	3750	20.0	1451		135.7	0.02	0.62	6.13	15.17		
13:53	4560	20.1	1453		175.2	0.00	0.45	6.13	15.17		
1. Well evacu 2. Sample Filt	ated to dryness? ered?	Yes /	G	7. Time to r 8. Sample T	echarge (min): ime:	N/A		9109. Decon	tamination Pi	rocedures: DI Rinse	
3. Sampling E	quip. Used	BLADN	AA.	9: Paramete	er/Container/Pro	es.		11. Instrument type: YSI ProDSS			
4. Drive Gas (Air/Nitrogen)	AIR /NITRO	GEN/ N/A		See Attached C	ос		Calibration D	Date:	L	АВ
5. Sample Rat	e (mL/min)	BLAD	DAR				-	Calibration T	ime:	L	АВ
6. Sample App	pearance:								Stnd.	Reading	Adjust.
	Turbidity	LUGAR		9. Other Info	ormation:			pН			

Color

190

NON

Odor

E

Conduct. ORP D.O

рΗ See attached Lab Form for

Calibration Data

Turbidity

	Low Stress Groundwater Samplin	g Data Sheet	VILL NICHOLSON
	Facility Name: Gibbons Creek Station	Sampler Name(s):	WATHAN THOMPSON
and the second s	MW Identification: AP MW-3	Date/Time: 211	0/21 12:40
	Sample Number: 13	PID Readings: N/A	
	Weather Conditions: 41* F CLOUNY	9 MPH NNW	
	Wellhead Inspection: NO COMMANT		
Visual Inspection:			
1. Survey Mark Present:	(Yes) / No	5. Standing/Ponded Water:	Ves /No
2. Collision/Vandalism Damage:	Yes / (NO	6. Frost Heaving:	Yes / No
3. Casing Degradation:	Yes / No	7. Lock in Place:	(Yes)/ No
4. Well Subsidence:	Yes / No		
Ground Water Measurements/P	urge data:		
1. Static Water Level (±0.01 feet [ft.]) 11,39	7. Purge Rate (mL/min)	250
2. Intake Depth (±0.01 ft.)	38	7. Water Level Measuring Equip.	GEOTECH
3. Bottom of casing (±0.01 ft.)	45.43	8. Purge Equipment Used	RLADDER
4. Casing Diameter (inches)	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	9. Dedicated? (Yes/No)	Yes / NO
5. Actual Volume of Water Purger	d (mL) 4500	10. Immiscible layer observed	Yes / No
6. Purge Water Characteristics:		11. Thickness of immiscible layer	NA
Odor None	Turbidity Clear	12. Drive Gas (Air/Nitrogen)	(AIR) NITROGEN / N/A
Color Clane		7	

Time	Volume Purged (mL)	Temp (°C)	Conductiv	/ity (μs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	рН	Drawdown	N	otes
12:46		162	1518		63.3	6.18	20.27	5.70	11.62	1	
17:49	750	18.5	14.69	1468	93.4	2.43	29.70	5.32	11.58		
12:52	1500	19.1	1466		116.8	0.70	18.86	6.24	11.64		
12:55	2250	19.3	1469		138.7	0.20	14.68	5.21	11.69		
12:58	3000	19.4	1471		150.1	0.14	12.62	5.20	11.70		
13:01	37.00	194	1471		158.1	0.07	1.54	5.19	11.70		
13:04	4500	19.3	1473		166.1	0.06	3.74	5.18	11.69		
-											
1 Wellevacu	ated to downess?	Voc /	62	7 Time to r	ocharga (min):	NIA		0100 Decen	entiration D		
2. Sample Filt	ered?	Yes /	Ra	8 Sample Ti	ime.	12:05	_	5105. Decom		Ocedures:	
3. Sampling E	auip. Used	Grees	Herle	9: Paramete	r/Container/Pr	<u>\};~}</u>	- 3	11 Instrume	at type: VSI P		
4. Drive Gas (Air/Nitrogen)	AIR /NITRO	GEN/ N/A		See Attached C	oc		Calibration D	ate:	10033	AB
5. Sample Rat	e (mL/min)	256	7				-	Calibration T	ime:		AB
6. Sample App	pearance:								Stnd.	Reading	Adjust.
	Turbidity	Clear		9. Other Info	ormation:			pН			
	Color	Clear						Conduct.			
	Odor	None					_	ORP	See atta	ched Lab F	orm for
								D.0	Cal	ibration Da	ata
								Turbidity			

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	Low Str	ess Groundwater Sampl	ing Data Sheet	WILL NICHOLSON				
	Facility Name: Gibbon	s Creek Station	Sampler Name(s):	JONATHAN THOMPSON				
	MW Identification: 🖡	P MUS-4	Date/Time: 2(1	0/21 \$ 15:00				
	Sample Number:	9	PID Readings: N/A					
	Weather Conditions:	42° F F06	10 NNW					
	Wellhead Inspection:	NO COMMENT						
Visual Inspection:		-						
1. Survey Mark Present:		Tes / No	5. Standing/Ponded Water:	Yes / N				
2. Collision/Vandalism Damage:		Yes / MO	6. Frost Heaving:	Yes / Ro				
3. Casing Degradation:		Yes / No	7. Lock in Place:	Mes / No				
4. Well Subsidence:		Yes / No						
Ground Water Measurements/Pu	urge data:							
1. Static Water Level (±0.01 feet [f	ft.])	13.52	7. Purge Rate (mL/min)	250				
2. Intake Depth (±0.01 ft.)		48.0	7. Water Level Measuring Equip.	Gertech				
3. Bottom of casing (±0.01 ft.)		52.81	8. Purge Equipment Used	Rladder				
4. Casing Diameter (inches)		2	9. Dedicated? (Yes/No)	Yes / No				
5. Actual Volume of Water Purged	(mL)	4500	10. Immiscible layer observed	Yes / Co				
6. Purge Water Characteristics:			11. Thickness of immiscible layer	aNA				
Odor Nohe	Turbidity	Clear	12. Drive Gas (Air/Nitrogen)	AIR NITROGEN / N/A				
Color Clean								

Time	Volume Purged (mL)	Temp (°C)	Conductiv	vity (µs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	рН	Drawdown	Notes	
15:08		15.1	385	9	247.6	4.39	3.50	5.74	13.71		
15:11	750	16.0	387	4	214.7	4.28	3.62	5.79	13.86	<u> </u>	
15 14	1500	17.2	3918	3918		0.56	3.83	5.74	13.95		
15:17	2250	17.1	392	2	173.2	0.16	1.80	5.74	14.04		
15:20	3000	16.7	3933		160.5	0.05	3.24	5.74	14.12	1	
15:23	3750	17.0	3913		152.1	0.01	1.97	574	14.22		
15:26	4500	17.1	3923		148.9	0.00	1.72	5.74	14.25		
											/
1 Well evacua	ated to domass?	Voc /	6	7 Time to m		A 11A		0100 0			
2 Sample Filt	ared?	Voc /		7. Time to re	8 Sample Time:			Alconov /DL Disco			
3 Sampling E	nuin Used	1es /	No	o. sample n	me:	12.20			Alconox/I	JI RINSE	
A Drive Cas //	(uip. Useu	AIR /NITRO	CEN/N/A	9: Paramete	r/Container/Pre	25.		11. Instrume	nt type: YSI P	roDSS	
F. Comple Date	a (ml (min)		SLIN/ N/A		See Attached Lo	JC		Calibration D	Date:		AB
5. Sample Rati	e (mL/min)							Calibration T	ime:	L	AB
o. sample App	earance:	1	5						Stnd.	Reading	<u>Adjust.</u>
	lurbidity	Clear		9. Other Info	ormation:			рН			
(Color	Clean						Conduct.	See atta	ched Lab E	orm for
	Odor	>light Sc	lter					ORP	Cal	ibration Da	ita
								D.O	Cal	Bration Da	
								Turbidity			

EQ-1 TAKEN HERE AT 16:00

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	DIG
Facility Name: Gibbons Creek Station Sampler Name(s):	Thomason
MW Identification: AP MW-5 Date/Time: 2-10-21 14:1	13
Sample Number: 15 PID Readings: N/A	
Weather Conditions: 42 F. Cloudy, 10 mgh NNW	
Wellhead Inspection: No Completent.	
Visual Inspection:	
1. Survey Mark Present: Yes / No 5. Standing/Ponded Water: Yes / K	D
2. Collision/Vandalism Damage: Yes / 100 6. Frost Heaving: Yes / 100	0
3. Casing Degradation: Yes / No 7. Lock in Place: Mes / N	10
4. Well Subsidence: Yes / No	
Ground Water Measurements/Purge data:	
1. Static Water Level (±0.01 feet [ft.]) 12.09 7. Purge Rate (mL/min) 2.50	
2. Intake Depth (±0.01 ft.) 39 7. Water Level Measuring Equip.	
3. Bottom of casing (±0.01 ft.) 43./5 8. Purge Equipment Used	
4. Casing Diameter (inches) Z 9. Dedicated? (Yes/No) Yes / (N	0
5. Actual Volume of Water Purged (mL) 4500 10. Immiscible layer observed Yes / M	3
6. Purge Water Characteristics: 11. Thickness of immiscible layer	
Odor //one Turbidity Clear 12. Drive Gas (Air/Nitrogen) AB/ NITROGE	N / N/A
Color <u>Clear</u>	

Time	Volume Purged (mL)	Temp (°C)	Conductiv	/ity (µs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	рН	Drawdown	N	otes
14:20		14.8	206	0	383.4	5.48	1.60	3.42	12.34	İ	
14:23	750	18.1	201	0	332.4	3.07	6.51	3.78	12.35		
14:26	1500	18.9	280	5	300.2	0.33	60.02	3.81	12.36		
14:29	2250	18.9	225	7	294.3	0.18	70.60	3.79	12.39		
14:32	3000	19.1	3035		310.7	0.10	65.06	3.70	12.45		
14:35	3750	18.9	3152		310.5	0.07	6670	3.69	12.43		
14:38	4500	18.8	3/96		310.2	0.04	64.15	3.68	12.39		
						-					
			0				-				
1. Well evacu	ated to dryness?	Yes /	No	7. Time to re	echarge (min):	NA		9109. Decon	tamination P	ocedures:	
2. Sample Filt	ered?	Yes /	Nd	8. Sample Ti	me:	14:40			Alconox/I	Ol Rinse	
3. Sampling E	quip. Used	BUAR	SOR	9: Paramete	r/Container/Pre	es.		11. Instrume	nt type: YSI P	roDSS	
4. Drive Gas (/	Air/Nitrogen)	(AIR) NITRO	GEN/ N/A		See Attached Co	oc		Calibration D	ate:	L	AB
5. Sample Rat	e (mL/min)	- 2.51	2					Calibration T	ime:	L	AB
6. Sample App	pearance:					b.			Stnd.	Reading	Adjust.
	Turbidity	Cloup	1×	9. Other Info	ormation:			рН			
	Color	Clear	/					Conduct.	Cara atta		
	Odor	Non	e					ORP	See atta	ibration Da	9rm1 10r to
								D.O	Cal		10

Turbidity_

	Low Str	ess Groui	ndwater Sampling D	ata Sheet		WILL N	JICHOLSON	د
	Facility Name: Gibbon	s Creek Sta	ation	Samp	ler Name(s)	- JONAT	HAN THON	1PSON
	MW Identification: 5	FL M	W-2	Date,	/Time:	219/21	14:15	
	Sample Number: 5			PID R	eadings: N	I/A		
	Weather Conditions:	510 1	= CLOUDY	9 MPH	NNU	2		
	Wellhead Inspection:	NO	COMMENT					
Visual Inspection:								
1. Survey Mark Present:		(Yes)	No	5. Standing/Pond	ed Water:	Ye	NO INO	
2. Collision/Vandalism Damage:		Yes /	NO	6. Frost Heaving:		Ye		
3. Casing Degradation:		Yes /	6	7. Lock in Place:		Ne	/ No	
4. Well Subsidence:		Yes /	NO					
Ground Water Measurements/Pe	urge data:							
1. Static Water Level (±0.01 feet [ft.])	11.5	7	. Purge Rate (mL/n	nin)		250	
2. Intake Depth (±0.01 ft.)		26)	. Water Level Mea	suring Equip	B	OTECH	
3. Bottom of casing (±0.01 ft.)		23.8	9	. Purge Equipment	Used	R	PISTALTIC	
4. Casing Diameter (inches)		7	<u>c</u>). Dedicated? (Yes/I	No)	Yes	/ (No)	
5. Actual Volume of Water Purgeo	l (mL)	525	0	.0. Immiscible layer	observed	Yes	100	
6. Purge Water Characteristics:). 	1	1. Thickness of imr	niscible laye	er 🔨	IA	
Odor None	Turbidity	Cloup	L 1	.2. Drive Gas (Air/N	itrogen)	AIR / NIT	ROGEN /N/A	
Color Clear						-		

Time	Volume Purged (mL)	Temp (°C)	Conductiv	ity (μs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pН	Drawdown	N	otes
1422	~	18.5	723	9	273.4	1.91	73.45	6.58	12.3	En Mi	WFC.
1431	2250	19.9	728	54	234.9	1.50	33.49	6.58	13.24	1	
1434	2000	20.3	730		231.4	0.37	16.24	6.56	13.49		
1437	3750	20.1	730	?	228.6	0.30	11.01	6.56	13.62		
1440	4500	19.9	7319	7	226.1	0.24	7.71	10.55	13.79		
1443	5250	19.8	732	7	224.0	0.19	5.54	6.55	13.83		
-1446-	-6000-										
1. Well evacua	ated to dryness?	Yes /	No	7. Time to re	echarge (min):	NA		9109 Decon	tamination Pr	ocoduroci	
2. Sample Filt	ered?	Yes /	No	8. Sample Ti	ime:	1445		5105. Decon	Alconox/E) Rinse	
3. Sampling Ed	quip. Used	George	h	9: Paramete	r/Container/Pre	es.	_	11. Instrume	nt type: VSI P	roDSS	_
4. Drive Gas (/	Air/Nitrogen)	AIR /NITRO	GEN/CN/A	9	See Attached C	DC		Calibration D	late:	10000	AR
5. Sample Rat	e (mL/min)							Calibration T	ime:		AR
6. Sample App	earance:			-					Stnd	Reading	Adjust
	Turbidity	CLEA	R	9. Other Info	ormation:			рН	<u>otriu.</u>	neoung	Mujust

Turbidity Color Odor

CCEAR

NONE

ORP **Calibration Data** D.O Turbidity

See attached Lab Form for

Conduct.

	Low Str	ess Groundwate	er Samplin	g Data Sheet		WILLN) IC HOLSON	5
	Facility Name: Gibbon	s Creek Station			Sampler Name(s):	JONATI	IAN THO	MPSON
1 mg	MW Identification:	FL MW-	3		Date/Time: 71	10/21 C	710	
	Sample Number: 🕱				PID Readings: N/	Ϋ́Α		
	Weather Conditions:	43 F	F06	8 MPH	NNW			2
	Wellhead Inspection:	NO COM	MENT					
Visual Inspection:								
1. Survey Mark Present:		(Yes / No		5. Standin	g/Ponded Water:	Yes	/ (No)	
2. Collision/Vandalism Damage:		Yes / No		6. Frost He	aving:	Yes	100	
3. Casing Degradation:		Yes / No		7. Lock in I	Place:	res	/ No	
4. Well Subsidence:		Yes / No						
Ground Water Measurements/P	urge data:							
1. Static Water Level (±0.01 feet	[ft.])	18,12		7. Purge Rate	e (mL/min)	29	10	
2. Intake Depth (±0.01 ft.)		25		7. Water Lev	el Measuring Equip.	620	STECH	
3. Bottom of casing (±0.01 ft.)		78.22		8. Purge Equ	ipment Used	-Greot	ech Der	ISTALTIC
4. Casing Diameter (inches)		Z		9. Dedicated	? (Yes/No)	Yes	1 No	
5. Actual Volume of Water Purge	d (mL)	4500		10. Immiscib	le layer observed	Yes	1 (NO)	
6. Purge Water Characteristics:				11. Thickness	s of immiscible laye	N	+	
Odor None	Turbidity	Clean		12. Drive Gas	s (Air/Nitrogen)	AIR / NITR	OGEN N/A	
Color Clear	2					:		

Time	Volume Purged (mL)	Temp (°C)	Conductiv	/ity (μs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	рН	Drawdown	N	otes
17:17		18.3	527	0	178.9	0.38	0.0	3.87	18.43		
07:20	750	18.8	526	3	226.1	0.10	0.19	3.82	18.52		
07:23	1500	18.9	526	7	271,Z	0.05	5.36	5.81	18.54		
07:26	2250	191	5277	7	306.0	0.00	1.11	3.80	18.56		
07:29	3000	18.6	5271		321.4	0.01	1.64	3.79	18.57		
07:32	3750	18.9	5292		3329	0.01	0.97	3.10	18,57		
07:35	4500	18.7	5292		335.6	0.00	1.01	5.79	18.57		
1. Well evacuation	ated to dryness?	Yes /	6	7. Time to r	echarge (min):	NA		9109. Decon	tamination P	rocedures:	
2. Sample Filt	ered?	Yes /	(No)	8. Sample T	ime:	07:40)		Alconox/	DI Rinse	
3. Sampling Ed	quip. Used	PRISTAL	TIC	9: Paramete	er/Container/Pro	es.		11. Instrume	nt type: YSI F	roDSS	
4. Drive Gas (/	Air/Nitrogen)	AIR /NITRO	GEN/ N/A		See Attached C	oc		Calibration D	ate:	L	AB
5. Sample Rat	e (mL/min)	250						Calibration T	ime:	L	AB
6. Sample App	pearance:								Stnd.	Reading	Adjust.
	Turbidity	CLEA	R	9. Other Inf	ormation:			pН			
	Color	CLEA	R					Conduct.	_		
	Odor	NON	9					ORP	See atta	ched Lab Fo	orm for
									Cal	ipration Da	ta

D.O Turbidity

	Low St	ress Groundwater	r Sampling Data Sheet		WILL	NICHOLS	51
	Facility Name: Gibbor	s Creek Station		Sampler Name	A sace : (2)	THAN TH	MPSen)
	MW Identification:	Date/Time:	2/10/21	08 00			
	Sample Number: 9			PID Readings	: N/A		
	Weather Conditions:	42°F F	OG 8 MPH	NU			
	Wellhead Inspection:	NO COM	MENT				
Visual Inspection:							
1. Survey Mark Present:		Yes / No	5. Standin	g/Ponded Wate	r: a	Ves / RD	
2. Collision/Vandalism Damage:		Yes / No	6. Frost He	aving:		les / (No)	
3. Casing Degradation:		Yes / No	7. Lock in I	Place:		res / No	
4. Well Subsidence:		Yes / No					
Ground Water Measurements/P	urge data:						
1. Static Water Level (±0.01 feet [[ft.])	15.68	7. Purge Rate	e (mL/min)		250	
2. Intake Depth (±0.01 ft.)		37	7. Water Lev	el Measuring Eg	uip. Ge	ATECH	
3. Bottom of casing (±0.01 ft.)		43.05	8. Purge Equ	ipment Used	RU	ADOGR	
4. Casing Diameter (inches)		7	9. Dedicated	? (Yes/No)	_00	(es / No)	
5. Actual Volume of Water Purgeo	d (mL)	4500	10. Immiscib	le layer observe	d	(es / No	
6. Purge Water Characteristics:			11. Thickness	s of immiscible la	aver	MA	
Odor None	Turbidity	Clean	12. Drive Gas	(Air/Nitrogen)	(AIR)	ITROGEN / N/A	
Color Clean	-				\sim		

Time	Volume Purged (mL)	Temp (°C)	Conducti	vity (µs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	рН	Drawdowr	n N	otes
09:08		16.8	47	73	221.0	6.51	2.24	667	1618		
08:11	750	18.8	615	Ż	62.5	0.91	9.69	6.47	166		
08:14	1500	18.7	619	7	28.3	0.33	14.71	6.46	16.8		
08:17	2250	18.6	621	9	4.3	0.13	2.44	6.45	16.89		
08:20	3000	18.5	635	4	-16.5	0.04	0.00	6.45	16.95		
08:23	3750	18.6	630	0	-27.3	0.01	0.00	6.45	16.98		
08:20	4500	18.6	637	/	.31.8	0.01	0.34	6.45	16.98		
1. Well evacu	ated to dryness?	Yes /	No	7. Time to re	echarge (min):	NA		9109. Decon	L tamination P	Procedures:	
2. Sample Filt	ered?	Yes /	(NO)	8. Sample Ti	me:	08:30			Alconox/	DI Rinse	
3. Sampling E	quip. Used	BLADA	ER	9: Paramete	r/Container/Pro	es.		11. Instrume	nt type: YSI	ProDSS	
4. Drive Gas (/	Air/Nitrogen)	AIR NITRO	GEN/ N/A	S	ee Attached C	oc		Calibration D	ate:		AB
5. Sample Rat	e (mL/min)	25	0					Calibration T	ime:	L	AB
6. Sample App	earance:	0.1.0							Stnd.	Reading	<u>Adjust.</u>
	Turbidity	CLEA	R	9. Other Info	ormation:			рН			
	Color	CL9A	R					Conduct.	Con att		
	Odor	SULGH	Τ					ORP	See atta	libration Da	orm tor
		SULF	EUR					D.0	Ca	noration Da	La

D.0 Turbidity

	-	Low Stress Groundwa	ater Sampling	et	U	sice n	IC HOLSO	ere	
	Facility Nan	ne: Gibbons Creek Station			Sampler	Name(s):	TRANOG	HAN T	Hompson
	MW Identif	ication: SFL MW	3-5		Date/Tir	ne: 21a	21 1	3:25	
		PID Read	dings: N/A	\$					
	9 N	wa							
	Wellhead In	spection: NO COM	IMENT						
Visual Inspection:									
1. Survey Mark Present:		(Yes / No		5. Stand	ling/Ponded	Water:	Yes	IND	
2. Collision/Vandalism Damage:		Yes / No	5	6. Frost	Heaving:		Yes	(NO)	
3. Casing Degradation:		Yes / No		7. Lock	n Place:		Yes	/ No	
4. Well Subsidence:		Yes / No	2						
Ground Water Measurements/P	urge data:	15.0							
1. Static Water Level (±0.01 feet	[ft.])	10:10	0.44	7. Purge R	ate (mL/min)		250		
2. Intake Depth (±0.01 ft.)		20	• •** 2	7. Water L	evel Measuri	ng Equip.	(seoto	el	
3. Bottom of casing (±0.01 ft.)		24.43	-	8. Purge E	quipment Us	ed	Peris	talsi	
4. Casing Diameter (inches)		2	-	9. Dedicat	ed? (Yes/No)		Yes	(NO)	
S. Actual Volume of Water Purge	d (mL)	(0000	7	10. Immise	ible layer ob	served	Yes	INO	
6. Purge Water Characteristics:			•	11. Thickn	ess of immiso	cible layer	1	1	
Odor None	Turbidity	Clean	_	12. Drive (Gas (Air/Nitro	ogen)	AIR / NITR	OGEN INTA)
Color Clean	-		-				3. 	-02	
	19. 19								
Time Volume Purged	Temp	Conductivity (us/cm)	ORP	D.O.	Turbidity	mH	Draudau		-
(mL)	(°C)		(mV)	(mg/L)	(NTU)	рн	Drawdow		otes
13:30 -	19.7	8876	298.2	1.89	3.72	4.75	17.09		
13:37 750	21.3	8829	319.5	0.94	9.45	4.80	17.75		
13:36 1500	21.3	8811	327.7	2.91	11.01	4.78	18.20		
13:39 2250	21.3	8803	320.9	0.79	12.12	4.76	12.49		

1. Well	evacuated	to dr	yness?	

3000

\$750

4500

5280

6000

2. Sample Filtered?

1342

1345

1348

1351

1354

3. Sampling Equip. Used

4. Drive Gas (Air/Nitrogen)

S. Sample Rate (mL/min)

6. Sample Appearance:

Turbidity Color Odor

NA 7. Time to recharge (min): 13:55

8. Sample Time:

8819

8815

8844

8940

P829

21.2

21. 5

21.4

21.4

21.4

Yes / Ro

Yes / No

AIR /NITROGEN/ MA

250

Clear Clear

None

9: Parameter/Container/Pres.

See Attached COC

338.2

347.7

354

353.

352.0

0.58

0.42

0.34

0.19

0.25

18.72

17.93

10.67

10.59

11.01

4.73

4.70

4.68

4.65

4.64

9. Other Information:

9109. Decon	tamination Pi	ocedures:	
	Alconox/I	Ol Rinse	
11. Instrume	nt type: YSI P	roDSS	
Calibration D	ate:	L	АВ
Calibration T	ime:	L	АВ
	<u>Stnd.</u>	Reading	Adjust.
рН			
Conduct.	See atta	ched Lab E	arm far
ORP	Cal	ibration Da	ta
D.0	Cal		i a
Turbidity			

18.90 18.90 19.02

17.27

19.42



	Low Stress Groundwater Samplin	g Data Sheet	WILL NICHOLSON			
	Facility Name: Gibbons Creek Station	Sampler Name(s):	JONATHAN THOMPSON			
III IIII IIIII	MW Identification: SPL MUN-Le	Date/Time: 2/9/21 12:00				
	Sample Number: 3	PID Readings: N/	Á Á			
	Weather Conditions: 50° F. CLOUDY	9 MPH NW.				
	Wellhead Inspection: NO COMMENT					
Visual Inspection:	2					
1. Survey Mark Present:	(Yes) No	5. Standing/Ponded Water:	Yes / No			
2. Collision/Vandalism Damage:	Yes / No	6. Frost Heaving:	Yes / No			
3. Casing Degradation:	Yes / No	7. Lock in Place:	(Yes)/ No			
4. Well Subsidence:	Yes / No					
Ground Water Measurements/P	urge data:					
1. Static Water Level (±0.01 feet [ft.]) \8;59	7. Purge Rate (mL/min)	750			
2. Intake Depth (±0.01 ft.)	20	7. Water Level Measuring Equip.	GEOTECH			
3. Bottom of casing (±0.01 ft.)	23.15	8. Purge Equipment Used	JT & Perictaltic			
4. Casing Diameter (inches)	2	9. Dedicated? (Yes/No)	Yes No			
5. Actual Volume of Water Purgeo	(mL) 5250	10. Immiscible layer observed	Yes / No			
6. Purge Water Characteristics:	2	11. Thickness of immiscible laye	NA			
Odor None	Turbidity Clear	12. Drive Gas (Air/Nitrogen)	AIR NITROGEN /N/A			
Color Clear			0			

Time	Volume Purged (mL)	Temp (°C)	Conductiv	ty (μs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	рН	Drawdown	N	otes
12:22		18.1	9998	1	184.2	1.74	12.25	4.07	9.109	P	
12:25	750	21.0	1044	6	360.2	0.62	1.39	3.00	19.53		
12:28	1500	21.3	1044	4	389.5	2.71	8.51	3.80	19.91		
12:31	2250	21.0	1047	9	420.3	1.61	8.16	3:80	20.10		
12:34	3000	21.5	1944	0	431.3	0.65	41.0	3.50	20.41		
12:37	3750	21.4	1946	/	433.9	0.70	43.0	3.81	20.75		
12:40	4500	20.7	1047	5	438.4	0.46	43.3	3.81	2110		
12:43	5250	20.6	10492		435.5	0.25	41.5	3.82	21.59		
					- X-		× .				
1. Well evacu	ated to dryness?	Yes	No	7. Time to re	echarge (min):	1680		9109. Decon	tamination F	rocedures:	2
2. Sample Filt	tered?	Yes /	NO	8. Sample Ti	me:	12:45	<u> </u>		Alconox/	DI Rinse	
3. Sampling E	quip. Used	PERIST	ALTIC	9: Paramete	r/Container/Pr	es.		11. Instrume	nt type: YSI	ProDSS	
4. Drive Gas (Air/Nitrogen)	AIR /NITRO	GEN/MA	9	See Attached C	ос		Calibration D	ate:		AB
5. Sample Rat	te (mL/min)	250	>					Calibration T	ime:	L	AB
6. Sample Ap	pearance:								Stnd.	Reading	Adjust.
	Turbidity	CLOUR	Ж	9. Other Info	ormation:			рН			
	Color	SUGHT	TAN					Conduct.	•		
	Odor	NON	2					ORP	See att	ached Lab F	orm tor
								D.O	La	inpration Da	ld
								Turbidity			

ан салан 1973 — ж. 19

	Low St	ress Groundwater Sampl	ling Data Sheet	WILL NICHOLSON
	Facility Name: Gibbon	s Creek Station	Sampler Name(s	DONATHAN THOMPSON
	MW Identification:	FL MW-7	Date/Time: 2	10/21 06:00
	Sample Number:	ŀ	PID Readings:	N/A
	Weather Conditions:	43° F F06	9 MPH NW	
-	Wellhead Inspection:	NO COMMENT		
Visual Inspection:				
1. Survey Mark Present:		(Yes) / No	5. Standing/Ponded Water:	Yes / (No)
2. Collision/Vandalism Damage:		Yes / (No)	6. Frost Heaving:	Yes / No
3. Casing Degradation:		Yes / No	7. Lock in Place:	Yes V No
4. Well Subsidence:		Yes INO		
Ground Water Measurements/P	urge data:			
1. Static Water Level (±0.01 feet [ft.])	14,58	7. Purge Rate (mL/min)	250
2. Intake Depth (±0.01 ft.)		50	7. Water Level Measuring Equ	IP. GEOTECH
3. Bottom of casing (±0.01 ft.)		58.32	8. Purge Equipment Used	BLADDER
4. Casing Diameter (inches)		2	9. Dedicated? (Yes/No)	Yes / No
5. Actual Volume of Water Purgeo	l (mL)	4500	10. Immiscible layer observed	Yes / No
6. Purge Water Characteristics:			11. Thickness of immiscible lay	er NA
Odor None	Turbidity	Cler	12. Drive Gas (Air/Nitrogen)	AIB/ NITROGEN / N/A
Color Clean				

Time	Volume Purged (mL)	Temp (°C)	Conducti	/ity (μs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	рН	Drawdown	N	otes
06:18	-	19.1	556	4	70 74.1	2.71	4.51	6.75	15.18		
06:21	750	19.5	5607)	26.7	0,70	4.28	6.73	15.30		
26:24	1500	19.4	5606		-0.3	0.32	3.97	6.72	15.35		
06:27	2250	19.3	5652		-19.8	0.20	2.88	6,70	15.90		
06:30	3000	12.3	5671		-24.1	0.14	2.44	6.65	15.41		
06:33	\$750	19.5	5678		-25.6	0.12	2.27	6.65	15.41		
06:36	4500	19.5	5680		-21.6	0.10	2.43	6.64	19.41		
										-	
1. Well evacu	ated to dryness?	Ves /	NR	7 Time to r	echarge (min):	ALA		9109 Decont	tamination P	rocodurasi	
2. Sample Filt	ered?	Yes /	NO	8. Sample Ti	ime:	10:46		5105. Decom	Alconox/	DI Rinse	
3. Sampling E	quip. Used	Geof	ul	9: Paramete	r/Container/Pro	es.	_	11. Instrume	nt type: YSI F	roDSS	
4. Drive Gas (Air/Nitrogen)	AR /NITRO	GEN/ N/A		See Attached C	DC		Calibration D	ate:		AB
5. Sample Rat	te (mL/min)	250						Calibration T	ime:	L	AB
6. Sample Ap	pearance:								Stnd.	Reading	Adjust.
	Turbidity	Clew	<u>ب</u>	9. Other Info	ormation:			рH			
	Color	Clear						Conduct.	_		
	Odor	None						ORP	See atta	ched Lab F	orm for
								D.0	Ca	ipration Da	Ta
								Turbidity			

Well became tight at 50 A, so, Set intake depth to 50.

Low Stress Groundwater Sampling Data Sheet

Īī

	Low Str	ess Groundwater Sampli	ng Data Sheet	1
	Facility Name: Gibbon	s Creek Station	Sampler Name(s):	WILL NICHULSCH JOHNATHAN
	MW Identification: S	SP AP MW-1	Date/Time: 7 9	2021 09:30 THOMPSON
	Sample Number: \		PID Readings: N/A	N D
	Weather Conditions:	49° F FOGGY	II MPH NW	
	Wellhead Inspection:	110 COMME	NT	
Visual Inspection:				
1. Survey Mark Present:		(Yes)/ No	5. Standing/Ponded Water:	Yes (No
2. Collision/Vandalism Damage:		Yes / No	6. Frost Heaving:	Yes / No
3. Casing Degradation:		Yes / No	7. Lock in Place:	(Yes)/No
4. Well Subsidence:		Yes / No		
Ground Water Measurements/P	urge data:			
1. Static Water Level (±0.01 feet [ft.])	8.34	7. Purge Rate (mL/min)	300
2. Intake Depth (±0.01 ft.)		40	7. Water Level Measuring Equip.	(morach
3. Bottom of casing (±0.01 ft.)		43.22	8. Purge Equipment Used	BLADDER
4. Casing Diameter (inches)		2	9. Dedicated? (Yes/No)	Yes / No
5. Actual Volume of Water Purgeo	d (mL)	9900	10. Immiscible layer observed	Yes / No
6. Purge Water Characteristics:			11. Thickness of immiscible layer	NA
Odor NONE	Turbidity	CLEAR	12. Drive Gas (Air/Nitrogen)	AIR NITROGEN / N/A
Color CLEAR				

(*************************************	Volume Purged	Temp			I DO	Turkiditu	1	1	Ţ]
Time	(mi)		Conductivity (µs/cm)				рН	Drawdown	Notes
08:55		20.3	7791	141.10	1.01	39.03	5.77	9.55	
08:58	900	70.0	7392	120.60	0.35	42.11	SAU	9.91	
09:01	1800	19.5	7387	105.7	0,18	81.31	5.76	10.08	
09:04	2700	19.9	738/	98.8	0.14	175.60	5.22	10.35	
09:07	3600	70,1	7388	94.0	0.07	190.1	5.77	1054	ENOTIED FLOU
09:10	4500	19.5	7391	84.3	0.09	195.3	5.76	11.73	Ceck
09:13	5400	19.9	7383	85.0	0.07	181.3	5.78	11.31	
09:16	6300	19.9	7384	83,5	0.06	179.1	5.77	11.36	
09:17	7200	19.9	7387	82.2	0.05	157.3	5.77	11.42	
09:22	6100	19.9	7387	73.9	0.04	151.1	5.76	11.45	
09:25	9000	19,9	7388	72.7	0.04	140.3	5.77	11,51	
09:28	9900	20.0	7389	71.1	0.04	141.7	5.77	11.60	
1. Well evacu	ated to dryness?	Yes /(No 7. Time to	recharge (min):	NA		9109. Decon	tamination Pr	ocedures:
2. Sample Filt	ered?	Yes /	No 8. Sample	Time:	09:30			Alconox/D	DI Rinse
3. Sampling E	quip. Used	BLAN	BLANSER 9: Paramete		er/Container/Pres.		11. Instrument type: YSI		roDSS
4. Drive Gas (Air/Nitrogen)	AIRYNITROG	SEN/ N/A	See Attached C	oc		Calibration Date:		LAB
5. Sample Rate (mL/min) 3		300)				Calibration T	ïme:	LAB
6. Sample App	pearance:							Stnd.	Reading Adjust.
Turbidity		CLOUDY 9. Other Info		nformation:			pН		
	Color	BROW	N/TAN				Conduct.		
	Odor	NON	<u>ن</u>				ORP	See atta	ched Lab Form for
							Calibration Da		

J.U Turbidity_____

	Low Str	ess Ground	water Sampling	Data Sheet U	VILL NICHOLSON			
	Facility Name: Gibbon	s Creek Static	on	Sampler Name(s):	JONATHAN THOMPSON			
	MW Identification: S	SP-MW	2	Date/Time: 2110/21 09:30				
	Sample Number: 16	7		PID Readings: N/A				
	Weather Conditions:	41° F	FOG 10	NNW				
	Wellhead Inspection:	NO C	TURMMO					
Visual Inspection:								
1. Survey Mark Present:		(Yes / N	No	5. Standing/Ponded Water:	Yes / No			
2. Collision/Vandalism Damage:		Yes / K	Q	6. Frost Heaving:	Yes / No			
3. Casing Degradation:		Yes / (Q	7. Lock in Place:	Nes / No			
4. Well Subsidence:		Yes / 6	NO NO					
Ground Water Measurements/Pe	urge data:							
1. Static Water Level (±0.01 feet [ft.])	73.84	4	7. Purge Rate (mL/min)	250			
2. Intake Depth (±0.01 ft.)		4500	,	7. Water Level Measuring Equip.	GEOTECH			
3. Bottom of casing (±0.01 ft.)		47.0	8	8. Purge Equipment Used	BLADDER			
4. Casing Diameter (inches)		2		9. Dedicated? (Yes/No)	Yes / No			
5. Actual Volume of Water Purgeo	i (mL)	4500)	10. Immiscible layer observed	Yes / No			
6. Purge Water Characteristics:				11. Thickness of immiscible layer	NA			
Odor None	Turbidity	Clean		12. Drive Gas (Air/Nitrogen)	AIRY NITROGEN / N/A			
Color Clear								

Time	Volume Purged (mL)	Temp (°C)	Conductiv	ity (μs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pН	Drawdown	No	otes
0 9:55		14.1	689	\$	125.9	6.94	3.22	4.51	24.20	1	
09:38	750	17.6	705	7051		1.32	4.62	4.06	75.12		
09.41	1500	17.9	708	9	249.8	0.53	5.41	4.03	25.48		
09:44	2250	18.2	709	1	275.2	0.28	6.11	4.02	25.99		
09:47	3000	18.5	709	3	504.1	0.19	6.92	4.01	26.50		
09:50	3780	18.4	789	4	324.5	0.16	4.77	4.00	26.85		
09153	4500	18.3	701	'Ŝ	341.5	0.13	4.11	4.00	27.20		
1. Well evacua	ated to dryness?	Yes /	R	7. Time to r	echarge (min):	NA		9109. Decon	tamination P	rocedures:	
2. Sample Filte	ered?	Yes /	N2	8. Sample Ti	ime:	09:55			Alconox/	DI Rinse	
3. Sampling Ed	quip. Used	Greet	ech	9: Paramete	er/Container/Pro	es.		11. Instrume	nt type: YSI F	roDSS	
4. Drive Gas (A	Air/Nitrogen)	AIB/NITRO	GEN/ N/A		See Attached C	oc		Calibration D	ate:	L	AB
5. Sample Rate	e (mL/min)	250						Calibration T	ime:	L	AB
6. Sample App	pearance:								Stnd.	Reading	Adjust.
	Turbidity	CLIAN	ک	9. Other Info	ormation:			рH			
	Color	CLEA	<u>k</u>					Conduct.			
	Odor	NON						ORP	See atta	iched Lab Fo	orm for

ORP Calibration Data D.0

Turbidity____

	Low Str	ess Groundwater Sampli	ng Data Sheet	Will NICHOLSON
	Facility Name: Gibbons	s Creek Station	Sampler Name(s):	Janathan Thomason
1 may 100	MW Identification: 5	SP MW-3	Date/Time: 2-9	-71 10:23
	Sample Number:		PID Readings: N/A	
	Weather Conditions:	39 F. Foo &	wh N	
	Wellhead Inspection:	NO COMMAN	F	
Visual Inspection:				
1. Survey Mark Present:		(Yes) / No	5. Standing/Ponded Water:	Yes INO
2. Collision/Vandalism Damage:		Yes / No	6. Frost Heaving:	Yes / No
3. Casing Degradation:		Yes / No	7. Lock in Place:	Res / No
4. Well Subsidence:		Yes / No		
Ground Water Measurements/P	u rge data:			
1. Static Water Level (±0.01 feet [ft.])	28.18	7. Purge Rate (mL/min)	250
2. Intake Depth (±0.01 ft.)		43.00	7. Water Level Measuring Equip.	breosech
3. Bottom of casing (±0.01 ft.)		48.36	8. Purge Equipment Used	Bladder
4. Casing Diameter (inches)		Z	9. Dedicated? (Yes/No)	Yes / NO
5. Actual Volume of Water Purgeo	i (mL)	4500	10. Immiscible layer observed	Yes / No
6. Purge Water Characteristics:			11. Thickness of immiscible layer	NA
Odor None	Turbidity	Clear	12. Drive Gas (Air/Nitrogen)	AIB NITROGEN / N/A
Color Clear				

Time	Volume Purged	Temp	Conductiv	/itv (us/cm)	ORP	D.O.	Turbidity	нΗ	Drawdown	N	otes
	(mL)	(°C)		7 (1 7 - 7	(mV)	(mg/L)	(NTU)	P			
10:35		14.6	635	9	278.1	5.77	000	4.54	28.59		
10:38	750	16.7	6516		287.6	1.79	0.19	4.37	28.81		
10:41	1500	16.8	6512	29	9130.5	0.37	2.40	4.33	28.82		
10:44	2250	17.4	6588		297.4	0.24	6.95	4.31	28.95		
10:47	3080	17.5	6676		298.9	0.13	13.01	4.30	28.99		
10:50	3750	17.7	6690		300.0	5.10	425	4.30	29.05		
10:53	4530	17.5	6757		301.3	0.06	6.50	4.29	29.10		
											<i></i>
									· · · ·	·	
1. Well evacu	lated to dryness?	Yes /	(Na	7 Time to r	echarge (min):	NIA		9109 Decon	tamination P	rocoduros	
2. Sample Filt	ered?	Yes /	AD .	8 Sample Ti	ime	10:00		JIUJ, DECON			
3. Sampling F	auin. Used	BLAD	020	9. Paramete	ar/Container/Pro			11 Instrumo	nt type: VSI I	DroDSS	
4. Drive Gas (Air/Nitrogen)	AIR/NITRO	AIR/NITROGEN/N/A		See Attached C	 		Collibration Dates		10033	A.D.
5 Sample Rate (ml /min)		2	-	See Addened et			Calibration T	imo:	-		
6 Sample An		05	<u>v</u>				-	Calibration	inie.	D and the set	AD
o. Sample Ap	pearance:	-							Stnd.	Reading	<u>Adjust.</u>
	Turbidity		<u>ac</u>	9. Other Info	ormation:			рН			
	Color	CLEA	R					Conduct.	Can atta	abod tab F	
Odor		NON	4	-5+				ORP	see atta		orm tor

(ª

CLA
CLG

Conduct. See attached Lab Form for ORP Calibration Data D.0 Turbidity

Į, Casing shift about 4f4 down. Able to pull casing to drop pump.

uk.

FB-Z TAKEN HERE AT 10:05

	Low Str	ess Groundwater Sampli	ng Data Sheet	Will Nicholson
	Facility Name: Gibbon	s Creek Station	Sampler Name(s):	Jenothen Thompson
1 100 100 N	MW Identification:	55P MW-4	Date/Time: 2/	10/21 11:25
	Sample Number: \'	ι .	PID Readings: N/	Α
	Weather Conditions:	40°F. Clanch	, 12mph N	
	Wellhead Inspection:	NO COMME	NT P	
Visual Inspection:				
1. Survey Mark Present:		(Yes / No	5. Standing/Ponded Water:	Yes / 😡
2. Collision/Vandalism Damage:		Yes //No	6. Frost Heaving:	Yes / No
3. Casing Degradation:		Yes / No	7. Lock in Place:	(Yes / No
4. Well Subsidence:		Yes / To		
Ground Water Measurements/P	urge data:			
1. Static Water Level (±0.01 feet [[ft.])	24.65	7. Purge Rate (mL/min)	250
2. Intake Depth (±0.01 ft.)		45.00	7. Water Level Measuring Equip.	Geotec/
3. Bottom of casing (±0.01 ft.)		51.58	8. Purge Equipment Used	Bladder
4. Casing Diameter (inches)		2	9. Dedicated? (Yes/No)	Yes / No
5. Actual Volume of Water Purge	d (mL)	4500	10. Immiscible layer observed	Yes / Co
6. Purge Water Characteristics:			11. Thickness of immiscible layer	NA
Odor None	Turbidity	Clear	12. Drive Gas (Air/Nitrogen)	AIB/ NITROGEN / N/A
Color Clear	-			

Time	Volume Purged (mL)	Temp (°C)	Conductiv	vity (μs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	рН	Drawdown	No	otes
11:38	-	14.5	310	9	92.1	3.86	38.66	17.82	24.51		
11:41	750	17.7	441	3	78.0	1.02	1.89	6.65	25.05		
11:44	1500	17.8	444	1	53.7	0.53	2.32	6.53	25.50		
11:47	2250	18.6	442	4427		0.39	3.45	6.56	25.99		
11:50	3000	18.4	440	5	33.9	0.31	4.33	6.57	26.49		
11:53	3750	18.5	435	6	26.9	0.26	5./8	6.60	27.03		
11:56	4500	18.4	4315		18.5	0.22	7.07	6.63	27.47		
								·			
1. Well evacu 2. Sample Filt	ated to dryness? ered?	Yes /	R	7. Time to re 8. Sample Ti	L echarge (min): ime:	N/A	5	9109. Decon	tamination Pr Alconox/I	ocedures: DI Rinse	
3. Sampling E	quip. Used	Geote	ch	9: Paramete	meter/Container/Pres.			11. Instrume	nt type: YSI P	roDSS	
4. Drive Gas (Air/Nitrogen)	AIR/NITRO	GEN/ N/A	9	See Attached Co	oc		Calibration Date		L	AB
5. Sample Rat	. Sample Rate (mL/min) 250						Calibration T	ime:	L	AB	
6. Sample App								Stnd.	Reading	Adjust.	
	Turbidity	CLEA	R	9. Other Info	ormation:		_	рН			
	Color	CLEA	R					Conduct.	C		
Odor		NONE					_	ORP	See atta Cal	cned Lab Fo ibration Da	ta

D.O Turbidity ____

	Low St	ress Groundwater Samplir	ng Data Sheet	WILL NICHOLSON
	Facility Name: Gibbor	ns Creek Station	Sampler Name(s):	JONATHAN THOMPSON
11 may 1000	MW Identification:	MNW - 15	Date/Time: 2	9 21 15 30
	Sample Number: (0	PID Readings: N	/A
	Weather Conditions:	SZ"F LLOUDY	8 MPH N	
	Wellhead Inspection:	NO COMMENT		
Visual Inspection:				
1. Survey Mark Present:		(Yes) / No	5. Standing/Ponded Water:	Yes (No
2. Collision/Vandalism Damage:		Yes / No	6. Frost Heaving:	Yes / No
3. Casing Degradation:		Yes / No	7. Lock in Place:	(Yes)/ No
4. Well Subsidence:		Yes / No		
Ground Water Measurements/P	urge data:			
1. Static Water Level (±0.01 feet [ft.])	6.22	7. Purge Rate (mL/min)	250
2. Intake Depth (±0.01 ft.)		24	7. Water Level Measuring Equip	GEOTECH
3. Bottom of casing (±0.01 ft.)		27.25	8. Purge Equipment Used	PERISTALTIC
4. Casing Diameter (inches)		2	9. Dedicated? (Yes/No)	Yes / NO
5. Actual Volume of Water Purgeo	l (mL)	4500	10. Immiscible layer observed	Yes / No
6. Purge Water Characteristics:			11. Thickness of immiscible laye	n N/A
Odor None	Turbidity	Clear	12. Drive Gas (Air/Nitrogen)	AIR / NITROGEN / N/A
Color Clean				The second s

Time	Volume Purged	Temp	Conductivity (µs/cm)	ORP	D.O.	Turbidity	pН	Drawdown	No	otes
L	(mL)			(mV)	(mg/L)	(NTU)				
15:36	~	19.9	3484	171.1	6.67	6.21	3.57	6.68		
15:39	750	21.8	3394	458.5	5.85	19.18	3.45	6.80		
15 42	1500	22.0	3391	454.6	5.80	10.14	3.43	6.82		
15:45	2250	22.2	3387	377.0	1.97	4.47	2.64	6.83		
15:48	3000	22.1	3398	340.1	0.5%	3.98	3.64	6.83		
15:51	\$759	22.1	3401	327.7	1.28	4.24	3.65	6.85		
15:54	4500	22.0	3403	329.6	0.51	7.03	3.63	6.83		
1. Well evacu	ated to drvness?	Yes /	No 7. Time to r	echarge (min):	NIA		9109 Decon	tamination P	rocedures	
2. Sample Filt	ered?	Yes /	8. Sample T	ime:	18:55	-	51051 50001	Alconox/I	Ol Rinse	
3. Sampling Fi	auin Used	Gend	9: Paramete	er/Container/Pr		_	11 Instrument type: VSI BroDSS			
4. Drive Gas (Drive Gas (Air/Nitrogen) AIR /NITROGEN/N/A)		GENIMA	See Attached C			Calibration D	ato:	10033	AR
5 Sample Rat	Sample Pate (ml /min)		See Attached e		_	Calibration T	imo:	·		
6 Sample And			<u> </u>					IIIIC.	Deadlag	Adland
o. sample App			A #					<u>Stnd.</u>	Reading	<u>Adjust.</u>
	Turbidity	CLE	BR 9. Other Inf	ormation:			pН			

Turbidity Color Odor

See attached Lab Form for **Calibration Data**

Conduct.

ORP

D.0 Turbidity

DUP-1 TAKEN HERE @ "18:10"

CLEAR

NONE

	Low Str	ess Groundwa	er Sampling Data Sheet	JONATHUN THOMPSON
	Facility Name: Gibbon	Creek Station	Sampler Name(s):	LOILL NICHELSON
	MW Identification: 1	1NW-18	Date/Time: 2	9/2021 10:20
	Sample Number: 7	2	PID Readings: N/	A A
	Weather Conditions:	49°F Fs	0. Smith NW	
	Wellhead Inspection:	NG CC	MMENT	
Visual Inspection:				
1. Survey Mark Present:		(Yes) No	S. Standing/Ponded Water:	Yes / No
2. Collision/Vandalism Damage:		Yes / No	6. Frost Heaving:	Yes / No
3. Casing Degradation:		Yes / No	7. Lock in Place:	(Yes) / No
4. Well Subsidence:		Yes / No		
Ground Water Measurements/Pe	urge data:			
1. Static Water Level (±0.01 feet [ft.])	8.35	7. Purge Rate (mL/min)	250
2. Intake Depth (±0.01 ft.)		45	7. Water Level Measuring Equip.	690TZCH
3. Bottom of casing (±0.01 ft.)		SUS	8. Purge Equipment Used	BLANDER
4. Casing Diameter (inches)		4	9. Dedicated? (Yes/No)	Yes / NO
5. Actual Volume of Water Purged	l (mL)	5250	10. Immiscible layer observed	Yes / (No)
6. Purge Water Characteristics:			11. Thickness of immiscible layer	NA
Odor Nene	Turbidity	Clear	12. Drive Gas (Air/Nitrogen)	AIR NITROGEN / N/A
Color Clear				

Time	Volume Purged (mL)	Temp (°C)	Conductiv	vity (µs/cm)	ORP (mV)	D.O. (mg/l)	Turbidity (NTU)	рН	Drawdown	N	otes
19:32		18.3	209	4	51.7	624	2.12	7.09	8.09	1	
10:35	750	189	256	1	21.4	417	0.71	692	8.10		
10:38	1500	18.5	30 81	P	-8.0	1.22	0.20	6.79	1.30		
10= 41	2250	18.4	3118	Y	-23.2	1.45	0.08	6.78	8.40		
10.44	3000	18.4	3117		-30.1	0.31	0.00	6.77	8.52		
10.47	3750	18.5	3118		-36.4	9.24	0.00	6.77	8.66		
10:50	4500	18.5	3119		-40.4	0.20	0.00	6.77	8.84		
10:53	5250	18.6	3/19		-43.2	0.17	1.00	6.77	1.89	· · · · · ·	
1. Well evacu	ated to dryness?	Yes K	No	7. Time to r	echarge (min):	NA		9109. Decon	tamination P	rocedures:	
2. Sample Filt	ered?	Stes)	No	8. Sample Time: 7		10:55		Alconox/DI Rinse			
3. Sampling E	quip. Used	BLAD	DSR	9: Paramete	er/Container/Pre	es.	_	11. Instrume	ent type: YSI P	roDSS	
4. Drive Gas (Air/Nitrogen) (AIR/NITROGEN/ N/A			See Attached Co	oc		Calibration Date:			AB
S. Sample Rat	S. Sample Rate (mL/min) 25		0				-	Calibration T	ime:	L	AB
6. Sample App	pearance:						_		Stnd.	Reading	Adjust.
	Turbidity	CLAN	٤	9. Other Inf	ormation:			рН		3	<u> </u>
	Color	CLEA	2					Conduct.	_		
	Odor	NON	q					ORP	See atta	ched Lab F	orm for
NOILC					-			D.O.			ata

D.O Turbidity _____



YSI Pro DSS Calibration Certificate

Unit Number:	6516
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Serial Number: 18K101016

Calibration Date 2/5/2021

Technician:

Robert Winkelman

Installed F ✓ Condu ✓ PH/OF	Installed Probes ✓ Display is clear, and access Conductivity ✓ Cable and access PH/ORP ✓ Firmware version is		nd free of da ories are fre is up to date	amage e of damage e.	Cable L Cable L Cond P	_ength _ot # Probe Lot #	10M 18L04693 19A102581	pH/ORP DO Prob Turb Prol	Serial # e Serial # be Serial #	19B102488 19B12881 18K100703	
✓ DO ✓ TURB		Di Ca	splay Battery able Flex Test:	95 S Pass	% Pass	Bath Te Meter 1 Variano	emp Femp ce	19.1 °C 19.3 °C 0.20	Pass		
	Cond <u>Calib</u> 1.4	o <u>ration</u> 13 mS	<u>Reading</u> 1.413 mS	Pass				Buffer Lot # 0GI224	<u>Exp. Date</u> 9/21	Pass	
	pH <u>Point</u> 2 Po	<u>Test</u> pint	<u>Calibration</u> pH 7.00 pH 4.00	<u>Reading</u> pH 7.00 pH 4.00	<u>mV</u> -13.4 mV 151.6 mV	<u>Slope</u> 165	Pass	<u>Buffer Lot #</u> 9GL1006 0GJ387	<u>Exp. Date</u> 12/21 10/22	Pass Pass	
	ORP <u>Calib</u> 22	o <u>raition</u> 20 mV	<u>Reading</u> 220 mV	Pass				<u>Buffer Lot #</u> 0Gl319	<u>Exp. Date</u> 6/21	Pass	
	─Turbidit <u>Zero</u> 0 ntu	ty <u>Reac</u> .04	<u>ling</u> <u>Variance</u> ntu 0.04 ntu	Pass	<u>Cal Rea</u> 124 ntu 12	ading <u>Vari</u> 4.22 0.	iance 2% Pas s	<u>Buffer Lo</u> s 20H20320	<u>ot# Exp. Da</u> 0032 8/21	ate Pass	
	DO <u>Baro</u> 748.0 Tim	ometer 6 mmH e: <u>N</u>	<u>Calibratior</u> g 98.5 % <u>1in. Sec.</u> 1 28	n <u>Readin</u> 98.4 % <u>Reading</u> .01 %	<u>g Variar</u> 6 -0.19 Pass	<u>ice</u> % Pa	ss	<u>Test Flu</u> Water Satura <u>Nitrogen L</u> 20-301-h	<u>id</u> ated Air .ot <u>#</u> N2		

Geotech Environmental Equipment, Inc. takes pride in ensuring this instrument is tested to function as specified by the manufacturer and was calibrated in accordance to manufacturer specifications. All calibration standards used are NIST traceable. With the provided lot numbers we can provide NIST documents on request. Call us at (800) 833-7958 and we will be glad to help.

Gibbons Creek Steam Electric Station Site Water Levels

FJS

Sampler: WN (ST Equipment: GEOTECH

100

Date: 7221-7321

Decontamination: Alconox with DI Rinse

Weil	Water Level below TOC	Bottom of Casing	Prevoius Water Level Below TOC (02/10/2021)	Prevoius Water Level Below TOC (06/24/2019)	Notes
AP PZ-1	5.36	-	6.64	6.39	
AP PZ-2	17.07	-	20.46	17.19	
AP PZ-3	4.76	-	6	4.59	
AP PZ-4	14.03	-	10.35	9.54	
AP MW-1	13.03	-	13.22	12.47	
AP MW-1D	14.48		14.83	14.14	
AP MW-2	12.65	-	7.51	6.88	i i i i i i i i i i i i i i i i i i i
AP MW-3	12.59	-	11.39	10.64	
AP MW-4	14.109	-	13.52	13.1	
AP MW-5	14.47	-	12.09	11.27	
AP MW-6	17.03	~	16.64	16.19	
SSP/SP MW-1	7.71	-	8.34	7.32	3)
SSP MW-1	13.95	-	15.86	14.36	
SSP MW-2	23.02	-	23.84	21.18	
SSP MW-3	27.12		28.18	26.35	
SSP MW-4	24.48		24.65	23.87	
SFL MW-1	-	-	22.5	20.63	
SFL MW-2	10.38	-	11.57	10.11	
SFL MW-3	17AU	-	18.12	16.39	
SFL MW-4	14.78		15.68	14.21	
SFL MW-5	10.00	-	16.44	15.03	1
SFL MW-6	19.00		18.59	17.31	
SFL MW-7	13.22		14.58	13.17	
MNW-11	20.70	~	20.27	20.87	
MNW-15	4.66		6.22	4.02	
MNW-16	12.50	-	14.12	12.49	
MNW-17	29.36	-	33.5	43.85	
MNW-18	8.70	-	8.35	8.37	

Low Stress Groundwater Sampling Data Sheet



Time	Volume Purged (mL)	Temp (°C)	Conductiv	ritγ (μs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	рН	Drawdown	N	otes
12:15		27.2	89	960	-92.8	0.10	205.92	5,83	9.90		
12:18	800	22.1	880	12	-100.9	0.03	154.72	C.72	10.47		
12:20	1800	22.2	28	BL	-101.5	0.00	145.43	5.09	10.89		
12:24	2700	720	88	77	-101.1	0.00	146.39	5.65	11.38		
12:27	3600	220	89	U.*	-99.9	0.00	124.31	Siloz	11.60		
12:30	4500	27.0	891	8	-100.3	0.00	170.11	5.60	11.91		
1. Well evacua	ited to dryness?	Yes /	No	7. Time to re	echarge (min):	NA		9109. Decon	tamination P	ocedures:	
2. Sample Filte	ered?	Yes /	No	8. Sample Ti	ime:	12:35			Alconox/	DI Rinse	
3. Sampling Ec	uip. Used	BIAD	SR	9: Paramete	r/Container/Pre	25.		11. Instrume	nt type: YSI P	roDSS	
4. Drive Gas (A	(ir/Nitrogen)	AIRYNITROG	EN/ N/A	9	See Attached CO	DC DC		Calibration D	ate:	L	AB
5. Sample Rate	e (mL/min)	3ot	>					Calibration T	ime:	L	AB
6. Sample App	earance:								<u>Stnd.</u>	Reading	Adjust.
	Turbidity	CLO	YOC	9. Other Info	ormation:			рH			
(Color	LIGHT	BROWN					Conduct.	Coo othe		
(Odor		JONS					ORP	See atta	ched Lab Fo	orm for
								D.0	Car	oration Da	ld
								Turbidity			

Low Stress Groundwater Sampling Data Sheet Facility Name: Gibbons Creek Station Sampler Name(s): USN 2 MW Identification: SSP MW-7 713 2021 Date/Time: 0905 Sample Number: PID Readings: N/A 8 76° F SUNNY Weather Conditions: CALM MOSTLY Wellhead Inspection: MOUENENT PAD LOOS Visual Inspection: 1. Survey Mark Present: Yes No 5. Standing/Ponded Water: Yes / (No 2. Collision/Vandalism Damage: 6. Frost Heaving: Yes / NO Yes / No 3. Casing Degradation: (Yes) / No Yes 7. Lock in Place: No 4. Well Subsidence: Yes No Ground Water Measurements/Purge data: 23.02 1. Static Water Level (±0.01 feet [ft.]) 300 7. Purge Rate (mL/min) 2. Intake Depth (±0.01 ft.) 40 7. Water Level Measuring Equip. GEOTECH 3. Bottom of casing (±0.01 ft.) 8. Purge Equipment Used BC-ADDER 4. Casing Diameter (inches) 9. Dedicated? (Yes/No) Yes / (No) 5. Actual Volume of Water Purged (mL) 10. Immiscible layer observed Yes / No NA 6. Purge Water Characteristics: 11. Thickness of immiscible layer NONE Odor Turbidity CLEAR 12. Drive Gas (Air/Nitrogen) AIB/ NITROGEN / N/A Color CLEAR

Time	Volume Purged (mL)	Temp (°C)	Conductiv	vity (µs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	рН	Drawdown	N	otes
0915	-	24.7	93	08	736.1	4,16	10,10	4.02	23.25		
0918	900	23.4	95	01	7.095	2.22	12.58	4,55	24.01		
0921	1800	23.3	95	13	753.1	0.26	11.73	4.50	24.65		
0974	2700	23.3	950	>3	764.4	025	11.91	4,50	25.16		
0927	3600	23.3	950	64	274.4	0.20	11.96	4.52	75.54		
0930	4500	23.3	950	e4	277.9	0.23	11.89	4.52	25.88		
1. Well evacu	ated to dryness?	Yes /	No	7. Time to r	echarge (min):	NA		9109. Decon	tamination Pr	ocedures:	
2. Sample Filt	ered?	Yes /	No	8. Sample T	ime:	0935			Alconox/I	OI Rinse	
3. Sampling E	quip. Used	a NI	4	9: Paramete	er/Container/Pre	es.		11. Instrume	nt type: YSI P	roDSS	
4. Drive Gas (A	Air/Nitrogen)	AIR/NITRO	GEN/ N/A		See Attached CO	C		Calibration D	ate:	L	AB
5. Sample Rat	e (mL/min)	30	0					Calibration T	ime:	I	AB
6. Sample App	pearance:								Stnd.	Reading	Adjust.
	Turbidity	CLEA	R	9. Other Infe	ormation:			pН			
	Color	CLEA	R					Conduct.	6	- L - J L - P	
	Odor	NO	20					ORP	See atta	cneo Lab F	orm tor
								D.O	Cal		ILd
								Turbidity			



Color Odor

CLEAR

NONE

D.0 Turbidity

See attached Lab Form for

Calibration Data

Conduct.

ORP

Low Stress Groundwater Sampling Data Sheet



NONE

Odor NONE CLEAR Color

Turbidity

AIRY NITROGEN / N/A

12. Drive Gas (Air/Nitrogen)

	Time	Volume Purged (mL)	Temp (°C)	Conductivity (µs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	рН	Drawdown	N	otes
i i	0738		23.2	4739	-67.2	5.71	6.58	11.90	24.31		
	0741	200	23.1	4718	-112.5	0.03	2.49	11.89	25.10		
	0744	1800	23.2	4702	-121.8	0:37	7.35	11.92	25.95		
	0747	2700	23.1	4868	-123.7	0.38	2.50	11.92	26.33		
	0750	3600	23.2	4879	-/24.1	0.42	2.45	11,94	27.10		
0753	7553-	4500	23.2	4917	-122.7	0.63	2.79	11.96	27.54		
0					_						
5											
(-						
	1 Well evacus	ated to dryness?	Vos /	No 7 Time to	recharge (min)*	NA		9109 Decon	tamination P	rocedures	
	2. Sample Filte	ered?	Ves /	No 8 Sample	Time:	0755		5105. DCc0m	Alconox/i	DI Rinse	
	3. Sampling Ed	uip. Used	RIA	9: Parame	ter/Container/Pr	es.		11. Instrume	nt type: YSI P	roDSS	
	4. Drive Gas (Air/Nitrogen)	AIB NITRO	GEN/ N/A	See Attached C	OC		Calibration D	ate:	L	АВ
	S. Sample Rate	e (mL/min)	300					Calibration T	ime:		AB
	6. Sample App	earance:							Stnd.	Reading	Adjust.
		Turbidity	LOW	9. Other l	nformation:			pН			
		Color	NON					🗠 Conduct.	C ++-		f
		Odor	NON	2				ORP	See atta	ibration Da	orm ior ata
								D.O	Cal		
								Turbidity			

Low Stress Groundwater Sampling Data Sheet



106.7

Co.

0.04

0.03

NA

00

-16

4.29

386

5.91

5,91

1. Well evacuated to dryness?	
2. Sample Filtered?	

3600

4500

27.3

22.3

Yes / 😡

Yes / No

3LADDER

AIR NITROGEN/ N/A

DNE

300

1613

(0|3)

3. Sampling Equip. Used

15

ISS

4. Drive Gas (Air/Nitrogen)

5. Sample Rate (mL/min)

6. Sample Appearance:

Turbidity Color Odor 9. Other Information:

See Attached COC

7. Time to recharge (min):

9: Parameter/Container/Pres.

8. Sample Time:

9109. Decontamination Procedures: -1500 Alconox/DI Rinse 11. Instrument type: YSI ProDSS Calibration Date: LAB Calibration Time: LAB Reading Stnd. Adjust. pН Conduct. See attached Lab Form for ORP **Calibration Data** D.O Turbidity

7

14.75

Low Stress Groundwater Sampling Data Sheet Facility Name: Gibbons Creek Station Sampler Name(s): MW Identification: AP MIN-7 Date/Time: 13:20 7 21 12 Sample Number: PID Readings: N/A 74° F Weather Conditions: PAIN 9 MPH N Wellhead Inspection: NO COMMENT Visual Inspection: 1. Survey Mark Present: 5. Standing/Ponded Water: Yes / No Yes 2. Collision/Vandalism Damage: Ale Yes 6. Frost Heaving: Yes 3. Casing Degradation: Yes / Yes No 7. Lock in Place: No 4. Well Subsidence: Yes 1 No Ground Water Measurements/Purge data: 1. Static Water Level (±0.01 feet [ft.]) 7. Purge Rate (mL/min) 2. Intake Depth (±0.01 ft.) 7. Water Level Measuring Equip. 3. Bottom of casing (±0.01 ft.) 8. Purge Equipment Used 4. Casing Diameter (inches)

- 5. Actual Volume of Water Purged (mL)
- 6. Purge Water Characteristics:
- Odor Color
- NONE
- Turbidity

12,59
35.0
v
2
4500
NONE

- 9. Dedicated? (Yes/No) 10. Immiscible layer observed
- 11. Thickness of immiscible layer
- 12. Drive Gas (Air/Nitrogen)

300
GEOTECH
BLADDER
Yes / No
Yes / 😡
NA
AIR NITROGEN / N/A

Time	Volume Purged (mL)	Temp (°C)	Conductiv	/ity (μs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	рН	Drawdown	N	otes
1331	-	0.55	1929		28.3	2.24	63.50	5.13	17.95		
1334	700	22.0	1790		50.7	0.04	23.20	5.04	13.02		
1337	1800	22.1	179	0	58.9	0.58	52.50	5.03	13.25		
1340	2700	22.1	179	1	65.1	0.51	44.83	5.02	13.25		
1343	3600	27.1	180	2	75.6	0.42	8.53	4.97	13.28		
1346	4500	27.2	182	7	88.6	0.21	8.47	4,96	13.30		
										1	
1. Well evacuation	ated to dryness?	Yes /	No	7. Time to re	echarge (min):	NA		9109. Decont	amination Pr	ocedures	
2. Sample Filt	ered?	Yes /	No	8. Sample Ti	ime:	1350			Alconox/[OI Rinse	
3. Sampling E	quip. Used	BLAN	DER	9: Paramete	r/Container/Pro	es.		11. Instrume	nt type: YSI P	roDSS	
4. Drive Gas (/	Air/Nitrogen)	AIB/NITROG	GEN/ N/A	!	See Attached Co	C		Calibration D	ate:	L	AB
5. Sample Rat	e (mL/min)	300	>	4				Calibration Ti	ime:	L	AB
6. Sample App	pearance:								Stnd.	Reading	Adjust.
	Turbidity	NON	٤	9. Other Info	ormation:			pН			
	Color	LLEA	R					Conduct.	C		
	Odor	NON	٤				đ.	ORP	See atta	cned Lab Fo	orm for
								D.0	Cal	pration Da	Ld
								Turbidity			



Low Stress Groundwater Sampling Data Sheet Facility Name: Gibbons Creek Station Sampler Name(s): WA MW Identification: AP MW-4 Date/Time: 7/13/2021 0630 Sample Number: PID Readings: N/A CALM Weather Conditions: JIPF MESTLY SONN Wellhead Inspection: NO COMMENT Visual Inspection: 1. Survey Mark Present: Yes 5. Standing/Ponded Water: No Yes 2. Collision/Vandalism Damage: Уes No 6. Frost Heaving: Yes No 3. Casing Degradation: Ves 7. Lock in Place: Yes) No 4. Well Subsidence: Yes No Ground Water Measurements/Purge data: 300 1. Static Water Level (±0.01 feet [ft.]) 14,69 7. Purge Rate (mL/min) 2. Intake Depth (±0.01 ft.) 7. Water Level Measuring Equip. EOTECH 3. Bottom of casing (±0.01 ft.) 8. Purge Equipment Used RLANNER 4. Casing Diameter (inches) 9. Dedicated? (Yes/No) Yes / No 5. Actual Volume of Water Purged (mL) 4500 10. Immiscible layer observed Yes / No 6. Purge Water Characteristics: 11. Thickness of immiscible layer NA Odor NONE CLEAR Turbidity 12. Drive Gas (Air/Nitrogen) AIB/ NITROGEN / N/A Color Volume Burged Tomp

Time	(mL)	(°C)	Conducti	vity (µs/cm)	(mV)	D.O. (mg/L)	(NTU)	рН	Drawdown	N	otes
0640		21.3	46	96	273.9	2.95	4,46	5.55	14.89	1	
ads	900	21.1	47	25	192.9	1.52	6.01	5.52	14.92		
0646	1800	21.2	473	9	167.6	0.52	4.44	5.50	14.98		
0649	2700	21.2	473	8	155.3	0.27	10.61	5.49	15.00		
0652	3600	21.2	474	18	141.2	0.27	8.61	5.48	15.02		
0655	4500	71.3	47	13	135.7	0.19	7.24	5.48	15.03		
					ı						
1. Well evacua	ated to dryness?	Ves /	No	7. Time to re	echarge (min):	NA		9109. Decon	tamination Pr	ocedures:	
2. Sample Filt	ered?	Yes /	No	8. Sample Ti	ime:	0700			Alconox/[Ol Rinse	
3. Sampling E	quip. Used	BLAC	DER	9: Paramete	r/Container/Pro	es.		11. Instrume	nt type: YSI P	roDSS	
4. Drive Gas (/	Air/Nitrogen)	AIB/NITROG	GEN/ N/A		See Attached C	ос		Calibration D	ate:	L	AB
5. Sample Rat	e (mL/min)	30	0					Calibration T	ime:	L	AB
6. Sample App	pearance:								<u>Stnd.</u>	Reading	Adjust.
	Turbidity	CLEAN	5	9. Other Info	ormation:			pН			
	Color	NON	2					Conduct.	C		
	Odor	NON	E					ORP	See atta	cnea Lab Fo	orm tor
								D.0	Cal		La
								Turbidity			

FB-1 TAKEN HERE @ 0700

Low Stress Groundwater Sampling Data Sheet



- 4. Casing Diameter (inches)
- 5. Actual Volume of Water Purged (mL)

6. Purge Water Characteristics: Odor

Color

NONE Turbidity CLEAR

24500 NONE

- 9. Dedicated? (Yes/No)
- 10. Immiscible layer observed
- 11. Thickness of immiscible layer
- 12. Drive Gas (Air/Nitrogen)



Time Volume Purged		Temp (°C) Conductivit		vity (µs/cm)	ORP (m)()	D.O.	Turbidity	pН	Drawdown	N	otes
1627		27 7	20	21				2.00	11167		
1234	(inc)	210	20		471.5	6.01	14.40	3.23	14.04		_
1540	700	21.8	6	t C	521.7	4.01	5.1	5.15	14,81		
1543	1800	21.7	25	73	227.8	4.82	2.31	3.14	14.85		
1540	2700	21.9	25	<u>G</u>	529.8	4,80	3,09	3,15	14,91		
1549	3600	21.9	25	78	\$\$0.7	4.79	3.51	3.13	14.94		
1552	4,500	27.0	390		457.8	2.80	ZI.11	3.72	14.89		
		_									
			6			1.16					
1. Well evacu	lated to dryness?	Yes /	No	7. Time to re	echarge (min):	NA		9109. Decon	tamination P	rocedures:	
2. Sample Fili	tered?	Yes /	NO	8. Sample Ti	ime:	ISSO			Alconox/	DI Rinse	
3. Sampling E	quip. Used	BLA	DER	9: Paramete	er/Container/Pre	es.		11. Instrume	nt type: YSI F	roDSS	
4. Drive Gas ((Air/Nitrogen)	AIR NITRO	GEN/ N/A		See Attached CO	C		Calibration D	ate:	L	AB
5. Sample Ra	te (mL/min)	300	5	2				Calibration T	ime:	L	AB
6. Sample Ap	pearance:								Stnd.	Reading	Adjust.
	Turbidity	SLIGHT	LY OCOC	월. Other Info	ormation:			pН			
	Color	SUGHAL	Y RECU	Pa				Conduct.			
	Odor	AJCA	K	-				ORP	See atta	ched Lab F	orm for
									Ca	ibration Da	ata
				-			-	D.0			
								Iurbidity			

Low Stress Groundwater Sampling Data Sheet

FJS	Facility Name: Gibbons Creek Station	Sampler Name(s): (Sampler Name(s): ひんして				
	MW Identification: SFL MOI-2	Date/Time: 🔫 🔽	Date/Time: 7 73 2021 1520				
	Sample Number: /S	PID Readings: N/A	PID Readings: N/A				
	Weather Conditions: 92° F CALM SUNNY						
	Wellhead Inspection: NO COMMENT						
Visual Inspection:		2					
1. Survey Mark Present:	Yes / No	5. Standing/Ponded Water:	Yes /No				
2. Collision/Vandalism Damage:	Yes / No	6. Frost Heaving:	Yes / No				
3. Casing Degradation:	Yes / No	7. Lock in Place:	Yes / No				
4. Well Subsidence:	Yes /No		alter and the second				
Ground Water Measurements/P	urge data:						
1. Static Water Level (±0.01 feet [ft.]) (0.38	7. Purge Rate (mL/min)	300				
2. Intake Depth (±0.01 ft.)	21	7. Water Level Measuring Equip.	GEOTECH				
3. Bottom of casing (±0.01 ft.)		8. Purge Equipment Used	PERISTALIK				
4. Casing Diameter (inches)	2	9. Dedicated? (Yes/No)	Yes / No				
5. Actual Volume of Water Purgeo	d (mL) 4500	10. Immiscible layer observed	Yes /No				
6. Purge Water Characteristics:		11. Thickness of immiscible layer	NA				
Odor VONE	Turbidity MEDUM	12. Drive Gas (Air/Nitrogen)	AIR / NITROGEN N/A				
Color LIGHT BRU	NUN						
			T				

Time	(mL)	(°C)	Conductiv	ity (μs/cm)	(mV)	0.0. (mg/L)	(NTU)	рН	Drawdown	N	otes	
1522	-	25.2	115	He	3[1.1	1.78	237.4	5.64	10.89			
1525	900	8.55	113	67	298.4	0.79	139.3	5.62	11.45			
1528	1800	73.6	(133	4	265.7	0.65	56.23	5.67	(1.79			
1531	2700	24.0	1128	IS	776.6	0.47	23.92	5.70	12.08			
1534	3600	23.7	1/30	2	2(A.9	0.33	12.03	5.74	12.26			
1537	4500	23.9	//33	3	266.7	0.33	9,98	5,74	12.40			
· · · · · · · · · · · · · · · · · · ·												
		2										
		II										
1. Well evacuated to dryness? Yes / No			7. Time to recharge (min):		-	9109. Decontamination Procedures:						
2. Sample Filtered?Yes / No		8. Sample Time: /S40			Alconox/DI Rinse							
3. Sampling Equip. Used Depistant			9: Parameter/Container/Pres.				11. Instrument type: YSI ProDSS					
4. Drive Gas (Air/Nitrogen) AIR /NITROGEN/ N/A		See Attached COC			Calibration D	ate:	LAB					
5. Sample Rate (mL/min) 300						Calibration T	ime:	LAB				
6. Sample App	bearance:								Stnd.	Reading	Adjust.	
Turbidity CCEAR		9. Other Information:			pН							
Color CLEAR			0			Conduct.						
Odor		NONE						ORP	See atta	cnea Lab F	orm tor	
								D.0	Cdi	Campration Data		
								Turbidity				
Low Stress Groundwater Sampling Data Sheet Facility Name: Gibbons Creek Station Sampler Name(s): MW Identification: SFL 1160-3 1215 Date/Time: 7 20,5 PID Readings: N/A Sample Number: Weather Conditions: 308 CALM SONN Wellhead Inspection: NO COMMENT Visual Inspection: 1. Survey Mark Present: Yes 5. Standing/Ponded Water: No Yes 2. Collision/Vandalism Damage: / No Yes 6. Frost Heaving: Yes / No 3. Casing Degradation: Yes / 7. Lock in Place: Yes / No 4. Well Subsidence: Yes / No Ground Water Measurements/Purge data: 1. Static Water Level (±0.01 feet [ft.]) 7. Purge Rate (mL/min) 2. Intake Depth (±0.01 ft.) 7. Water Level Measuring Equip. Cł 3. Bottom of casing (±0.01 ft.) 8. Purge Equipment Used che 4. Casing Diameter (inches) 9. Dedicated? (Yes/No) Yes / (No 5. Actual Volume of Water Purged (mL) 10. Immiscible layer observed Yes No 6. Purge Water Characteristics: 11. Thickness of immiscible layer N 1A Odor NONE CLEAR Turbidity 12. Drive Gas (Air/Nitrogen) AIR / NITROGEN Color CLEAP Volume Purged Turbidity Temp ORP D.O. Time Conductivity (µs/cm) nН Drawdown Notes

	(mL)	(°C)	Conductiv		(mV)	(mg/L)	(NTU)	рп	Drawdown		oles
1225	-	24.4	63	24	334,8	0.29	9.61	3.79	18.32		
12 28	900	24.5	63	9	404.2	0.11	7.04	3.73	18.37		
1231	1800	24,3	630	8	404,1	0.04	11.04	3.71	18.41		
1234	7700	24,4	630	9	403.2	0.01	10.98	3.71	18.44		
1237	3(00)	24.3	631	8	405.5	0.00	8.14	3.7/	18.55		
1240	4500	24.2	(032	3	402.0	0.00	4.04	3.70	18.47		
1. Well evacua	ated to dryness?	Yes /	No	7. Time to re	echarge (min):	NA		9109. Decont	amination Pr	ocedures:	
2. Sample Filt	ered?	Yes /	No	8. Sample Ti	me:	1245			Alconox/I	l Rinse	
3. Sampling Ed	quip. Used	PERIS	TALTIC	9: Paramete	r/Container/Pro	es.		11. Instrume	nt type: YSI P	roDSS	
4. Drive Gas (/	Air/Nitrogen)	AIR /NITRO	GEN/N/A		ee Attached C	OC		Calibration D	ate:	L	AB
5. Sample Rat	e (mL/min)	30	0					Calibration Ti	ime:	L	AB
6. Sample App	earance:								Stnd.	Reading	Adjust.
	Turbidity	CLSA	R	9. Other Info	ormation:			рН			
	Color	CCGA	R					Conduct.	Coo othe	-hadlah F.	
	Odor	Nor	4					ORP	See atta	bration Da	orm tor ta
								D.0	Cal		10
								Turbidity			



1152	1900	23.4	710	प	-51.7	0.09	3.52	Q.15	16.21		
1/35	2700	23.5	73	57	-34.0	0.03	2.70	6.14	16.32		
1138	3600	23.4	75	Sle	-35.2	0.00	.2.67	6.15	16.38		
1141	4500	23.6	76	30	-35.7	0.00	3.11	6.12	16.44		
		-	_								
				14				· · · · · · · · · · · · · · · · · · ·			
		_									
		-									
1. Well evacu	ated to dryness?	Yes /	No	7. Time to r	echarge (min):	NA		9109. Deconta	amination P	rocedures:	
2. Sample Filt	ered?	Yes /	No	8. Sample T	ime:	1145			Alconox/	DI Rinse	
3. Sampling E	quip. Used	BLA	SARE	9: Paramete	er/Container/Pr	es.		11. Instrumen	it type: YSI I	ProDSS	
4. Drive Gas (Air/Nitrogen)	AIRINITRO	SEN/ N/A		See Attached C	OC		Calibration Da	ate:	L	AB
5. Sample Rat	e (mL/min)	300	10 I					Calibration Ti	me:	L	AB
6. Sample Ap	pearance:								Stnd.	Reading	Adjust.
	Turbidity	CIGAN	2	9. Other Inf	ormation:			рН			
	Color	CLEAR						Conduct.	for oth	ahad lah C	
	Odor	NON	9					ORP	see atta	libration Da	urm iOf ata
								D.O	Ca		

Turbidity



Time	(mL)	(°C)	Conductiv	ty (µs/cm)	(mV)	0.0. (mg/L)	(NTU)	рН	Drawdown	N	otes
1550		25.4	KO	73	287.4	0.99	7.65	4.41	16.35		
1599	900	23.6	1091	6	380.9	0.07	5.01	4,28	10.64	-	
1602	1900	23.2	108	10	390.1	0.00	6.09	4.25	17.12		
1005	7700	23.3	108	46	399.4	0.00	13.05	4.25	17.47		
1608	3600	23.3	108	69	400.4	0.00	4.88	4.24	(7.75		
1000-0010-00-	22 12		1 - N						-1. · · · ·		
			A								
1. Well evacuation	ated to dryness?	Yes /	No	7. Time to r	echarge (min):	N/A		9109. Decont	amination Pi	ocedures	
2. Sample Filt	ered?	Yes /	No	8. Sample T	ime:	1610			Alconox/I	OI Rinse	
3. Sampling E	quip. Used	Faris	JULIAT	9: Paramete	er/Container/Pre	es.		11. Instrume	nt type: YSI P	roDSS	
4. Drive Gas (Air/Nitrogen)	AIR /NITROG	EN N/A		See Attached CO	DC		Calibration D	ate:	L	AB
S. Sample Rat	e (mL/min)		>					Calibration Ti	me:	L	AB
6. Sample App	pearance:								Stnd.	Reading	Adjust.
	Turbidity	eleg	2	9. Other Info	ormation:			pН			
	Color	CLEAR		<u> </u>				Conduct.	Coo otto	ahad lah F	
	Odor	NON						ORP	See atta	ibration Da	orm tör ata
								D.0	Cal		1.0
								Turbidity			

WATER LEVEL NOT RECORDED PRIOR TO

FURGING



D.0 Turbidity

1-03 TAKEN HERE



YYYD	600	().0	10	644	144.2	0.00	6.01	5.10	14.24		
1457	1200	75.3	120	125	457.0	0.23	2.19	3.76	19.83		
1454	1800	25.6	120	200	461.5	0.30	3.57	3.76	20.08	V.	
1957	2400	25.5	124	07	454.5	0:30	4.54	3.76	20.39		
										_	
		_									
1. Well evacu	ated to dryness?	Yes /	NO	7. Time to	recharge (min):	NA		9109. Decont	amination I	Procedures:	
2. Sample Filt	ered?	Yes /	NO	8. Sample 1	lime:	1500			Alconox	DI Rinse	
3. Sampling E	quip. Used	YERC	STALUC	9: Paramet	er/Container/Pr	es.		11. Instrume	nt type: YSI	ProDSS	
4. Drive Gas (Air/Nitrogen)	AIR /NITRO	GEN/N/A		See Attached C	ос		Calibration D	ate:		AB
S. Sample Rat	te (mL/min)	200						Calibration Ti	ime:		AB
6. Sample Ap	pearance:								Stnd.	Reading	Adjust.
	Turbidity	CURA	5	9. Other In	formation:			pН			
	Color	ar	3R					Conduct.	6		
	Odor	Now	E					ORP	see att	acned Lab F	orm for
			3					D.O	La		110

Turbidity



Time	(mL)	(°C)	Conductivi	ty (µs/tm)	(mV)	(mg/L)	(NTU)	рн	Drawdown		otes
1403	-	26.1	4174	/	186.9	0.75	7.10	3.85	5.40	1	
1406	900	24.8	405	8	301.9	0.06	13.31	3.59	5.56		
1409	1800	24.5	408	9	302.4	0.00	14.56	3.58	5.59		
1412	2700	74.6	409	0	297.3	0.00	13.97	357	5.00		
11415	3400	24.4	4092		295.1	9.00	1374	3.57	5.58		
1418	4500	24,3	409	7	297.2	0.00	11,87	3.57	5.58		
								ļ,			
1. Well evacu	ated to dryness?	Yes /	No	7. Time to r	echarge (min):	NA	1.6-1	9109. Decon	tamination Pi	ocedures:	
2. Sample Filt	ered?	Yes /	No	8. Sample Ti	ime:	1470			Alconox/I	DI Rinse	
3. Sampling E	quip. Used	BERIS	TATTIC	9: Paramete	r/Container/Pro	es.		11. Instrume	nt type: YSI P	roDSS	
4. Drive Gas (Air/Nitrogen)	AIRINITRO	SEN/ N/A		See Attached C	oc		Calibration D	ate:	L	AB
5. Sample Rat	e (mL/min)	300	>					Calibration T	ime:	L	AB
6. Sample App	pearance:								Stnd.	Reading	Adjust.
	Turbidity	CLEA	R	9. Other Info	ormation:			рН			
	Color	CLEAR						Conduct.	Cas atta	ala ad La L. C.	
	Odor	NONS						ORP	See atta	cneu Lap Fo	frm for
						10 C		D.0	Ldi		10



Low Stress Groundwater Sampling Data Sheet Facility Name: Gibbons Creek Station Sampler Name(s): MW Identification: MNW - 18 Date/Time: 7 Sample Number: 9 PID Readings: N/A CALM MOSTLY Weather Conditions: 797 7 SUNN Wellhead Inspection: COMMENT NO Visual Inspection: 1. Survey Mark Present: Yes 5. Standing/Ponded Water: / No Yes No 2. Collision/Vandalism Damage: Yes (No 6. Frost Heaving: Yes No 3. Casing Degradation: Yes / No 7. Lock in Place: Yes / No 4. Well Subsidence: Yes No Ground Water Measurements/Purge data: 8.70 1. Static Water Level (±0.01 feet [ft.]) 300 7. Purge Rate (mL/min) 2. Intake Depth (±0.01 ft.) 45 7. Water Level Measuring Equip. GEOTECH 3. Bottom of casing (±0.01 ft.) 8. Purge Equipment Used BLADDER 4. Casing Diameter (inches) そい 9. Dedicated? (Yes/No) Yes / No Yes / 😡 5. Actual Volume of Water Purged (mL) 10. Immiscible layer observed 6. Purge Water Characteristics: NA 11. Thickness of immiscible layer NONE CLEAR Odor Turbidity 12. Drive Gas (Air/Nitrogen) AIR NITROGEN / N/A Color ORP Volume Purged Temp D.O. Turbidity Time Conductivity (µs/cm) pН Drawdown Notes (°C) (mg/L) (mL) (mV) (NTU) 1010 210/0 -

1030		65.9	21	<u>d</u> <u>Q</u>	24.1	2015	1.20	6.50	8.40		
1033	900	23.3	38	302	-1,0	3.00	2.15	6.75	19.8		
1036	1800	23.1	39	58	- 30.0	0.45	2.28	6.72	8.84	1	
1039	2700	23.3	39	50	- 39.2	0.22	2.04	6.71	9.01		
1042	3600	23.3	39	28	-45.7	0.14	7.02	Pol.09	9.42		
1045	4500	23.5	39	13	-47.4	0.11	2.10	6.69	9.56		
							1997 - C				
						-					
									8		
1. Well evacua	ted to dryness?	Yes /	NO	7. Time to r	echarge (min):	NA		9109. Decont	amination P	rocedures:	
2. Sample Filte	ered?	Yes / 🕻	NO	8. Sample T	ime:	1050			Alconox/	DI Rinse	
3. Sampling Eq	uip. Used	BLADO	2R	9: Paramete	r/Container/Pr	'es.		11. Instrume	nt type: YSI F	roDSS	
4. Drive Gas (A	ir/Nitrogen)	AIR/NITROGE	N/ N/A		See Attached C	oc		Calibration D	ate:		AB
5. Sample Rate	e (mL/min)	300		-				Calibration Ti	me:	1	AB
6. Sample App	earance:								Stnd.	Reading	Adjust.
٦	Furbidity	CLEAR		9. Other Infe	ormation:			рН			
(Color	CLEAR						Conduct.	6		(
C	Ddor	NONE						ORP	See atta	icned Lab F	orm for
								D.0	Ld		110
								Turbidity			



✓ ✓ ✓

✓

YSI Pro DSS Calibration Certificate

Taylor Benton

Unit Number:	7127	Calibration Date	6/29/2021
Serial Number:	20F161183	Technician:	Taylor Ber

nstalled Probes Conductivity PH/ORP	✓ Dis✓ Ca✓ Fir	splay is clear, a ble and access mware version	nd free of d ories are fre is up to date	amage ee of dan e.	nage	Cable Cable Cond	Length Lot # Probe Lot	2 # 2	10M 20j101927 20J104225	pH/ORP DO Prot Turb Pro	Serial # be Serial # bbe Serial #	20J10445 19E10306 20H10376
☑ DO☑ TURB	Dis Ca	splay Battery ble Flex Test:	95 Pass	% S	Pass	Bath T Meter Variar	⁻ emp Temp ice		23.36 °C 23.3 °C -0.06	Pass		
— Con <u>Ca</u> 1	nd <u>alibration</u> .413 mS	<u>Reading</u> 1.413 mS	Pass					B	uffer Lot # 0gi224	Exp. Date 7/21	Pass	
—рН <u>Роі</u> 2	<u>nt Test</u> Point	<u>Calibration</u> pH 7.00 pH 4.00	<u>Reading</u> pH 7.00 pH 4.00	<u>m</u> -36.8 136.	<u>∨ §</u> 3 mV 7 mV 1	<u>Slope</u> 173.5	Pass	B	<u>uffer Lot #</u> 1GD151 8FH171	Exp. Date 4/23 12/21	Pass Pass	
ORI <u>Ca</u>	D <u>libraition</u> 220 mV	<u>Reading</u> 220 mV	Pass					B	<u>uffer Lot #</u> 0GL190	<u>Exp. Date</u> 9/21	Pass	
—Turb <u>Zer</u> 0 nt	idity <u> </u>	ing <u>Variance</u> ntu 0 ntu	Pass	<u>Cal</u> 124 ntu	Reading 124 nt	<u>g Va</u> u C	r <u>iance</u> 0.0% P a	iss	<u>Buffer Lo</u> 18L18438	<u>t # Exp. D</u> 971 8/2	D <u>ate</u> 1 Pass	
DO B 7 T	arometer 750 mmHg ïme: M	<u>Calibration</u> g 98.7 %	n <u>Readir</u> 98.9 °	<u>ng</u> %	Variance 0.2%	Pa	ass	W	<u>Test Flui</u> /ater Satura	id ted Air		

Geotech Environmental Equipment, Inc. takes pride in ensuring this instrument is tested to function as specified by the manufacturer and was calibrated in accordance to manufacturer specifications. All calibration standards used are NIST traceable. With the provided lot numbers we can provide NIST documents on request. Call us at (800) 833-7958 and we will be glad to help.

Appendix C

Lab Results Summary Tables

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			Sample Location:								MN	W-18							
			Compliance Phase:				Back	ground				Initia	I A.M.			Assessmer	t Monitoring		
			Sample Dates:	5/3/2017	5/30/2017	6/13/2017	6/27/2017	7/19/2017	8/23/2017	8/31/2017	9/7/2017	3/20/2018	6/8/2018	6/26/2019	1/16/2019	12/17/2019	6/16/2020	2/9/2021	7/13/2021
Constituent	Unit	MCL	Site BTV																
Field Parameters																			
pН	su	-	-	-	-	-	-	-	-	-	-	6.9	6.75	6.6	6.94	6.95	6.41	6.77	6.69
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	4,920	4,970	1,970	4,980	2,070	4,060	3,119	3,913
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	0	5.4	3.5	0.5	0	0	0.00	2.10
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	0	0.8	3.85	4.04	0	0.46	0.17	0.11
Temperature	°C	-	-	-	-	-	-	-	-	-	-	19	26.16	26.8	17.66	19.51	23.45	18.6	23.5
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	-96	-90	26	-92	-24	-51	-43.2	-47.4
Appendix III																			
Boron	mg/L	N/A	0.621	0.45	0.44	0.44	0.43	0.44	0.54	0.44	0.3	-	ND	0.297	ND	-	0.485	0.422	0.0451J
Calcium	mg/L	N/A	542	301	330	350	394	440	447	444	439	-	396	104.0	316.0	-	322	299	<0.127
Chloride	mg/L	N/A	649	547	590	543	534	544	529	521	529	-	491	146.0	504.0	-	437	369	383
Fluoride	mg/L	N/A	0.5	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	ND	ND	ND	2.01	0.138	ND	0.120J	0.158J
pH, Field	SU	N/A	6.02-7.56	7.39	7.16	6.95	6.84	6.68	6.70	6.55	6.47	6.86	6.75	6.56	6.94	6.95	6.41	6.77	6.69
Sulfate	mg/L	N/A	2,640	1,470	1,790	1,790	1,960	2,150	2,090	2,120	2,200	-	1,890	520	1,720	-	1,480	1,300	1,430
Total Dissolved Solids	mg/L	N/A	4,930	3,050	3,460	3,670	3,680	4,050	3,920	4,020	4,070	-	3,730	1,270	3,750	-	3,160	2,080	2,880
Appendix IV																			1
Antimony	mg/L	0.006	0.002	<0.006	<0.006	<0.006	<0.006	< 0.006	<0.006	<0.006	<0.006	ND	-	-	-	ND	ND	< 0.000378	< 0.000378
Arsenic	mg/L	0.01	0.00255	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	•	0.0	0.0	0.00255	< 0.000313
Barium	mg/L	2	0.06	0.05	0.05	0.05	0.06	0.06	0.06	0.05	0.05	ND	-	-	-	0.0142	0.0477	0.0467	< 0.00160
Beryllium	mg/L	0.004	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	ND	ND	ND	ND	ND	0.000184	< 0.000182
Cadmium	mg/L	0.005	0.001	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.005	<0.005	ND	ND	ND	ND	ND	ND	< 0.000217	<0.000217
Chromium	mg/L	0.1	0.00617	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	0.00617	0.00249	< 0.00153
Cobalt	mg/L	0.006	0.00226	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	ND	ND	ND	ND	ND	0.000561	0.00226	< 0.000134
Radium-226/228	pCi/L	10.1	9.82	3.5	3.3	4.8	6.1	5.1	6.7	7.6	7.2	4.65	4.79	0.47	3.72	0.662	4.25	4.61	4.59
Fluoride	mg/L	4	0.5	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	ND	ND	ND	2.01	0.138	ND	0.12	0.158J
Lead	mg/L	0.015	0.01	< 0.01	<0.01	<0.01	0.0	<0.01	<0.01	<0.01	<0.01	ND	ND	ND	ND	ND	ND	< 0.000128	< 0.000128
Lithium	mg/L	0.552	0.521	0.39	0.41	0.48	0.45	0.44	0.44	0.40	0.36	0.443	0.417	0.179	0.403	0.197	0.365	0.332	< 0.00339
Mercury	mg/L	0.002	0.0002	<0.001	< 0.001	<0.001	< 0.001	<0.001	< 0.001	<0.001	< 0.001	ND	ND	ND	ND	ND	ND	< 0.000130	< 0.000130
Molybdenum	mg/L	0.1	0.005	< 0.05	<0.05	<0.05	<0.05	< 0.05	<0.05	<0.05	<0.05	ND	-	-	•	ND	ND	< 0.000610	<0.000610
Selenium	mg/L	0.05	0.005	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	<0.00151	< 0.00151
Thallium	mg/L	0.002	0.001	<0.002	0.002	<0.002	< 0.002	<0.002	< 0.002	< 0.002	< 0.002	ND	ND	ND	ND	ND	ND	< 0.000148	< 0.000148
Notes: NTU - Nephelometric Turbidity Unit. mV - mill Volt mgL - millgrams per liter. SU - standard units; pH is a field parameter pCiL - picocuries per liter. J - Value is below the Reporting Limit and MCL - Maximum Contaminant Level, EPA I not analyzed. All metals were analyzed as total unless of	above the Meth prinking Water :	nod Detection Limit; ther Standards and Health A ad.	fore, value is estimated an dvisories, April, 2012.	d not considered s	ignificant.														

			Sample Location:								SFL	MW-2							
			Compliance Phase:				Back	ground				Initia	I A.M.			Assessmer	t Monitoring		
			Sample Dates:	6/23/2016	8/25/2016	10/19/2016	12/22/2016	2/22/2017	5/3/2017	6/14/2017	8/23/2017	3/20/2018	6/12/2018	6/26/2019	1/16/2019	12/17/2019	6/16/2020	2/9/2021	7/13/2021
Constituent	Unit	MCL	Site BTV																
Field Parameters																			
pН	su	-	-	-	-	-	-	-	-	-	-	6.3	5.96	6.5	6.69	6.64	5.58	6.55	5.74
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	9,410	1,130	9,890	9,940	1,000	1,080	7,329	11,333
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	1.8	2.9	0	1.8	54.4	25.7	5.54	9.98
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	0	3.14	2.24	2.59	0.62	0.23	0.19	0.33
Temperature	°C	-	-	-	-	-	-	-	-	-	-	23.12	27.29	29.7	19.75	21.5	30.05	19.8	23.9
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	229	197	206	210	158	235	224.0	266.7
Appendix III																			
Boron	mg/L	N/A	0.621	0.52	0.60	0.57	0.54	0.55	0.55	0.51	0.57	-	ND	0.515	ND	-	0.489	0.464	0.552
Calcium	mg/L	N/A	542	797	890	944	692	578	806	829	833	-	805	937.0	585	-	944	691	946
Chloride	mg/L	N/A	649	2,900	2,810	2,790	2,590	2,480	2,760	2,910	2,910	-	2,650	3,140	2,450	-	3,250	2,100	3,290
Fluoride	mg/L	N/A	0.5	0.3	0.1	0.2	0.3	0.4	0.3	0.3	0.3	ND	ND	ND	3.06	ND	ND	0.190J	0.433J
pH, Field	SU	N/A	6.02-7.56	6.32	5.61	6.40	6.60	6.80	6.19	6.05	6.09	6.25	5.96	6.54	6.69	6.6	5.6	6.6	5.74
Sulfate	mg/L	N/A	2,640	2,010	1,900	1,980	1,770	1,740	1,810	1,890	1,890	-	1,720	1,720	1,480	-	1,760	1,290	1,890
Total Dissolved Solids	mg/L	N/A	4,930	7,950	7,680	6,480	6,830	6,630	6,720	6,940	7,120	-	8,340	7,630	6,090	-	6,970	5,730	6,760
Appendix IV																			
Antimony	mg/L	0.006	0.002	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	< 0.006	<0.006	ND	-	-	-	ND	ND	< 0.000378	<0.000378
Arsenic	mg/L	0.01	0.00255	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	0.0015	0.0016	0.00227	0.00147
Barium	mg/L	2	0.06	0.03	0.03	0.03	0.02	0.02	0.02	0.03	0.02	ND	-	-	-	0.0235	0.0262	0.0235	0.0265
Beryllium	mg/L	0.004	0.001	0.002	0.002	0.002	0.001	<0.001	0.002	0.002	0.003	ND	0.00475	0.00444	ND	0.00247	0.00722	0.00132	0.00626
Cadmium	mg/L	0.005	0.001	< 0.005	< 0.005	< 0.005	< 0.005	<0.005	<0.005	< 0.005	< 0.005	ND	ND	0.00	ND	0.00185	0.00277	0.000761J	0.00285
Chromium	mg/L	0.1	0.00617	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	< 0.00153	< 0.00153
Cobalt	mg/L	0.006	0.00226	0.02	0.02	0.02	0.06	<0.02	< 0.02	< 0.02	0.02	0.0112	0.0178	0.0187	0.0103	0.0136	0.0214	0.011	0.0159
Radium-226/228	pCi/L	10.1	9.82	11	20.6	12.9	6.6	7.1	7.200	8.4	9	7.46	8.33	7.57	6.91	6.53	8.27	8.220	8.1
Fluoride	mg/L	4	0.5	0.3	0.1	0.2	0.3	0.4	0.3	0.3	0.3	ND	ND	ND	3.06	ND	ND	0.190J	0.433J
Lead	mg/L	0.015	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	ND	ND	ND	ND	0.00132	0.000272J
Lithium	mg/L	0.552	0.521	0.51	0.53	0.58	0.6	0.49	0.53	0.59	0.33	0.476	0.378	0.4	0.408	0.449	0.487	0.476	0.475
Mercury	mg/L	0.002	0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	ND	ND	ND	ND	ND	< 0.000130	<0.000130
Molybdenum	mg/L	0.1	0.005	<0.05	<0.05	< 0.05	<0.05	< 0.05	<0.05	< 0.05	<0.05	ND	-	-	-	ND	ND	0.00202J	< 0.000610
Selenium	mg/L	0.05	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	<0.00151	<0.00151
Thallium	mg/L	0.002	0.001	<0.002	< 0.002	<0.002	< 0.002	<0.002	< 0.002	< 0.002	< 0.002	ND	ND	0.00103	ND	ND	ND	0.000612J	0.000865J
Notes: NTU - Nephelometric Turbidity Unit. mV - mili Volt mgl - miligrams per liter. SU - standard units; pH is a field paramete pC/L - piocouries per liter. J - Value is below the Reporting Limit and MCL - Maximum Contaminant Level, EPA not analyzed. All metals were analyzed as total unless of	r. above the Meth Drinking Water \$ therwise specifie	od Detection Limit; ther Standards and Health A d.	fore, value is estimated an dvisories, April, 2012.	d not considered s	ignificant.														

			Sample Location:								SFL	MW-3							
			Compliance Phase:				Backę	ground				Initia	I A.M.			Assessmer	t Monitoring		
			Sample Dates:	6/23/2016	8/25/2016	10/19/2016	12/22/2016	2/23/2017	5/2/2017	6/14/2017	8/22/2017	3/20/2018	6/12/2018	6/26/2019	1/16/2019	12/17/2019	6/16/2020	2/10/2021	7/13/2021
Constituent	Unit	MCL	Site BTV																
Field Parameters																			
pН	su	-	-	-	-	-	-	-	-	-	-	3.8	3.82	3.8	3.9	3.89	3.45	3.79	3.70
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	6,980	6,690	6,420	7,500	6,750	6,160	5,292	6,323
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	40.6	25.8	1	9.5	0.3	0	1.01	4.04
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	0	0.48	0.52	0.97	0.54	0.06	0.00	0.00
Temperature	°C	-	-	-	-	-	-	-	-	-	-	22.49	26.89	24.47	19.49	21.12	27.01	18.7	24.2
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	410	407	392	345	3.57	432	335.4	402.0
Appendix III																			
Boron	mg/L	N/A	0.621	2.4	2.5	2.87	2.81	2.54	2.49	2.93	2.64	-	3.8	3.85	3.06	-	3.67	3.75	3.87
Calcium	mg/L	N/A	542	687	666	727	735	628	590	672	587	-	567	661	520	-	600	599	594
Chloride	mg/L	N/A	649	1,560	1,490	1,480	1,480	1,440	1,390	1,440	1,390	-	1,040	1,090	1,140	-	1,090	897	946
Fluoride	mg/L	N/A	0.5	0.8	0.7	0.5	0.6	0.6	0.6	0.6	0.6	ND	ND	ND	1.49	0.577	0.526	0.479J	0.427J
pH, Field	SU	N/A	6.02-7.56	3.76	3.50	3.80	3.80	3.80	3.67	3.64	3.67	3.83	3.82	3.82	3.90	3.89	3.45	3.79	3.70
Sulfate	mg/L	N/A	2,640	2,220	2,210	2,170	2,240	2,280	2,290	2,380	2,310	-	2,070	2,100	2,460	-	2,350	2,280	2,330
Total Dissolved Solids	mg/L	N/A	4,930	5,940	5,660	5,010	5,640	5,440	5,130	4,710	5,260	-	5,540	4,480	5,240	-	5,180	5,040	4,990
Appendix IV																			
Antimony	mg/L	0.006	0.002	<0.006	< 0.006	< 0.006	< 0.006	<0.006	< 0.006	< 0.006	< 0.006	ND	-	-	-	ND	ND	< 0.000378	<0.000378
Arsenic	mg/L	0.01	0.00255	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	0.00564	0.00317	0.00317	0.00303
Barium	mg/L	2	0.06	0.04	0.06	0.05	0.03	0.02	0.03	0.03	0.07	ND	-	-	-	0.0136	0.0131	0.013	0.0133
Beryllium	mg/L	0.004	0.001	0.042	0.04	0.034	0.037	0.04	0.034	0.037	0.038	0.0386	0.0308	0.0334	0.0289	0.0357	0.0335	0.0316	0.0315
Cadmium	mg/L	0.005	0.001	0.009	0.01	0.008	0.008	0.008	0.008	0.007	0.008	0.00648	0.00641	0.01	0.0072	0.0069	0.0062	0.00587	0.00608
Chromium	mg/L	0.1	0.00617	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	0.0024	ND	<0.00153	<0.00153
Cobalt	mg/L	0.006	0.00226	0.07	0.07	0.07	0.1	0.07	0.07	0.07	0.07	0.0558	0.0598	0.0622	0.0614	0.0556	0.0598	0.0601	0.0606
Radium-226/228	pCi/L	10.1	9.82	8.19	16.6	10	5.8	7.6	6.9	5	6.1	4.4	4.48	5.43	4.62	3.74	3.65	4.220	4.97
Fluoride	mg/L	4	0.5	0.8	0.7	0.5	0.6	0.6	0.6	0.6	0.6	ND	ND	ND	1.49	0.577	0.526	0.479J	0.0185
Lead	mg/L	0.015	0.01	0.02	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.0191	0.0183	0.0	0.0183	0.0192	0.0206	0.0185	0.29
Lithium	mg/L	0.552	0.521	0.4	0.41	0.44	0.47	0.35	0.29	0.4	0.25	0.322	0.263	0.263	ND	0.325	0.296	0.291	0.00144
Mercury	mg/L	0.002	0.0002	0.003	0.003	0.003	0.003	0.002	0.002	0.001	0.002	0.00182	0.00162	0.00338	0.00176	2.73	0.00191	0.00204	< 0.000610
Molybdenum	mg/L	0.1	0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	ND	-	-	-	ND	ND	< 0.000610	<0.00151
Selenium	mg/L	0.05	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	0.0188	ND	<0.00151	0.427J
Thallium	mg/L	0.002	0.001	0.007	0.006	0.006	0.006	0.006	0.006	0.006	0.007	0.00549	0.00552	0.0045	0.00605	0.00634	0.00566	0.00556	0.00538
Notes:																			

			Sample Location:								SFL	MW-4							
			Compliance Phase:				Back	ground				Initia	I A.M.			Assessmen	t Monitoring		
			Sample Dates:	6/23/2016	8/25/2016	10/19/2016	12/22/2016	2/22/2017	5/2/2017	6/14/2017	8/22/2017	3/20/2018	6/12/2018	6/26/2019	1/6/2019	12/17/2019	6/16/2020	2/10/2021	7/13/2021
Constituent	Unit	MCL	Site BTV																
Field Parameters																			
pH	su	-	-	-	-	-	-	-	-	-	-	6.3	6.17	6.2	6.27	6.52	5.82	6.45	6.12
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	8,140	7,810	7,870	8,730	8,200	7,620	6,391	7,630
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	0	16.2	0	0.1	1	8	0.34	3.11
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	0.97	0.54	0.79	0	11.9	0.03	0.01	0.00
Temperature	°C	-	-	-	-	-	-	-	-	-	-	21.62	27.59	23.51	20.31	19.31	26.21	18.6	23.6
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	56	56	65	48	18	-20	-31.8	-35.7
Appendix III																			
Boron	mg/L	N/A	0.621	0.6	0.6	0.69	0.61	0.55	0.58	0.59	0.55	-	ND	0.7	ND	-	0.711	0.648	0.809
Calcium	mg/L	N/A	542	799	768	826	858	721	735	780	740	-	673	801	714	-	759	704	752
Chloride	mg/L	N/A	649	1,690	1,680	1,750	1,670	1,730	1,730	1,740	1,730	-	1,410	1,660	1,640	-	1,760	1,580	1,560
Fluoride	mg/L	N/A	0.5	0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	ND	ND	ND	1.7	ND	ND	<0.130	0.204J
pH, Field	SU	N/A	6.02-7.56	6.38	5.94	6.18	6.45	6.35	6.17	5.98	6.01	6.31	6.17	6.15	6.27	6.5	5.8	6.5	6.12
Sulfate	mg/L	N/A	2,640	2,150	2,100	2,190	2,100	2,230	2,280	2,280	2,240	-	2,010	2,080	2,220	-	2,320	1,870	2,390
Total Dissolved Solids	mg/L	N/A	4,930	6,200	6,160	5,850	6,000	6,000	5,700	5,700	5,900	-	6,470	5,310	6,170	-	6,010	5,720	5,770
Appendix IV																			
Antimony	mg/L	0.006	0.002	<0.006	< 0.006	<0.006	<0.006	<0.006	<0.006	< 0.006	<0.006	ND	-	-	-	ND	ND	< 0.000378	<0.000378
Arsenic	mg/L	0.01	0.00255	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	0.00106	< 0.000313
Barium	mg/L	2	0.06	0.04	0.03	0.03	0.03	0.02	0.03	0.02	0.02	ND	-	-	-	0.023	0.024	0.0247	0.0262
Beryllium	mg/L	0.004	0.001	<0.001	< 0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	ND	ND	ND	ND	ND	< 0.000182	<0.000182
Cadmium	mg/L	0.005	0.001	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	ND	ND	ND	ND	ND	ND	< 0.000217	<0.000217
Chromium	mg/L	0.1	0.00617	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	< 0.00153	< 0.00153
Cobalt	mg/L	0.006	0.00226	< 0.02	<0.02	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	ND	ND	ND	ND	ND	ND	< 0.000134	< 0.000134
Radium-226/228	pCi/L	10.1	9.82	6.85	5.28	4.2	0.4	3.2	1.500	2.6	2.1	1.65	1.81	1.28	1.18	1.28	1.26	1.120	1.66
Fluoride	mg/L	4	0.5	0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	ND	ND	ND	1.7	ND	ND	<0.130	0.204J
Lead	mg/L	0.015	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	ND	ND	ND	ND	<0.000128	<0.000128
Lithium	mg/L	0.552	0.521	0.48	0.49	0.52	0.58	0.45	0.42	0.48	0.34	0.478	0.348	0.377	0.401	0.418	0.432	0.402	0.401
Mercury	mg/L	0.002	0.0002	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	<0.001	ND	ND	ND	ND	ND	ND	< 0.000130	<0.000130
Molybdenum	mg/L	0.1	0.005	< 0.05	<0.05	<0.05	< 0.05	<0.05	<0.05	<0.05	< 0.05	ND	-	-	-	ND	ND	0.00106J	0.00208J
Selenium	mg/L	0.05	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	<0.00151	<0.00151
Thallium	mg/L	0.002	0.001	< 0.002	< 0.002	< 0.002	<0.002	< 0.002	< 0.002	< 0.002	0.006	ND	ND	ND	ND	ND	ND	<0.000148	<0.000148
Notes: NTU - Nephelometris Turbidity Unit. mV - mill Volt mgl - milligrams per liter. SU - standard units; pH is a field paramete pC/L - piocouries per liter. J - Value is below the Reporting Limit and MCL - Maximum Contamianat Level, EPA. not analyzed.	r. above the Meth Drinking Water S therwise specifie	od Detection Limit; ther Standards and Health A	ffore, value is estimated ar Advisories, April, 2012.	d not considered si	ignificant.														

			Sample Location:								SFL	MW-5							
			Compliance Phase:				Back	ground				Initia	I A.M.			Assessmer	nt Monitoring		
			Sample Dates:	6/23/3016	8/25/2016	10/19/2016	12/21/2016	2/23/2017	5/3/2017	6/14/2017	8/23/2017	3/20/2018	6/8/2018	6/26/2019	1/16/2019	12/17/2019	6/16/2020	2/9/2021	7/13/2021
Constituent	Unit	MCL	Site BTV																
Field Parameters																			
pН	su	-	-	-	-	-	-	-	-	-	-	4.7	4.43	4.4	4.64	4.91	4.27	4.64	4.24
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	1,140	1,160	1,070	1,150	1,170	1,110	8,840	10,864
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	0.5	7.3	0	0	8.6	4.5	11.01	4.88
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	0	0.69	2.97	3.03	0.74	0.41	0.19	0.00
Temperature	°C	-	-	-	-	-	-	-	-	-	-	21.98	27.13	24.09	18.52	21.37	25.3	21.4	23.3
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	367	388	363	359	308	356	353.9	400.4
Appendix III																			
Boron	mg/L	N/A	0.621	3.5	3.6	3.74	3.93	2.98	3.97	4.18	4.12	-	4.42	6.04	4.08	-	5.35	4.34	5.1
Calcium	mg/L	N/A	542	878	906	903	944	755	883	899	864	-	873	857	715	-	812	837	816
Chloride	mg/L	N/A	649	2,990	2,950	3,070	3,160	3,020	3,040	3,160	3,190	-	3,010	3,180	2,880	-	3,000	2,340	2,930
Fluoride	mg/L	N/A	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	ND	ND	ND	5.89	ND	ND	<0.260	0.342J
pH, Field	SU	N/A	6.02-7.56	5.05	4.34	4.7	4.48	5.1	4.49	4.44	4.58	4.67	4.43	4.4	4.64	4.91	4.27	4.64	4.24
Sulfate	mg/L	N/A	2,640	2,150	2,090	2,100	2,170	2,120	2,150	2,220	2,240	-	2,290	2,100	2,070	-	2,190	1,720	2,330
Total Dissolved Solids	mg/L	N/A	4,930	8,350	7,960	7,530	7,910	7,530	7,380	7,600	7,520	-	7,470	6,890	7,300	-	7,250	7,820	8,110
Appendix IV																			
Antimony	mg/L	0.006	0.002	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	ND	-	-	-	ND	ND	<0.000378	<0.000378
Arsenic	mg/L	0.01	0.00255	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	0.00234	0.00145	0.0033	0.00151
Barium	mg/L	2	0.06	0.04	0.08	0.06	0.03	0.02	0.03	0.02	0.02	ND	-	-	-	0.0209	0.0192	0.0212	0.0179
Beryllium	mg/L	0.004	0.001	0.008	0.011	0.01	0.01	0.01	0.012	0.011	0.01	ND	0.0105	0.0123	0.00885	0.0101	0.0113	0.00918	0.0104
Cadmium	mg/L	0.005	0.001	<0.005	<0.005	< 0.005	<0.005	<0.005	0.005	0.005	0.006	ND	0.00538	0.00511	0.00531	0.00509	0.00564	0.00385	0.0047
Chromium	mg/L	0.1	0.00617	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	0.00241	0.00441	0.0044
Cobalt	mg/L	0.006	0.00226	0.07	0.06	0.05	0.06	0.05	0.05	0.05	0.05	0.0398	0.0486	0.0559	0.0492	0.0453	0.0512	0.045	0.0515
Radium-226/228	pCi/L	10.1	9.82	7.52	25.6	11.5	8.7	11.9	9.9	11.6	12.3	12.1	9.65	11.2	11.3	12.1	11.5	13.5	13.6
Fluoride	mg/L	4	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	ND	ND	ND	5.89	ND	ND	<0.260	0.342J
Lead	mg/L	0.015	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	0.00459	ND	0.00102	ND	0.000725J	0.000721J
Lithium	mg/L	0.552	0.521	0.66	0.79	0.9	0.99	0.72	0.79	0.92	0.62	0.685	0.629	0.643	0.643	0.67	0.704	0.677	0.645
Mercury	mg/L	0.002	0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	ND	ND	ND	ND	ND	< 0.000130	< 0.000130
Molybdenum	mg/L	0.1	0.005	<0.05	< 0.05	<0.05	<0.05	< 0.05	<0.05	<0.05	<0.05	ND	-	-	-	ND	ND	0.00180J	<0.000610
Selenium	mg/L	0.05	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	0.00989	ND	<0.00151	<0.00151
Thallium	mg/L	0.002	0.001	< 0.002	< 0.002	<0.002	< 0.002	< 0.002	<0.002	<0.002	< 0.002	ND	ND	0.00115	ND	0.00136	0.00118	0.0012	0.00133
Notes:																			

			Sample Location:								SFL	MW-6							
			Compliance Phase:				Back	ground				Initia	I A.M.			Assessmer	t Monitoring		
			Sample Dates:	6/23/2016	8/25/2016	10/19/2016	12/21/2016	2/22/2017	5/3/2017	6/13/2017	8/23/2017	3/20/2018	6/8/2018	6/27/2019	1/15/2019	12/17/2019	6/16/2020	2/9/2021	7/13/2021
Constituent	Unit	MCL	Site BTV																
Field Parameters																			
pH	su	-	-	-	-	-	-	-	-	-	-	3.9	3.95	3.9	4.07	4.16	3.9	3.82	3.76
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	1,310	1,330	1,350	1,280	1,330	1,230	10,492	12,607
Turbidity	NTU	-	-	-	-	-	-	-	-	-		0	0.9	8.9	0	2.2	28.1	41.50	4.54
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	0	0.84	3.14	0	1.57	0.79	0.25	0.30
Temperature	°C	-	-	-	-	-	-	-	-	-	-	21.05	26.54	26	19.96	18.99	28.65	20.6	25.5
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	463	478	488	443	418	471	435.5	454.5
Appendix III																			
Boron	mg/L	N/A	0.621	0.5	0.39	0.41	0.4	0.24	0.3	0.16	0.35	-	ND	0.29	ND	-	0.384	0.329	0.38
Calcium	mg/L	N/A	542	910	929	983	977	852	955	892	864	-	915	800	824	-	950	953	937
Chloride	mg/L	N/A	649	3,350	3,470	3,500	3,580	3,570	3,560	3,640	3,730	-	3,670	3,240	3,490	-	3,760	3,310	3,340
Fluoride	mg/L	N/A	0.5	0.7	0.8	0.8	0.8	0.9	0.8	0.7	0.7	ND	ND	ND	8.72	ND	ND	0.531J	0.527J
pH, Field	SU	N/A	6.02-7.56	4.4	3.84	4.15	3.92	4.21	3.99	3.99	3.98	3.94	3.95	3.91	4.07	4.16	3.9	3.82	3.76
Sulfate	mg/L	N/A	2,640	2,230	2,240	2,170	2,120	2,260	2,260	2,330	2,470	-	2,520	1,870	2,500	-	2,350	2,070	2,190
Total Dissolved Solids	mg/L	N/A	4,930	8,650	8,850	8,170	8,640	8,790	8,020	9,200	8,260	-	6,330	7,040	8,850	-	11,000	8,350	7,420
Appendix IV																			
Antimony	mg/L	0.006	0.002	< 0.006	< 0.006	<0.006	< 0.006	<0.006	< 0.006	< 0.006	< 0.006	ND	-	-	-	ND	ND	< 0.000378	<0.000378
Arsenic	mg/L	0.01	0.00255	0.02	0.01	<0.01	<0.01	0.01	0.02	<0.01	0.01	ND	-	-	-	0.02	0.01	0.0135	0.0125
Barium	mg/L	2	0.06	0.30	0.08	0.06	0.05	0.04	0.03	0.04	0.04	ND	-	-	-	0.0247	0.0309	0.0537	0.0376
Beryllium	mg/L	0.004	0.001	0.028	0.049	0.051	0.047	0.056	0.054	0.047	0.056	0.0599	0.0449	0.0496	0.0418	0.052	0.0503	0.0489	0.0463
Cadmium	mg/L	0.005	0.001	0.007	0.01	0.011	0.011	0.013	0.01	0.011	0.012	0.00875	0.00942	0.01	0.00955	0.0118	0.0104	0.0105	0.0104
Chromium	mg/L	0.1	0.00617	0.01	<0.01	0.01	0.011	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	0.00797	ND	0.00757	0.00551
Cobalt	mg/L	0.006	0.00226	0.11	0.12	0.12	0.12	0.13	0.11	0.11	0.12	0.104	0.1	0.105	0.112	0.104	0.109	0.116	0.111
Radium-226/228	pCi/L	10.1	9.82	11.6	28.8	10.8	14.3	6.8	8.6	9	3.9	9.22	9.02	11.8	10.1	28.3	17.8	14.6	13.7
Fluoride	mg/L	4	0.5	0.7	0.8	0.8	0.8	0.9	0.8	0.7	0.7	ND	ND	ND	8.72	ND	ND	0.531J	0.527J
Lead	mg/L	0.015	0.01	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0054	ND	0.0	0.00549	0.0171	0.0115	0.015	0.0109
Lithium	mg/L	0.552	0.521	0.55	0.8	0.88	0.93	0.74	0.72	0.69	0.56	0.739	0.597	0.663	0.619	0.64	0.709	0.614	0.64
Mercury	mg/L	0.002	0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	ND	ND	ND	ND	ND	< 0.000130	<0.000130
Molybdenum	mg/L	0.1	0.005	<0.05	<0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05	<0.05	ND	-	-	-	ND	ND	< 0.000610	< 0.000610
Selenium	mg/L	0.05	0.005	<0.01	0.01	0.02	<0.01	0.01	0.01	<0.01	<0.01	ND	-	-	-	0.0525	ND	<0.00151	<0.00151
Thallium	mg/L	0.002	0.001	0.004	0.002	0.004	0.003	0.004	0.003	0.004	0.003	0.00322	0.00305	0.00264	0.00315	0.0041	0.00333	0.00339	0.00329
Notes: NTU - Nophelometric Turbidity Unit. mV - milli Volt mglL - milligrams per liter. SU - standard units; pH is a field paramete pC/L - pioccuries per liter. J - Value is below the Reporting Limit and MCL - Maximum Contaminant Level, EPA not analyzed. All metals were analyzed as total unless of	r. above the Meth Drinking Water \$ herwise specifie	od Detection Limit; ther Standards and Health A	fore, value is estimated an dvisories, April, 2012.	d not considered s	ignificant.														

			Sample Location:								SFL	MW-7							
			Compliance Phase:				Back	ground				Initia	I A.M.			Assessmer	t Monitoring		
			Sample Dates:	5/11/2017	5/31/2017	6/14/2014	6/28/2017	7/20/2017	8/23/2017	8/31/2017	9/7/2017	3/20/2018	6/12/2018	6/26/2019	1/16/2019	12/17/2019	6/16/2020	2/10/2021	7/13/2021
Constituent	Unit	MCL	Site BTV																
Field Parameters																			
pН	su	-	-	-	-	-	-	-	-	-	-	6.5	6.33	6.8	6.69	6.7	6.01	6.64	6.34
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	9,210	8,820	8,830	9,800	9,370	8,240	5,680	6,956
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	0	7.6	0	0	20.3	0	2.43	2.26
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	0.29	2.53	3.48	1.74	0.83	0.34	0.10	0.27
Temperature	°C	-	-	-	-	-	-	-	-	-	-	20.43	28.91	23.25	18.84	18.8	25.31	19.5	23.9
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	-102	-42	18	19	-82	-43	-28.6	-9.9
Appendix III																			
Boron	mg/L	N/A	0.621	0.75	0.78	0.76	0.73	0.83	0.92	0.7	0.59	-	ND	0.879	ND	-	0.832	0.792	0.795
Calcium	mg/L	N/A	542	678	654	662	620	664	693	628	613	-	591	588	523	-	643	400	395
Chloride	mg/L	N/A	649	2,870	2,740	2,800	2,850	2,780	2,810	2,770	2,820	-	2,600	2,700	2,580	-	2,880	1,920	1,900
Fluoride	mg/L	N/A	0.5	0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	ND	ND	ND	2.62	ND	ND	<0.130	0.190J
pH, Field	SU	N/A	6.02-7.56	6.37	6.43	6.17	6.32	6.34	6.21	6.11	6.24	-	6.47	6.79	6.69	6.7	6.01	6.64	6.34
Sulfate	mg/L	N/A	2,640	811	778	779	787	770	801	768	770	-	743	630	694	-	816	576	672
Total Dissolved Solids	mg/L	N/A	4,930	7,260	6,810	6,460	6,620	6,640	6,230	6,650	6,810	-	6,840	5,410	6,090	-	5,830	4,430	4,200
Appendix IV																			
Antimony	mg/L	0.006	0.002	<0.006	< 0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	ND	-	-	-	ND	ND	0.000579J	<0.000378
Arsenic	mg/L	0.01	0.00255	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	< 0.000313	< 0.000313
Barium	mg/L	2	0.06	0.04	0.04	0.03	0.03	0.04	0.03	0.03	0.04	ND	-	-	-	0.037	0.0342	0.051	0.0476
Beryllium	mg/L	0.004	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	ND	ND	ND	ND	ND	< 0.000182	<0.000182
Cadmium	mg/L	0.005	0.001	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	ND	ND	ND	ND	ND	ND	< 0.000217	<0.000217
Chromium	mg/L	0.1	0.00617	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	< 0.00153	< 0.00153
Cobalt	mg/L	0.006	0.00226	< 0.02	<0.02	< 0.02	< 0.02	<0.02	<0.02	<0.02	<0.02	ND	ND	ND	ND	ND	ND	< 0.000134	< 0.000134
Radium-226/228	pCi/L	10.1	9.82	1.9	4.4	2.3	2.6	2.6	3.4	1.4	2.9	1.98	2	2.2	2.36	1.96	1.99	2.56	2.77
Fluoride	mg/L	4	0.5	0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	ND	ND	ND	2.62	ND	ND	<0.130	0.190J
Lead	mg/L	0.015	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	ND	ND	ND	ND	0.000211J	<0.000128
Lithium	mg/L	0.552	0.521	0.46	0.45	0.5	0.46	0.43	0.4	0.4	0.37	0.466	0.379	0.408	0.388	0.45	0.447	0.375	0.389
Mercury	mg/L	0.002	0.0002	<0.001	<0.001	< 0.001	<0.001	< 0.001	<0.001	< 0.001	<0.001	ND	ND	ND	ND	ND	ND	< 0.000130	<0.000130
Molybdenum	mg/L	0.1	0.005	<0.05	<0.05	<0.05	<0.05	< 0.05	<0.05	<0.05	<0.05	ND	-	-	-	ND	ND	< 0.000610	<0.000610
Selenium	mg/L	0.05	0.005	<0.01	0.02	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	<0.00151	<0.00151
Thallium	mg/L	0.002	0.001	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	ND	ND	ND	ND	ND	ND	< 0.000148	<0.000148
Notes: NTU - Nephelometric Turbidity Unit. mV - milli Volt. mg/L - milligrams per liter. SU - standard units; pH is a field paramete pC/L - piocouries per liter. J - Value is below the Reporting Limit and MCL - Maximum Contaminant Level, EPA not analyzed. All matals were naphyzed as total unitses of	r. I above the Meth Drinking Water S	od Detection Limit; the Standards and Health A	rfore, value is estimated an Advisories, April, 2012.	d not considered s	ignificant.														

			Sample Location:								MN\	W-15							
		(Compliance Phase:				Back	ground				Initia	I A.M.			Assessmer	nt Monitoring		
			Sample Dates:	5/2/2017	5/31/2017	6/14/2017	6/28/2017	7/20/2017	8/22/2017	8/31/2017	9/7/2017	3/20/2018	6/12/2018	6/26/2019	1/16/2019	12/17/2019	6/16/2020	2/9/2021	7/13/2021
Constituent	Unit	MCL	Site BTV																
Field Parameters																			
pН	su	-	-	-	-	-	-	-	-	-	-	3.6	3.65	3.4	3.7	3.78	3.21	3.63	3.57
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	4,040	3,970	3,920	4,190	4,240	3,880	3,403	4,097
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	0	6.4	0	2.7	0	0	7.03	11.89
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	0	1.7	2.86	0	0	3.82	0.51	0.00
Temperature	°C	-	-	-	-	-	-	-	-	-	-	18.99	28.09	24.49	20.06	20.23	24.71	22.0	24.3
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	315	325	314	286	274	343	329.6	297.2
Appendix III																			
Boron	mg/L	N/A	0.621	9.51	8.75	8.62	9.67	9.38	9.22	9.43	9.26	-	11.8	9.64	8.56	-	8.3	9.06	8.44
Calcium	mg/L	N/A	542	280	269	256	263	275	254	264	260	-	249	272	244	-	327	325	304
Chloride	mg/L	N/A	649	730	704	688	734	704	718	721	740	-	581	578	667	-	654	584	669
Fluoride	mg/L	N/A	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	ND	ND	0.718	1.04	1.03	0.794	0.84	0.617
pH, Field	SU	N/A	6.02-7.56	3.7	3.64	3.53	3.48	3.46	3.42	3.32	3.48	3.61	3.65	3.44	3.7	3.78	3.21	3.63	3.57
Sulfate	mg/L	N/A	2,640	1,270	1,230	1,190	1,290	1,240	1,250	1,260	1,280	-	1,250	1,210	1,310	-	1,370	1,350	1,480
Total Dissolved Solids	mg/L	N/A	4,930	2,540	2,720	2,620	2,580	2,690	2,620	2,700	2,750	-	2,940	2,690	3,030	-	3,170	6,150	4,100
Appendix IV																			
Antimony	mg/L	0.006	0.002	<0.006	< 0.006	<0.006	< 0.006	<0.006	< 0.006	<0.006	<0.006	ND	-	-	-	ND	ND	< 0.000378	<0.000378
Arsenic	mg/L	0.01	0.00255	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	0.0114	0.00624	0.00774	0.00734
Barium	mg/L	2	0.06	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.03	ND	-	-	-	0.016	0.0171	0.0175	0.0159
Beryllium	mg/L	0.004	0.001	0.077	0.071	0.072	0.076	0.068	0.074	0.073	0.067	0.0792	0.0619	0.0818	0.0606	0.091	0.088	0.0902	0.0789
Cadmium	mg/L	0.005	0.001	0.093	0.106	0.116	0.089	0.091	0.084	0.088	0.089	0.0895	0.0886	0.03	0.0945	0.0313	0.0388	0.0421	0.0393
Chromium	mg/L	0.1	0.00617	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	0.0579	<0.00153	<0.00153
Cobalt	mg/L	0.006	0.00226	0.27	0.28	0.26	0.3	0.3	0.29	0.29	0.29	0.253	0.281	0.359	0.297	0.3	0.315	0.356	0.349
Radium-226/228	pCi/L	10.1	9.82	0.7	0.3	1.2	1.5	0.8	0.3	2.1	1.9	0.446	0.39	0.29	0.619	0.414	0.167	0.577	0.525
Fluoride	mg/L	4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	ND	ND	0.718	1.04	1.03	0.794	0.84	0.617
Lead	mg/L	0.015	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	ND	ND	ND	0.00297	ND	0.00225	0.000555J	0.000404J
Lithium	mg/L	0.552	0.521	0.09	0.07	0.11	0.08	0.06	0.05	0.05	0.05	ND	0.0701	0.0898	ND	0.108	0.106	0.111	0.102
Mercury	mg/L	0.002	0.0002	<0.001	< 0.001	0.012	< 0.001	<0.001	< 0.001	<0.001	<0.001	0.000949	0.000396	ND	0.000942	ND	ND	< 0.000130	< 0.000130
Molybdenum	mg/L	0.1	0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	ND	-	-	-	ND	ND	<0.000610	< 0.000610
Selenium	mg/L	0.05	0.005	<0.01	0.03	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	0.0345	ND	<0.00151	<0.00151
Thallium	mg/L	0.002	0.001	<0.002	0.002	0.002	< 0.002	<0.002	0.002	< 0.002	0.002	0.00232	0.00233	ND	0.00248	ND	ND	0.000739J	0.000901J
Notes:																			

			Sample Location:								SSP/A	P MW-1							
			Compliance Phase:				Back	ground				Initia	I A.M.			Assessmer	t Monitoring		
			Sample Dates:	6/21/2016	8/23/2016	10/17/2016	12/20/2016	2/21/2017	5/3/2017	6/12/2017	8/23/2017	3/21/2018	6/9/2018	6/27/2019	1/15/2019	12/18/2019	6/17/2020	2/9/2021	7/12/2021
Constituent	Unit	MCL	Site BTV																
Field Parameters																			
pH	su	-	-	-	-	-	-	-	-	-	-	5.7	5.73	6.0	5.87	6.06	5.42	5.77	5.60
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	9,270	7,720	8,980	8,970	9,010	8,310	7,389	8,918
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	48	413	0	19.9	48.1	20.9	141.70	170.11
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	0	0.52	3.67	2.95	0.62	0.08	0.04	0.00
Temperature	°C	-	-	-	-	-	-	-	-	-	-	23.3	26.4	23.97	18.99	19.69	27.81	20.0	22.0
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	15	18	76	57	32	107	71.1	-100.3
Appendix III																			
Boron	mg/L	N/A	1.490	1.1	1	0.93	0.83	0.77	0.81	0.74	0.81	-	ND	0.811	1.43	-	0.75	0.69	0.757
Calcium	mg/L	N/A	728	659	683	673	685	617	681	666	653	-	647	659	563	-	643	667	619
Chloride	mg/L	N/A	1,770	1,390	1,460	1,540	1,500	1,530	1,550	1,600	1,600	-	1,480	1,640	1,500	-	1,730	1,520	1,460
Fluoride	mg/L	N/A	0.5	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	ND	ND	ND	ND	ND	ND	<0.130	0.423J
pH, Field	SU	N/A	5.26-6.35	5.89	5.93	6.03	6.01	5.56	5.8	5.73	5.80	5.69	5.73	5.97	5.87	6.06	5.42	5.77	5.60
Sulfate	mg/L	N/A	3,320	2,890	2,950	2,960	2,760	2,900	3,050	3,060	3,070	-	3,160	2,980	3,070	-	3,210	2,920	3,050
Total Dissolved Solids	mg/L	N/A	8,180	6,950	6,800	6,750	6,470	6,520	6,460	6,720	6,530	-	6,700	7,240	7,060	-	7,890	5,630	5,930
Appendix IV																			
Antimony	mg/L	0.006	0.002	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	ND	-	-	-	ND	ND	0.000721J	0.000732J
Arsenic	mg/L	0.01	0.00100	<0.01	<0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	ND	0.0041	0.00194	0.00169	0.00501	0.00415
Barium	mg/L	2	0.183	0.05	0.05	<0.1	0.07	0.05	0.04	0.06	0.05	ND	-	-	-	0.0252	0.0284	0.184	0.0638
Beryllium	mg/L	0.004	0.00157	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.001	ND	ND	ND	ND	ND	ND	0.00157	0.00101
Cadmium	mg/L	0.005	0.001	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<0.005	< 0.005	ND	ND	ND	ND	ND	ND	< 0.000217	<0.000217
Chromium	mg/L	0.1	0.00248	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	0.00248	< 0.00153
Cobalt	mg/L	0.006	0.00174	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	ND	ND	ND	ND	ND	ND	0.00174	0.000649
Radium-226/228	pCi/L	10.1	3.96	2.6	2.92	2.2	-0.06	0.6	1.5	1.7	1.7	1.51	1.22	1.07	1.81	1.47	1.33	3.38	2.09
Fluoride	mg/L	4	0.5	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	ND	ND	ND	ND	ND	ND	<0.130	0.423J
Lead	mg/L	0.015	0.0106	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	ND	ND	ND	0.001	0.0106	0.00343
Lithium	mg/L	0.552	1.64	1.36	1.15	1.3	1.28	1.21	1.5	1.51	1.35	2.15	1.21	1.4	1.25	1.05	1.43	1.23	1.24
Mercury	mg/L	0.002	0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	-	-	-	ND	ND	< 0.000130	<0.000130
Molybdenum	mg/L	0.1	0.005	< 0.05	<0.05	< 0.05	<0.05	<0.05	<0.05	<0.05	<0.05	ND	-	-	•	ND	ND	0.00199J	0.000961J
Selenium	mg/L	0.05	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	<0.00151	<0.00151
Thallium	mg/L	0.002	0.001	<0.002	<0.002	<0.002	<0.002	<0.002	< 0.002	<0.002	<0.002	ND	ND	ND	ND	ND	ND	0.000206J	0.000388J
Notes: NTU - Nephelometric Turbidity Unit. mV - mili Volt mg/L - miligrams per liter. SU - standard units; pH is a field paramete pC/L - piocouries per liter. J - Value is below the Reporting Limit and MCL - Maximum Contaminant Level, EPA not analyzed. All metals were analyzed as total unless of	r. above the Meth Drinking Water S therwise specifie	od Detection Limit; ther Standards and Health A	fore, value is estimated an dvisories, April, 2012.	d not considered s	ignificant.														

			Sample Location:								AP N	IW-1D							
			Compliance Phase:				Back	ground				Initia	I A.M.			Assessmer	t Monitoring		
			Sample Dates:	6/22/2016	8/24/2016	10/18/2016	12/21/2016	2/21/2017	5/4/2017	6/13/2017	8/24/2017	3/21/2018	6/13/2018	6/25/2019	1/15/2019	12/18/2019	6/17/2020	2/10/2021	7/12/2021
Constituent	Unit	MCL	Site BTV																
Field Parameters																			
pH	su	-	-	-	-	-	-	-	-	-	-	5.8	5.69	5.8	5.93	5.75	5.48	6.13	5.91
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	1,960	1,960	1,950	1,690	1,910	1,970	1,453	1,613
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	9.4	12.7	8.8	0.4	0	0	0.45	3.96
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	0	1.1	0.61	0	0	0.31	0.00	0.03
Temperature	°C	-	-	-	-	-	-	-	-	-	-	20.93	26.43	26.6	19.96	19.28	24.52	20.1	22.3
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	94	143	180	138	137	141	135.2	106.5
Appendix III																			
Boron	mg/L	N/A	1.490	4.9	4.81	4.62	4.8	4.88	4.72	4.59	4.28	-	5.67	4.84	4.35	-	4.46	6.27	5.15
Calcium	mg/L	N/A	728	88	78	77	77	77	74	71	70	-	76.1	93.3	81.4	-	108	96.5	77.1
Chloride	mg/L	N/A	1,770	227	221	233	229	228	227	229	227	-	191	178	197	-	201	151	141
Fluoride	mg/L	N/A	0.5	0.6	0.7	0.6	0.6	0.7	0.7	0.6	0.8	ND	ND	0.532	0.904	0.529	0.626	0.606	0.764
pH, Field	SU	N/A	5.26-6.35	5.4	5.69	6	6.1	6.1	5.94	5.62	5.74	5.81	5.69	5.8	5.93	5.75	5.48	6.13	5.91
Sulfate	mg/L	N/A	3,320	664	621	590	546	543	527	525	517	-	523	511	532	-	552	456	430
Total Dissolved Solids	mg/L	N/A	8,180	1,490	1,440	1,410	1,360	1,310	1,240	1,310	1,270	-	1,360	1,410	1,350	-	1,400	1,250	1,140
Appendix IV																			
Antimony	mg/L	0.006	0.002	<0.006	< 0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	ND	-	-	-	ND	ND	<0.000378	<0.000378
Arsenic	mg/L	0.01	0.00100	<0.01	0.01	0.01	<0.01	0.01	0.01	<0.01	0.01	0.00935	0.00861	0.00912	0.00884	0.00756	0.00818	0.00953	0.00898
Barium	mg/L	2	0.183	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	ND	-	-	-	0	0	0.0137	0.0137
Beryllium	mg/L	0.004	0.00157	<0.001	< 0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	ND	ND	ND	ND	ND	< 0.000182	<0.000182
Cadmium	mg/L	0.005	0.001	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<0.005	< 0.005	ND	ND	ND	ND	ND	ND	0.000408J	0.000343J
Chromium	mg/L	0.1	0.00248	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	< 0.00153	<0.00153
Cobalt	mg/L	0.006	0.00174	< 0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.0106	0.0129	0.0143	0.0164	0.0146	0.0163	0.0139	0.0177
Radium-226/228	pCi/L	10.1	3.96	2.07	3.83	2.8	2.5	0.6	2.5	0.7	1.8	0.971	1.72	1.66	1.71	2.5	1.86	1.100	2.69
Fluoride	mg/L	4	0.5	0.6	0.7	0.6	0.6	0.7	0.7	0.6	0.8	ND	ND	0.532	0.904	0.529	0.626	0.606	0.764
Lead	mg/L	0.015	0.0106	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-		ND	ND	<0.000128	0.000256J
Lithium	mg/L	0.552	1.64	0.07	0.04	0.05	0.08	0.04	0.03	0.04	0.01	ND	ND	0.0328	ND	0.0346	0.0327	0.027	0.0242
Mercury	mg/L	0.002	0.0002	<0.001	< 0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	ND	ND	ND	ND	ND	< 0.000130	<0.000130
Molybdenum	mg/L	0.1	0.005	< 0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	< 0.05	0.0	0.0144	0.0177	0.0174	0.0157	0.0201	0.0283	0.0304
Selenium	mg/L	0.05	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	0.00154J	0.00164J
Thallium	mg/L	0.002	0.001	<0.002	< 0.002	<0.002	<0.002	<0.002	< 0.002	<0.002	<0.002	ND	-	-	-	ND	ND	0.000310J	0.000636J
Notes: NTU - Nophelometric Turbidity Unit. mV - mill Volt mgl - milligrams per liter. SU - standard units; pH is a field paramete pC/L - pioccuries per liter. J - Value is below the Reporting Limit and MCL - Maximum Contaminant Level, EPA not analyzed. All metals were analyzed as total unless of	r. above the Meth Drinking Water S therwise specifie	od Detection Limit; ther Standards and Health A d.	fore, value is estimated an dvisories, April, 2012.	d not considered s	ignificant.														

			Sample Location:								AP I	MW-3							
			Compliance Phase:				Back	ground				Initia	I A.M.			Assessmer	t Monitoring		
			Sample Dates:	6/22/2016	8/24/2016	11/10/2016	12/21/2016	2/20/2017	5/3/2017	6/12/2017	8/22/2017	3/20/2018	6/8/2018	6/25/2019	1/15/2019	12/17/2019	6/17/2020	2/10/2021	7/12/2021
Constituent	Unit	MCL	Site BTV																
Field Parameters																			
pH	su	-	-	-	-	-	-	-	-	-	-	5.1	5.12	5.1	5.22	4.99	4.34	5.18	4.96
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	1,830	1,830	1,770	1,530	1,790	1,700	1,473	1,827
Turbidity	NTU	-	-	-	-	-	-	-	-	-		0	28.1	9.7	0	0.5	0	3.74	8.47
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	0	0.93	1.06	0.07	0.49	0.67	0.06	0.21
Temperature	°C	-	-	-	-	-	-	-	-	-	-	23.49	24.89	26.36	19.42	19.39	26.96	19.3	22.2
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	309	303	184	273	309	407	166.1	88.6
Appendix III																			
Boron	mg/L	N/A	1.490	3.7	3.63	3.56	3.88	3.61	3.73	3.58	3.82	-	3.67	4.18	3.49	-	3.23	4.13	3.54
Calcium	mg/L	N/A	728	138	123	127	137	132	139	129	134	-	135	134	121	-	139	134	146
Chloride	mg/L	N/A	1,770	129	128	143	141	146	148	152	155	-	144	147	153	-	160	144	146
Fluoride	mg/L	N/A	0.5	0.2	0.2	0.1	0.1	<0.1	0.1	0.1	0.1	ND	ND	ND	0.223	ND	ND	0.0558J	0.0577J
pH, Field	SU	N/A	5.26-6.35	5.38	5.09	5.4	5.11	5.05	5.02	5.12	4.79	5.09	5.12	5.14	5.22	4.99	4.34	5.18	4.96
Sulfate	mg/L	N/A	3,320	700	731	733	729	720	739	740	751	-	673	637	653	-	807	645	722
Total Dissolved Solids	mg/L	N/A	8,180	1,390	1,400	1,370	1,400	1,400	1,300	1,400	1,360	-	1,770	1,390	1,360	-	1,330	1,370	1,420
Appendix IV																			
Antimony	mg/L	0.006	0.002	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	ND	-	-	-	ND	ND	<0.000378	<0.000378
Arsenic	mg/L	0.01	0.00100	< 0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	ND	ND	ND	0.00129	0.00154	0.00129
Barium	mg/L	2	0.183	0.04	0.03	0.02	0.03	0.02	0.02	0.02	0.02	ND	-	-	-	0.0243	0.0238	0.0236	0.0294
Beryllium	mg/L	0.004	0.00157	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	ND	ND	0.00241	0.00269	0.00301	0.00236	0.00264	0.00286
Cadmium	mg/L	0.005	0.001	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	ND	ND	0.00	0.00482	0.00424	0.00432	0.00382	0.00469
Chromium	mg/L	0.1	0.00248	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	0.00173J	< 0.00153
Cobalt	mg/L	0.006	0.00174	0.05	0.05	0.05	0.05	0.04	0.05	0.04	0.04	0.0351	0.0396	0.024	0.0428	0.0306	0.0358	0.0476	0.0392
Radium-226/228	pCi/L	10.1	3.96	1.11	7.54	1.7	2.9	2.4	2.9	2.5	4.8	1.82	1.89	2.07	2.09	2.17	1.6	1.870	2.7
Fluoride	mg/L	4	0.5	0.2	0.2	0.1	0.1	<0.1	0.1	0.1	0.1	ND	ND	ND	0.223	ND	ND	0.0558J	0.000470J
Lead	mg/L	0.015	0.0106	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	0.00121	0.000456J	0.0514
Lithium	mg/L	0.552	1.64	0.06	0.06	0.07	0.07	0.06	0.05	0.06	0.04	ND	0.047	0.0461	ND	0.0546	0.0531	0.053	0.00149
Mercury	mg/L	0.002	0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	ND	0.00025	ND	ND	0.000324	0.000455	< 0.000610
Molybdenum	mg/L	0.1	0.005	< 0.05	< 0.05	<0.05	<0.05	< 0.05	< 0.05	< 0.05	<0.05	ND	ND	ND	ND	ND	ND	0.000848J	< 0.00151
Selenium	mg/L	0.05	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	<0.00151	0.0577J
Thallium	mg/L	0.002	0.001	< 0.002	<0.002	< 0.002	< 0.002	<0.002	< 0.002	< 0.002	< 0.002	ND	-	-	-	ND	ND	0.000267J	0.000271J
Notes: NTU - Nephetometric Turbidity Unit. mV - milli Volt. mg/L - miligrams per liter. SU - standard units; pH is a field paramete pC/L - piocouries per liter. J - Value is below the Reporting Limit and MCL - Maximum Contaminant Level, EPA not analyzed. All metals were analyzed as total unless of	r. above the Meth Drinking Water therwise specifie	od Detection Limit; ther Standards and Health A d.	fore, value is estimated an dvisories, April, 2012.	d not considered s	ignificant.														

			Sample Location:								AP I	4W-4							
			Compliance Phase:				Back	ground				Initia	I A.M.			Assessmer	t Monitoring		
			Sample Dates:	6/22/2016	8/24/2016	10/18/2016	12/21/2016	2/21/2017	5/4/2017	6/12/2017	8/24/2017	3/21/2018	6/13/2018	6/27/2019	1/15/2019	12/18/2019	6/17/2020	2/10/2021	7/13/2021
Constituent	Unit	MCL	Site BTV																
Field Parameters																			
pH	su	-	-	-	-	-	-	-	-	-	-	5.6	5.58	5.7	5.76	5.71	5.28	5.74	5.48
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	4,930	4,840	4,760	4,900	4,430	4,540	3,923	4,743
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	0	28.7	0	1.4	0	1.5	1.72	2.26
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	0	0.56	3.98	0	0	0.04	0.00	0.19
Temperature	°C	-	-	-	-	-	-	-	-	-	-	24.06	28.91	24.35	17.59	18.23	25.97	17.1	21.3
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	110	128	138	81	44	141	148.9	135.7
Appendix III																			
Boron	mg/L	N/A	1.490	2	2.1	2.1	2.11	1.89	2.07	1.95	1.96	-	2.39	2.45	2.17	-	2.18	2.58	2.41
Calcium	mg/L	N/A	728	497	497	538	551	488	532	519	489	-	416	498	451	-	523	533	499
Chloride	mg/L	N/A	1,770	485	485	511	507	503	505	526	543	-	427	435	465	-	472	436	434
Fluoride	mg/L	N/A	0.5	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	ND	ND	ND	ND	ND	ND	<0.130	0.0996J
pH, Field	SU	N/A	5.26-6.35	5.79	5.49	5.69	5.45	5.62	5.71	5.48	5.47	5.62	5.58	5.69	5.76	5.71	5.28	5.74	5.48
Sulfate	mg/L	N/A	3,320	2,210	2,310	2,290	2,250	2,290	2,330	2,380	2,500	-	2,110	2,140	2,250	-	2,190	2,050	2,380
Total Dissolved Solids	mg/L	N/A	8,180	4,130	4,140	4,150	4,120	4,130	3,930	4,130	4,000	-	4,270	4,080	4,010	-	3,780	4,040	4,200
Appendix IV																			
Antimony	mg/L	0.006	0.002	<0.006	< 0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	ND	-	-	-	ND	ND	<0.000378	<0.000378
Arsenic	mg/L	0.01	0.00100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	ND	ND	ND	ND	0.000628J	< 0.000313
Barium	mg/L	2	0.183	0.02	0.03	0.02	0.02	0.01	0.01	0.01	0.02	ND	-	-	-	0.0137	0.0155	0.0144	0.0135
Beryllium	mg/L	0.004	0.00157	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	ND	ND	ND	ND	ND	0.000436J	0.000204J
Cadmium	mg/L	0.005	0.001	< 0.005	< 0.005	< 0.005	< 0.005	<0.005	< 0.005	<0.005	< 0.005	ND	ND	ND	ND	ND	ND	< 0.000217	<0.000217
Chromium	mg/L	0.1	0.00248	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	< 0.00153	< 0.00153
Cobalt	mg/L	0.006	0.00174	< 0.02	<0.02	<0.02	< 0.02	<0.02	<0.02	<0.02	<0.02	ND	ND	0.00109	ND	ND	ND	< 0.000134	<0.000134
Radium-226/228	pCi/L	10.1	3.96	1.98	3.67	2.3	3	1.2	2.4	2.2	2.6	0.678	1.13	1.26	0.759	1.27	1.11	1.720	1.07
Fluoride	mg/L	4	0.5	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	ND	ND	ND	ND	ND	ND	<0.130	0.0996J
Lead	mg/L	0.015	0.0106	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-		ND	ND	0.000276J	<0.000128
Lithium	mg/L	0.552	1.64	0.96	0.92	1.09	1.03	0.87	0.93	0.95	0.85	0.766	0.661	0.781	0.8	0.72	0.959	0.875	0.808
Mercury	mg/L	0.002	0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	ND	ND	ND	ND	ND	< 0.000130	<0.000130
Molybdenum	mg/L	0.1	0.005	< 0.05	<0.05	<0.05	< 0.05	<0.05	<0.05	<0.05	<0.05	ND	ND	ND	ND	ND	ND	<0.000610	<0.000610
Selenium	mg/L	0.05	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	< 0.00151	< 0.00151
Thallium	mg/L	0.002	0.001	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	< 0.002	<0.002	< 0.002	ND	-	-	-	ND	ND	0.000172J	<0.000148
Notes: NTU - Nophelometric Turbidity Unit. mV - mill Volt mgl - milligrams per liter. SU - standard units, pH is a field paramete pC/L - pioccuries per liter. J - Value is below the Reporting Limit and MCL - Maximum Contaminant Level, EPA - not analyzed. All metals were analyzed as total unless of	r. above the Meth Drinking Water therwise specifie	od Detection Limit; ther Standards and Health A	fore, value is estimated an dvisories, April, 2012.	d not considered s	ignificant.														

			Sample Location:								SSP	MW-2							
			Compliance Phase:				Backę	ground				Initia	I A.M.			Assessmer	t Monitoring		
			Sample Dates:	6/21/2016	8/23/2016	10/18/2016	12/20/2016	2/21/2017	5/3/2017	6/14/2017	8/24/2017	3/20/2018	6/9/2018	6/28/2019	1/15/2019	12/18/2019	6/17/2020	2/10/2021	7/13/2021
Constituent	Unit	MCL	Site BTV																
Field Parameters																			
pН	su	-	-	-	-	-	-	-	-	-	-	4.7	4.43	3.9	3.96	4.95	4.14	4.00	4.52
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	9,970	8,650	1,350	1,030	8,690	8,450	7,095	9,564
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	67.1	46.4	39.9	42.1	55.4	14.6	4.11	11.89
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	0	2.01	0.43	2.49	0.43	0.3	0.13	0.23
Temperature	°C	-	-	-	-	-	-	-	-	-	-	22.51	26.68	26.49	18.01	23.25	29.22	18.3	23.3
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	224	310	316	332	222	290	341.5	277.9
Appendix III																			
Boron	mg/L	N/A	1.490	0.8	0.6	0.6	0.53	0.47	0.5	0.46	0.45	-	ND	1.14	ND	-	1	0.81	0.585
Calcium	mg/L	N/A	728	742	838	931	925	818	899	872	811	-	881	658	756	-	822	728	867
Chloride	mg/L	N/A	1,770	2,070	2,470	2,610	2,550	2,550	2,520	2,640	2,790	-	2,560	1,640	2,500	-	2,650	1,810	2,300
Fluoride	mg/L	N/A	0.5	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	ND	ND	ND	2.56	0.622	ND	0.509	0.293J
pH, Field	SU	N/A	5.26-6.35	5.68	5.39	5.26	5.03	4.84	4.96	4.76	4.55	4.66	4.43	3.87	3.96	4.95	4.14	4	4.52
Sulfate	mg/L	N/A	3,320	2,030	2,070	2,080	1,970	2,080	2,080	2,120	2,070	-	2,170	2,300	2,030	-	2,610	2,250	2,090
Total Dissolved Solids	mg/L	N/A	8,180	6,690	7,070	7,370	6,990	6,990	5,960	6,940	6,910	-	6,630	6,100	6,790	-	5,850	6,120	6,410
Appendix IV																			
Antimony	mg/L	0.006	0.002	<0.006	< 0.006	< 0.006	< 0.006	<0.006	<0.006	<0.006	<0.006	ND	-	-	-	ND	ND	< 0.000378	<0.000378
Arsenic	mg/L	0.01	0.00100	<0.01	<0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.0303	ND	ND	0.00552	0.00918	0.00622	0.00643	0.00498
Barium	mg/L	2	0.183	0.39	0.04	0.06	0.14	0.03	0.06	0.03	0.06	ND	-	-	-	0.028	0.0261	0.0197	0.0497
Beryllium	mg/L	0.004	0.00157	0.009	0.006	0.016	0.025	0.026	0.03	0.03	0.04	0.231	0.0475	0.0713	0.0475	0.0587	0.0587	0.0704	0.0461
Cadmium	mg/L	0.005	0.001	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005	ND	ND	0.00689	ND	0.0046	0.0041	0.00446	0.00109
Chromium	mg/L	0.1	0.00248	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	<0.00153	< 0.00153
Cobalt	mg/L	0.006	0.00174	0.06	0.05	0.07	0.07	0.06	0.06	0.06	0.06	0.0571	0.0539	0.19	0.0645	0.0922	0.0933	0.116	0.0539
Radium-226/228	pCi/L	10.1	3.96	2.79	3.11	1.9	1.7	14.6	2.100	2.3	4.3	1.7	2.11	1.62	2.27	2.3	2.13	2.33	3.36
Fluoride	mg/L	4	0.5	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	ND	ND	ND	2.56	0.622	ND	0.509	0.293J
Lead	mg/L	0.015	0.0106	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	0.00539	0.00219	0.00304	0.00597	0.00227	0.00108
Lithium	mg/L	0.552	1.64	0.87	0.84	1.07	1.03	0.86	0.9	0.95	0.67	4.9	0.751	0.597	0.77	0.579	0.739	0.564	0.752
Mercury	mg/L	0.002	0.0002	<0.001	< 0.001	< 0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	-	-	-	ND	ND	< 0.000130	< 0.000130
Molybdenum	mg/L	0.1	0.005	<0.05	< 0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	ND	-	-	-	ND	ND	< 0.000610	< 0.000610
Selenium	mg/L	0.05	0.005	<0.01	< 0.01	< 0.01	<0.01	< 0.01	< 0.01	<0.01	< 0.01	ND	-	-	-	0.025	ND	<0.00151	<0.00151
Thallium	mg/L	0.002	0.001	<0.002	< 0.002	<0.002	<0.002	< 0.002	< 0.002	<0.002	< 0.002	ND	ND	0.00112	ND	0.0013	ND	0.000516J	<0.000148
Notes:																			

			Sample Location:								SSP	MW-3							
			Compliance Phase:				Back	ground				Initia	I A.M.			Assessmer	t Monitoring		
			Sample Dates:	6/21/2016	8/23/2016	10/18/2016	12/20/2016	2/21/2017	5/4/2017	6/13/2017	8/24/2017	3/21/2018	6/11/2018	6/27/2019	1/15/2019	12/18/2019	6/17/2020	2/9/2021	7/13/2021
Constituent	Unit	MCL	Site BTV																
Field Parameters																			
pH	su	-	-	-	-	-	-	-	-	-	-	4.3	4.29	4.3	4.15	4.73	3.6	4.29	4.18
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	8,670	7,490	8,520	8,980	8,510	7,870	6,797	8,264
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	49.1	44.8	7.7	19.1	20.1	42.6	6.50	2.87
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	0.09	0.67	0.42	17.22	1.99	3.99	0.06	0.03
Temperature	°C	-	-	-	-	-	-	-	-	-	-	21.91	28.11	26.99	20.45	22.81	25.61	17.5	23.3
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	282	323	272	323	299	331	301.3	274.4
Appendix III																			
Boron	mg/L	N/A	1.490	3.2	2.9	2.7	2.86	2.68	2.24	2.84	2.59	-	2.5	2.94	2.47	-	2.78	2.87	2.57
Calcium	mg/L	N/A	728	647	693	699	703	694	694	673	646	-	689	712	618	-	722	712	690
Chloride	mg/L	N/A	1,770	1,560	1,790	1,880	1,700	1,830	1,860	1,810	1,790	-	1,720	1,870	1,770	-	2,060	1,700	1,690
Fluoride	mg/L	N/A	0.5	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.8	ND	1.82	ND	2.72	0.551	ND	0.441J	0.466J
pH, Field	SU	N/A	5.26-6.35	4.4	4.3	4.31	4.16	4.45	4.34	4.16	4.20	4.26	4.29	4.25	4.15	4.73	3.6	4.29	4.18
Sulfate	mg/L	N/A	3,320	2,400	2,500	2,440	2,480	2,520	2,380	2,510	2,510	-	2,500	2,370	2,550	-	2,760	2,430	2,370
Total Dissolved Solids	mg/L	N/A	8,180	6,510	6,610	6,690	5,780	6,450	6,670	6,370	6,260	-	6,370	5,780	6,410	-	6,330	2,200	5,860
Appendix IV																			
Antimony	mg/L	0.006	0.002	<0.006	< 0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	ND	-	-	-	ND	ND	< 0.000378	<0.000378
Arsenic	mg/L	0.01	0.00100	< 0.01	< 0.01	<0.01	0.01	<0.01	<0.01	< 0.01	< 0.01	ND	ND	ND	0.00655	0.00314	0.00695	0.00831	0.0065
Barium	mg/L	2	0.183	0.03	0.05	0.04	0.09	0.03	0.03	0.02	0.03	ND	-	-	-	0.0192	0.0239	0.0218	0.0217
Beryllium	mg/L	0.004	0.00157	0.122	0.118	0.12	0.121	0.121	0.12	0.116	0.113	0.139	0.11	0.107	0.101	0.0992	0.105	0.12	0.104
Cadmium	mg/L	0.005	0.001	0.064	0.055	0.05	0.062	0.067	0.081	0.066	0.078	0.0686	0.0775	0.0711	0.0877	0.0788	0.0787	0.0736	0.0752
Chromium	mg/L	0.1	0.00248	< 0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	0.0	0.00616	0.00575	0.0135
Cobalt	mg/L	0.006	0.00174	0.64	0.56	0.58	0.59	0.62	0.62	0.56	0.58	0.506	0.58	0.524	0.621	0.35	0.558	0.584	0.566
Radium-226/228	pCi/L	10.1	3.96	24.5	49.8	24.7	37	27.8	23.2	28.4	32.2	30.8	29.2	33.4	35.4	34.3	32	40.2	34.2
Fluoride	mg/L	4	0.5	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.8	ND	1.82	ND	2.72	0.551	ND	0.441J	0.466J
Lead	mg/L	0.015	0.0106	< 0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	0.00652	ND	0.0044	0.00441	0.00519	0.00545	0.00533	0.00468
Lithium	mg/L	0.552	1.64	0.72	0.64	0.75	0.73	0.66	0.61	0.67	0.53	0.644	0.526	0.587	0.514	0.549	0.662	0.593	0.589
Mercury	mg/L	0.002	0.0002	< 0.001	< 0.001	<0.001	< 0.001	<0.001	< 0.001	<0.001	< 0.001	ND	-	-	-	ND	ND	0.000162J	< 0.000130
Molybdenum	mg/L	0.1	0.005	< 0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	ND	-	-	-	ND	ND	< 0.000610	0.000667J
Selenium	mg/L	0.05	0.005	< 0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	0.00676	ND	<0.00151	<0.00151
Thallium	mg/L	0.002	0.001	0.009	0.008	0.01	0.01	0.01	0.01	0.01	0.008	0.00982	0.0097	0.0076	0.0112	0.00961	0.0102	0.0101	0.00971
Notes: NTL - Nephetometris Turbidity Unit. mV - milli Volt mg/L - milligrams per liter. SU - standard units; pH is a field paramete pC/L - piocouries per liter. J - Value is below the Reporting Limit and MCL - Maximum Contaminant Level, EPA - - not analyzed. All metals were analyzed as total unless of	r. above the Meth Drinking Water \$ herwise specifie	od Detection Limit; ther Standards and Health A d.	fore, value is estimated an dvisories, April, 2012.	d not considered s	ignificant.														

			Sample Location:								SSP	MW-4							
			Compliance Phase:				Back	ground				Initia	I A.M.			Assessmer	t Monitoring		
			Sample Dates:	6/21/2016	8/23/2016	10/18/2016	12/20/2016	2/21/2017	5/4/2014	6/14/2017	8/24/2017	3/21/2018	6/11/2018	6/27/2019	1/15/2019	12/18/2019	6/17/2020	2/10/2021	7/13/2021
Constituent	Unit	MCL	Site BTV																
Field Parameters																			
pН	su	-	-	-	-	-	-	-	-	-	-	6.3	6.12	6.2	6.35	6.61	5.67	6.63	11.96
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	5,690	5,390	5,660	5,710	5,640	5,260	4,313	4,917
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	38.5	38.6	5.2	12.8	35.1	0	7.07	2.79
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	0.14	0.72	0.71	2.19	0.41	2.45	0.22	0.63
Temperature	°C	-	-	-	-	-	-	-	-	-	-	23.64	27.83	25.63	19.92	22.52	25.55	18.4	23.2
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	-25	5	139	32	81	41	18.5	-122.7
Appendix III																			
Boron	mg/L	N/A	1.490	1.3	1.3	1.31	1.28	1.24	1.47	1.31	1.15	-	1.35	1.51	ND	-	1.17	1.12	0.102
Calcium	mg/L	N/A	728	399	395	413	413	390	455	413	365	-	408	414	371	-	403	398	389
Chloride	mg/L	N/A	1,770	1,120	1,110	1,240	1,170	1,180	1,120	1,190	1,190	-	1,090	1,120	1,150	-	1,350	990	378
Fluoride	mg/L	N/A	0.5	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	ND	ND	ND	2.84	ND	ND	<0.130	0.227J
pH, Field	SU	N/A	5.26-6.35	6.38	6.12	6.26	5.78	5.95	6.26	6.26	6.05	6.26	6.12	6.15	6.35	6.61	5.67	6.63	11.96
Sulfate	mg/L	N/A	3,320	1,190	1,140	1,210	1,140	1,240	1,180	1,200	1,170	-	1,220	1,060	1,170	-	1,340	982	82
Total Dissolved Solids	mg/L	N/A	8,180	3,940	3,880	3,930	3,850	3,890	3,390	3,660	3,630	-	3,870	4,040	3,790	-	3,880	2,890	3,080
Appendix IV																			
Antimony	mg/L	0.006	0.002	<0.006	< 0.006	<0.006	<0.006	<0.006	<0.006	< 0.006	<0.006	ND	-	-	-	ND	ND	< 0.000378	0.000415J
Arsenic	mg/L	0.01	0.00100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	ND	0.00203	ND	0.00103	0.000941J	0.000344J
Barium	mg/L	2	0.183	0.06	0.04	0.03	0.05	0.03	0.03	0.02	0.02	ND	-	-	-	0.0203	0.0273	0.027	0.103
Beryllium	mg/L	0.004	0.00157	<0.001	< 0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	ND	ND	ND	ND	ND	ND	< 0.000182	<0.000182
Cadmium	mg/L	0.005	0.001	<0.005	< 0.005	<0.005	< 0.005	<0.005	< 0.005	< 0.005	< 0.005	ND	ND	ND	ND	ND	ND	< 0.000217	<0.000217
Chromium	mg/L	0.1	0.00248	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	0.00762	0.00259	0.176
Cobalt	mg/L	0.006	0.00174	< 0.02	<0.02	<0.02	0.04	<0.02	<0.02	<0.02	< 0.02	ND	ND	ND	ND	ND	ND	0.000336J	<0.000134
Radium-226/228	pCi/L	10.1	3.96	5.38	6.82	2.3	3	3.5	4.4	3.2	2.7	3.19	2.77	2.02	2.82	3.07	2.6	1.62	1.46
Fluoride	mg/L	4	0.5	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	ND	ND	ND	2.84	ND	ND	<0.130	0.227J
Lead	mg/L	0.015	0.0106	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	ND	ND	ND	ND	0.000161J	0.000276J
Lithium	mg/L	0.552	1.64	0.94	0.87	1.02	1	0.87	0.87	0.95	0.78	1.01	0.81	0.919	0.858	0.706	0.911	0.727	0.146
Mercury	mg/L	0.002	0.0002	<0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	ND	-	-	-	ND	ND	< 0.000130	<0.000130
Molybdenum	mg/L	0.1	0.005	<0.05	<0.05	<0.05	<0.05	<0.05	< 0.05	< 0.05	<0.05	ND	-	-	-	ND	ND	0.00321J	0.0629
Selenium	mg/L	0.05	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	<0.00151	0.00441J
Thallium	mg/L	0.002	0.001	<0.002	< 0.002	<0.002	<0.002	<0.002	< 0.002	< 0.002	<0.002	ND	ND	ND	ND	ND	ND	<0.000148	<0.000148
Notes: NTU - Nephelometric Turbidity Unit. mV - milli Volt. mgL - miligrams per liter. SU - standard units; pH is a field paramete pC/L - piccouries per liter. J - Value is below the Reporting Limit and MCL - Maximum Contaminant Level, EPA not analyzed.	ar. I above the Meth Drinking Water S	od Detection Limit; the Standards and Health A	rfore, value is estimated an \dvisories, April, 2012.	d not considered s	ignificant.														

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Appendix D

Lab Reports

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Total Access

Have a Question? Ask-

The Expert 0

Visit us at: www.eurofinsus.com/Env **Environment Testing** America

1

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh 301 Alpha Drive **RIDC Park** Pittsburgh, PA 15238 Tel: (412)963-7058

Laboratory Job ID: 180-117061-1 Client Project/Site: Gibbons Creek Steam Electric Station

For: HDR Inc 17111 Preston Road Suite 200 Dallas, Texas 75248-1232

Attn: David Vogt

Hai a dage

Authorized for release by: 3/25/2021 8:28:28 PM Gail Lage, Senior Project Manager (615)301-5741 Gail.Lage@Eurofinset.com

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station	Laboratory Job ID: 180-117061-1
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Chain of Custody	84
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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416

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Eurofins TestAmerica, Pittsburgh 3/25/2021

Case Narrative	Case Narrative
Client: HDR Inc Job ID: 180-117061-1 Project/Site: Gibbons Creek Steam Electric Station	Client: HDR Inc Job ID: 180-117061-1 Project/Site: Gibbons Creek Steam Electric Station
Job ID: 180-117061-1	3 Job ID: 180-117061-1 (Continued)
Laboratory: Eurofins TestAmerica, Pittsburgh	Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)
Narrative	Method 904 0: Radium-228 Prep Batch 160-502060
Job Narrative 180-117061-1	The following sample did not meet the requested limit (RL) due to the reduced sample volume attributed to the presence of matrix interferences (samples were brown and cloudy). The data have been reported with this narrative
Comments No additional comments.	SSP/AP MW-1 (180-117061-2) and SFL MW-6 (180-117073-4)
Receipt The samples were received on 2/11/2021 11:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 1.6° C, 1.8° C, 2.3° C, 2.4° C and 3.2° C. Receipt Exceptions The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): SSP MW-3 (180-117062-1). The container labels list a sample collection date of 2/9/21, while the COC lists 2/10/21. The client confirmed the collection date on the chain 2/10 was correct.	 Method 904.0: Radium-228 batch 502088 Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MNW-18 (180-117061-1), SSP/AP MW-1 (180-117061-2), SSP MW-3 (180-117062-1), SSP MW-4 (180-117062-3), AP MW-3 (180-117073-4), AP MW-1D (180-117073-5), SFL MW-3 (180-117073-1), SFL MW-4 (180-117073-2), SFL MW-7 (180-117073-3), SFL MW-6 (180-117073-4), SSP MW-2 (180-117073-5), AP MW-5 (180-117074-1), AP MW-4 (180-117074-2), (LCS 160-502088/1-A), (LCSD 160-502088/1-A) and (MB 160-502088/16-A)
RAD Methods 903.0, 9315: Radium-226 batch 498981 Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this particity. Bradiochemistry cample results are reported with the count	Method PrecSep_0: Radium 226 Prep Batch 160-498991: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 160-498991 and 160-498991.
date/time applied as the Activity Reference Date. MNW-18 (180-117061-1), SSP/AP MW-1 (180-117061-2), SSP MW-3 (180-117062-1), FB-2 (180-117062-2), SSP MW-4 (180-117062-3), AP MW-3 (180-117062-4), AP MW-1D (180-117062-5), SFL MW-3 (180-117073-1), SFL MW-4 (180-117073-2), SFL MW-7 (180-117073-3), SFL MW-6 (180-117073-4), SSP MW-2 (180-117073-5), AP MW-5 (180-117074-1), AP MW-4 (180-117074-2), EQ-1 (180-117074-3), MNW-15 (180-117078-1), DUP-1 (180-117078-2), (LCS 160-498981/1-A), (LCSD 160-498981/2-A) and (MB 160-498981/2-A)	Method PrecSep_0: Radium 228 Prep Batch 160-498991: The following samples were prepared at a reduced aliquot: SSP/AP MW-1 (180-117061-2), SSP MW-3 (180-117062-1), AP MW-3 (180-117062-4), AP MW-1D (180-117062-5), SFL MW-3 (180-117073-1), SFL MW-6 (180-117073-4), SSP MW-2 (180-117073-5), AP MW-5 (180-117074-1) and AP MW-4 (180-117074-2). Samples 180-117061-2, 180-117073-4, and 180-117074-1 contained brown discoloration and a cloudy appearance. Sample 180-117062-1 contained yellow discoloration and a cloudy appearance. Sample 180-117062-4 contained a cloudy appearance and a noticeable sediment level. Samples 180-117061-20117062-3 and 180-117073-4.
Methods 903.0, 9315: 903/9315 prep batch 499133 Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is	discoloration. Sample 180-117093-5 contained a cloudy appearance.
sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.	A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.
SFL MW-2 (180-117078-3), SFL MW-5 (180-117078-4), FB-1 (180-117078-5), (LCS 160-499133/1-A), (LCSD 160-499133/2-A) and (MB 160-499133/2-A)	During the in-growth process, the following samples needed to be filtered due to sediment present in the sample. This is an indicator of matrix interference. 180-117062-1, 180-117073-2, 180-117073-3, 180-117073-4, 180-117073-5, 180-117074-1 and 180-117074-2.
Methods 904.0, 9320: Radium-228 prep batch 160-499136: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. SFL MW-2 (180-117078-3), SFL MW-5 (180-117078-4), FB-1 (180-117078-5), (LCS 160-499136/1-A), (LCSD 160-499136/2-A) and (MB 160-499136/23-A)	Method PrecSep_0: Radium 228 Prep Batch 160-499136: Insufficient sample volume was available to perform a sample duplicate for the following samples: SFL MW-2 (180-117078-3), SFL MW-5 (180-117078-4) and FB-1 (180-117078-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.
Methods 904.0, 9320: <insert method=""> Prep Batch 160-498991 The Ra228 laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recovery (LCS-149% LCSD-129%) associated with the following sample(s) is outside the upper QC limit of (75-125) indicating a potential positive bias for that analyte. This analyte was not observed above the RL in the associated samples; therefore the sample data is not adversely affected by this excursion. The data have been reported with this narrative.</insert>	Method PrecSep_0: Radium 228 Prep Batch 160-502088: Insufficient sample volume was available to perform a sample duplicate for the following samples: MNW-18 (180-117061-1), SSP/AP MW-1 (180-117061-2), SSP MW-3 (180-117062-1), SSP MW-4 (180-117062-3), AP MW-3 (180-117062-4), AP MW-1D (180-117062-5), SFL MW-3 (180-117073-1), SFL MW-4 (180-117073-2), SFL MW-7 (180-117073-3), SFL MW-6 (180-117073-4), SSP MW-2 (180-117073-5), AP MW-5 (180-117073-1), SFL MW-4 (180-117073-2), SFL MW-7 (180-117073-3), SFL MW-6 (180-117073-4), SSP MW-2 (180-117073-5), AP MW-5 (180-117074-1) and AP MW-4 (180-117074-2). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.
(LCS 160-498991/1-A) and (LCSD 160-498991/2-A)	Burlow Control Anticipation State Anticipation Control (Control Control Con

Methods 904.0, 9320: 9320/904 PREP BATCH 498991

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

FB-2 (180-117062-2), EQ-1 (180-117074-3), MNW-15 (180-117078-1), DUP-1 (180-117078-2), (LCS 160-498991/1-A), (LCSD 160-498991/2-A) and (MB 160-498991/23-A)

Eurofins TestAmerica, Pittsburgh 3/25/2021

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The following sample(s) were prepared at a reduced aliquot due to re-analysis of the sample(s): MNW-18 (180-117061-1), SSP/AP MW-1

(180-117061-2), SSP MW-3 (180-117062-1), SSP MW-4 (180-117062-3), AP MW-3 (180-117062-4), AP MW-1D (180-117062-5), SFL MW-3

Method PrecSep_0: Radium 228 Prep Batch 160-502088:

Eurofins TestAmerica, Pittsburgh 3/25/2021

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station	Job ID: 180-117061-
Job ID: 180-117061-1 (Continued)	
Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)	
(180-117073-1), SFL MW-4 (180-117073-2), SFL MW-7 (180-117073-3), SFL MW-6 (180- (180-117074-1) and AP MW-4 (180-117074-2). The following samples also had matrix wh 180-117061-2 was brown and cloudy; 180-117062-1 was yellow and cloudy; 180-117062- cloudy.	-117073-4), SSP MW-2 (180-117073-5), AP MW-5 ich could indicate matrix interference: 4, 180-117073-4, and 180-117074-1 were
Method PrecSep-21: Radium 226 Prep Batch 160-498981: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/ with preparation batch 160-498981.	/sample duplicate (MS/MSD/DUP) associated
Method PrecSep-21: Radium 226 Prep Batch 160-498981: The following samples were prepared at a reduced aliquot: SSP/AP MW-1 (180-117061-2 (180-117062-4), AP MW-1D (180-117062-5), SFL MW-3 (180-117073-1), SFL MW-6 (180 (180-117074-1) and AP MW-4 (180-117074-2). Samples 180-117061-2, 180-117073-4, ar and a cloudy appearance. Sample 180-117062-1 contained yellow discoloration and a clo contained a cloudy appearance and a noticeable sediment level. Samples 180-117067- discoloration. Sample 180-117093-5 contained a cloudy appearance. Sample 180-117074 Sample 160-41246-1 contained yellow discoloration and a heavy orange sediment level.	2), SSP MW-3 (180-117062-1), AP MW-3 I-117073-4), SSP MW-2 (180-117073-5), AP MW-5 id 180-117074-1 contained brown discoloration budy appearance. Sample 180-117062-4 and 180-117073-1 contained yellow 4-2 contained a noticeable sediment level.
A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared	red instead to demonstrate batch precision.
During the in-growth process, the following samples needed to be filtered due to sedimen matrix interference. 180-117062-1, 180-117073-2, 180-117073-3, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-4, 180-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-117073-1170730-117070	t present in the sample. This is an indicator of 073-5, 180-117074-1 and 180-117074-2.
Method PrecSep-21: Radium 226 Prep Batch 160-499133: Insufficient sample volume was available to perform a sample duplicate for the following s (180-117078-4) and FB-1 (180-117078-5). A laboratory control sample/ laboratory control instead to demonstrate batch precision.	samples: SFL MW-2 (180-117078-3), SFL MW-5 sample duplicate (LCS/LCSD) were prepared

Case Narrative

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Narrative

Job Narrative 180-117061-2

Receipt

The samples were received on 2/11/2021 11:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 1.6° C, 1.8° C, 2.3° C, 2.4° C and 3.2° C.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): SSP MW-3 (180-117062-1). The container labels list a sample collection date of 2/9/21, while the COC lists 2/10/21. The client confirmed the collection date on the chain 2/10 was correct.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

Method 6020B: The following samples were diluted due to the nature of the sample matrix: SSP MW-3 (180-117062-1), AP MW-3 (180-117062-4) and AP MW-1D (180-117062-5). Elevated reporting limits (RLs) are provided.

Method 6020B: The following sample was diluted due to the nature of the sample matrix: SFL MW-5 (180-117078-4). Elevated reporting limits (RLs) are provided.

Method 6020B: The following samples were diluted due to the nature of the sample matrix or to bring the concentration of boron to with in

Eurofins TestAmerica, Pittsburgh 3/25/2021

Case Na	arrative
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Job ID: 180-117061-1

Project/Site: Gibbons Creek Steam Electric Station

Job ID: 180-117061-1 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

the instrument's linear range: AP MW-5 (180-117074-1), MNW-15 (180-117078-1), (180-117074-E-1-C MS ^2), (180-117074-E-1-D MSD ^2) and (180-117074-E-1-B SD ^10). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Client: HDR Inc

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

	Definitions/Glossary	1
Client: HDR I Project/Site:	nc Job ID: 180-117061-1 Sibbons Creek Steam Electric Station	Client: HDR Inc Project/Site: Gibl
Qualifiers		Laboratory: E
HPLC/IC	Our lifes Description	All accreditations/cer
Quaimer	Qualifier Description Beoutine	Authority
3	Result is less than the KL but greater than of equal to the MDL and the Concentration is an approximate value.	Arkansas DEQ
Metals		California
Qualifier	Qualifier Description	Connecticut
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not	Florida
B	applicable. Compound was found in the blank and sample	Georgia
1	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value	Illinois
	result is reading that the out grouter and to open to and more and the concentration is an approximate rates.	Kansas
Rad		Kentucky (UST)
Qualifier	Qualitier Description	Kentucky (WW)
0	LCS or LCSD is outside acceptance limits.	9 Louisiana
G	The sample MUC is greater than the requested RL.	Maine
U	Result is less than the sample detection limit.	Minnesota
Glossary		Nevada
Abbrevieter		New Hampshire
Abbreviation	Inese commonly used appreviations may or may not be present in this report.	New Jersey
%.P	Later under an er broutinn to designate matche result is reported on a by weight basis	12 North Carolina (MM
CEL	Contains Free Limit	North Dakota
CEU	Colony Forming Unit	13 Oregon
CNE	Contains No Free Limitd	Pennsylvania
DER	Duplicate Error Ratio (normalized absolute difference)	Rhode Island
Dil Fac	Dilution Factor	South Carolina
DL	Detection Limit (DoD/DQE)	Texas
DL. RA. RE. IN	Indicates a Dilution. Re-analysis. Re-extraction, or additional Initial metals/anion analysis of the sample	US Fish & Wildlife
DLC	Decision Level Concentration (Radiochemistry)	USDA
EDL	Estimated Detection Limit (Dioxin)	USDA
LOD	Limit of Detection (DoD/DOE)	Utah
LOQ	Limit of Quantitation (DoD/DOE)	Virginia
MCL	EPA recommended "Maximum Contaminant Level"	West Virginia DEP
MDA	Minimum Detectable Activity (Radiochemistry)	Wisconsin
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
MPN	Most Probable Number	
MQL	Method Quantitation Limit	
NC	Not Calculated	
ND	Not Detected at the reporting limit (or MDL or EDL if shown)	
NEG	Negative / Absent	
POS	Positive / Present	
PQL	Practical Quantitation Limit	
PRES	Presumptive	
QC	Quality Control	
RER	Relative Error Ratio (Radiochemistry)	
RL	Reporting Limit or Requested Limit (Radiochemistry)	
RPD	Relative Percent Difference, a measure of the relative difference between two points	
TEE	Toxicity Equivalent Eactor (Dioxin)	

Accreditation/Certification Summary

Site: Gibbons Creek Steam Electric Station

ratory: Eurofins TestAmerica, Pittsburgh ditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20 *
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
llinois	NELAP	004375	06-30-21
Kansas	NELAP	E-10350	01-31-22
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-21
ouisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20 *
levada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	04-05-21
New Jersey	NELAP	PA005	06-30-21
New York	NELAP	11182	04-01-21
orth Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	04-30-21
Dregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	04-30-21
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	04-30-21
exas	NELAP	T104704528	03-31-21
JS Fish & Wildlife	US Federal Programs	058448	07-31-21
JSDA	Federal	P-Soil-01	06-26-22
JSDA	US Federal Programs	P330-16-00211	06-26-22
Jtah	NELAP	PA001462019-8	05-31-21
/irginia	NELAP	10043	09-14-21
West Virginia DEP	State	142	01-31-22
Wisconsin	State	998027800	08-31-21

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

Eurofins TestAmerica, Pittsburgh

Job ID: 180-117061-1

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TEQ

TNTC

Toxicity Equivalent Quotient (Dioxin)

Too Numerous To Count

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Eurofins TestAmerica, Pittsburgh

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Accreditation/Certification Summary

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

Laboratory: Eurofins TestAmerica, St. Louis All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
laska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-21
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-21
lowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-21
Kentucky (DW)	State	KY90125	01-01-22
ouisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-21
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Vissouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	03-01-22
South Carolina	State	85002001	06-30-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

Sample Summary

Project/Site: Gibbons Creek Steam Electric Station

Client: HDR Inc

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-117061-1	MNW-18	Water	02/09/21 10:55	02/11/21 11:00	
180-117061-2	SSP/AP MW-1	Water	02/09/21 09:30	02/11/21 11:00	
180-117062-1	SSP MW-3	Water	02/10/21 10:55	02/11/21 11:00	
180-117062-2	FB-2	Water	02/10/21 10:55	02/11/21 11:00	
180-117062-3	SSP MW-4	Water	02/10/21 12:00	02/11/21 11:00	
180-117062-4	AP MW-3	Water	02/10/21 13:05	02/11/21 11:00	
180-117062-5	AP MW-1D	Water	02/10/21 13:55	02/11/21 11:00	
180-117073-1	SFL MW-3	Water	02/10/21 07:40	02/11/21 11:00	
180-117073-2	SFL MW-4	Water	02/10/21 06:30	02/11/21 11:00	
180-117073-3	SFL MW-7	Water	02/10/21 06:40	02/11/21 11:00	
180-117073-4	SFL MW-6	Water	02/09/21 12:45	02/11/21 11:00	
180-117073-5	SSP MW-2	Water	02/10/21 09:55	02/11/21 11:00	
180-117074-1	AP MW-5	Water	02/10/21 14:40	02/11/21 11:00	
180-117074-2	AP MW-4	Water	02/10/21 15:28	02/11/21 11:00	
180-117074-3	EQ-1	Water	02/10/21 16:00	02/11/21 11:00	
180-117078-1	MNW-15	Water	02/09/21 15:55	02/11/21 11:00	
180-117078-2	DUP-1	Water	02/09/21 18:10	02/11/21 11:00	
180-117078-3	SFL MW-2	Water	02/09/21 14:45	02/11/21 11:00	
180-117078-4	SFL MW-5	Water	02/09/21 13:55	02/11/21 11:00	
180-117078-5	FB-1	Water	02/09/21 13:45	02/11/21 11:00	

Eurofins TestAmerica, Pittsburgh

Job ID: 180-117061-1

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Job ID: 180-117061-1

Method Summary

Job ID: 180-117061-1

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Project/Site:	Gibbons	Creek Steam	Electric	Station	
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Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

Client: HDR Inc

EPA = US Environmental Protection Agency

None = None

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Job ID: 180-117061-1

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Project/Site: Gibbons Creek Steam Electric Station

Client: HDR Inc

Client Sample ID: MNW-18						La	b Sample ID	: 180-117061-1
Date Col	lected: 02/09/21	10:55						Matrix: Wate
Date Rec	eived: 02/11/21	11:00						
	Batch	Batch	Dil	Initial	Final	Batch	Prenared	

		Contraction of the second s								
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrumen	EPA 9056A t ID: INTEGRION		2.5			346770	02/17/21 23:36	EPS	TAL PIT
Total/NA	Analysis Instrumen	EPA 9056A t ID: INTEGRION		25			346770	02/17/21 23:57	EPS	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346914	02/18/21 05:36	RJR	TAL PIT
Total Recoverable	Analysis Instrumen	EPA 6020B t ID: A		1			347383	02/19/21 20:13	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346914	02/18/21 05:36	RJR	TAL PIT
Total Recoverable	Analysis Instrumen	EPA 6020B t ID: A		1			347575	02/24/21 12:19	RSK	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	346437	02/12/21 13:22	KHM	TAL PIT
Total/NA	Analysis Instrumen	EPA 7470A t ID: HGY		1			347409	02/23/21 10:56	КНМ	TAL PIT
Total/NA	Analysis Instrumen	SM 2540C t ID: NOEQUIP		1	50 mL	100 mL	346611	02/15/21 15:28	GRB	TAL PIT
Total/NA	Prep	PrecSep-21			1000.40 mL	1.0 g	498981	02/17/21 12:19	KMP	TAL SL
Total/NA	Analysis Instrumen	903.0 t ID: GFPCBLUE		1			501647	03/12/21 10:47	ANW	TAL SL
Total/NA	Prep	PrecSep_0			750.49 mL	1.0 g	502088	03/16/21 16:48	JEC	TAL SL
Total/NA	Analysis Instrumen	904.0 t ID: GFPCORANO	3E	1			502708	03/22/21 13:03	AK	TAL SL
Total/NA	Analysis Instrumen	Ra226_Ra228 t ID: NOEQUIP		1			502961	03/24/21 11:42	FLC	TAL SL

Client Sample ID: SSP/AP MW-1 Date Collected: 02/09/21 09:30 Date Received: 02/11/21 11:00

Lab Sample ID: 180-117061-2 Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis Instrumer	EPA 9056A It ID: INTEGRION		5			346770	02/17/21 22:12	EPS	TAL PIT
Total/NA	Analysis Instrumer	EPA 9056A It ID: INTEGRION		50			346770	02/17/21 22:33	EPS	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346914	02/18/21 05:36	RJR	TAL PIT
Total Recoverable	Analysis Instrumer	EPA 6020B at ID: A		1			347383	02/19/21 20:16	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346914	02/18/21 05:36	RJR	TAL PIT
Total Recoverable	Analysis Instrumer	EPA 6020B It ID: A		1			347575	02/24/21 12:33	RSK	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	346437	02/12/21 13:22	KHM	TAL PIT
Total/NA	Analysis Instrumer	EPA 7470A It ID: HGY		1			347409	02/23/21 10:57	КНМ	TAL PIT
Total/NA	Analysis Instrumer	SM 2540C It ID: NOEQUIP		1	25 mL	100 mL	346611	02/15/21 15:28	GRB	TAL PIT

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Eurofins TestAmerica, Pittsburgh

3/25/2021

Lab	Chron	icle	

Project/Site: Gibbons Creek Steam Electric Station

Client: HDR Inc

Client Sample ID: SSP/AP MW-1	Lab Sample ID: 180-117061-2
Date Collected: 02/09/21 09:30	Matrix: Wate
Date Received: 02/11/21 11:00	

Prep Type	Batch Type	Batch Method	Run	Factor	Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab	5
Total/NA	Prep	PrecSep-21		-	499.24 mL	1.0 g	498981	02/17/21 12:19	KMP	TAL SL	
Total/NA	Analysis Instrumen	903.0 It ID: GFPCBLUE		1			501647	03/12/21 10:47	ANW	TAL SL	6
Total/NA	Prep	PrecSep_0			500.84 mL	1.0 g	502088	03/16/21 16:48	JEC	TAL SL	
Total/NA	Analysis Instrumen	904.0 It ID: GFPCORANG	E	1			502708	03/22/21 13:03	AK	TAL SL	8
Total/NA	Analysis	Ra226_Ra228		1			502961	03/24/21 11:42	FLC	TAL SL	9

Client Sample ID: SSP MW-3 Date Collected: 02/10/21 10:55 Date Received: 02/11/21 11:00 Lab Sample ID: 180-117062-1

Matrix: Water

Job ID: 180-117061-1

	Batch	Batch		DII	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A	507 B	5			346770	02/17/21 19:26	EPS	TAL PIT
	Instrumen	t ID: INTEGRION								
Total/NA	Analysis	EPA 9056A		50			346770	02/17/21 19:46	EPS	TAL PIT
	Instrumen	t ID: INTEGRION								
Total Recoverable	Prep	3005A			50 mL	50 mL	346914	02/18/21 05:36	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347383	02/19/21 20:31	RSK	TAL PIT
	Instrumen	t ID: A								
Total Recoverable	Prep	3005A			50 mL	50 mL	346914	02/18/21 05:36	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		2			347575	02/24/21 12:41	RSK	TAL PIT
	Instrumen	t ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	346437	02/12/21 13:22	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			347409	02/23/21 10:58	KHM	TAL PIT
	Instrumen	t ID: HGY								
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	346881	02/17/21 14:56	KMM	TAL PIT
	Instrumen	t ID: NOEQUIP								
Total/NA	Prep	PrecSep-21			750.49 mL	1.0 g	498981	02/17/21 12:19	KMP	TAL SL
Total/NA	Analysis	903.0		1			501647	03/12/21 10:44	ANW	TAL SL
	Instrumen	t ID: GFPCBLUE								
Total/NA	Prep	PrecSep_0			500.17 mL	1.0 g	502088	03/16/21 16:48	JEC	TAL SL
Total/NA	Analysis	904.0		1			502708	03/22/21 13:03	AK	TAL SL
	Instrumen	t ID: GFPCORANG	6E							
Total/NA	Analysis	Ra226_Ra228		1			502961	03/24/21 11:42	FLC	TAL SL
	Instrumen	t ID: NOEQUIP								

Client Sample ID: FB-2 Date Collected: 02/10/21 10:55 Date Received: 02/11/21 11:00

.ab	Sample	e ID:	180-1170	062-2
			Matrix:	Water

2 520	Batch	Batch	7523	Dil	Initial	Final	Batch	Prepared	15 17 00	0770
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			346770	02/17/21 21:52	EPS	TAL PIT
/ 1000000000000000000000000000000000000	Instrumer	ID INTEGRION						Contract Concernance		(77)(00)

Eurofins TestAmerica, Pittsburgh

Lab Chronicle	
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Job ID: 180-117061-1

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TAL PIT

TAL SL

TAL SL

TAL SL

TAL SL

TAL SL

Project/Site: Gibbons Creek Steam Electric Station

Analysis SM 2540C

Instrument ID: NOEQUIP

Client: HDR Inc

Total/NA

Client Sample	e ID: FB-	2					La	b Sample I	D: 180-	117062-2
Date Collected:	02/10/21 1	0:55							Ma	trix: Water
Date Received:	02/11/21 1	1:00								
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A		-	50 mL	50 mL	346914	02/18/21 05:36	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347383	02/19/21 20:52	RSK	TAL PIT
	Instrumen	nt ID: A								
Total Recoverable	Prep	3005A			50 mL	50 mL	346914	02/18/21 05:36	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347575	02/24/21 12:44	RSK	TAL PIT
	Instrumen	it ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	346437	02/12/21 13:22	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			347409	02/23/21 10:59	KHM	TAL PIT
	Instrumen	t ID: HGY								

1 100 mL

346881

498981

501647

498991

500442

502961

100 mL

Total/NA Analysis 903.0 1 Instrument ID: GFPCBLUE	
Instrument ID: GFPCBLUE	
Total/NA Prep PrecSep_0 1000.31	nL 1.0 g
Total/NA Analysis 904.0 1 1.0 mL	1.0 mL
Instrument ID: GFPCBLUE	
Total/NA Analysis Ra226_Ra228 1	
Instrument ID: NOEQUIP	

Client Sample ID: SSP MW-4 Date Collected: 02/10/21 12:00 Date Received: 02/11/21 11:00

Lab Sample ID: 180-117062-3 Matrix: Water

02/17/21 14:56 KMM

02/17/21 12:19 KMP

03/12/21 10:45 ANW

02/17/21 14:48 KMP

03/02/21 09:04 AK

03/24/21 11:42 FLC

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		5			346770	02/17/21 22:54	EPS	TAL PIT
	Instrumer	t ID: INTEGRION								
Total/NA	Analysis	EPA 9056A		50			346770	02/17/21 23:15	EPS	TAL PIT
	Instrumer	t ID: INTEGRION								
Total Recoverable	Prep	3005A			50 mL	50 mL	346914	02/18/21 05:36	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347383	02/19/21 20:56	RSK	TAL PIT
	Instrumer	nt ID: A								
Total Recoverable	Prep	3005A			50 mL	50 mL	346914	02/18/21 05:36	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347575	02/24/21 12:48	RSK	TAL PIT
	Instrumer	nt ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	346437	02/12/21 13:22	КНМ	TAL PIT
Total/NA	Analysis	EPA 7470A		1			347409	02/23/21 11:00	KHM	TAL PIT
	Instrumen	t ID: HGY								
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	346881	02/17/21 14:56	KMM	TAL PIT
	Instrumer	t ID: NOEQUIP								
Total/NA	Prep	PrecSep-21			999.74 mL	1.0 g	498981	02/17/21 12:19	KMP	TAL SL
Total/NA	Analysis	903.0		1			501647	03/12/21 10:45	ANW	TAL SL
	Instrumer	t ID: GFPCBLUE								

Eurofins TestAmerica, Pittsburgh

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				Lab (Chronicl	е		12	102 70	
lient: HDR Inc roject/Site: Gibt	oons Creek	Steam Electric	Station					Je	ob ID: 18	0-117061-1
lient Sample ate Collected: ate Received:	e ID: SSF 02/10/21 1 02/11/21 1	P MW-4 2:00 1:00			D: 180- Ma	117062-3 trix: Water				
Ргер Туре	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA Total/NA	Prep Analysis Instrumer	PrecSep_0 904.0 nt ID: GFPCORANG	E	1	750.06 mL	1.0 g	502088 502708	03/16/21 16:48 03/22/21 13:04	JEC AK	TAL SL TAL SL
Total/NA	Analysis Instrumer	Ra226_Ra228 nt ID: NOEQUIP		1			502961	03/24/21 11:42	FLC	TAL SL
Date Collected: 02/10/21 13:05 Date Received: 02/11/21 11:00						Prepared	Matrix: Water			
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrumer	The state of the s		1			346770	02/18/21 00:18	EPS	TAL PIT
Total/NA	Analysis Instrumer	EPA 9056A nt ID: INTEGRION		10			346770	02/18/21 00:38	EPS	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346914	02/18/21 05:36	RJR	TAL PIT
Total Recoverable	Analysis Instrumer	EPA 6020B nt ID: A		1			347383	02/19/21 21:00	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346914	02/18/21 05:36	RJR	TAL PIT
Total Recoverable	Analysis Instrumer	EPA 6020B nt ID: A		2			347575	02/24/21 12:51	RSK	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	346437	02/12/21 13:22	кнм	TAL PIT
Total/NA	Analysis Instrumer	EPA 7470A nt ID: HGY		1			347409	02/23/21 11:01	КНМ	TAL PIT
Total/NA	Analysis Instrumer	SM 2540C nt ID: NOEQUIP		1	100 mL	100 mL	346881	02/17/21 14:56	KMM	TAL PIT

Total/NA	Prep PrecSep-21	750.23 mL	1.0 g	498981	02/17/21 12:19 KMP	TAL SL
Total/NA	Analysis 903.0	1		501647	03/12/21 10:45 ANW	TAL SL
	Instrument ID: GFPCBLUE					
Total/NA	Prep PrecSep_0	750.67 mL	1.0 g	502088	03/16/21 16:48 JEC	TAL SL
Total/NA	Analysis 904.0	1		502708	03/22/21 13:04 AK	TAL SL
	Instrument ID: GFPCORANGE					
Total/NA	Analysis Ra226_Ra228	1		502961	03/24/21 11:42 FLC	TAL SL
	Instrument ID: NOEQUIP					

Client Sample ID: AP MW-1D Date Collected: 02/10/21 13:55 Date Received: 02/11/21 11:00

Lab Sample ID: 180-117062-5 Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis Instrumer	EPA 9056A It ID: INTEGRION		1			346770	02/17/21 20:07	EPS	TAL PIT
Total/NA	Analysis Instrumer	EPA 9056A It ID: INTEGRION		10			346770	02/17/21 20:28	EPS	TAL PIT

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	Lab	Chron	nicle
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Lab ID: 400 447004 4

8

Client Sample Date Collected: Date Received: (e ID: AP 02/10/21 1 02/11/21 1	MW-1D 3:55 1:00					La	b Sample I	D: 180- Ma	117062-! trix: Wate
Ргер Туре	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	346914	02/18/21 05:36	RJR	TAL PIT
Total Recoverable	Analysis Instrumen	EPA 6020B t ID: A		1			347383	02/19/21 21:14	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346914	02/18/21 05:36	RJR	TAL PIT
Total Recoverable	Analysis Instrumen	EPA 6020B t ID: A		5			347575	02/24/21 12:55	RSK	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	346437	02/12/21 13:22	KHM	TAL PIT
Total/NA	Analysis Instrumen	EPA 7470A t ID: HGY		1			347409	02/23/21 11:02	KHM	TAL PIT
Total/NA	Analysis Instrumen	SM 2540C t ID: NOEQUIP		1	100 mL	100 mL	346881	02/17/21 14:56	KMM	TAL PIT
Total/NA	Prep	PrecSep-21			750.24 mL	1.0 g	498981	02/17/21 12:19	KMP	TAL SL
Total/NA	Analysis Instrumen	903.0 t ID: GFPCPURPLE		1			501646	03/12/21 10:51	ANW	TAL SL
Total/NA	Prep	PrecSep_0			750.47 mL	1.0 g	502088	03/16/21 16:48	JEC	TAL SL
Total/NA	Analysis	904.0		1			502708	03/22/21 13:04	AK	TAL SL

1

Total/NA Analysis Ra226_Ra228 Instrument ID: NOEQUIP Client Sample ID: SFL MW-3 Date Collected: 02/10/21 07:40 Date Received: 02/11/21 11:00

Instrument ID: GFPCORANGE

Lab Sample ID: 180-117073-1 Matrix: Water

TAL SL

502961 03/24/21 11:42 FLC

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A	08 8	5			346554	02/16/21 01:49	SAT	TAL PIT
	Instrument	D: INTEGRION								
Total/NA	Analysis	EPA 9056A		50			346554	02/16/21 02:10	SAT	TAL PIT
	Instrument	ID: INTEGRION								
Total Recoverable	Prep	3005A			50 mL	50 mL	346793	02/17/21 07:43	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 13:27	RSK	TAL PIT
	Instrument	ID: A								
Total/NA	Prep	7470A			50 mL	50 mL	347430	02/23/21 14:39	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			347536	02/24/21 11:44	КНМ	TAL PIT
	Instrument	ID: HGY								
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	346881	02/17/21 14:56	KMM	TAL PIT
	Instrument	ID: NOEQUIP								
Total/NA	Prep	PrecSep-21			750.13 mL	1.0 g	498981	02/17/21 12:19	KMP	TAL SL
Total/NA	Analysis	903.0		1			501646	03/12/21 10:51	ANW	TAL SL
	Instrument	ID: GFPCPURPLE								
Total/NA	Prep	PrecSep_0			750.33 mL	1.0 g	502088	03/16/21 16:48	JEC	TAL SL
Total/NA	Analysis	904.0		1			502708	03/22/21 13:04	AK	TAL SL
	Instrument	ID: GFPCORANGE	é –							
Total/NA	Analysis	Ra226_Ra228		1			502961	03/24/21 11:42	FLC	TAL SL
	Instrument	ID: NOEQUIP								

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Lab Chronicle

Job ID: 180-117061-1

Lab Sample ID: 180-117073-2 Matrix: Water

Project/Site: Gibbons Creek Steam Electric Station

Client Sample ID: SFL MW-4 Date Collected: 02/10/21 06:30 Date Received: 02/11/21 11:00

Client: HDR Inc

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrumer	EPA 9056A t ID: INTEGRION		5			346554	02/16/21 00:26	SAT	TAL PIT
Total/NA	Analysis Instrumer	EPA 9056A nt ID: INTEGRION		50			346554	02/16/21 00:47	SAT	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346793	02/17/21 07:43	RJR	TAL PIT
Total Recoverable	Analysis Instrumer	EPA 6020B nt ID: A		1			347047	02/18/21 13:38	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	347430	02/23/21 14:39	KHM	TAL PIT
Total/NA	Analysis Instrumer	EPA 7470A nt ID: HGY		1			347536	02/24/21 11:45	КНМ	TAL PIT
Total/NA	Analysis Instrumer	SM 2540C nt ID: NOEQUIP		1	25 mL	100 mL	346881	02/17/21 14:56	КММ	TAL PIT
Total/NA	Prep	PrecSep-21			999.57 mL	1.0 g	498981	02/17/21 12:19	KMP	TAL SL
Total/NA	Analysis Instrumer	903.0 nt ID: GFPCPURPLE		1			501646	03/12/21 10:52	ANW	TAL SL
Total/NA	Prep	PrecSep_0			750.89 mL	1.0 g	502088	03/16/21 16:48	JEC	TAL SL
Total/NA	Analysis Instrumer	904.0 nt ID: GFPCORANGE	8	1			502708	03/22/21 13:05	AK	TAL SL
Total/NA	Analysis Instrumer	Ra226_Ra228 tt ID: NOEQUIP		1			502961	03/24/21 11:42	FLC	TAL SL

Client Sample ID: SFL MW-7 Date Collected: 02/10/21 06:40 Date Received: 02/11/21 11:00

Lab Sample ID: 180-117073-3 Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrument	EPA 9056A ID: INTEGRION		5			346554	02/15/21 19:34	SAT	TAL PIT
Total/NA	Analysis Instrument	EPA 9056A ID: INTEGRION		50			346554	02/15/21 19:55	SAT	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346793	02/17/21 07:43	RJR	TAL PIT
Total Recoverable	Analysis Instrument	EPA 6020B ID: A		1			347047	02/18/21 13:41	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	347430	02/23/21 14:39	KHM	TAL PIT
Total/NA	Analysis Instrument	EPA 7470A ID: HGY		1			347536	02/24/21 11:46	КНМ	TAL PIT
Total/NA	Analysis Instrument	SM 2540C ID: NOEQUIP		1	25 mL	100 mL	346881	02/17/21 14:56	КММ	TAL PIT
Total/NA	Prep	PrecSep-21			1000.26 mL	1.0 g	498981	02/17/21 12:19	KMP	TAL SL
Total/NA	Analysis Instrument	903.0 ID: GFPCPURPLE		1			501646	03/12/21 10:52	ANW	TAL SL
Total/NA	Prep	PrecSep_0			750.60 mL	1.0 g	502088	03/16/21 16:48	JEC	TAL SL
Total/NA	Analysis Instrument	904.0 ID: GFPCORANGE	Đ	1			502708	03/22/21 13:05	AK	TAL SL

Eurofins TestAmerica, Pittsburgh

				Lab (Chronicl	е				
Client: HDR Inc Project/Site: Gibb	oons Creek	Steam Electric S	Station					Jo	ob ID: 18	0-117061
Client Sample Date Collected: Date Received:	e ID: SFL 02/10/21 0 02/11/21 1	- MW-7 6:40 1:00					La	b Sample I	D: 180- Ma	117073 trix: Wat
Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
	Findiyala	Nazzo_Nazzo		^			302301	00/24/21 11.42	TLO	INC OC
Client Sample Date Collected: Date Received:	e ID: SFL 02/09/21 1 02/11/21 1	. MW-6 2:45 1:00					La	b Sample I	D: 180- Ma	117073 trix: Wat
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Iotal/NA	Analysis Instrumer	t ID: INTEGRION		10			346554	02/15/21 15:03	SAI	TAL PIT
Total/NA	Analysis Instrumer	EPA 9056A It ID: INTEGRION		100			346554	02/15/21 15:23	SAT	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346793	02/17/21 07:43	RJR	TAL PIT
Total Recoverable	Analysis İnstrumer	EPA 6020B It ID: A		1			347047	02/18/21 13:45	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	347430	02/23/21 14:39	KHM	TAL PIT
Total/NA	Analysis Instrumer	EPA 7470A t ID: HGY		1			347536	02/24/21 11:48	KHM	TAL PIT
Total/NA	Analysis Instrumer	SM 2540C t ID: NOEQUIP		1	10 mL	100 mL	346611	02/15/21 15:28	GRB	TAL PIT
Total/NA	Prep	PrecSep-21			500.36 mL	1.0 g	498981	02/17/21 12:19	KMP	TAL SL
Total/NA	Analysis Instrumer	903.0 at ID: GFPCPURPLE		1			501646	03/12/21 10:53	ANW	TAL SL
Total/NA	Prep	PrecSep_0			500.61 mL	1.0 g	502088	03/16/21 16:48	JEC	TAL SL
Total/NA	Analysis Instrumer	904.0 it ID: GFPCORANG	E	1			502708	03/22/21 13:05	AK	TAL SL
Total/NA	Analysis Instrumer	Ra226_Ra228 tt ID: NOEQUIP		1			502961	03/24/21 11:42	FLC	TAL SL
Client Sample	ID: SSF 02/10/21 0	9:55					La	b Sample I	D: 180- Ma	11707 trix: Wa

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis Instrumen	EPA 9056A t ID: INTEGRION		5			346554	02/15/21 23:44	SAT	TAL PIT
Total/NA	Analysis Instrumen	EPA 9056A t ID: INTEGRION		50			346554	02/16/21 00:05	SAT	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346794	02/17/21 07:45	RJR	TAL PIT
Total Recoverable	Analysis Instrumen	EPA 6020B t ID: A		18			347047	02/18/21 18:09	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	347430	02/23/21 14:39	KHM	TAL PIT
Total/NA	Analysis Instrumen	EPA 7470A t ID: HGY		1			347536	02/24/21 11:49	КНМ	TAL PIT
Total/NA	Analysis Instrumen	SM 2540C t ID: NOEQUIP		ţ	10 mL	100 mL	346881	02/17/21 14:56	КММ	TAL PIT

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Lab	Chronicle
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Client Sample ID: SSP MW-2	Lab Sample ID: 180-117073-5
Date Collected: 02/10/21 09:55	Matrix: Water
Date Received: 02/11/21 11:00	

Prep Type	Batch	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab	5
Total/NA	Prep	PrecSep-21			749.17 mL	1.0 g	498981	02/17/21 12:19	KMP	TAL SL	
Total/NA	Analysis Instrumer	903.0 ht ID: GFPCPURPLE		1			501646	03/12/21 10:53	ANW	TAL SL	
Total/NA	Prep	PrecSep_0			750.23 mL	1.0 g	502088	03/16/21 16:48	JEC	TAL SL	
Total/NA	Analysis Instrumer	904.0 nt ID: GFPCORANGE	E .	1			502708	03/22/21 13:36	AK	TAL SL	8
Total/NA	Analysis Instrumer	Ra226_Ra228 ht ID: NOEQUIP		1			502961	03/24/21 11:42	FLC	TAL SL	9

Client Sample ID: AP MW-5 Date Collected: 02/10/21 14:40 Date Received: 02/11/21 11:00 Lab Sample ID: 180-117074-1 Matrix: Water

Job ID: 180-117061-1

2 222	Batch	Batch	NES.	DII	Initial	Final	Batch	Prepared	15 27 10	8///6
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		2.5			346554	02/16/21 02:31	SAT	TAL PIT
	Instrumen	D: INTEGRION								
Total/NA	Analysis	EPA 9056A		25			346554	02/16/21 02:52	SAT	TAL PIT
	Instrumen	ID: INTEGRION								
Total Recoverable	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347383	02/19/21 21:43	RSK	TAL PIT
	Instrumen	ID: A								
Total Recoverable	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		2			347908	02/27/21 11:19	RJR	TAL PIT
	Instrumen	ID: NEMO								
Total/NA	Prep	7470A			25 mL	25 mL	346437	02/12/21 13:22	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			347409	02/23/21 11:06	KHM	TAL PIT
	Instrumen	ID: HGY								
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	346881	02/17/21 14:56	KMM	TAL PIT
	Instrumen	ID: NOEQUIP								
Total/NA	Prep	PrecSep-21			499.58 mL	1.0 g	498981	02/17/21 12:19	KMP	TAL SL
Total/NA	Analysis	903.0		1			501646	03/12/21 10:54	ANW	TAL SL
	Instrumen	ID: GFPCPURPLE								
Total/NA	Prep	PrecSep_0			500.01 mL	1.0 g	502088	03/16/21 16:48	JEC	TAL SL
Total/NA	Analysis	904.0		1			502687	03/22/21 13:10	ANW	TAL SL
	Instrumen	ID: GFPCBLUE								
Total/NA	Analysis	Ra226_Ra228		1			502961	03/24/21 11:42	FLC	TAL SL
	Instrumen	ID: NOEQUIP								

Client Sample ID: AP MW-4 Date Collected: 02/10/21 15:28 Date Received: 02/11/21 11:00

Lab	Sample	ID:	180-117074-2
			Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		5		-	346554	02/15/21 20:15	SAT	TAL PIT
	Instrumen	ID INTEGRION								

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Job ID: 180-117061-1

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Project/Site: Gibbons Creek Steam Electric Station

Client: HDR Inc

Client Sample ID: AP MW-4	Lab Sample ID: 180-117074-2
Date Collected: 02/10/21 15:28	Matrix: Water
Date Received: 02/11/21 11:00	

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		50		-	346554	02/15/21 20:36	SAT	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Total Recoverable	Analysis Instrumen	EPA 6020B It ID: A		1			347383	02/19/21 22:16	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Total Recoverable	Analysis Instrumen	EPA 6020B t ID; NEMO		1			347908	02/27/21 11:29	RJR	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	346437	02/12/21 13:22	KHM	TAL PIT
Total/NA	Analysis Instrumen	EPA 7470A It ID: HGY		1			347409	02/23/21 11:09	КНМ	TAL PIT
Total/NA	Analysis Instrumen	SM 2540C t ID: NOEQUIP		1	25 mL	100 mL	346881	02/17/21 14:56	KMM	TAL PIT
Total/NA	Prep	PrecSep-21			749.29 mL	1.0 g	498981	02/17/21 12:19	KMP	TAL SL
Total/NA	Analysis Instrumen	903.0 t ID: GFPCPURPLE		1			501646	03/12/21 10:54	ANW	TAL SL
Total/NA	Prep	PrecSep_0			750.32 mL	1.0 g	502088	03/16/21 16:48	JEC	TAL SL
Total/NA	Analysis Instrumen	904.0 t ID: GFPCBLUE		1			502687	03/22/21 13:10	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1			502961	03/24/21 11:42	FLC	TAL SL

Client Sample ID: EQ-1 Date Collected: 02/10/21 16:00 Date Received: 02/11/21 11:00

Lab Sample ID: 180-117074-3 Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis Instrument	EPA 9056A ID: INTEGRION		1			346554	02/15/21 21:39	SAT	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Total Recoverable	Analysis Instrument	EPA 6020B ID: A		1			347383	02/19/21 22:19	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Total Recoverable	Analysis Instrument	EPA 6020B ID: NEMO		1			347908	02/27/21 11:32	RJR	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	346437	02/12/21 13:22	KHM	TAL PIT
Total/NA	Analysis Instrument	EPA 7470A ID: HGY		1			347409	02/23/21 11:10	КНМ	TAL PIT
Total/NA	Analysis Instrument	SM 2540C ID: NOEQUIP		1	100 mL	100 mL	346883	02/17/21 14:59	KMM	TAL PIT
Total/NA	Prep	PrecSep-21			1000.92 mL	1.0 g	498981	02/17/21 12:19	KMP	TAL SL
Total/NA	Analysis Instrument	903.0 ID: GFPCPURPLE		1			501646	03/12/21 10:54	ANW	TAL SL
Total/NA	Prep	PrecSep_0			1000.92 mL	1.0 g	498991	02/17/21 14:48	KMP	TAL SL
Total/NA	Analysis Instrument	904.0 ID: GFPCBLUE		1	1.0 mL	1.0 mL	500442	03/02/21 09:06	AK	TAL SL

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oiect/Site: Gibb	ons Creek	Steam Electric S	tation					50	U ID. 10	0-11/001-1
lient Sample	ID: EQ-	1 5:00	uuon				La	b Sample I	D: 180- Ma	117074-3 trix: Water
Pren Tyne	Batch	Batch	Pun	Dil	Initial	Final	Batch	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1		Findant	502961	03/24/21 11:42	FLC	TAL SL
Client Sample Date Collected: (Date Received: (D2/09/21 15	V-15 5:55 :00					La	b Sample I	D: 180- Ma	117078-1 trix: Water
Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis Instrument	EPA 9056A ID: INTEGRION		5		1	346554	02/16/21 05:39	SAT	TAL PIT
Total/NA	Analysis Instrument	EPA 9056A ID: INTEGRION		50			346554	02/16/21 06:00	SAT	TAL PIT
Total Recoverable Total Recoverable	Prep Analysis Instrument	3005A EPA 6020B ID: A		1	50 mL	50 mL	346981 347383	02/18/21 11:38 02/19/21 22:23	KEM RSK	TAL PIT TAL PIT
Total Recoverable Total Recoverable	Prep Analysis Instrument	3005A EPA 6020B ID: NEMO		5	50 mL	50 mL	346981 347908	02/18/21 11:38 02/27/21 11:35	KEM RJR	TAL PIT TAL PIT
Total/NA Total/NA	Prep Analysis Instrument	7470A EPA 7470A ID: HGY		1	50 mL	50 mL	347430 347536	02/23/21 14:39 02/24/21 11:53	КНМ КНМ	TAL PIT TAL PIT
Total/NA	Analysis Instrument	SM 2540C ID: NOEQUIP		1	25 mL	100 mL	346611	02/15/21 15:28	GRB	TAL PIT
Total/NA Total/NA	Prep Analysis Instrument	PrecSep-21 903.0 ID: GFPCPURPLE		1	1000.54 mL	1.0 g	498981 501646	02/17/21 12:19 03/12/21 10:54	KMP ANW	TAL SL TAL SL
Total/NA Total/NA	Prep Analysis Instrument	PrecSep_0 904.0 ID: GFPCORANGE		1	1000.54 mL 1.0 mL	1.0 g 1.0 mL	498991 500432	02/17/21 14:48 03/02/21 09:08	KMP AK	TAL SL TAL SL
Total/NA	Analysis Instrument	Ra226_Ra228 ID: NOEQUIP		1			502961	03/24/21 11:42	FLC	TAL SL

Date Received: 02/11/21 11:00

Batch Batch Dil Initial Final Batch Prepared Prep Type Type Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA EPA 9056A 02/16/21 06:20 SAT TAL PIT 346554 Analysis 5 Instrument ID: INTEGRION Total/NA Analysis EPA 9056A 50 346554 02/16/21 06:41 SAT TAL PIT Instrument ID: INTEGRION Total Recoverable Prep 3005A 50 mL 50 mL 346981 02/18/21 11:38 KEM TAL PIT Total Recoverable Analysis EPA 6020B 1 347383 02/19/21 22:26 RSK TAL PIT Instrument ID: A

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Job ID: 180-117061-1

Project/Site: Gibbons Creek Steam Electric Station

Client: HDR Inc

Date Collected:	e ID: DU 02/09/21 1 02/11/21 1	P-1 8:10 1:00					La	b Sample I	D: 180- Ma	117078-2 trix: Wate
Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable Total Recoverable	Prep Analysis Instrumer	3005A EPA 6020B nt ID: A		5	50 mL	50 mL	346981 347728	02/18/21 11:38 02/25/21 14:34	KEM RSK	TAL PIT TAL PIT
Total/NA Total/NA	Prep Analysis Instrumer	7470A EPA 7470A nt ID: HGY		1	50 mL	50 mL	347430 347536	02/23/21 14:39 02/24/21 11:54	КНМ КНМ	TAL PIT TAL PIT
Total/NA	Analysis Instrumer	SM 2540C nt ID: NOEQUIP		1	25 mL	100 mL	346611	02/15/21 15:28	GRB	TAL PIT
Total/NA Total/NA	Prep Analysis Instrumer	PrecSep-21 903.0 nt ID: GFPCPURPLE		1	999.25 mL	1.0 g	498981 501646	02/17/21 12:19 03/12/21 10:55	KMP ANW	TAL SL TAL SL
Total/NA Total/NA	Prep Analysis Instrumer	PrecSep_0 904.0 nt ID: GFPCORANG	E	ĩ	999.25 mL 1.0 mL	1.0 g 1.0 mL	498991 500432	02/17/21 14:48 03/02/21 09:08	KMP AK	TAL SL TAL SL
Total/NA	Analysis Instrumer	Ra226_Ra228 It ID: NOEQUIP		1			502961	03/24/21 11:42	FLC	TAL SL

Client Sample ID: SFL MW-2 Date Collected: 02/09/21 14:45 Date Received: 02/11/21 11:00

Lab Sample ID: 180-117078-3 Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		5			346554	02/15/21 23:02	SAT	TAL PIT
	Instrumen	t ID: INTEGRION								
Total/NA	Analysis	EPA 9056A		50			346554	02/15/21 23:23	SAT	TAL PIT
	Instrumen	t ID: INTEGRION								
Total Recoverable	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347383	02/19/21 22:30	RSK	TAL PIT
	Instrumen	it ID: A								
Total Recoverable	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347728	02/25/21 14:38	RSK	TAL PIT
	Instrumen	it ID: A								
Total/NA	Prep	7470A			50 mL	50 mL	347430	02/23/21 14:39	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			347536	02/24/21 11:55	KHM	TAL PIT
	Instrumen	t ID: HGY								
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	346611	02/15/21 15:28	GRB	TAL PIT
	Instrumen	t ID: NOEQUIP								
Total/NA	Prep	PrecSep-21			1000.38 mL	1.0 g	499133	02/18/21 09:54	KMP	TAL SL
Total/NA	Analysis	903.0		1			501661	03/15/21 16:55	AK	TAL SL
	Instrumen	t ID: GFPCPURPLE								
Total/NA	Prep	PrecSep_0			1000.38 mL	1.0 g	499136	02/18/21 10:43	KMP	TAL SL
Total/NA	Analysis	904.0		1			500745	03/04/21 08:28	SCB	TAL SL
	Instrumen	t ID: GFPCORANGE	÷							
Total/NA	Analysis	Ra226_Ra228		1			502274	03/17/21 15:15	SCB	TAL SL
	Instrumen	ID: NOEQUIP								

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Lab Chronicle

Job ID: 180-117061-1

Matrix: Water

Project/Site: Gibbons Creek Steam Electric Station

Client Sample ID: SFL MW-5 Date Collected: 02/09/21 13:55 Date Received: 02/11/21 11:00

Client: HDR Inc

Lab Sample ID: 180-117078-4

Ргер Туре	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis Instrument	EPA 9056A D: INTEGRION		10			346554	02/15/21 22:21	SAT	TAL PIT
Total/NA	Analysis Instrument	EPA 9056A D: INTEGRION		100			346554	02/15/21 22:42	SAT	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Total Recoverable	Analysis Instrument I	EPA 6020B D: A		1			347383	02/19/21 22:44	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Total Recoverable	Analysis Instrument	EPA 6020B D: A		2			347728	02/25/21 14:52	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	347430	02/23/21 14:39	KHM	TAL PIT
Total/NA	Analysis Instrument	EPA 7470A D: HGY		1			347536	02/24/21 11:56	КНМ	TAL PIT
Total/NA	Analysis Instrument	SM 2540C D: NOEQUIP		1	10 mL	100 mL	346611	02/15/21 15:28	GRB	TAL PIT
Total/NA	Prep	PrecSep-21			1000.28 mL	1.0 g	499133	02/18/21 09:54	KMP	TAL SL
Total/NA	Analysis Instrument I	903.0 D: GFPCPURPLE		1			501661	03/15/21 16:55	AK	TAL SL
Total/NA	Prep	PrecSep_0			1000.28 mL	1.0 g	499136	02/18/21 10:43	KMP	TAL SL
Total/NA	Analysis Instrument	904.0 D: GFPCORANG	E	1			500745	03/04/21 08:28	SCB	TAL SL
Total/NA	Analysis Instrument	Ra226_Ra228 D: NOEQUIP		1			502274	03/17/21 15:15	SCB	TAL SL

Client Sample ID: FB-1 Date Collected: 02/09/21 13:45 Date Received: 02/11/21 11:00

Lab Sample ID: 180-117078-5 Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis Instrumer	EPA 9056A It ID: INTEGRION		1			346554	02/15/21 22:00	SAT	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Total Recoverable	Analysis Instrumer	EPA 6020B at ID: A		1			347383	02/19/21 23:06	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Total Recoverable	Analysis Instrumer	EPA 6020B It ID: A		1			347728	02/25/21 14:56	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	347430	02/23/21 14:39	KHM	TAL PIT
Total/NA	Analysis Instrumer	EPA 7470A It ID: HGY		1			347536	02/24/21 11:57	КНМ	TAL PIT
Total/NA	Analysis Instrumer	SM 2540C It ID: NOEQUIP		1	100 mL	100 mL	346611	02/15/21 15:28	GRB	TAL PIT
Total/NA	Prep	PrecSep-21			1000.66 mL	1.0 g	499133	02/18/21 09:54	KMP	TAL SL
Total/NA	Analysis Instrumer	903.0 It ID: GFPCPURPLE		1			501661	03/15/21 16:56	AK	TAL SL

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Lab Chronicle

Project/Site: Gibbons Creek Steam Electric Station

Client Sam Date Collecte Date Receive	ole ID: FB-1 d: 02/09/21 1: d: 02/11/21 11	1 3:45 1:00					La	b Sample I	D: 180- Ma	117078-5 trix: Water
Ргер Туре	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000.66 mL	1.0 g	499136	02/18/21 10:43	KMP	TAL SL
Total/NA	Analysis Instrumen	904.0 t ID: GFPCORANG	Æ	1			500745	03/04/21 08:29	SCB	TAL SL
Total/NA	Analysis Instrumen	Ra226_Ra228 t ID: NOEQUIP		1			502274	03/17/21 15:15	SCB	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Analyst References:

Client: HDR Inc

Lab: TAL PIT Batch Type: Prep KEM = Kimberly Mahoney KHM = Kyle Mucroski RJR = Ron Rosenbaum Batch Type: Analysis EPS = Evan Scheuer GRB = Gabriel Berghe KHM = Kyle Mucroski KMM = Kendric Moore RJR = Ron Rosenbaum RSK = Robert Kurtz SAT = Stephen Tallam Lab: TAL SL Batch Type: Prep JEC = Julia Crossen KMP = Karen Phillips Batch Type: Analysis AK = Amanda Kraus ANW = Aamber Woods FLC = Fernando Cruz SCB = Sarah Bernsen

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Job ID: 180-117061-1

C	lient	Sam	ple	Resul	ts

Client: HDR Inc Designation of the ns Creek Steam Electric Station

Y Carrier

81.9

40 - 110

Client Sample Date Collected: 02 Date Received: 02	ID: MNW-1 2/09/21 10:55 2/11/21 11:00	8					L	ab Sample	ID: 180-117 Matrix	'061-1 : Water
Method: EPA 90	56A - Anions	, Ion Chrom	atography	Y						
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride		369	-	2.50	1.78	mg/L	_		02/17/21 23:36	2.5
Fluoride		0.120	J	0.250	0.0650	mg/L			02/17/21 23:36	2.5
Sulfate		1300		25.0	18.9	mg/L			02/17/21 23:57	25
Method: EPA 603	20B - Metals	(ICP/MS) - To	otal Reco	verable						
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic		0.00255		0.00100	0.000313	mg/L		02/18/21 05:36	02/19/21 20:13	1
Barium		0.0467		0.0100	0.00160	mg/L		02/18/21 05:36	02/19/21 20:13	3
Beryllium		0.000184	J	0.00100	0.000182	mg/L		02/18/21 05:36	02/19/21 20:13	8
Boron		0.422		0.0800	0.0386	mg/L		02/18/21 05:36	02/24/21 12:19	া
Cadmium		< 0.000217		0.00100	0.000217	mg/L		02/18/21 05:36	02/19/21 20:13	1
Calcium		299		0.500	0.127	mg/L		02/18/21 05:36	02/19/21 20:13	1
Chromium		0.00249		0.00200	0.00153	mg/L		02/18/21 05:36	02/19/21 20:13	1
Cobalt		0.00226		0.000500	0.000134	mg/L		02/18/21 05:36	02/19/21 20:13	1
Molybdenum		< 0.000610		0.00500	0.000610	mg/L		02/18/21 05:36	02/19/21 20:13	3
Lead		< 0.000128		0.00100	0.000128	mg/L		02/18/21 05:36	02/19/21 20:13	1
Antimony		<0.000378		0.00200	0.000378	mg/L		02/18/21 05:36	02/19/21 20:13	1
Selenium		< 0.00151		0.00500	0.00151	mg/L		02/18/21 05:36	02/19/21 20:13	1
Thallium		< 0.000148		0.00100	0.000148	mg/L		02/18/21 05:36	02/19/21 20:13	1
Lithium		0.332		0.00500	0.00339	mg/L		02/18/21 05:36	02/19/21 20:13	1
Method: EPA 74	70A - Mercur	y (CVAA)								
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury		<0.000130		0.000200	0.000130	mg/L		02/12/21 13:22	02/23/21 10:56	1
General Chemis	try									
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Sol	lids	2080		20.0	20.0	mg/L			02/15/21 15:28	1
Method: 903.0 -	Radium-226	(GFPC)	Count	Total						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL I	MDC Unit		Prepared	Analyzed	Dil Fac
Radium-226	1.81	interfactory interfactory	0.246	0.295	1.00 0	.128 pCi/L		02/17/21 12:19	03/12/21 10:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.5	G - 1864	40 - 110					02/17/21 12:19	03/12/21 10:47	1
Method: 904.0 -	Radium-228	(GFPC)								
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2 0+/-)	RL	MDC Unit		Prepared	Analyzed	Dil Fac
Radium-228	2.80		0.505	0.567	1.00 0	0.483 pCi/L		03/16/21 16:48	03/22/21 13:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		40-110					03/16/21 16:48	03/22/21 13:03	1

Client Sample Results

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station Client Sample ID: MNW-18 Date Collected: 02/09/21 10:55 Lab Sample ID: 180-117061-1 Date Received: 02/11/21 11:00

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

			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(20+/-)	(20+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	4.61		0.562	0.639	5.00	0.483	pCi/L		03/24/21 11:42	1

Job ID: 180-117061-1

Matrix: Water

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03/16/21 16:48 03/22/21 13:03

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Job ID: 180-117061-1

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Client	t Samp	le F	lesu	ts

Client Sample ID: Date Collected: 02/09 Date Received: 02/11/	SSP/AI /21 09:30 21 11:00	P MW-1					1	La	ib Sample	ID: 180-117 Matrix	061-2 Water
Method: EPA 9056A	- Anions	, Ion Chrom	atography		MO	Unit			Browned	Analyzad	
Analyte		Result	Quaimer		MDL 25.7	Unit ma/l		2	Prepared	Analyzed	Dirra
Chloride		1520		50.0	35.7	mg/L				02/17/21 22:33	50
Fluoride		<0.130		0.500	0.130	mg/L				02/17/21 22:12	
Sulfate		2920		50.0	37.8	mg/L				02/17/21 22:33	5(
Method: EPA 6020B	- Metals	(ICP/MS) - T	otal Reco	verable							
Analyte	_	Result	Qualifier	RL	MDL	Unit		D	Prepared	Analyzed	Dil Fac
Arsenic		0.00501		0.00100	0.000313	mg/L			02/18/21 05:36	02/19/21 20:16	
Barium		0.184		0.0100	0.00160	mg/L			02/18/21 05:36	02/19/21 20:16	1
Beryllium		0.00157		0.00100	0.000182	mg/L			02/18/21 05:36	02/19/21 20:16	
Boron		0.690		0.0800	0.0386	mg/L			02/18/21 05:36	02/24/21 12:33	3
Cadmium		< 0.000217		0.00100	0.000217	mg/L			02/18/21 05:36	02/19/21 20:16	6 B
Calcium		667		0.500	0.127	mg/L			02/18/21 05:36	02/19/21 20:16	
Chromium		0.00248		0.00200	0.00153	mg/L			02/18/21 05:36	02/19/21 20:16	1
Cobalt		0.00174		0.000500	0.000134	mg/L			02/18/21 05:36	02/19/21 20:16	6 B
Molybdenum		0.00199	J	0.00500	0.000610	mg/L			02/18/21 05:36	02/19/21 20:16	3
Lead		0.0106		0.00100	0.000128	mg/L			02/18/21 05:36	02/19/21 20:16	3
Antimony		0.000721	JB	0.00200	0.000378	mg/L			02/18/21 05:36	02/19/21 20:16	
Selenium		< 0.00151		0.00500	0.00151	mg/L			02/18/21 05:36	02/19/21 20:16	8
Thallium		0.000206	J	0.00100	0.000148	mg/L			02/18/21 05:36	02/19/21 20:16	1
Lithium		1.23		0.00500	0.00339	mg/L			02/18/21 05:36	02/19/21 20:16	1
Method: EPA 7470A	- Mercur	v (CVAA)									
Analyte		Result	Qualifier	RL	MDL	Unit		D	Prepared	Analyzed	Dil Fac
Mercury		<0.000130		0.000200	0.000130	mg/L		_	02/12/21 13:22	02/23/21 10:57	9
General Chemistry											
Analyte		Result	Qualifier	RL	MDL	Unit		D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids		5630		40.0	40.0	mg/L		-		02/15/21 15:28	
Method: 903.0 - Rad	ium-226	(GFPC)	Count Uncert.	Total Uncert.			1-14			1 x 200 200	DUE
Analyte	Result	Quaimer	(20+/-)	(20+/-)	KL I		Juli	_	Prepared	Analyzed	Direc
Radium-226	1.14		0.310	0.327	1.00 0	1.303 p	SCIVE		02/17/21 12:19	03/12/21 10:47	1
Carrier	%Yield	Qualifier	Limits						Prepared	Analyzed	Dil Fac
Ba Carrier	85.9	3 3.5	40 - 110						02/17/21 12:19	03/12/21 10:47	1
Method: 904.0 - Rad	ium-228	(GFPC)	Count Uncert.	Total Uncert. (2σ+/-)	RI I	MDC	Init		Prepared	Analyzed	Dil Fa
Radium-228	2 24	G	0.823	0.849	1.00	1 14	Ci/I	2	03/16/21 16:48	03/22/21 13:03	Dirde
Traviulii-220	2.24		0.020	0.040					551012110.40		
Garrier	%Yield	Qualifier	Limits						Prepared	Analyzed	Dil Fac
Ba Camer	75.3		40 - 110						03/16/21 16:48	03/22/21 13:03	
Y Camier	76.6		40 - 110						03/16/21 16:48	03/22/21 13:03	1

Client Sample Results

Client: HDR Inc Job ID: 180-117061-1 Project/Site: Gibbons Creek Steam Electric Station Lab Sample ID: 180-117061-2 Client Sample ID: SSP/AP MW-1 Date Collected: 02/09/21 09:30 Matrix: Water Date Received: 02/11/21 11:00 Method: Ra226_Ra228 - Combined Radium-226 and Radium-228 Count Total Uncert. Uncert. Analyte **Result Qualifier** (20+/-) (20+/-) RL MDC Unit Dil Fac Prepared Analyzed Combined Radium 226 + 228 3.38 0.879 0.910 5.00 1.14 pCi/L 03/24/21 11:42

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Job ID: 180-117061-1

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			Clien	t Sample	e Resul	ts				
Client: HDR Inc Project/Site: Gibbo	ns Creek Ste	am Electric S	tation						Job ID: 180-11	7061-1
lient Sample ate Collected: 02 ate Received: 02	ID: SSP M 2/10/21 10:55 2/11/21 11:00	W-3					La	ab Sample	ID: 180-117 Matrix	'062-1 : Water
Method: EPA 905	56A - Anions	, Ion Chrom	atograph	v						
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride		1700		50.0	35.7	mg/L			02/17/21 19:46	50
Fluoride		0.441	J	0.500	0.130	mg/L			02/17/21 19:26	5
Sulfate		2430		50.0	37.8	mg/L			02/17/21 19:46	50
Method: EPA 602	20B - Metals	(ICP/MS) - To	otal Reco	verable						
nalyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic		0.00831		0.00100	0.000313	mg/L		02/18/21 05:36	02/19/21 20:31	1
larium		0.0218		0.0100	0.00160	mg/L		02/18/21 05:36	02/19/21 20:31	1
Beryllium		0.120		0.00100	0.000182	mg/L		02/18/21 05:36	02/19/21 20:31	1
Boron		2.87		0.160	0.0772	mg/L		02/18/21 05:36	02/24/21 12:41	2
Cadmium		0.0736		0.00100	0.000217	mg/L		02/18/21 05:36	02/19/21 20:31	1
Calcium		712		0.500	0.127	mg/L		02/18/21 05:36	02/19/21 20:31	1
Chromium		0.00575		0.00200	0.00153	mg/L		02/18/21 05:36	02/19/21 20:31	1
Cobalt		0.584		0.000500	0.000134	mg/L		02/18/21 05:36	02/19/21 20:31	1
folybdenum		< 0.000610		0.00500	0.000610	mg/L		02/18/21 05:36	02/19/21 20:31	3
.ead		0.00533		0.00100	0.000128	mg/L		02/18/21 05:36	02/19/21 20:31	1
Antimony		<0.000378		0.00200	0.000378	mg/L		02/18/21 05:36	02/19/21 20:31	1
Selenium		< 0.00151		0.00500	0.00151	mg/L		02/18/21 05:36	02/19/21 20:31	1
hallium		0.0101		0.00100	0.000148	mg/L		02/18/21 05:36	02/19/21 20:31	1
ithium		0.593		0.00500	0.00339	mg/L		02/18/21 05:36	02/19/21 20:31	1
Method: EPA 747	70A - Mercur	y (CVAA)								
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aercury		0.000162	J	0.000200	0.000130	mg/L		02/12/21 13:22	02/23/21 10:58	1
General Chemist	try	Result	Qualifier	RI	MDI	Unit	р	Prepared	Analyzed	Dil Fac
fotal Dissolved Sol	lide	2200	quanner	20.0	20.0	ma/L		Trepared	02/17/21 14:56	1
Method: 903.0 - I	Radium-226	(GFPC)	Count	Total						3
Inalida	Recult	Qualifier	(2a+/-)	(20+1-)	DI I			Propared	Analyzed	Dil Esc
Radium-226	5.31	Anguillet	0.461	0.664	1.00 0	0.134 pCi/L		02/17/21 12:19	03/12/21 10:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6	0 2.5	40 - 110					02/17/21 12:19	03/12/21 10:44	1
Method: 904.0 - I	Radium-228	(GFPC)	Count Uncert.	Total Uncert.						
analyte	Result	Qualifier	(20+/-)	(20+/-)	RL I	MDC Unit	-	Prepared	Analyzed	Dil Fac
Radium-228	34.9		1.92	3.74	1.00 0	0.778 pCi/L		03/16/21 16:48	03/22/21 13:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
3a Carrier	83.2		40 - 110					03/16/21 16:48	03/22/21 13:03	1
Y Carrier	83.0		40 - 110					03/16/21 16:48	03/22/21 13:03	1

Client Sample Results

Client: HDR Inc Job ID: 180-117061-1 Project/Site: Gibbons Creek Steam Electric Station Client Sample ID: SSP MW-3 Date Collected: 02/10/21 10:55 Lab Sample ID: 180-117062-1 Matrix: Water Date Received: 02/11/21 11:00 Method: Ra226_Ra228 - Combined Radium-226 and Radium-228 Count Total Uncert. Uncert. Analyte **Result** Qualifier (20+/-) (20+/-) RL MDC Unit Dil Fac Prepared Analyzed **Combined Radium** 40.2 1.97 3.80 5.00 0.778 pCi/L 03/24/21 11:42 226 + 228

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Client	Sample	Results

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

Date Collected: 02 Date Received: 02	ID: FB-2 2/10/21 10:55 2/11/21 11:00	5					L	ab Sample	ID: 180-117 Matrix	062-2 Wate
Method: EPA 905	56A - Anions	, Ion Chrom	atography	/		11-14		B		
Anaiyte		Result	Quaimer	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chionde		<0.713		1.00	0.713	mg/L			02/17/21 21:52	
Fluoride		<0.0260		0.100	0.0260	mg/L mg/L			02/17/21 21:52	
Method: EPA 602	20B - Metals	(ICP/MS) - T	otal Reco	verable						
Analyte	LOD - Metalo	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic		<0.000313		0.00100	0.000313	mg/L		02/18/21 05:36	02/19/21 20:52	1
Barium		<0.00160		0.0100	0.00160	ma/L		02/18/21 05:36	02/19/21 20:52	
Bervllium		< 0.000182		0.00100	0.000182	ma/L		02/18/21 05:36	02/19/21 20:52	
Boron		0.0473		0.0800	0.0386	ma/L		02/18/21 05:36	02/24/21 12:44	
Cadmium		<0.000217		0.00100	0.000217	ma/L		02/18/21 05:36	02/19/21 20:52	1
Calcium		<0 127		0.500	0 127	ma/l		02/18/21 05:36	02/19/21 20:52	
Chromium		<0.00153		0.00200	0.00153	ma/l		02/18/21 05:36	02/19/21 20:52	
Cobalt		<0.000134		0.000500	0.000134	mail		02/18/21 05:36	02/19/21 20:52	1
Molybdenum		<0.000610		0.00500	0.000610	ma/l		02/18/21 05:36	02/19/21 20:52	8
Lead		<0.000128		0.00100	0.000128	ma/L		02/18/21 05:36	02/19/21 20:52	
Antimony		<0.000378		0.00200	0.000378	ma/l		02/18/21 05:36	02/19/21 20:52	
Selenium		<0.00151		0.00500	0.00151	ma/l		02/18/21 05:36	02/19/21 20:52	
- a a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a ran a r				ST - ST ST ST ST ST ST	0.00101	Contraction of the second second second second second second second second second second second second second s		0.001 1 00.001 0 0 10.00	CORE CONTRACT AND OTHER	
Thallium		<0.000148		0.00100	0.000148	ma/l		02/18/21 05:36	02/19/21 20:52	
Thallium Lithium		<0.000148 <0.00339		0.00100	0.000148	mg/L mg/L		02/18/21 05:36 02/18/21 05:36	02/19/21 20:52 02/19/21 20:52	1
Thallium Lithium		<0.000148 <0.00339		0.00100 0.00500	0.000148 0.00339	mg/L mg/L		02/18/21 05:36 02/18/21 05:36	02/19/21 20:52 02/19/21 20:52	1
Thallium Lithium Method: EPA 747	70A - Mercur	<0.000148 <0.00339 ry (CVAA)		0.00100 0.00500	0.000148 0.00339	mg/L mg/L		02/18/21 05:36 02/18/21 05:36	02/19/21 20:52 02/19/21 20:52	1
Thallium Lithium Method: EPA 747 Analyte	70A - Mercur	<0.000148 <0.00339 y (CVAA) Result	Qualifier	0.00100 0.00500 RL	0.000148 0.00339 MDL	mg/L mg/L Unit	D	02/18/21 05:36 02/18/21 05:36 Prepared	02/19/21 20:52 02/19/21 20:52 Analyzed	1 Dil Fac
Thallium Lithium Method: EPA 747 Analyte Mercury	70A - Mercur	<0.000148 <0.00339 (CVAA) Result <0.000130	Qualifier	0.00100 0.00500 RL 0.000200	0.000148 0.00339 MDL 0.000130	mg/L mg/L Unit mg/L	D	02/18/21 05:36 02/18/21 05:36 Prepared 02/12/21 13:22	02/19/21 20:52 02/19/21 20:52 Analyzed 02/23/21 10:59	1 Dil Fac
Thallium Lithium Method: EPA 747 Analyte Mercury General Chemist	70A - Mercur try	<0.000148 <0.00339 y (CVAA) Result <0.000130	Qualifier	0.00100 0.00500 RL 0.000200	0.000148 0.00339 MDL 0.000130	mg/L mg/L Unit mg/L	D	02/18/21 05:36 02/18/21 05:36 Prepared 02/12/21 13:22	02/19/21 20:52 02/19/21 20:52 Analyzed 02/23/21 10:59	1 Dil Fac
Thallium Lithium Method: EPA 747 Analyte Mercury General Chemist Analyte	70A - Mercur try	<0.000148 <0.00339 y (CVAA) Result <0.000130	Qualifier	0.00100 0.00500 RL 0.000200 RL	0.000148 0.00339 MDL 0.000130 MDL	mg/L mg/L Unit mg/L Unit	D	02/18/21 05:36 02/18/21 05:36 Prepared 02/12/21 13:22 Prepared	02/19/21 20:52 02/19/21 20:52 Analyzed 02/23/21 10:59 Analyzed	Dil Fac
Thallium Lithium Method: EPA 747 Analyte Mercury General Chemist Analyte Total Dissolved Solids	70A - Mercur try	<0.000148 <0.00339 y (CVAA) Result <0.000130 Result <10.0	Qualifier Qualifier	0.00100 0.00500 RL 0.000200 RL 10.0	0.000148 0.00339 MDL 0.000130 MDL 10.0	mg/L mg/L Unit mg/L Unit mg/L	D	02/18/21 05:36 02/18/21 05:36 Prepared 02/12/21 13:22 Prepared	02/19/21 20:52 02/19/21 20:52 Analyzed 02/23/21 10:59 Analyzed 02/17/21 14:56	Dil Fac
Thallium Lithium Method: EPA 747 Analyte Mercury General Chemist Analyte Total Dissolved Solids Method: 903.0.1	70A - Mercur try Radium-226	<0.000148 <0.00339 y (CVAA) Result <0.000130 Result <10.0	Qualifier Qualifier	0.00100 0.00500 - RL 0.000200 - RL 10.0	0.000148 0.00339 MDL 0.000130 MDL 10.0	mg/L mg/L Unit mg/L Unit mg/L	D	02/18/21 05:36 02/18/21 05:36 Prepared 02/12/21 13:22 Prepared	02/19/21 20:52 02/19/21 20:52 Analyzed 02/23/21 10:59 Analyzed 02/17/21 14:56	Dil Fac
Thallium Lithium Method: EPA 747 Analyte Mercury General Chemist Analyte Total Dissolved Solids Method: 903.0 - I	70A - Mercur try Radium-226	<0.000148 <0.00339 y (CVAA) Result <0.000130 Result <10.0 (GFPC)	Qualifier Qualifier Count	0.00100 0.00500 - RL 0.000200 - RL 10.0	0.000148 0.00339 MDL 0.000130 MDL 10.0	mg/L mg/L Unit mg/L Unit mg/L	D	02/18/21 05:36 02/18/21 05:36 Prepared 02/12/21 13:22 Prepared	02/19/21 20:52 02/19/21 20:52 Analyzed 02/23/21 10:59 Analyzed 02/17/21 14:56	Dil Fac
Thallium Lithium Method: EPA 747 Analyte Mercury General Chemist Analyte Total Dissolved Solids Method: 903.0 - 1	70A - Mercur try Radium-226	<0.000148 <0.00339 y (CVAA) Result <0.000130 Result <10.0 (GFPC)	Qualifier Qualifier Count Uncert	0.00100 0.00500 RL 0.000200 RL 10.0 Total Uncert	0.000148 0.00339 MDL 0.000130 MDL 10.0	mg/L mg/L <u>Unit</u> mg/L <u>Unit</u> mg/L	D	02/18/21 05:36 02/18/21 05:36 Prepared 02/12/21 13:22 Prepared	02/19/21 20:52 02/19/21 20:52 Analyzed 02/23/21 10:59 Analyzed 02/17/21 14:56	Dil Fac
Thallium Lithium Method: EPA 747 Analyte Mercury General Chemist Analyte Total Dissolved Solids Method: 903.0 - I	70A - Mercur try Radium-226 Result	<0.000148 <0.00339 (y (CVAA) Result <0.000130 - Result <10.0 (GFPC) Qualifier	Qualifier Qualifier Count Uncert. (2a+(-)	0.00100 0.00500 - RL 0.000200 - RL 10.0 Total Uncert. (2a+(-)	0.000148 0.00339 MDL 0.000130 MDL 10.0	mg/L mg/L Unit mg/L Unit mg/L	D	02/18/21 05:36 02/18/21 05:36 Prepared 02/12/21 13:22 Prepared	02/19/21 20:52 02/19/21 20:52 Analyzed 02/23/21 10:59 Analyzed 02/17/21 14:56	Dil Fac
Thallium Lithium Method: EPA 747 Analyte Mercury General Chemist Analyte Total Dissolved Solids Method: 903.0 - I Analyte Radium-226	70A - Mercur try Radium-226 Result 0.00527	<0.000148 <0.00339 cy (CVAA) Result <0.000130 	Qualifier Qualifier Count Uncert. (20+(-) 0.0630	0.00100 0.00500 RL 0.000200 RL 10.0 Total Uncert. (20+/-) 0.0630	0.000148 0.00339 MDL 0.000130 MDL 10.0 RL 11	mg/L mg/L Unit mg/L Unit mg/L MDC Unit	D	02/18/21 05:36 02/18/21 05:36 Prepared 02/12/21 13:22 Prepared 02/17/21 12:19	02/19/21 20:52 02/19/21 20:52 Analyzed 02/23/21 10:59 Analyzed 02/17/21 14:56 Analyzed 03/12/21 10:45	Dil Fac
Thallium Lithium Method: EPA 747 Analyte Mercury General Chemist Analyte Total Dissolved Solids Method: 903.0 - I Analyte Radium-226	70A - Mercur try Radium-226 	<0.000148 <0.00339 (y (CVAA) Result <0.000130 - Result <10.0 (GFPC) Qualifier U	Qualifier Qualifier Count Uncert. (20+1-) 0.0630	0.00100 0.00500 RL 0.000200 RL 10.0 Total Uncert. (2σ+/-) 0.0630	0.000148 0.00339 MDL 0.000130 10.0 RL 10.0	mg/L mg/L Unit mg/L Unit mg/L MDC Unit	D	02/18/21 05:36 02/18/21 05:36 Prepared 02/12/21 13:22 Prepared 02/17/21 12:19 Prepared	02/19/21 20:52 02/19/21 20:52 Analyzed 02/23/21 10:59 Analyzed 02/17/21 14:56 Analyzed 03/12/21 10:45	Dil Fac
Thallium Lithium Method: EPA 747 Analyte Mercury General Chemist Analyte Total Dissolved Solids Method: 903.0 - I Analyte Radium-226 Carrier	70A - Mercur try Radium-226 Result 0.00527 %Vield	<0.000148 <0.00339 y (CVAA) Result <0.000130 (GFPC) Qualifier U Qualifier	Qualifier Qualifier Uncert. (2σ+/-) 0.0630 Limits	0.00100 0.00500 RL 0.000200 RL 10.0 Total Uncert. (20+/-) 0.0630	0.000148 0.00339 MDL 0.000130 10.0 RL 10.0 0 0 0 0 0	mg/L mg/L Unit mg/L Unit mg/L MDC Unit .124 pCi/	D	02/18/21 05:36 02/18/21 05:36 Prepared 02/12/21 13:22 Prepared 02/17/21 12:19 Prepared 02/17/21 12:19	02/19/21 20:52 02/19/21 20:52 Analyzed 02/23/21 10:59 Analyzed 03/12/21 10:45 Analyzed 03/12/21 10:45 Analyzed	Dil Fac
Thallium Lithium Method: EPA 747 Analyte Mercury General Chemist Analyte Total Dissolved Solids Method: 903.0 - 1 Analyte Radium-226 Carrier Ba Carrier	70A - Mercur try Radium-226 	<0.000148 <0.00339 (CVAA) Result <0.000130 (GFPC) Qualifier U Qualifier	Qualifier Qualifier Count Uncert. (20+1-) 0.0630 Limits 40-110	0.00100 0.00500 RL 0.000200 RL 10.0 Total Uncert. (2 <i>σ</i> + <i>i</i>) 0.0630	0.000148 0.00339 MDL 0.000130 10.0 MDL 10.0	mg/L mg/L Unit mg/L Unit mg/L MDC Unit	D	02/18/21 05:36 02/18/21 05:36 Prepared 02/12/21 13:22 Prepared 02/17/21 12:19 Prepared 02/17/21 12:19	02/19/21 20:52 02/19/21 20:52 Analyzed 02/23/21 10:59 Analyzed 02/17/21 14:56 Analyzed 03/12/21 10:45	Dil Fac
Thallium Lithium Method: EPA 747 Analyte Mercury General Chemist Analyte Total Dissolved Solids Method: 903.0 - 1 Analyte Radium-226 Carrier Ba Carrier Method: 904.0 - 1	70A - Mercur try Radium-226 Result 0.00527 %Yield 87.4 Radium-228	<0.000148 <0.00339 y (CVAA) Result <0.000130 (GFPC) Qualifier U (GFPC)	Qualifier Qualifier Count Uncert. (20+/-) 0.0630 Limits 40-110	0.00100 0.00500 RL 0.000200 RL 10.0 Total Uncert. (2 <i>a</i> + <i>i</i> -) 0.0630	0.000148 0.00339 MDL 0.000130 10.0 RL 10.0 C	mg/L mg/L Unit mg/L Unit mg/L MDC Unit	D	02/18/21 05:36 02/18/21 05:36 Prepared 02/12/21 13:22 Prepared 02/17/21 12:19 Prepared 02/17/21 12:19	02/19/21 20:52 02/19/21 20:52 Analyzed 02/23/21 10:59 Analyzed 02/17/21 14:56 Analyzed 03/12/21 10:45 Analyzed 03/12/21 10:45	Dil Fac
Thallium Lithium Method: EPA 747 Analyte Mercury General Chemist Analyte Total Dissolved Solids Method: 903.0 - 1 Analyte Radium-226 Carrier Ba Carrier Ba Carrier Method: 904.0 - 1	70A - Mercur try Radium-226 	<0.000148 <0.00339 y (CVAA) Result <0.000130 (GFPC) Qualifier U Qualifier (GFPC)	Qualifier Qualifier Count Uncert. (20+l-) 0.0630 Limits 40 - 110 Count	0.00100 0.00500 RL 0.000200 RL 10.0 Total Uncert. (2 <i>σ</i> + <i>i</i> -) 0.0630	0.000148 0.00339 MDL 0.000130 10.0 RL 1.00 0	mg/L mg/L Unit mg/L Unit mg/L MDC Unit	D	02/18/21 05:36 02/18/21 05:36 Prepared 02/12/21 13:22 Prepared 02/17/21 12:19 Prepared 02/17/21 12:19	02/19/21 20:52 02/19/21 20:52 Analyzed 02/23/21 10:59 Analyzed 02/17/21 14:56 Analyzed 03/12/21 10:45 Analyzed 03/12/21 10:45	Dil Fac
Thallium Lithium Method: EPA 747 Analyte Mercury General Chemisi Analyte Total Dissolved Solids Method: 903.0 - 1 Analyte Radium-226 Carrier Ba Carrier Method: 904.0 - 1	70A - Mercur try Radium-226 	<0.000148 <0.00339 y (CVAA) Result <0.000130 (GFPC) Qualifier U (GFPC)	Qualifier Qualifier Count Uncert. (20+/-) 0.0630 Limits 40 - 110 Count Uncert. (20+/-)	0.00100 0.00500 RL 0.000200 RL 10.0 Total Uncert. (2σ+/-) 0.0630	0.000148 0.00339 MDL 0.000130 10.0 MDL 10.0	mg/L mg/L Unit mg/L Unit mg/L MDC Unit 124 pCi/	D	02/18/21 05:36 02/18/21 05:36 Prepared 02/12/21 13:22 Prepared 02/17/21 12:19 Prepared 02/17/21 12:19	02/19/21 20:52 02/19/21 20:52 Analyzed 02/23/21 10:59 Analyzed 02/17/21 14:56 Analyzed 03/12/21 10:45 Analyzed 03/12/21 10:45	Dil Fac

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	87.4	- 3	40 - 110	02/17/21 14:48	03/02/21 09:04	1
Y Carrier	80.0		40 - 110	02/17/21 14:48	03/02/21 09:04	1

Client Sample Results

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

Client Sample ID: FB-2	Lab Sample ID: 180-117062-2
Date Collected: 02/10/21 10:55	Matrix: Water
Date Received: 02/11/21 11:00	

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

			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(20+/-)	(20+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.624		0.294	0.299	5.00	0.408	pCi/L		03/24/21 11:42	1

Eurofins TestAmerica, Pittsburgh

Job ID: 180-117061-1

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Eurofins TestAmerica, Pittsburgh

Job ID: 180-117061-1

Client	Samp	le R	lesul	ts

Client Sample ID: Date Collected: 02/10 Date Received: 02/11/	SSP M /21 12:00 /21 11:00	W-4						La	ab Sample	ID: 180-117 Matrix	062-3 : Water
Method: EPA 9056A	- Anions	, Ion Chrom	atography	PI	MDI	Uni		n	Prepared	Analyzed	
Chlorida		000	Quanner	5.00	3.57	mal			rieparea	02/17/21 22:54	Diria
Eluoride		<0 130		0.500	0.130	mal	1			02/17/21 22:54	2
Sulfate		982		50.0	37.8	mg/	L			02/17/21 23:15	50
Method: EPA 6020B	- Motals	(ICP/MS) - T	atal Reco	verable							
Analyte	- metala	Result	Qualifier	RI	MDL	Uni	F 2	D	Prepared	Analyzed	Dil Fac
Areonic		0.000941	1	0.00100	0.000313	ma	1		02/18/21 05:36	02/19/21 20:56	1
Parium		0.000041		0.0100	0.00160	mal	1		02/18/21 05:36	02/10/21 20:56	
Bondlium		<0.000182		0.00100	0.000192	mal			02/18/21 05:36	02/10/21 20:56	
Berymum		<0.000182		0.00100	0.000162	mg/			02/10/21 05:30	02/19/21 20.00	_
Boron		1.12		0.0000	0.000047	mg/	L .		02/10/21 05:30	02/24/21 12:40	
Cadmium		<0.000217		0.00100	0.000217	mg/	-		02/10/21 05.36	02/19/21 20.56	
Calcium		398		0.500	0.127	mg/			02/18/21 05:36	02/19/21 20:56	
Chromium		0.00259	10	0.00200	0.00153	mg/	L		02/18/21 05:36	02/19/21 20:56	
Cobalt		0.000336	1	0.000500	0.000134	mg/			02/18/21 05:36	02/19/21 20:56	(S1
Molybdenum		0.00321	J	0.00500	0.000610	mg/	E.		02/18/21 05:36	02/19/21 20:56	1
Lead		0.000161	J	0.00100	0.000128	mg/			02/18/21 05:36	02/19/21 20:56	1
Antimony		<0.000378		0.00200	0.000378	mg/	L		02/18/21 05:36	02/19/21 20:56	1
Selenium		< 0.00151		0.00500	0.00151	mg/	L		02/18/21 05:36	02/19/21 20:56	
Thallium		< 0.000148		0.00100	0.000148	mg/	L		02/18/21 05:36	02/19/21 20:56	1
Lithium		0.727		0.00500	0.00339	mg/	L		02/18/21 05:36	02/19/21 20:56	1
Method: EPA 7470A	- Mercur	y (CVAA)								(7, <u>1</u> .), 13,13,10,13,10,13	
Analyte		Result	Qualifier	RL	MDL	Uni	t	D	Prepared	Analyzed	Dil Fac
Mercury		<0.000130		0.000200	0.000130	mg/	L		02/12/21 13:22	02/23/21 11:00	50 20
General Chemistry											
Analyte		Result	Qualifier	RL	MDL	Uni	t	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids		2890		40.0	40.0	mg/	L			02/17/21 14:56	1
Method: 903.0 - Rad	ium-226	(GFPC)	Count Uncert.	Total Uncert.							
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL I	MDC	Unit		Prepared	Analyzed	Dil Fac
Radium-226	0.600		0.146	0.156	1.00 0	0.108	pCi/L		02/17/21 12:19	03/12/21 10:45	1
Carrier	%Yield	Qualifier	Limits						Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40.110						02/17/21 12:19	03/12/21 10:45	
Method: 904.0 - Rad	ium-228	(GFPC)	Count Uncert.	Total Uncert.							
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit		Prepared	Analyzed	Dil Fac
Radium-228	1.02		0.423	0.434	1.00 0).591	pCi/L		03/16/21 16:48	03/22/21 13:04	3
Carrier	%Yield	Qualifier	Limits						Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110						03/16/21 16:48	03/22/21 13:04	1
Y Carrier	81.9		40-110						03/16/21 16:48	03/22/21 13:04	1

Client Sample Results

Client: HDR Inc Job ID: 180-117061-1 Project/Site: Gibbons Creek Steam Electric Station Client Sample ID: SSP MW-4 Date Collected: 02/10/21 12:00 Lab Sample ID: 180-117062-3 Matrix: Water Date Received: 02/11/21 11:00 Method: Ra226_Ra228 - Combined Radium-226 and Radium-228 Count Total Uncert. Uncert. Analyte **Result Qualifier** (20+/-) (20+/-) RL MDC Unit Dil Fac Prepared Analyzed Combined Radium 226 + 228 1.62 0.447 0.461 5.00 0.591 pCi/L 03/24/21 11:42

Eurofins TestAmerica, Pittsburgh

Eurofins TestAmerica, Pittsburgh

Job ID: 180-117061-1

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Chefit Sample Results

Y Carrier

82.2

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Client Sample Date Collected: 0 Date Received: 0	ID: AP MW 2/10/21 13:05 2/11/21 11:00	1-3					L	ab Sample	ID: 180-117 Matrix	062-4 Water
Method: EPA 90	56A - Anions	, Ion Chrom	atography	1						
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride		144		1.00	0.713	mg/L			02/18/21 00:18	1
Fluoride		0.0558	J	0.100	0.0260	mg/L			02/18/21 00:18	1
Sulfate		645		10.0	7.56	mg/L			02/18/21 00:38	10
Method: EPA 60	20B - Metals	(ICP/MS) - T	otal Reco	verable						
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic		0.00154		0.00100	0.000313	mg/L		02/18/21 05:36	02/19/21 21:00	1
Barium		0.0236		0.0100	0.00160	mg/L		02/18/21 05:36	02/19/21 21:00	1
Beryllium		0.00264		0.00100	0.000182	mg/L		02/18/21 05:36	02/19/21 21:00	1
Boron		4.13		0.160	0.0772	mg/L		02/18/21 05:36	02/24/21 12:51	2
Cadmium		0.00382		0.00100	0.000217	mg/L		02/18/21 05:36	02/19/21 21:00	1
Calcium		134		0.500	0.127	mg/L		02/18/21 05:36	02/19/21 21:00	1
Chromium		0.00173	J	0.00200	0.00153	mg/L		02/18/21 05:36	02/19/21 21:00	1
Cobalt		0.0476		0.000500	0.000134	mg/L		02/18/21 05:36	02/19/21 21:00	1
Molybdenum		0.000848	J	0.00500	0.000610	mg/L		02/18/21 05:36	02/19/21 21:00	31
Lead		0.000456	J	0.00100	0.000128	mg/L		02/18/21 05:36	02/19/21 21:00	1
Antimony		<0.000378		0.00200	0.000378	mg/L		02/18/21 05:36	02/19/21 21:00	1
Selenium		< 0.00151		0.00500	0.00151	mg/L		02/18/21 05:36	02/19/21 21:00	1
Thallium		0.000267	J	0.00100	0.000148	mg/L		02/18/21 05:36	02/19/21 21:00	1
Lithium		0.0530		0.00500	0.00339	mg/L		02/18/21 05:36	02/19/21 21:00	1
Method: EPA 74	70A - Mercur	y (CVAA)								
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury		0.000455		0.000200	0.000130	mg/L		02/12/21 13:22	02/23/21 11:01	1
General Chemis	try									
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved So	lids	1370	-	10.0	10.0	mg/L			02/17/21 14:56	1
Method: 903.0 -	Radium-226	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL I	MDC Unit		Prepared	Analyzed	Dil Fac
Radium-226	0.494	and a second second second second second second second second second second second second second second second s	0.164	0.170	1.00 0	.157 pCi/L		02/17/21 12:19	03/12/21 10:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.3	G Bol	40 - 110					02/17/21 12:19	03/12/21 10:45	1
Method: 904.0 -	Radium-228	(GFPC)	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(20+/-)	(20+/-)	RL I	MDC Unit		Prepared	Analyzed	Dil Fac
Radium-228	1.37		0.463	0.480	1.00 0	.624 pCi/L		03/16/21 16:48	03/22/21 13:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					03/16/21 16:48	03/22/21 13:04	1

Client Sample Results

Client: HDR Inc Job ID: 180-117061-1 Project/Site: Gibbons Creek Steam Electric Station Client Sample ID: AP MW-3 Date Collected: 02/10/21 13:05 Lab Sample ID: 180-117062-4 Matrix: Water Date Received: 02/11/21 11:00 Method: Ra226_Ra228 - Combined Radium-226 and Radium-228 Count Total Uncert. Uncert. Analyte **Result Qualifier** (20+/-) (20+/-) RL MDC Unit Dil Fac Prepared Analyzed Combined Radium 226 + 228 1.87 0.491 0.509 5.00 0.624 pCi/L 03/24/21 11:42

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03/16/21 16:48 03/22/21 13:04

Job ID: 180-117061-1

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Client Sample ID: A	PMW	/-1D						La	ab Sample	ID: 180-117	062-5
Date Collected: 02/10/2	1 13:55	5							an eanipie	Matrix	Water
Date Received: 02/11/2	1 11:00										
Method: EPA 9056A -	Anions	, Ion Chrom	atography	/ DI	MDI	Unit			Proposed	Analyzed	DILE
Anaiyte		Result	Quaimer	1.00	0.712	Unit	9	D	Prepared	Analyzed	DilFac
Chioride		151		0.100	0.713	mg/L				02/17/21 20:07	
Sulfate		456		10.0	7.56	mg/l	• •			02/17/21 20:07	10
Method: EPA 6020B -	Metals	(ICP/MS) - T	otal Reco	verable							
Analyte	meturo	Result	Qualifier	RL	MDL	Unit		D	Prepared	Analyzed	Dil Fac
Arsenic		0.00953		0.00100	0.000313	mg/l	2		02/18/21 05:36	02/19/21 21:14	1
Barium		0.0137		0.0100	0.00160	mg/l			02/18/21 05:36	02/19/21 21:14	
Beryllium		< 0.000182		0.00100	0.000182	mg/l			02/18/21 05:36	02/19/21 21:14	
Boron		6.27		0.400	0.193	mg/l	5		02/18/21 05:36	02/24/21 12:55	1
Cadmium		0.000408	J	0.00100	0.000217	mg/l			02/18/21 05:36	02/19/21 21:14	1
Calcium		96.5		0.500	0.127	mg/l			02/18/21 05:36	02/19/21 21:14	1
Chromium		< 0.00153		0.00200	0.00153	mg/L	2		02/18/21 05:36	02/19/21 21:14	
Cobalt		0.0139		0.000500	0.000134	mg/l	15		02/18/21 05:36	02/19/21 21:14	9
Molybdenum		0.0283		0.00500	0.000610	mg/l	-		02/18/21 05:36	02/19/21 21:14	3
Lead		< 0.000128		0.00100	0.000128	mg/l			02/18/21 05:36	02/19/21 21:14	8
Antimony		<0.000378		0.00200	0.000378	mg/l	-)		02/18/21 05:36	02/19/21 21:14	3
Selenium		0.00154	J	0.00500	0.00151	mg/l	2		02/18/21 05:36	02/19/21 21:14	1
Thallium		0.000310	J	0.00100	0.000148	mg/L			02/18/21 05:36	02/19/21 21:14	1
Lithium		0.0270		0.00500	0.00339	mg/l	1		02/18/21 05:36	02/19/21 21:14	1
Method: EPA 7470A -	Mercur	y (CVAA)									
Analyte		Result	Qualifier	RL	MDL	Unit		D	Prepared	Analyzed	Dil Fac
Mercury		<0.000130		0.000200	0.000130	mg/l	8		02/12/21 13:22	02/23/21 11:02	9
General Chemistry											
Analyte		Result	Qualifier	RL	MDL	Unit		D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids		1250		10.0	10.0	mg/l	3			02/17/21 14:56	1
Method: 903.0 - Radiu	m-226	(GFPC)									
			Count	Total							
			Uncert.	Uncert.	1245						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL I	MDC	Unit	_	Prepared	Analyzed	Dil Fac
Radium-226	0.181		0.110	0.111	1.00 0	.147	pCi/L		02/17/21 12:19	03/12/21 10:51	1
Carrier	%Yield	Qualifier	Limits						Prepared	Analyzed	Dil Fac
Ba Carrier	85.3	A 1824	40 - 110						02/17/21 12:19	03/12/21 10:51	1
Method: 904.0 - Radiu	m-228	(GFPC)									
			Count	Total							
			Uncert.	Uncert.							
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL I	MDC	Unit		Prepared	Analyzed	Dil Fac
Radium-228	0.924		0.387	0.397	1.00 0	.541	pCi/L		03/16/21 16:48	03/22/21 13:04	3
Carrier	%Yield	Qualifier	Limits						Prepared	Analyzed	Dil Fac
Ba Carrier	86.2	8 1 1 2 2 2	40 - 110						03/16/21 16:48	03/22/21 13:04	1

Client Sample Results

Client Sample Results

Client: HDR Inc Job ID: 180-117061-1 Project/Site: Gibbons Creek Steam Electric Station Client Sample ID: AP MW-1D Date Collected: 02/10/21 13:55 Lab Sample ID: 180-117062-5 Matrix: Water Date Received: 02/11/21 11:00 Method: Ra226_Ra228 - Combined Radium-226 and Radium-228 Count Total Uncert. Uncert. Analyte **Result Qualifier** (20+/-) (20+/-) RL MDC Unit Dil Fac Prepared Analyzed Combined Radium 226 + 228 1.10 0.402 0.412 5.00 0.541 pCi/L 03/24/21 11:42

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Client Sam	ple Results
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Y Carrier

lient Sample ID: S	SFL M	N-3						La	ab Sample	ID: 180-117	073-1
ate Collected: 02/10/	21 07:40									Matrix	Water
ate Received: 02/11/2	21 11:00										
Method: EPA 9056A -	Anions	lon Chrom	tography	v							
Analyte		Result	Qualifier	RL	MDL	Unit		D	Prepared	Analyzed	Dil Fac
Chloride		897		5.00	3.57	mg/				02/16/21 01:49	5
Fluoride		0.479	J	0.500	0.130	mg/				02/16/21 01:49	5
Sulfate		2280		50.0	37.8	mg/	-			02/16/21 02:10	50
Method: EPA 6020B -	Metals	(ICP/MS) - To	otal Reco	verable							
Analyte		Result	Qualifier	RL	MDL	Unit	ij	D	Prepared	Analyzed	Dil Fac
Arsenic		0.00317		0.00100	0.000313	mg/	-		02/17/21 07:43	02/18/21 13:27	1
Barium		0.0130		0.0100	0.00160	mg/	L.		02/17/21 07:43	02/18/21 13:27	1
Beryllium		0.0316		0.00100	0.000182	mg/	<u>1</u>		02/17/21 07:43	02/18/21 13:27	1
Boron		3.75		0.0800	0.0386	mg/	19		02/17/21 07:43	02/18/21 13:27	1
Cadmium		0.00587		0.00100	0.000217	mg/	10		02/17/21 07:43	02/18/21 13:27	1
Calcium		599		0.500	0.127	mg/			02/17/21 07:43	02/18/21 13:27	1
Chromium		< 0.00153		0.00200	0.00153	mg/	3		02/17/21 07:43	02/18/21 13:27	1
Cobalt		0.0601		0.000500	0.000134	mg/	15		02/17/21 07:43	02/18/21 13:27	1
Molybdenum		<0.000610		0.00500	0.000610	mg/	23		02/17/21 07:43	02/18/21 13:27	31
Lead		0.0185		0.00100	0.000128	mg/	10 C		02/17/21 07:43	02/18/21 13:27	1
Antimony		< 0.000378		0.00200	0.000378	mg/			02/17/21 07:43	02/18/21 13:27	1
Selenium		< 0.00151		0.00500	0.00151	mg/	23		02/17/21 07:43	02/18/21 13:27	1
Thallium		0.00556		0.00100	0.000148	mg/	12		02/17/21 07:43	02/18/21 13:27	1
ithium		0.291		0.00500	0.00339	mg/			02/17/21 07:43	02/18/21 13:27	1
Method: EPA 7470A -	Mercur	y (CVAA)									
Analyte		Result	Qualifier	RL	MDL	Unit		D	Prepared	Analyzed	Dil Fac
Mercury		0.00204		0.000200	0.000130	mg/	3		02/23/21 14:39	02/24/21 11:44	1
Canaral Chamistry											
Anabda		Pocult	Qualifier	PI	MDI	Unit		n	Propared	Analyzed	Dil Eac
Total Discolved Solids		5040	quanner	40.0	40.0	ma/		-	riepared	02/17/21 14:56	1
Total Dissolved Solids		5040		40.0		mgr				0211121 14:00	100
Method: 903.0 - Radi	um-226	(GFPC)									
			Count	Total							
			Uncert.	Uncert.							
Analyte	Result	Qualifier	(20+/-)	(2σ+/-)	RL	MDC	Unit		Prepared	Analyzed	Dil Fac
Radium-226	1.13	increase in the second	0.220	0.242	1.00	0.156	pCi/L		02/17/21 12:19	03/12/21 10:51	1
Carrier	% Vield	Qualifier	Limite						Prepared	Analyzard	
Ra Carrier	87.4	scaling	40 110						02/17/21 12:10	02/12/21 10-54	- A
Method: 904.0 - Radi	um-228	(GFPC)	Count	Total					0271121 12.13	03/22/10.01	
			Uncert.	Uncert.							
Analyte	Result	Qualifier	(20+/-)	(2 0+/-)	RL	MDC	Unit		Prepared	Analyzed	Dil Fac
Radium-228	3.09		0.531	0.602	1.00	0.532	pCi/L	-	03/16/21 16:48	03/22/21 13:04	1
nan an in 1990.	8/14-1-1	0	1 lands-						Deserved	A	04 5-
Sarrier	%Yield	Qualifier	Limits						Prepared	Analyzed	Dil Fac
Ba Camer	89.1		40 - 110						03/16/21 16:48	03/22/21 13:04	1
									the set of a set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of th	the set of the set of the set of the	

Client Sample Results

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

Client Sample ID: SFL MW-3	Lab Sample ID: 180-117073-1
Date Collected: 02/10/21 07:40	Matrix: Water
Date Received: 02/11/21 11:00	
Method: Ra226 Ra228 - Combined Radium-226 and Radium-22	28
Count Total	

Source and Page 2			Uncert.	Uncert.						
Analyte	Result	Qualifier	(20+/-)	(2 0+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	4.22		0.575	0.649	5.00	0.532	pCi/L		03/24/21 11:42	1

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Job ID: 180-117061-1

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Job ID: 180-117061-1

Client Sample Results

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

Y Carrier

82.2

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lient Sample II	D: SFL M	W-4						Lab Sample	ID: 180-117	073-2
ate Collected: 02/ ate Received: 02/	10/21 06:30	0							Matrix	: Water
Method: EPA 9056	64 - Anions	lon Chrom	atography							
Analyte	A Anone	Result	Qualifier	RL	MDL	Unit		D Prepared	Analyzed	Dil Fac
Chloride		1580	-	50.0	35.7	mg/L			02/16/21 00:47	50
Fluoride		<0.130		0.500	0.130	mg/L			02/16/21 00:26	5
Sulfate		1870		50.0	37.8	mg/L			02/16/21 00:47	50
Method: EPA 6020	0B - Metals	(ICP/MS) - T	otal Reco	verable						
Analyte		Result	Qualifier	RL	MDL	Unit		D Prepared	Analyzed	Dil Fac
Arsenic		0.00106		0.00100	0.000313	mg/L		02/17/21 07:43	02/18/21 13:38	1
Barium		0.0247		0.0100	0.00160	mg/L		02/17/21 07:43	02/18/21 13:38	া
Beryllium		< 0.000182		0.00100	0.000182	mg/L		02/17/21 07:43	02/18/21 13:38	1
Boron		0.648		0.0800	0.0386	mg/L		02/17/21 07:43	02/18/21 13:38	া
Cadmium		<0.000217		0.00100	0.000217	mg/L		02/17/21 07:43	02/18/21 13:38	1
Calcium		704		0.500	0.127	mg/L		02/17/21 07:43	02/18/21 13:38	1
hromium		< 0.00153		0.00200	0.00153	mg/L		02/17/21 07:43	02/18/21 13:38	1
Cobalt		< 0.000134		0.000500	0.000134	mg/L		02/17/21 07:43	02/18/21 13:38	1
lolybdenum		0.00106	J	0.00500	0.000610	mg/L		02/17/21 07:43	02/18/21 13:38	3
ead		<0.000128		0.00100	0.000128	mg/L		02/17/21 07:43	02/18/21 13:38	1
Intimony		<0.000378		0.00200	0.000378	mg/L		02/17/21 07:43	02/18/21 13:38	1
Selenium		< 0.00151		0.00500	0.00151	mg/L		02/17/21 07:43	02/18/21 13:38	1
hallium .		< 0.000148		0.00100	0.000148	mg/L		02/17/21 07:43	02/18/21 13:38	1
ithium		0.402		0.00500	0.00339	mg/L		02/17/21 07:43	02/18/21 13:38	1
Method: EPA 7470	0A - Mercur	ry (CVAA)								
Analyte		Result	Qualifier	RL	MDL	Unit	-	D Prepared	Analyzed	Dil Fac
fercury		<0.000130		0.000200	0.000130	mg/L		02/23/21 14:39	02/24/21 11:45	1
General Chemistr	У									
Analyte		Result	Qualifier	RL	MDL	Unit		D Prepared	Analyzed	Dil Fac
otal Dissolved Solid	ls	5720		40.0	40.0	mg/L			02/17/21 14:56	1
Method: 903.0 - R	adium-226	(GFPC)		.						
			Count	Total						
	Dec. 1	0	Uncert.	Uncert.		-		Harrison	/ x .2200.2207	DUF
Radium-226	0.370	Quaimer	0.122	0.127	1.00 0	0.125 pC	nit Ci/L	02/17/21 12:19	03/12/21 10:52	Dil Fac
	W Mald	Qualifian	Limite					Duranand	Anabarad	DUEse
arrier	20 Tield	Quaimer	40 440					Prepared	Analyzed	Dirac
a Gamer	03.2		40-110					02/1//21 12.15	03/12/21 10:32	15
Method: 904.0 - R	adium-228	(GFPC)								
			Count	Total						
	-		Uncert.	Uncert.						
Inalyte Radium-228	Result 0.750	Qualifier	(2σ+/-) 0.408	(2σ+/-) 0.414	1.00 0	MDC U	nit Ci/L	Prepared 03/16/21 16:48	Analyzed 03/22/21 13:05	Dil Fac
AND AND AND AND AND AND AND AND AND AND	0.100					p.				
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					03/16/21 16:48	03/22/21 13:05	1

Client Sample Results

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

oumpic ib. roo-riroro-L
Matrix: Water

Count Total Uncert. Uncert. Analyte Result Qualifier (20+/-) RL MDC Unit Prepared An

Analyte	Result Qualifier	(20+/-)	(20+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.12	0.426	0.433	5.00	0.608	pCi/L		03/24/21 11:42	1

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03/16/21 16:48 03/22/21 13:05

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Job ID: 180-117061-1

Client	Sample	Results
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Y Carrier

82.6

40 - 110

lient Sample II ate Collected: 02/ ate Received: 02/1	D: SFL MV 10/21 06:40 11/21 11:00	W-7					L	ab Sample	ID: 180-117 Matrix	'073-3 : Water
Method: EPA 9056	A - Anions	, Ion Chrom	atography		(2022)		922	s 20 /4	21 22 27	020020
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride		1920		50.0	35.7	mg/L			02/15/21 19:55	50
luoride		<0.130		0.500	0.130	mg/L			02/15/21 19:34	5
Sulfate		576		5.00	3.78	mg/L			02/15/21 19:34	5
lethod: EPA 6020	B - Metals	(ICP/MS) - To	otal Reco	verable						
nalyte	_	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
rsenic		<0.000313		0.00100	0.000313	mg/L		02/17/21 07:43	02/18/21 13:41	
arium		0.0510		0.0100	0.00160	mg/L		02/17/21 07:43	02/18/21 13:41	1
eryllium		<0.000182		0.00100	0.000182	mg/L		02/17/21 07:43	02/18/21 13:41	
loron		0.792		0.0800	0.0386	mg/L		02/17/21 07:43	02/18/21 13:41	
admium		<0.000217		0.00100	0.000217	mg/L		02/17/21 07:43	02/18/21 13:41	1
alcium		400		0.500	0.127	mg/L		02/17/21 07:43	02/18/21 13:41	
nromium		< 0.00153		0.00200	0.00153	mg/L		02/17/21 07:43	02/18/21 13:41	1
opar		<0.000134		0.000500	0.000134	mg/L		02/17/21 07:43	02/18/21 13:41	S1
loiyodenum		<0.000610	1	0.00500	0.000610	mg/L		02/17/21 07:43	02/18/21 13:41	
ead		0.000211	J	0.00100	0.000128	mg/L		02/17/21 07:43	02/18/21 13:41	1
Intimony		0.000579	J	0.00200	0.000378	mg/L		02/17/21 07:43	02/18/21 13:41	
elenium		<0.00151		0.00500	0.00151	mg/L		02/17/21 07:43	02/18/21 13:41	
hallium		< 0.000148		0.00100	0.000148	mg/L		02/17/21 07:43	02/18/21 13:41	1
ithium		0.375		0.00500	0.00339	mg/L		02/17/21 07:43	02/18/21 13:41	1
Method: EPA 7470	A - Mercur	y (CVAA)							0.200304083029	-
nalyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ercury		<0.000130		0.000200	0.000130	mg/L		02/23/21 14:39	02/24/21 11:46	81
eneral Chemistry	У.	(227 - 22		NESK	09723	197101	0.5		35 95 93	1123-6723
nalyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
otal Dissolved Solid	5	4430		40.0	40.0	mg/L			02/17/21 14:56	1
Method: 903.0 - Ra	adium-226	(GFPC)	Count	Total						
			Uncort	Upcort						
nabde	Recult	Qualifier	(20+/-)	(20+1-)	PI			Prepared	Analyzed	DILEN
adium-226	0.734	Angillet	0.157	0.170	1.00	0.110 pCi	/L	02/17/21 12:19	03/12/21 10:52	Di Fac
arrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Far
la Carrier	81 7		40.110					02/17/21 12:19	03/12/21 10:52	
ner restation										
lethod: 904.0 - Ra	adium-228	(GFPC)								
			Count	Total						
			Uncert.	Uncert.						
nalyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC Uni	t	Prepared	Analyzed	Dil Fac
ladium-228	1.83		0.531	0.557	1.00 0).706 pCi	/L	03/16/21 16:48	03/22/21 13:05	1
arrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
3a Carrier	84.7	8 - BZ	40 - 110					03/16/21 16:48	03/22/21 13:05	1

Client Sample Results

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

Client Sample ID: SFL MW-7	Lab Sample ID: 180-117073-3
Date Collected: 02/10/21 06:40	Matrix: Water
Date Received: 02/11/21 11:00	
Method: Ra226 Ra228 - Combined Radium-226 and Radium-2	228
Count Total	

			Count	TOTAL						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(20+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.56		0.554	0.582	5.00	0.706	pCi/L		03/24/21 11:42	1

Eurofins TestAmerica, Pittsburgh

Job ID: 180-117061-1

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03/16/21 16:48 03/22/21 13:05

Eurofins TestAmerica, Pittsburgh

Job ID: 180-117061-1

Client Sample Results

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

Client Sample ID: Date Collected: 02/09/ Date Received: 02/11/	SFL MV 21 12:45 21 11:00	N-6						Li	ab Sample	ID: 180-117 Matrix	073-4 : Water
Method: EPA 9056A	- Anions	, Ion Chrom	atography	1.000							
Analyte		Result	Qualifier	RL	MDL	Uni	t	D	Prepared	Analyzed	Dil Fac
Chloride		3310		100	71.3	mg/	L			02/15/21 15:23	100
Fluoride		0.531	J	1.00	0.260	mg/	L			02/15/21 15:03	10
Sulfate		2070		100	75.6	mg/	L			02/15/21 15:23	100
Method: EPA 6020B	- Metals	(ICP/MS) - T	otal Reco	verable							
Analyte	-	Result	Qualifier	RL	MDL	Uni	t	D	Prepared	Analyzed	Dil Fac
Arsenic		0.0135		0.00100	0.000313	mg/	L		02/17/21 07:43	02/18/21 13:45	1
Barium		0.0537		0.0100	0.00160	mg/	L		02/17/21 07:43	02/18/21 13:45	ে প
Beryllium		0.0489		0.00100	0.000182	mg/	L		02/17/21 07:43	02/18/21 13:45	8
Boron		0.329		0.0800	0.0386	mg/	L		02/17/21 07:43	02/18/21 13:45	1
Cadmium		0.0105		0.00100	0.000217	mg/	L		02/17/21 07:43	02/18/21 13:45	1
Calcium		953		0.500	0.127	mg/	L		02/17/21 07:43	02/18/21 13:45	1
Chromium		0.00757		0.00200	0.00153	mg/	L		02/17/21 07:43	02/18/21 13:45	1
Cobalt		0.116		0.000500	0.000134	mg/	1		02/17/21 07:43	02/18/21 13:45	
Molybdenum		<0.000610		0.00500	0.000610	mg/	L:		02/17/21 07:43	02/18/21 13:45	3
Lead		0.0150		0.00100	0.000128	mg/	L		02/17/21 07:43	02/18/21 13:45	1
Antimony		<0.000378		0.00200	0.000378	mg/	L.		02/17/21 07:43	02/18/21 13:45	1
Selenium		< 0.00151		0.00500	0.00151	mg/	L		02/17/21 07:43	02/18/21 13:45	1
Thallium		0.00339		0.00100	0.000148	mg/	L		02/17/21 07:43	02/18/21 13:45	1
Lithium		0.614		0.00500	0.00339	mg/	L		02/17/21 07:43	02/18/21 13:45	1
Method: EPA 7470A	- Mercur	y (CVAA)									
Analyte		Result	Qualifier	RL	MDL	Uni	t	D	Prepared	Analyzed	Dil Fac
Mercury		<0.000130		0.000200	0.000130	mg/	Ľ		02/23/21 14:39	02/24/21 11:48	1
General Chemistry											
Analyte		Result	Qualifier	RL	MDL	Uni	t i	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids		8350		100	100	mg/	L			02/15/21 15:28	1
Method: 903.0 - Radi	ium-226	(GFPC)	Count Uncert.	Total Uncert.							
Analyte	Result	Qualifier	(20+/-)	(2σ+/-)	RL	MDC	Unit	_	Prepared	Analyzed	Dil Fac
Radium-226	2.98		0.427	0.504	1.00 0	0.224	pCi/L		02/17/21 12:19	03/12/21 10:53	1
Carrier	%Yield	Qualifier	Limits						Prepared	Analyzed	Dil Fac
Ba Carrier	87.1	3 18.04	40 - 110						02/17/21 12:19	03/12/21 10:53	1
Method: 904.0 - Rad	ium-228	(GFPC)	Count Uncert.	Total Uncert.							
Analyte	Result	Qualifier	(20+/-)	(20+/-)	RL	MDC	Unit	-	Prepared	Analyzed	Dil Fac
Radium-228	11.7	G	1.24	1.64	1.00	1.00	pCi/L		03/16/21 16:48	03/22/21 13:05	4
Carrier	%Yield	Qualifier	Limits						Prepared	Analyzed	Dil Fac
Ba Carrier	80.0		40 - 110						03/16/21 16:48	03/22/21 13:05	1
Y Carrier	81.9		40 - 110						03/16/21 16:48	03/22/21 13:05	1

Client Sample Results

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

Client Sample ID: SFL MW-6	Lab Sample ID: 180-117073-4
Date Collected: 02/09/21 12:45	Matrix: Water
Date Received: 02/11/21 11:00	
Method: Ba226, Ba228 - Combined Badium-226 and Badiu	m-228

			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(20+/-)	(20+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	14.6		1.31	1.72	5.00	1.00	pCi/L		03/24/21 11:42	1

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Job ID: 180-117061-1

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Job ID: 180-117061-1

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Client	Sam	ple	Res	ults

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

Y Carrier

80.4

Client Sample ID: Date Collected: 02/10 Date Received: 02/11/	SSP M 21 09:55 21 11:00	W-2					L	ab Sample	ID: 180-117 Matrix	073-5 Water
Method: EPA 9056A	- Anions	, Ion Chrom	atography							
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride		1810		50.0	35.7	mg/L			02/16/21 00:05	50
Fluoride		0.509		0.500	0.130	mg/L			02/15/21 23:44	5
Sulfate		2250		50.0	37.8	mg/L			02/16/21 00:05	50
Method: EPA 6020B	- Metals	(ICP/MS) - To	otal Recov	verable						
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic		0.00643	And the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s	0.00100	0.000313	mg/L		02/17/21 07:45	02/18/21 18:09	1
Barium		0.0197		0.0100	0.00160	mg/L		02/17/21 07:45	02/18/21 18:09	1
Beryllium		0.0704		0.00100	0.000182	mg/L		02/17/21 07:45	02/18/21 18:09	1
Boron		0.810		0.0800	0.0386	mg/L		02/17/21 07:45	02/18/21 18:09	1
Cadmium		0.00446		0.00100	0.000217	mg/L		02/17/21 07:45	02/18/21 18:09	1
Calcium		728		0.500	0.127	mg/L		02/17/21 07:45	02/18/21 18:09	1
Chromium		< 0.00153		0.00200	0.00153	mg/L		02/17/21 07:45	02/18/21 18:09	1
Cobalt		0,116		0.000500	0.000134	mg/L		02/17/21 07:45	02/18/21 18:09	1
Molybdenum		<0.000610		0.00500	0.000610	mg/L		02/17/21 07:45	02/18/21 18:09	3
Lead		0.00227		0.00100	0.000128	ma/L		02/17/21 07:45	02/18/21 18:09	1
Antimony		<0.000378		0.00200	0.000378	ma/L		02/17/21 07:45	02/18/21 18:09	1
Selenium		< 0.00151		0.00500	0.00151	ma/L		02/17/21 07:45	02/18/21 18:09	1
Thallium		0.000516	J.	0.00100	0.000148	ma/L		02/17/21 07:45	02/18/21 18:09	1
Lithium		0.564		0.00500	0.00339	mg/L		02/17/21 07:45	02/18/21 18:09	1
Mothod: EPA 7470A	Moreu	OV (CVAA)								
Analyte	- Wercui	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury		<0.000130	(<u>1997)</u>	0.000200	0.000130	mg/L		02/23/21 14:39	02/24/21 11:49	1
General Chemistry										
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids		6120		100	100	mg/L			02/17/21 14:56	1
Method: 903.0 - Rad	ium-226	(GFPC)								
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(20+/-)	(2 0+/-)	RL I	MDC Unit		Prepared	Analyzed	Dil Fac
Radium-226	0.415	and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second sec	0.144	0.148	1.00 0	.138 pCi/L	2	02/17/21 12:19	03/12/21 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.0	G - 18.8	40 - 110					02/17/21 12:19	03/12/21 10:53	1
Method: 904.0 - Rad	ium-228	(GFPC)								
			Count	Total						
Real Property and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second se			Uncert.	Uncert.					1 10 10 10 10 10 10 10 10 10 10 10 10 10	
Analyte	Result	Qualifier	(20+/-)	(20+/-)	100 C	ADC Unit		Prepared	Analyzed	DIFac
Radium-228	1.92		0.002	0.032	1.00 0	to to polic		03/10/21 10:48	03/22/21 13:30	3
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.5		40 - 110					03/16/21 16:48	03/22/21 13:36	1

40 - 110 03/16/21 16:48 03/22/21 13:36 40 - 110 03/16/21 16:48 03/22/21 13:36

Eurofins TestAmerica, Pittsburgh

Job ID: 180-117061-1

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Client Sample Results

Client: HDR Inc Project/Site: Gibbons	Creek Ste	am Electri	c Station	70) T					Job ID: 180-11	7061-1
Client Sample ID	SSP M	W-2						Lab Sample	ID: 180-117	073-5
Date Collected: 02/1	0/21 09:55	5							Matrix	: Water
Date Received: 02/11	1/21 11:00	P.								
Method: Ra226_Ra	228 - Con	nbined Ra	dium-226 a Count	nd Radium Total	-228					
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(20+/-)	(20+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.33		0.522	0.552	5.00	0.610	pCi/L		03/24/21 11:42	1

Eurofins TestAmerica, Pittsburgh

ate Collected: 02/1	0/21 14:40)						1.058		Matrix	Water
ate Received: 02/1	1/21 11:00										
Method: EPA 9056	A - Anions	, Ion Chrom	atography	RI	MDI	Unit		D	Prepared	Analyzed	Dil Fac
Chloride		322	quanner	2.50	1.78	ma	22 12		Troparea	02/16/21 02:31	2.5
iluoride		1.18		0.250	0.0650	mal				02/16/21 02:31	2.5
ulfate		1670		25.0	18.0	mal				02/16/21 02:52	25
unate		1670		23.0	10.3	myn				02/10/21 02.52	20
ethod: EPA 6020	B - Metals	(ICP/MS) - T	otal Reco	verable							
nalvte		Result	Qualifier	RL	MDL	Unit	63	D	Prepared	Analyzed	Dil Fac
rsenic		0.00950		0.00100	0.000313	mg/	L.		02/18/21 11:38	02/19/21 21:43	1
arium		0.0556		0.0100	0.00160	ma/	L		02/18/21 11:38	02/19/21 21:43	1
ervilium		0.0520		0.00100	0.000182	ma/			02/18/21 11:38	02/19/21 21:43	1
oron		3 53		0.160	0.0772	ma/	1.5		02/18/21 11:38	02/27/21 11:19	2
admium		0.00523		0.00100	0.000217	ma			02/18/21 11:38	02/19/21 21-43	1
alcium		354		0.500	0.127	mai			02/18/21 11:39	02/19/21 21:43	
bromium		0.00229		0.00200	0.00153	mai			02/18/21 11:30	02/10/21 21:43	
abalt		0.00220		0.00200	0.00133	mail			02/18/21 11:30	02/10/21 21:43	
olyhdenum		<0.000640		0.00500	0.0000134	mal	100		02/18/24 14:30	02/10/21 21:43	. a a
oyudenum		-0.000010		0.00500	0.000010	mg/			02/10/21 11:30	02/10/21 21:43	ा ज
eau .		0.004/3		0.00100	0.000128	mg/			02/10/21 11:38	02/10/21 21:43	1
numony		0.000664	3	0.00200	0.000378	mg/			02/10/21 11:38	02/18/21 21:43	
elenium		<0.00151		0.00500	0.00151	mg/			02/10/21 11:38	02/19/21 21:43	
nailium		0.00213		0.00100	0.000148	mg/			02/18/21 11:38	02/19/21 21:43	1
ithium		0.381		0.00500	0.00339	mg/			02/18/21 11:38	02/19/21 21:43	1
ethod: EPA 7470	A - Mercur	y (CVAA)									
nalyte		Result	Qualifier	RL	MDL	Unit		D	Prepared	Analyzed	Dil Fac
ercury		0.00643	-	0.000200	0.000130	mg/	L.		02/12/21 13:22	02/23/21 11:06	1
CARACTER PERCEN											
eneral Chemistry	· ·										
nalyte		Result	Qualifier	RL	MDL	Unit	£	D	Prepared	Analyzed	Dil Fac
tal Dissolved Solids		3380		40.0	40.0	mg/	La:			02/17/21 14:56	1
lethod: 903.0 - Ra	dium-226	(GFPC)									
			Count	Total							
(*********			Uncert.	Uncert.	1000		-				
nalyte	Result	Qualifier	(20+/-)	(2σ+/-)	RL	MDC	Unit		Prepared	Analyzed	Dil Fac
adium-226	0.535		0.242	0.247	1.00 (0.274	pCi/L		02/17/21 12:19	03/12/21 10:54	1
arrier	%Yield	Qualifier	Limits						Prepared	Analyzed	Dil Fac
A SPACE OF COMPANY OF COMPANY OF COMPANY	61.0	G 1835	40 - 110						02/17/21 12:19	03/12/21 10:54	1
a Carrier											
a Carrier											
a Carrier lethod: 904.0 - Ra	dium-228	(GFPC)									
a Carrier lethod: 904.0 - Ra	dium-228	(GFPC)	Count	Total							
a Carrier lethod: 904.0 - Ra	dium-228	(GFPC)	Count Uncert.	Total Uncert.							
a Carrier lethod: 904.0 - Ra nalyte	dium-228 Result	(GFPC) Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit		Prepared	Analyzed	Dil Fac
a Carrier ethod: 904.0 - Ra nalyte adium-228	dium-228	(GFPC)	Count Uncert. (2σ+/-) 0.625	Total Uncert. (2σ+/-) 0.630	RL 1.00 (MDC).979	Unit pCi/L		Prepared 03/16/21 16:48	Analyzed 03/22/21 13:10	Dil Fac
e Carrier ethod: 904.0 - Ra nalyte ndium-228	dium-228 Result 0.879	(GFPC) Qualifier	Count Uncert. (2σ+/-) 0.625	Total Uncert. (2σ+/-) 0.630	RL 1.00 (MDC).979	Unit pCi/L		Prepared 03/16/21 16:48	Analyzed 03/22/21 13:10	Dil Fac
a Carrier lethod: 904.0 - Ra nalyte adium-228 arrier	dium-228 Result 0.879 % Yield	(GFPC) Qualifier U Qualifier	Count Uncert. (2σ+/-) 0.625 Limits	Total Uncert. (2σ+/-) 0.630	RL 1.00 (MDC).979	Unit pCi/L	2	Prepared 03/16/21 16:48 Prepared	Analyzed 03/22/21 13:10 Analyzed	Dil Fac 1 Dil Fac
a Carrier lethod: 904.0 - Ra nalyte adium-228 arrier 9 Carrier	dium-228 <u> Result</u> 0.879 <u> % Yield</u> 83.8 20 20 20 20 20 20 20 2	(GFPC) Qualifier U Qualifier	Count Uncert. (2σ+/-) 0.625 Limits 40 - 110	Total Uncert. (2σ+/-) 0.630	RL 1.00 (MDC).979	Unit pCi/L		Prepared 03/16/21 16:48 Prepared 03/16/21 16:48	Analyzed 03/22/21 13:10 Analyzed 03/22/21 13:10	Dil Fac 1 Dil Fac 1

Client Sample Results

Client: HDR Inc

Client Sample Results

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station Job ID: 180-117061-1 Client Sample ID: AP MW-5 Date Collected: 02/10/21 14:40 Lab Sample ID: 180-117074-1 Matrix: Water Date Received: 02/11/21 11:00 Method: Ra226_Ra228 - Combined Radium-226 and Radium-228 Count Total Uncert. Uncert. Analyte **Result Qualifier** (20+/-) (20+/-) RL MDC Unit Dil Fac Prepared Analyzed **Combined Radium** 1.41 0.670 0.677 5.00 0.979 pCi/L 03/24/21 11:42 226 + 228

Eurofins TestAmerica, Pittsburgh

Job ID: 180-117061-1

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Client	Sam	ple	Res	ults

Y Carrier

82.2

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Client Sample ID: // Date Collected: 02/10// Date Received: 02/11/2	AP MW 21 15:28 21 11:00	/-4 3					L	ab Sample	ID: 180-117 Matrix	074-2 Water
Method: EPA 9056A -	Anions	, Ion Chrom	atography	,						
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride		436	-	5.00	3.57	mg/L			02/15/21 20:15	5
Fluoride		<0.130		0.500	0.130	mg/L			02/15/21 20:15	5
Sulfate		2050		50.0	37.8	mg/L			02/15/21 20:36	50
Method: EPA 6020B -	Metals	(ICP/MS) - To	otal Reco	verable						
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic		0.000628	J	0.00100	0.000313	mg/L		02/18/21 11:38	02/19/21 22:16	1
Barium		0.0144		0.0100	0.00160	mg/L		02/18/21 11:38	02/19/21 22:16	
Beryllium		0.000436	J	0.00100	0.000182	mg/L		02/18/21 11:38	02/19/21 22:16	
Boron		2.58		0.0800	0.0386	mg/L		02/18/21 11:38	02/27/21 11:29	1
Cadmium		< 0.000217		0.00100	0.000217	mg/L		02/18/21 11:38	02/19/21 22:16	1
Calcium		533		0.500	0.127	mg/L		02/18/21 11:38	02/19/21 22:16	1
Chromium		< 0.00153		0.00200	0.00153	ma/L		02/18/21 11:38	02/19/21 22:16	
Cobalt		<0.000134		0.000500	0.000134	ma/L		02/18/21 11:38	02/19/21 22:16	
Molvbdenum		< 0.000610		0.00500	0.000610	ma/L		02/18/21 11:38	02/19/21 22:16	3
lead		0.000276	.1	0.00100	0.000128	ma/L		02/18/21 11:38	02/19/21 22:16	1
Antimony		<0.000378	1	0.00200	0.000378	ma/l		02/18/21 11:38	02/19/21 22:16	1
Selenium		<0.00151		0.00500	0.00151	ma/l		02/18/21 11:38	02/19/21 22:16	
Thallium		0.000172	1	0.00100	0.000148	ma/l		02/18/21 11:38	02/19/21 22:16	
Lithium		0.875		0.00500	0.00339	ma/L		02/18/21 11:38	02/19/21 22:16	1
Method: EPA 7470A -	Mercur	y (CVAA)	Qualifier	ы	MDI	Unit		Bronarad	Applyrod	Dil Eas
Moreup		<0.000120	Quanner	0.000300	0.000120	mail		02/12/21 12:22	02/22/24 11-00	Dirac
wercury		<0.000130		0.000200	0.000130	mg/L		02/12/21 13:22	02/23/21 11:09	20
General Chemistry		121 17		12.1	(1986)		023		2 2 2	
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids		4040		40.0	40.0	mg/L			02/17/21 14:56	1
Method: 903.0 - Radi	um-226	(GFPC)								
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL I	MDC Uni	it	Prepared	Analyzed	Dil Fac
Radium-226	0.338		0.138	0.141	1.00 0	0.150 pCi	/L	02/17/21 12:19	03/12/21 10:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.8		40 - 110					02/17/21 12:19	03/12/21 10:54	1
Method: 904.0 - Radi	um-228	(GFPC)								
		2019-00-00-00-00-00-00-00-00-00-00-00-00-00	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC Uni	it	Prepared	Analyzed	Dil Fac
Radium-228	1.38		0.416	0.435	1.00 0	.515 pCi	/L	03/16/21 16:48	03/22/21 13:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.2	Carrier Street	40 - 110					03/16/21 16:48	03/22/21 13:10	

Client Sample Results

Project/Site: Gibbons Creek Steam Electric Station Lab Sample ID: 180-117074-2 Client Sample ID: AP MW-4 Date Collected: 02/10/21 15:28 Matrix: Water Date Received: 02/11/21 11:00 Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Client: HDR Inc

			Count	Total						
The second second second second second second second second second second second second second second second se			Uncert.	Uncert.						
Analyte	Result	Qualifier	(20+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.72		0.438	0.457	5.00	0.515	pCi/L		03/24/21 11:42	1

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03/16/21 16:48 03/22/21 13:10

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Client	Samp	le Re	sults

Ba Carrier

Y Carrier

80.0

Client Sample ID: Date Collected: 02/10 Date Received: 02/11	EQ-1 0/21 16:00 1/21 11:00)					Li	ab Sample	ID: 180-117 Matrix	'074-3 : Water
Method: EPA 9056A	- Anions	, Ion Chrom	atograph	y						
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride		<0.713		1.00	0.713	mg/L			02/15/21 21:39	
Fluoride		<0.0260		0.100	0.0260	mg/L			02/15/21 21:39	
Sulfate		<0.756		1.00	0.756	mg/L			02/15/21 21:39	
Method: EPA 6020E	8 - Metals	(ICP/MS) - T	otal Reco	verable						
Analyte	_	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic		< 0.000313		0.00100	0.000313	mg/L		02/18/21 11:38	02/19/21 22:19	
Barium		< 0.00160		0.0100	0.00160	mg/L		02/18/21 11:38	02/19/21 22:19	
Beryllium		< 0.000182		0.00100	0.000182	mg/L		02/18/21 11:38	02/19/21 22:19)(i
Boron		0.0565	J	0.0800	0.0386	mg/L		02/18/21 11:38	02/27/21 11:32	1
Cadmium		< 0.000217		0.00100	0.000217	mg/L		02/18/21 11:38	02/19/21 22:19	1
Calcium		0.182	J	0.500	0.127	mg/L		02/18/21 11:38	02/19/21 22:19	8
Chromium		< 0.00153		0.00200	0.00153	mg/L		02/18/21 11:38	02/19/21 22:19) 3
Cobalt		<0.000134		0.000500	0.000134	mg/L		02/18/21 11:38	02/19/21 22:19	- H
Molybdenum		< 0.000610		0.00500	0.000610	mg/L		02/18/21 11:38	02/19/21 22:19	8
Lead		<0.000128		0.00100	0.000128	mg/L		02/18/21 11:38	02/19/21 22:19	1
Antimony		<0.000378		0.00200	0.000378	mg/L		02/18/21 11:38	02/19/21 22:19	1
Selenium		< 0.00151		0.00500	0.00151	mg/L		02/18/21 11:38	02/19/21 22:19	1
Thallium		< 0.000148		0.00100	0.000148	mg/L		02/18/21 11:38	02/19/21 22:19	1
Lithium		<0.00339		0.00500	0.00339	mg/L		02/18/21 11:38	02/19/21 22:19	1
Method: EPA 7470A	- Mercur	y (CVAA)								
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury		<0.000130		0.000200	0.000130	mg/L		02/12/21 13:22	02/23/21 11:10	1
General Chemistry										
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids		<10.0		10.0	10.0	mg/L			02/17/21 14:59	1
Method: 903.0 - Rad	dium-226	(GFPC)	Count	Total						
	Decent	0	uncert.	uncert.		upo 11. 11		-		DUE
Analyte	Result	Qualifier	(20+/-)	(20+/-)	RL I	MDC Unit		Prepared	Analyzed	Dil Fac
Radium-226	0.0620	U	0.0655	0.0657	1.00 0	0.104 pCi/L		02/17/21 12:19	03/12/21 10:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.3		40 - 110					02/17/21 12:19	03/12/21 10:54	1
Method: 904.0 - Rad	dium-228	(GFPC)								
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC Unit		Prepared	Analyzed	Dil Fac
Radium-228	0.763	*	0.306	0.314	1.00 0	.419 pCi/L	8	02/17/21 14:48	03/02/21 09:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.3	S. 192	40 - 110					02/17/21 14:48	03/02/21 09:06	1

Limits	Prepared	Analyzed	Di
40 - 110	02/17/21 14:48	03/02/21 09:06	
40 - 110	02/17/21 14:48	03/02/21 09:06	

Client Sample Results

Project/Site: Gibbons Creek Steam Electric Station

Client: HDR Inc

Lab Sample ID: 180-117074-3
Matrix: Water

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

			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(20+/-)	(20+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.825		0.313	0.321	5.00	0.419	pCi/L		03/24/21 11:42	1

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Job ID: 180-117061-1

C	lient	Samp	le F	lesul	ts

Client Sample ID: Date Collected: 02/09/ Date Received: 02/11/	MNW-1 21 15:55 21 11:00	5						Li	ab Sample	ID: 180-117 Matrix	078-1 Water
Method: EPA 9056A Analyte	- Anions	, Ion Chroma Result	atography Qualifier	RL	MDL	Uni	it	D	Prepared	Analyzed	Dil Fa
Chloride		584	-	5.00	3.57	mg	rL.			02/16/21 05:39	
Fluoride		0.840		0.500	0.130	mg	n_			02/16/21 05:39	5
Sulfate		1350		50.0	37.8	mg	/L			02/16/21 06:00	50
Method: EPA 6020B	- Metals	(ICP/MS) - T	otal Reco	verable							
Analyte	-	Result	Qualifier	RL	MDL	Uni	t	D	Prepared	Analyzed	Dil Fac
Arsenic		0.00774		0.00100	0.000313	mg/	nL.		02/18/21 11:38	02/19/21 22:23	1
Barium		0.0175		0.0100	0.00160	mg/	nL.		02/18/21 11:38	02/19/21 22:23	1
Beryllium		0.0902		0.00100	0.000182	mg	/L		02/18/21 11:38	02/19/21 22:23	1
Boron		9.06		0.400	0.193	mg/	nL.		02/18/21 11:38	02/27/21 11:35	5
Cadmium		0.0421		0.00100	0.000217	mg/	n_		02/18/21 11:38	02/19/21 22:23	1
Calcium		325		0.500	0.127	mg	AL.		02/18/21 11:38	02/19/21 22:23	1
Chromium		< 0.00153		0.00200	0.00153	mg	/L		02/18/21 11:38	02/19/21 22:23	1
Cobalt		0.356		0.000500	0.000134	mg/	n_		02/18/21 11:38	02/19/21 22:23	1
Molybdenum		< 0.000610		0.00500	0.000610	mg	/L		02/18/21 11:38	02/19/21 22:23	3
Lead		0.000555	J	0.00100	0.000128	mg	/L		02/18/21 11:38	02/19/21 22:23	1
Antimony		<0.000378		0.00200	0.000378	mg	/L		02/18/21 11:38	02/19/21 22:23	1
Selenium		< 0.00151		0.00500	0.00151	mg	/L		02/18/21 11:38	02/19/21 22:23	1
Thallium		0.000739	J	0.00100	0.000148	mg	/L		02/18/21 11:38	02/19/21 22:23	1
Lithium		0.111		0.00500	0.00339	mg	/L		02/18/21 11:38	02/19/21 22:23	1
Method: EPA 7470A	- Mercur	V (CVAA)									
Analyte		Result	Qualifier	RL	MDL	Uni	it	D	Prepared	Analyzed	Dil Fac
Mercury		<0.000130		0.000200	0.000130	mg	/L		02/23/21 14:39	02/24/21 11:53	1
General Chemistry		Result	Qualifier	RL	MDL	Uni	it	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids		6150		40.0	40.0	mg	/L			02/15/21 15:28	1
Method: 903.0 - Radi	ium-226	(GFPC)	Count Uncert.	Total Uncert.	PI	MDC	Unit		Prenared	Analyzed	Dil Far
Padium 226	0 126	quaimer	0.0803	0.0811	1.00	0 100	nCi/l		02/17/21 12-10	03/19/21 10:54	Dirrac
Radium-220	0.120	2 (82)	0.0005	0.0011	1.00	0.105	PONE		02/17/21 12:13	03/12/21 10:34	1
Carrier	%Yield	Qualifier	Limits						Prepared	Analyzed	Dil Fac
Ba Carner Method: 904.0 - Radi	86.2	(GFPC)	40 - 110 Count	Total					02/17/21 12:19	03/12/21 10:54	1
Analista	Decult	Qualifier	(2a+/)	(2gt/)	DI	MDC	Unit		Bronarad	Applyand	DILE
Analyte	Result	qualifier	(20+/-)	(20+/-)	1.00	MDC	Unit noid	-	Prepared	Analyzed	DIFac
rtaurum-228	0.452		0.234	0.230	1.00	0.335	PONE		02/17/21 14:48	03/02/21 09:08	015
Carrier	%Yield	Qualifier	Limits						Prepared	Analyzed	Dil Fac
Ba Camer	86.2		40 - 110						02/17/21 14:48	03/02/21 09:08	1
Y Carrier	85.6		40 - 110						02/17/21 14:48	03/02/21 09:08	1

Client Sample Results

Client: HDR Inc Job ID: 180-117061-1 Project/Site: Gibbons Creek Steam Electric Station Client Sample ID: MNW-15 Date Collected: 02/09/21 15:55 Lab Sample ID: 180-117078-1 Matrix: Water Date Received: 02/11/21 11:00 Method: Ra226_Ra228 - Combined Radium-226 and Radium-228 Count Total Uncert. Uncert. Analyte **Result Qualifier** (20+/-) (20+/-) RL MDC Unit Dil Fac Prepared Analyzed **Combined Radium** 0.577 0.247 0.251 5.00 0.335 pCi/L 03/24/21 11:42

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Job ID: 180-117061-1

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Client Sample Results

Client: HDR Inc Creek Steam Electric Station

Y Carrier

86.7

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Client Sample ID: DL Date Collected: 02/09/21 Date Received: 02/11/21	JP-1 18:10 11:00							La	ab Sample	ID: 180-117 Matrix	078-2 Water
Method: EPA 9056A - A	nions	Ion Chroma	oualifier	RL	MDL	Unit		D	Prepared	Analyzed	Dil Fac
Chloride		617	quanner	5.00	3.57	ma	22 12		Troparou	02/16/21 06:20	F
Fluoride		0.843		0.500	0.130	mo/				02/16/21 06:20	
Sulfate		1350		50.0	37.8	mg/				02/16/21 06:41	54
Method: EPA 6020B - M	etals	(ICP/MS) - To	otal Reco	verable							
Analyte		Result	Qualifier	RL	MDL	Unit	t	D	Prepared	Analyzed	Dil Fa
Arsenic		0.00828		0.00100	0.000313	mg/	L		02/18/21 11:38	02/19/21 22:26	
Barium		0.0181		0.0100	0.00160	mg/	L		02/18/21 11:38	02/19/21 22:26	3
Beryllium		0.0907		0.00100	0.000182	mg/	L		02/18/21 11:38	02/19/21 22:26	
Boron		10.4		0.400	0.193	mg/	L		02/18/21 11:38	02/25/21 14:34	1
Cadmium		0.0426		0.00100	0.000217	mg/	L		02/18/21 11:38	02/19/21 22:26	1
Calcium		330		0.500	0.127	mg/	L.		02/18/21 11:38	02/19/21 22:26	1
Chromium		< 0.00153		0.00200	0.00153	mg/	L		02/18/21 11:38	02/19/21 22:26	1
Cobalt		0.363		0.000500	0.000134	mg/l	1.5		02/18/21 11:38	02/19/21 22:26	8
Molybdenum		<0.000610		0.00500	0.000610	mg/	- 23		02/18/21 11:38	02/19/21 22:26	3
ead		0.000548	J	0.00100	0.000128	mg/			02/18/21 11:38	02/19/21 22:26	1
Antimony		<0.000378		0.00200	0.000378	mg/			02/18/21 11:38	02/19/21 22:26	
Selenium		< 0.00151		0.00500	0.00151	mg/	17		02/18/21 11:38	02/19/21 22:26	
Fhallium		0.000752	J	0.00100	0.000148	mg/			02/18/21 11:38	02/19/21 22:26	1
ithium		0.111		0.00500	0.00339	mg/			02/18/21 11:38	02/19/21 22:26	
Method: EPA 7470A - M	ercur	(CVAA)									
Analyte		Result	Qualifier	RL	MDL	Unit		D	Prepared	Analyzed	Dil Fac
lercury		<0.000130		0.000200	0.000130	mg/			02/23/21 14:39	02/24/21 11:54	2
General Chemistry		121 12		120	10000			120			
Analyte		Result	Qualifier	RL	MDL	Unit		D	Prepared	Analyzed	Dil Fac
otal Dissolved Solids		3000		40.0	40.0	mg/	-2			02/15/21 15:28	1
Method: 903.0 - Radium	-226	GFPC)	Count	Total							
			Uncert.	Uncert.							
Analyte F	Result	Qualifier	(20+/-)	(2σ+/-)	RL	MDC	Unit		Prepared	Analyzed	Dil Fac
Radium-226 (0.0721	U	0.0692	0.0695	1.00 0	.107	pCi/L		02/17/21 12:19	03/12/21 10:55	
Carrier %	6Yield	Qualifier	Limits						Prepared	Analyzed	Dil Fa
3a Carrier	85.6		40 - 110						02/17/21 12:19	03/12/21 10:55	1
Method: 904.0 - Radium	-228	GFPC)	Count	Total							
Analyte	Result	Qualifier	(20+/-)	(20+/-)	RI	MDC	Unit		Prepared	Analyzed	Dil Fa
Radium-228	0.467	*	0.266	0.270	1.00 0	.397	pCi/L		02/17/21 14:48	03/02/21 09:08	20110
Carrier	6Yield	Qualifier	Limits						Prepared	Analyzed	Dil Fac

Client Sample Results

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

Client Sample ID: DUP-1	Lab Sample ID: 180-117078-2
Date Collected: 02/09/21 18:10	Matrix: Water
Date Received: 02/11/21 11:00	

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

			Count	Total						
kernewitz.	100000020	0.011.7322510121	Uncert.	Uncert.	1725510	05382227	1000	2010/07/07/07	2002/2012/07/07	1728362325
Analyte	Result	Qualifier	(2σ+/-)	(20+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.539		0.275	0.279	5.00	0.397	pCi/L		03/24/21 11:42	1

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02/17/21 14:48 03/02/21 09:08

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Client	Samp	le F	Resul	ts
onone	oump		looui	

Y Carrier

81.5

40 - 110

Client Sample ID Date Collected: 02/0 Date Received: 02/1	: SFL MV 9/21 14:45 1/21 11:00	N-2					L	ab Sample	ID: 180-117 Matrix	078-3 Water
Method: EPA 9056	A - Anions	, Ion Chrom	atography	Y						
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride		2100	-	50.0	35.7	mg/L			02/15/21 23:23	50
Fluoride		0.190	J	0.500	0.130	mg/L			02/15/21 23:02	5
Sulfate		1290		50.0	37.8	mg/L			02/15/21 23:23	50
Method: EPA 6020E	3 - Metals	(ICP/MS) - To	otal Reco	verable						
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic		0.00227		0.00100	0.000313	mg/L		02/18/21 11:38	02/19/21 22:30	1
Barium		0.0235		0.0100	0.00160	mg/L		02/18/21 11:38	02/19/21 22:30	1
Beryllium		0.00132		0.00100	0.000182	mg/L		02/18/21 11:38	02/19/21 22:30	1
Boron		0.464		0.0800	0.0386	mg/L		02/18/21 11:38	02/25/21 14:38	া
Cadmium		0.000761	J	0.00100	0.000217	mg/L		02/18/21 11:38	02/19/21 22:30	1
Calcium		691		0.500	0.127	mg/L		02/18/21 11:38	02/19/21 22:30	1
Chromium		< 0.00153		0.00200	0.00153	mg/L		02/18/21 11:38	02/19/21 22:30	1
Cobalt		0.0110		0.000500	0.000134	mg/L		02/18/21 11:38	02/19/21 22:30	i 31
Molybdenum		0.00202	J	0.00500	0.000610	mg/L		02/18/21 11:38	02/19/21 22:30	1
Lead		0.00132		0.00100	0.000128	mg/L		02/18/21 11:38	02/19/21 22:30	1
Antimony		<0.000378		0.00200	0.000378	mg/L		02/18/21 11:38	02/19/21 22:30	1
Selenium		< 0.00151		0.00500	0.00151	mg/L		02/18/21 11:38	02/19/21 22:30	1
Thallium		0.000612	J	0.00100	0.000148	mg/L		02/18/21 11:38	02/19/21 22:30	1
Lithium		0.476		0.00500	0.00339	mg/L		02/18/21 11:38	02/19/21 22:30	1
Method: EPA 7470	A - Mercur	y (CVAA)	0		100			-		
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury		<0.000130		0.000200	0.000130	mg/L		02/23/21 14:39	02/24/21 11:55	22
General Chemistry		Paquit	Qualifier	ы	MDI	Unit		Bronarad	Analyzed	DILEse
Total Dissolved Solids		5730	quanner	50.0	50.0	mg/L		Frepareu	02/15/21 15:28	1
Method: 903.0 - Ra	dium-226	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(20+/-)	(2 0+/-)	RL I	MDC Unit		Prepared	Analyzed	Dil Fac
Radium-226	1.69		0.225	0.272	1.00 0).110 pCi/L		02/18/21 09:54	03/15/21 16:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.0		40 - 110					02/18/21 09:54	03/15/21 16:55	1
Method: 904.0 - Ra	dium-228	(GFPC)	Count	Total						
			Uncert	Uncert						
Analyte	Result	Qualifier	(20+/-)	(2σ+/-)	RL I	MDC Unit		Prepared	Analyzed	Dil Fac
Radium-228	6,52		0.622	0.864	1.00 0	0.452 pCi/L	1	02/18/21 10:43	03/04/21 08:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.0	222	40 - 110					02/18/21 10:43	03/04/21 08:28	1

Client Sample Results

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

Client Sample ID: SFL MW-2	Lab Sample ID: 180-117078-3
Date Collected: 02/09/21 14:45	Matrix: Water
Date Received: 02/11/21 11:00	
Method: Ra226_Ra228 - Combined Radium-226 and Radium-228	
Count Total	

			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(20+/-)	(20+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium	8.22		0.661	0.906	5.00	0.452	pCi/L		03/17/21 15:15	1

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Job ID: 180-117061-1

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02/18/21 10:43 03/04/21 08:28

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Client	Com	-1-	Deer	ulto
Client	Sam	JIE	Resi	lits

Y Carrier

80.7

40 - 110

Client Sample ID: S Date Collected: 02/09/2 Date Received: 02/11/2	FL MV 1 13:55 1 11:00	N-5					L	ab Sample	ID: 180-117 Matrix	078-4 : Water
Method: EPA 9056A -	Anions	, Ion Chrom	atography							
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride		2340	-	100	71.3	mg/L			02/15/21 22:42	100
Fluoride		<0.260		1.00	0.260	mg/L			02/15/21 22:21	10
Sulfate		1720		10.0	7.56	mg/L			02/15/21 22:21	10
Method: EPA 6020B -	Metals	(ICP/MS) - To	otal Recov	verable						
Analyte	_	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic		0.00330		0.00100	0.000313	mg/L		02/18/21 11:38	02/19/21 22:44	1
Barium		0.0212		0.0100	0.00160	mg/L		02/18/21 11:38	02/19/21 22:44	1
Beryllium		0.00918		0.00100	0.000182	mg/L		02/18/21 11:38	02/19/21 22:44	() (f
Boron		4.34		0.160	0.0772	mg/L		02/18/21 11:38	02/25/21 14:52	2
Cadmium		0.00385		0.00100	0.000217	mg/L		02/18/21 11:38	02/19/21 22:44	
Calcium		837		0.500	0.127	mg/L		02/18/21 11:38	02/19/21 22:44	1
Chromium		0.00441		0.00200	0.00153	mg/L		02/18/21 11:38	02/19/21 22:44	1
Cobalt		0.0450		0.000500	0.000134	mg/L		02/18/21 11:38	02/19/21 22:44	1
Molybdenum		0.00180	J	0.00500	0.000610	mg/L		02/18/21 11:38	02/19/21 22:44	3
Lead		0.000725	J	0.00100	0.000128	mg/L		02/18/21 11:38	02/19/21 22:44	3
Antimony		<0.000378		0.00200	0.000378	mg/L		02/18/21 11:38	02/19/21 22:44	1
Selenium		< 0.00151		0.00500	0.00151	mg/L		02/18/21 11:38	02/19/21 22:44	3
Thallium		0.00120		0.00100	0.000148	mg/L		02/18/21 11:38	02/19/21 22:44	1
Lithium		0.677		0.00500	0.00339	mg/L		02/18/21 11:38	02/19/21 22:44	1
Method: EPA 7470A -	Mercur	y (CVAA)								
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury		<0.000130		0.000200	0.000130	mg/L		02/23/21 14:39	02/24/21 11:56	8
General Chemistry										
Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids		7820		100	100	mg/L			02/15/21 15:28	1
Method: 903.0 - Radiu	im-226	(GFPC)								
			Count	Total						
			Uncert.	Uncert.	1.25					
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL I	MDC Unit		Prepared	Analyzed	Dil Fac
Radium-226	2.35		0.266	0.340	1.00 0	.109 pCi/l	2	02/18/21 09:54	03/15/21 16:55	
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Camer	82.3		40 - 110					02/18/21 09:54	03/15/21 16:55	1
Method: 904.0 - Radiu	m-228	(GFPC)								
		ar-o-9703-985	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL I	MDC Unit		Prepared	Analyzed	Dil Fac
Radium-228	11.2		0.801	1.30	1.00 0	.445 pCi/L	s - 1	02/18/21 10:43	03/04/21 08:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re Camies	02.2	132	40 110					02/18/21 10:43	02/04/21 00-20	

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

Client Sample ID: SFL MW-5	Lab Sample ID: 180-117078-4
Date Collected: 02/09/21 13:55	Matrix: Water
Date Received: 02/11/21 11:00	
Method: Ra226_Ra228 - Combined Radium-226 and Radium-228	
Count Total	

Client Sample Results

Analyte	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium	13,5		0.844	1.34	5.00	0.445	pCi/L		03/17/21 15:15	1

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Job ID: 180-117061-1

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02/18/21 10:43 03/04/21 08:28

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Job ID: 180-117061-1

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Client: HDR Inc			onen	t oampie	Resul	13				Job ID: 180-11	7061-1
Project/Site: Gibbon	ns Creek Ste	am Electric S	tation								
Client Sample I Date Collected: 02 Date Received: 02	D: FB-1 2/09/21 13:45 /11/21 11:00	5						La	ab Sample	ID: 180-117 Matrix	078-5 : Water
Method: EPA 905	6A - Anions	, Ion Chrom	atography								
Analyte		Result	Qualifier	RL	MDL	Unit	96	D	Prepared	Analyzed	Dil Fac
Chloride		<0.713		1.00	0.713	mg/L				02/15/21 22:00	1
Fluoride		<0.0260		0.100	0.0260	mg/L	2			02/15/21 22:00	1
Sulfate		<0.756		1.00	0.756	mg/L				02/15/21 22:00	1
Method: EPA 602	0B - Metals	(ICP/MS) - T	otal Reco	verable							
Analyte		Result	Qualifier	RL	MDL	Unit	š	D	Prepared	Analyzed	Dil Fac
Arsenic		< 0.000313		0.00100	0.000313	mg/L			02/18/21 11:38	02/19/21 23:06	1
Barium		< 0.00160		0.0100	0.00160	mg/L			02/18/21 11:38	02/19/21 23:06	1
Beryllium		< 0.000182		0.00100	0.000182	mg/L			02/18/21 11:38	02/19/21 23:06	1
Boron		0.0505	J	0.0800	0.0386	mg/L			02/18/21 11:38	02/25/21 14:56	া
Cadmium		< 0.000217		0.00100	0.000217	mg/L			02/18/21 11:38	02/19/21 23:06	1
Calcium		<0.127		0.500	0.127	mg/L	4		02/18/21 11:38	02/19/21 23:06	1
Chromium		< 0.00153		0.00200	0.00153	mg/L	2		02/18/21 11:38	02/19/21 23:06	1
Cobalt		<0.000134		0.000500	0.000134	mg/L			02/18/21 11:38	02/19/21 23:06	
Molybdenum		<0.000610		0.00500	0.000610	mg/L	3		02/18/21 11:38	02/19/21 23:06	31
Lead		< 0.000128		0.00100	0.000128	mg/L	2		02/18/21 11:38	02/19/21 23:06	1
Antimony		<0.000378		0.00200	0.000378	mg/L			02/18/21 11:38	02/19/21 23:06	1
Selenium		< 0.00151		0.00500	0.00151	mg/L			02/18/21 11:38	02/19/21 23:06	1
Thallium		< 0.000148		0.00100	0.000148	mg/L			02/18/21 11:38	02/19/21 23:06	1
Lithium		<0.00339		0.00500	0.00339	mg/L	8		02/18/21 11:38	02/19/21 23:06	1
Method: EPA 747	OA - Mercur	y (CVAA)									
Analyte		Result	Qualifier	RL	MDL	Unit		D	Prepared	Analyzed	Dil Fac
Mercury		<0.000130		0.000200	0.000130	mg/L	8		02/23/21 14:39	02/24/21 11:57	1
General Chemist	ry										
Analyte		Result	Qualifier	RL	MDL	Unit		D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids		<10.0		10.0	10.0	mg/L	ē.			02/15/21 15:28	1
Method: 903.0 - F	Radium-226	(GFPC)	Count	Total							
			Uncert.	Uncert.							
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit		Prepared	Analyzed	Dil Fac
Radium-226	0.0249	U	0.0556	0.0556	1.00	0.101	pCi/L		02/18/21 09:54	03/15/21 16:56	1
Carrier	%Yield	Qualifier	Limits						Prepared	Analyzed	Dil Fac
Ba Carrier	87.4	0 	40 - 110						02/18/21 09:54	03/15/21 16:56	1
Method: 904.0 - F	Radium-228	(GFPC)	Count Uncert	Total Uncert							
Analyte	Result	Qualifier	(2g+/-)	(20+/-)	RL	MDC	Unit		Prepared	Analyzed	Dil Fac
Radium-228	0.145	U	0.256	0.256	1.00	0.434	pCi/L		02/18/21 10:43	03/04/21 08:29	1
Carrier	%Yield	Qualifier	Limits						Prepared	Analyzed	Dil Fac
Ba Carrier	87.4	0	40 - 110						02/18/21 10:43	03/04/21 08:29	1
Y Carrier	76.3		40 - 110						02/18/21 10:43	03/04/21 08:29	1

Client Sample Results

Client Sample Results

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

Client Sample ID: FB-1	Lab Sample ID: 180-117078-5
Date Collected: 02/09/21 13:45	Matrix: Water
Date Received: 02/11/21 11:00	
Tourse as an an an area of the state second and comes and	

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

			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.170	U	0.262	0.262	5.00	0.434	pCi/L		03/17/21 15:15	1

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Job ID: 180-117061-1

		QC	Sam	pie	Resi	lits	155					
lient: HDR Inc	loctric S	tation									Job ID: 180-11	7061-1
ethod: EPA 9056A - Anions	lon C	bromat	ogran	hy					_			
culou. El A succa - Amons,	1011 0	monnat	ograp									
ab Sample ID: MB 180-346554/49	1								CI	ient Sam	ple ID: Method	Blank
Matrix: Water											Prep Type: Te	otal/NA
Analysis Batch: 346554												
	MB	MB										
nalyte	Result	Qualifier	_	RL		MDL	Unit		D	Prepared	Analyzed	Dil Fac
Chloride	<0.713			1.00	0	713	mg/L				02/16/21 04:15	1
luoride	<0.0260			0.100	0.0	0260	mg/L				02/16/21 04:15	1
ulfate	<0.756			1.00	0	.756	mg/L				02/16/21 04:15	1
ab Sample ID: MB 180-346554/6 Matrix: Water									CI	ient Sam	ple ID: Method Prep Type: T	Blank
Analysis Batch: 346554											and a second second second	
	MB	MB										
nalyte	Result	Qualifier		RL	. 3	MDL	Unit		D	Prepared	Analyzed	Dil Fac
chloride	<0.713			1.00	0	.713	mg/L				02/15/21 09:34	1
luoride	< 0.0260			0.100	0.0	0260	mg/L				02/15/21 09:34	1
ulfate	<0.756			1.00	0	756	mg/L				02/15/21 09:34	া
ab Sample ID: LCS 180-346554/4 Aatrix: Water	8							Clie	ent Sa	ample ID	: Lab Control S Prep Type: T	Sample otal/NA
Analysis Batch: 346554			Spike		LCS	LCS	6				%Rec.	
nalyte			Added		Result	Qua	lifier	Unit	C	%Rec	Limits	
hloride	136.4	100	50.0	-	53.30	2		mg/L	5.5	107	80 - 120	
luoride			2.50		2.505			mg/L		100	80 - 120	
ulfate			50.0		53.02			mg/L		106	80 - 120	
ab Sample ID: LCS 180-346554/5 Matrix: Water Analysis Batch: 346554								Clie	ent Sa	ample ID	: Lab Control S Prep Type: T	Sample otal/NA
			Spike		LCS	LCS	1				%Rec.	
nalyte			Added		Result	Qua	lifier	Unit	C	%Rec	Limits	
nalyte			Added 50.0	-	Result 51.77	Qua	lifier	Unit mg/L		0 %Rec 104	Limits	
inalyte			Added 50.0 2.50		Result 51.77 2.444	Qua	lifier	Unit mg/L mg/L		0 %Rec 104 98	Limits 80 - 120 80 - 120	
nalyte hiloride luoride ulfate			Added 50.0 2.50 50.0	-	Result 51.77 2.444 51.32	Qua	lifier	mg/L mg/L mg/L		0 %Rec 104 98 103	Limits 80 - 120 80 - 120 80 - 120	
nalyte hiloride luoride ulfate .ab Sample ID: MB 180-346770/6 Aatrix: Water nalysis Batch: 346770		мв	Added 50.0 2.50 50.0		Result 51.77 2.444 51.32	Qua	lifier	Unit mg/L mg/L mg/L	CI	0 %Rec 104 98 103 ient San	Limits 80 - 120 80 - 120 80 - 120 80 - 120 Prep Type: To	l Blank otal/NA
nalyte hloride uuride uuride ab Sample ID: MB 180-346770/6 flatrix: Water unalysis Batch: 346770 nalyte	MB Result	MB Qualifier	Added 50.0 2.50 50.0	RL	Result 51.77 2.444 51.32	Qua	Unit	Unit mg/L mg/L mg/L	CI	%Rec 104 98 103 ient Sam Prepared	Limits 80.120 80.120 80.120 80.120 Prep Type: To Analyzed	I Blank otal/NA Dil Fac
nalyte chloride ulfate ab Sample ID: MB 180-346770/6 Aatrix: Water Analysis Batch: 346770 malyte	MB Result <0.713	MB Qualifier	Added 50.0 2.50 50.0	RL 1.00	Result 51.77 2.444 51.32	Qua MDL .713	Unit mg/L	Unit mg/L mg/L mg/L	CI	o %Rec 104 98 103 ient Sam	Limits 80.120 80.120 80.120 Prep Type: Tr Analyzed 02/17/21 07:33	I Blank otal/NA Dil Fac
nalyte hioride luoride ulfate ab Sample ID: MB 180-346770/6 Aatrix: Water nalysis Batch: 346770 nalyte hioride luoride	MB Result <0.713 <0.0260	MB Qualifier	Added 50.0 2.50 50.0	RL 1.00 0.100	Result 51.77 2.444 51.32	Qua .713 .260	Unit mg/L mg/L	Unit mg/L mg/L mg/L	CI	o %Rec 104 98 103 ient Sam	Linits 80.120 80.120 80.120 80.120 Prep Type: Tr Analyzed 02/17/21 07:33 02/17/21 07:33	d Blank otal/NA Dil Fac
nalyte hloride uuride uuride ab Sample ID: MB 180-346770/6 latrix: Water nalysis Batch: 346770 nalyte uoride uuride uuride uuride	MB Result <0.713 <0.0260 <0.756	MB Qualifier	Added 50.0 2.50 50.0	RL 1.00 0.100 1.00	Result 51.77 2.444 51.32 1.32	Qua MDL .713 .260 .756	Unit mg/L mg/L	Unit mg/L mg/L mg/L	CI	9 %Rec 104 98 103 ient Sam Prepared	Linits 80.120 80.120 80.120 80.120 Prep Type: Tr Analyzed 02/17/21 07:33 02/17/21 07:33	d Blank otal/NA Dil Fac 1 1 1
malyte thloride lucride ultate .ab Sample ID: MB 180-346770/6 Matrix: Water Analysis Batch: 346770 malyte thloride lucride ulfate .ab Sample ID: LCS 180-346770/5 Matrix: Water Nalvsis Batch: 346770	MB Result <0.713 <0.0260 <0.756	MB Qualifier	Added 50.0 2.50 50.0	RL 1.00 0.100 1.00	Image: Number of the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second	Qua MDL .713 .756	Unit mg/L mg/L	Unit mg/L mg/L mg/L	CI D	 %Rec 104 98 103 ient San Prepared ample ID 	Limits 80-120 80-120 80-120 Prep Type: Tr Analyzed 02/17/21 07:33 02/17/21 07:33 02/17/21 07:33 02/17/21 07:33 02/17/21 07:33 02/17/21 07:33	Blank otal/NA Dil Fac 1 1 1 Sample otal/NA
analyte thioride tuoride ulfate ab Sample ID: MB 180-346770/6 Matrix: Water Analysis Batch: 346770 unalyte thioride luoride ulfate ab Sample ID: LCS 180-346770/5 Matrix: Water knalysis Batch: 346770	MB Result <0.713 <0.0260 <0.756	MB Qualifier	Added 50.0 2.50 50.0	RL 1.00 0.100 1.00	Result 51.77 2.444 51.32 1 0 0.0 0 0 0 0 0	Qua MDL .713 .756	Unit mg/L mg/L	Unit mg/L mg/L mg/L	CI D	 %Rec 104 98 103 ient San Prepared ample ID 	Limits 80-120 80-120 Prep Type: Tr Analyzed 02/17/21 07:33 02/17/21 07:34 02/17/21 07:35 02/17/21 07:3	I Blank otal/NA Dil Fac 1 1 Sample otal/NA
analyte chloride ulfate ab Sample ID: MB 180-346770/6 Aatrix: Water Analysis Batch: 346770 malyte chloride ulfate ab Sample ID: LCS 180-346770/5 Matrix: Water Analysis Batch: 346770 malyte	MB Result <0.713 <0.0260 <0.756	MB Qualifier	Added 50.0 2.50 50.0 50.0	RL 1.00 0.100 1.00	Result 51.77 2.444 51.32 1 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Qua MDL .713 0260 .756	Unit mg/L mg/L	Unit mg/L mg/L mg/L	CI D ent Sa	 %Rec 104 98 103 ient San Prepared ample ID %Rec 	Limits 80.120 80.120 80.120 solution prep Type: Tr Analyzed 02/17/21 07:33 02/17/21 07:33 02/17/21 07:33 02/17/21 07:33 1. Lab Control S Prep Type: Tr %Rec. Limits	d Blank otal/NA <u>Dil Fac</u> 1 1 1 Sample otal/NA
analyte Chloride Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Suborde Su	MB Result <0.713 <0.0260 <0.756	MB Qualifier	Added 50.0 2.50 50.0 Spike Added 50.0	RL 1.00 0.100 1.00	Result 51.77 2.444 51.32	Qua MDL .713 0260 .756	Unit mg/L mg/L mg/L	Unit mg/L mg/L Clie Unit mg/L	CI D ent Sa	0 %Rec 104 98 103 ient Sam Prepared ample ID 0 %Rec 106	Limits 80-120 80-120 80-120 Prep Type: Tr Analyzed 02/17/21 07:33 02/17/21 07:33 02/17/21 07:33 02/17/21 07:33 02/17/21 07:33 12/17/21 07:33 02/17/21 07:34 02/17/21 07:34 02/17/21 07:35 02/17/21 07:35 02/17	I Blank otal/NA Dil Fac 1 1 1 3 Sample otal/NA
Analyte Chloride Sudrate .ab Sample ID: MB 180-346770/6 Matrix: Water Analysis Batch: 346770 unalyte Chloride Suborde Sample ID: LCS 180-346770/5 Matrix: Water Analysis Batch: 346770 Inalyte Chloride Luoride Luoride Local Sample ID: LCS 180-346770/5 Matrix: Water Local Sample ID: LCS 180-346770/5 Matrix: Water Matrix: Water Matr	MB Result <0.713 <0.0260 <0.756	MB Qualifier	Added 50.0 2.50 50.0 50.0 50.0 50.0 50.0 2.50 50.0 2.50	RL 1.00 0.100 1.00	Result 51.77 2.444 51.32	Qua MDL 713 0260 .756 LCS Qua	Unit mg/L mg/L ij	Unit mg/L mg/L mg/L	CI D ent Sa	0 %Rec 104 98 103 ient San Prepared mple ID 0 %Rec 106 106	Limits 80-120 80-120 80-120 Prep Type: Tr Analyzed 02/17/21 07:33 02/17/21 07:33 02/17/21 07:33 02/17/21 07:33 02/17/21 07:33 02/17/21 07:33 02/17/21 07:33 Prep Type: Tr %Rec. Limits 80-120 80-120	I Blank otal/NA <u>Dil Fac</u> 1 1 1 Sample otal/NA

Eurofins TestAmerica, Pittsburgh

Molybdenum

Client: HDR Inc Project/Site: Gibbons Creek Ste	eam Electric S	tation					1	Job ID: 180-11	17061-1
lethod: EPA 6020B - Me	tals (ICP/M	S)							
Lab Sample ID: MB 180-346 Matrix: Water	793/1-A						Client Samp Prep Type	e: Total Reco	d Blank verable
Analysis Batch: 347047								Prep Batch:	346793
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	< 0.000313	-	0.00100	0.000313	mg/L		02/17/21 07:43	02/18/21 11:45	
Barium	< 0.00160		0.0100	0.00160	mg/L		02/17/21 07:43	02/18/21 11:45	1
Beryllium	< 0.000182		0.00100	0.000182	mg/L		02/17/21 07:43	02/18/21 11:45	1
Boron	< 0.0386		0.0800	0.0386	mg/L		02/17/21 07:43	02/18/21 11:45	
Cadmium	<0.000217		0.00100	0.000217	mg/L		02/17/21 07:43	02/18/21 11:45	1
Calcium	<0.127		0.500	0.127	mg/L		02/17/21 07:43	02/18/21 11:45	1
Chromium	< 0.00153		0.00200	0.00153	mg/L		02/17/21 07:43	02/18/21 11:45	
Cobalt	< 0.000134		0.000500	0.000134	mg/L		02/17/21 07:43	02/18/21 11:45	
Molybdenum	<0.000610		0.00500	0.000610	mg/L		02/17/21 07:43	02/18/21 11:45	
Lead	<0.000128		0.00100	0.000128	mg/L		02/17/21 07:43	02/18/21 11:45	-
Antimony	<0.000378		0.00200	0.000378	mg/L		02/17/21 07:43	02/18/21 11:45	1
Selenium	< 0.00151		0.00500	0.00151	mg/L		02/17/21 07:43	02/18/21 11:45	
Thallium	<0.000148		0.00100	0.000148	ma/L		02/17/21 07:43	02/18/21 11:45	-
lithium	<0.00339		0.00500	0.00339	mg/L		02/17/21 07:43	02/18/21 11:45	1
Analyte			Spike Added	LCS LCS Result Qua	S alifier	Unit	D %Rec	%Rec.	
Arsenic			1.00	1.009		mg/L	101	80 - 120	
Barium			1.00	0.9858		mg/L	99	80-120	
Beryllium			0.500	0.5006		mg/L	100	80-120	
Boron			1.25	1.161		mg/L	93	80-120	
Cadmium			0.500	0.5033		mg/L	101	80 - 120	
Calcium			25.0	26.19		mg/L	105	80 - 120	
Chromium			0.500	0.4932		mg/L	99	80 - 120	
Cobalt			0.500	0.5071		mg/L	101	80 - 120	
Molybdenum			0.500	0.5099		mg/L	102	80 - 120	
Lead			0.500	0.5021		mg/L	100	80 - 120	
Antimony			0.250	0.2325		mg/L	93	80 - 120	
Selenium			1.00	1.010		mg/L	101	80 - 120	
Thallium			1.00	1.062		mg/L	106	80-120	
linium			0.500	0.4880		mg/L	98	80 - 120	
_ab Sample ID: MB 180-346 Vatrix: Water Analysis Batch: 347047	794/1-A MB	МВ					Client Samp Prep Type	e: Total Reco Prep Batch:	d Blank verable 346794
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	< 0.000313		0.00100	0.000313	mg/L	5	02/17/21 07:45	02/18/21 16:20	1
Barium	< 0.00160		0.0100	0.00160	mg/L		02/17/21 07:45	02/18/21 16:20	1
Beryllium	<0.000182		0.00100	0.000182	mg/L		02/17/21 07:45	02/18/21 16:20	1
Boron	< 0.0386		0.0800	0.0386	mg/L		02/17/21 07:45	02/18/21 16:20	ł
Cadmium	<0.000217		0.00100	0.000217	mg/L		02/17/21 07:45	02/18/21 16:20	1
Calcium	<0.127		0.500	0.127	mg/L		02/17/21 07:45	02/18/21 16:20	3
Chromium	< 0.00153		0.00200	0.00153	mg/L		02/17/21 07:45	02/18/21 16:20	1
Cohalt	<0.000124		0.000500	0.000124	Iteren		02/17/21 07:46	02/18/21 16:20	

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02/17/21 07:45 02/18/21 16:20

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0.00500 0.000610 mg/L

<0.000610

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QC Sample Results

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

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

Lab Sample ID: MB 180-346794/1-A Matrix: Water Analysis Batch: 347047 MB MB						Client Sample ID: Method Blank Prep Type: Total Recoverable Prep Batch: 346794				
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
<0.000128		0.00100	0.000128	mg/L		02/17/21 07:45	02/18/21 16:20	1		
<0.000378		0.00200	0.000378	mg/L		02/17/21 07:45	02/18/21 16:20	1		
< 0.00151		0.00500	0.00151	mg/L		02/17/21 07:45	02/18/21 16:20	1		
<0.000148		0.00100	0.000148	mg/L		02/17/21 07:45	02/18/21 16:20	1		
< 0.00339		0.00500	0.00339	mg/L		02/17/21 07:45	02/18/21 16:20	1		
	794/1-A MB Result <0.000128 <0.00151 <0.000148 <0.00339	794/1-A MB MB Result Qualifier <0.000128 <0.000378 <0.00151 <0.000148 <0.00339	MB MB Result Qualifier RL <0.000128	MB MB Result Qualifier RL MDL <0.000128	MB MB <a href="https://www.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarrow.englightarr</td> <td>MB MB Result Qualifier RL MDL Unit D <0.000128</td> 0.00100 0.000128 mg/L 0.0010378 mg/L 0.001011 mg/L 0.001012 mg/L 0.001012 mg/L 0.001011 mg/L 0.001011 mg/L 0.001011 mg/L 0.001012 mg/L<	MB MB Result Qualifier RL MDL Unit D <0.000128	MB MB Client Samp Prep Type Result Qualifier RL MDL Unit D Prepared <0.000128	Client Sample ID: Method Prep Type: Total Recor Prep Batch: MB MB D Unit D Prepared Analyzed <0.000128		

Lab Sample ID: LCS 180-346794/2-A Matrix: Water

Analysis Batch: 347047

Analysis Batch: 347047	Spike	LCS	LCS				Prep Batch: 346794 %Rec.	F
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	1.00	0.9923	-	mg/L		99	80 - 120	
Barium	1.00	0.9865		mg/L		99	80 - 120	
Beryllium	0.500	0.5038		mg/L		101	80 - 120	
Boron	1.25	1.175		mg/L		94	80 - 120	
Cadmium	0.500	0.5022		mg/L		100	80 - 120	P
Calcium	25.0	26.36		mg/L		105	80 - 120	
Chromium	0.500	0.4953		mg/L		99	80 - 120	
Cobalt	0.500	0.4969		mg/L		99	80 - 120	
Molybdenum	0.500	0.5053		mg/L		101	80 - 120	
Lead	0.500	0.4962		mg/L		99	80 - 120	
Antimony	0.250	0.2350		mg/L		94	80 - 120	
Selenium	1.00	1.018		mg/L		102	80 - 120	
Thallium	1.00	1.066		mg/L		107	80 - 120	
Lithium	0.500	0.4866		mg/L		97	80 - 120	

Lab Sample ID: MB 180-346914/1-A Matrix: Water Analysis Batch: 347383

Client Sample ID: Method Blank Prep Type: Total Recoverable Prep Batch: 346914

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

Job ID: 180-117061-1

	MD	INID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	< 0.000313	-	0.00100	0.000313	mg/L		02/18/21 05:36	02/19/21 18:16	1
Barium	<0.00160		0.0100	0.00160	mg/L		02/18/21 05:36	02/19/21 18:16	1
Beryllium	<0.000182		0.00100	0.000182	mg/L		02/18/21 05:36	02/19/21 18:16	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		02/18/21 05:36	02/19/21 18:16	1
Calcium	<0.127		0.500	0.127	mg/L		02/18/21 05:36	02/19/21 18:16	1
Chromium	< 0.00153		0.00200	0.00153	mg/L		02/18/21 05:36	02/19/21 18:16	1
Cobalt	<0.000134		0.000500	0.000134	mg/L		02/18/21 05:36	02/19/21 18:16	1
Molybdenum	< 0.000610		0.00500	0.000610	mg/L		02/18/21 05:36	02/19/21 18:16	1
Lead	< 0.000128		0.00100	0.000128	mg/L		02/18/21 05:36	02/19/21 18:16	1
Antimony	0.0004060	J	0.00200	0.000378	mg/L		02/18/21 05:36	02/19/21 18:16	1
Selenium	<0.00151		0.00500	0.00151	mg/L		02/18/21 05:36	02/19/21 18:16	1
Thallium	< 0.000148		0.00100	0.000148	mg/L		02/18/21 05:36	02/19/21 18:16	1
Lithium	<0.00339		0.00500	0.00339	mg/L		02/18/21 05:36	02/19/21 18:16	1

QC Sample Results

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station										Job ID: 180-1	17061-1
Method: EPA 6020B - Me	tals (ICP/M	S) (Cor	ntinued)								
Lab Sample ID: MB 180-3469 Matrix: Water Analysis Batch: 347575	914/1-A								Client Sam Prep Ty	ple ID: Metho pe: Total Reco Prep Batch:	d Blank verable 346914
and the second second second second	MB	MB								A REAL PROPERTY.	
Analyte	Result	Qualifier	RL	1	MDL	Unit		D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0	0386	mg/L		=	02/18/21 05:3	6 02/24/21 11:03	1
Lab Sample ID: LCS 180-346 Matrix: Water	6914/2-A						Cli	ent	Sample ID	: Lab Control	Sample
Analysis Batch: 347383									i tep i ji	Pren Batch:	346914
Analysis Baten: 041000			Spike	LCS	LCS	0				%Rec	010014
Analyte			Added	Result	Out	lifier	Unit		D %Rec	Limits	
Arsenic	10		1.00	0.9534			ma/L		95	80 - 120	
Barium			1.00	1.006			ma/L		101	80 - 120	
Bendlium			0.500	0 5161			mall		103	80.120	
Cadmium			0.500	0.5015			mal		100	80 120	
Calcium			25.0	27.02			mall		108	80 120	
Chromium			0.500	0.6060			mall		100	80 120	
Cobalt			0.500	0.3009			mail		09	80 120	
Molubdonum			0.500	0.4000			mail		101	80 120	
Lood			0.500	0.5030			mail		101	80 120	
Antimony			0.300	0.0032			mail		101	80-120	
Salanium			1.00	0.2300			mg/L		50	80 120	
Selenium			1.00	0.9679			mg/L		99	80-120	
I lithium			0.500	0.4027			mg/L		104	80 120	
			0.500	0.4937			mg/L		99	80 - 120	
Lab Sample ID: LCS 180-346 Matrix: Water	6914/2-A						Cli	ent	Sample ID Prep Ty	: Lab Control pe: Total Reco	Sample verable
Analysis Daten. 547575			Snike	105	1.05					%Rec	540514
Analyte			Added	Result	0	lifier	Unit		D %Rec	1 imits	
Boron			1.25	1.252	Gui		mg/L		100	80 - 120	
Lab Sample ID: MB 180-3469 Matrix: Water Analysis Batch: 347383	981/1-A MB	мв							Client Sam Prep Ty	ple ID: Metho pe: Total Reco Prep Batch:	d Blank verable 346981
Analyte	Result	Qualifier	RL	3	MDL	Unit		D	Prepared	Analyzed	Dil Fac
Arsenic	<0.000313	_	0.00100	0.000	0313	mg/L		-	02/18/21 11:3	8 02/19/21 21:36	1
Barium	<0.00160		0.0100	0.00	0160	mg/L			02/18/21 11:3	8 02/19/21 21:36	1
Beryllium	<0.000182		0.00100	0.000	0182	mg/L			02/18/21 11:3	8 02/19/21 21:36	1
Cadmium	<0.000217		0.00100	0.000	0217	mg/L			02/18/21 11:3	8 02/19/21 21:36	1
Calcium	<0.127		0.500	0	.127	mg/L			02/18/21 11:3	8 02/19/21 21:36	1
Chromium	< 0.00153		0.00200	0.0	0153	mg/L			02/18/21 11:3	8 02/19/21 21:36	1
Cobalt	< 0.000134		0.000500	0.000	0134	mg/L			02/18/21 11:3	8 02/19/21 21:36	1
Molybdenum	<0.000610		0.00500	0.000	0610	mg/L			02/18/21 11:3	8 02/19/21 21:36	1
Lead	<0.000128		0.00100	0.000	0128	ma/L			02/18/21 11:3	8 02/19/21 21:36	1
Antimony	<0.000378		0.00200	0.000	0378	mg/L			02/18/21 11:3	8 02/19/21 21:36	1

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02/18/21 11:38 02/19/21 21:36

02/18/21 11:38 02/19/21 21:36

02/18/21 11:38 02/19/21 21:36

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Selenium

Thallium

Lithium

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0.00500

0.00100

0.00500

0.00151 mg/L

0.000148 mg/L

0.00339 mg/L

< 0.00151

< 0.000148

<0.00339

3/25/2021

Client: HDR Inc Project/Site: Gibbons Creek Ste	am Electric S	QC Station	Sample	Resu	ults					Job ID: 180-11	17061-1
Method: EPA 6020B - Me	tals (ICP/N	IS) (Cor	ntinued)								
Lab Sample ID: MB 180-3469 Matrix: Water Analysis Batch: 347575	981/1-A							C	lient Sa Prep T	mple ID: Method ype: Total Reco Prep Batch:	d Blank verable 346981
A	MB	MB		1 13					Deserves		DUF
Boron	0.07510	J	0.0800		0386	mg/L	-	- 0	2/18/21 11	38 02/24/21 13:02	Direac
Lab Sample ID: MB 180-3469 Matrix: Water Analysis Batch: 347908	981/1-А мв	МВ						С	lient Sa Prep T	mple ID: Methoo ype: Total Reco Prep Batch:	d Blank verable 346981
Analyte	Result	Qualifier	RL		MDL	Unit		D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0	0386	mg/L		0	2/18/21 11	:38 02/27/21 11:14	1
Lab Sample ID: LCS 180-346 Matrix: Water Analysis Batch: 347383	981/2-A		Spike	LCS	LCS		Cli	ent S	Sample I Prep T	D: Lab Control S ype: Total Reco Prep Batch: %Rec.	Sample verable 346981
Analyte			Added	Result	Qual	lifier	Unit		D %Rec	Limits	_
Arsenic			1.00	0.9740			mg/L		97	80 - 120	
Barium			1.00	1.020			mg/L		102	80 - 120	
Beryllium			0.500	0.5307			mg/L		106	80 - 120	
Cadmium			0.500	0.5092			mg/L		102	80 - 120	
Calcium			25.0	27.66			mg/L		111	80 - 120	
Chromium			0.500	0.5092			mg/L		102	80 - 120	
Cobalt			0.500	0.4955			mg/L		99	80 - 120	
Molybdenum			0.500	0.5101			ma/l		102	80.120	
Load			0.500	0.5070			mail		102	80 120	
Antimonu			0.350	0.0073			mail		07	80 120	
Andmony			0.250	0.2430			mg/∟		97	00-120	
Them			1.00	1.009			mg/L		101	00-120	
Lithium			0.500	0.4912			mg/L mg/L		98	80 - 120	
Lab Sample ID: LCS 180-346 Matrix: Water Analysis Batch: 347575	981/2-A		Sniko	1.05	1.05		Cli	ent S	Sample I Prep T	D: Lab Control S ype: Total Reco Prep Batch:	Sample verable 346981
Analyta			Added	Pocult	Qual	lflor	Italt			Limite	
Boron			1.25	1.281	Quar		mg/L	_	102	80 - 120	-
Lab Sample ID: LCS 180-346 Matrix: Water Analysis Batch: 347908	981/2-A		Spike	108	1.05		Cli	ent S	ample I Prep T	D: Lab Control S ype: Total Reco Prep Batch:	Sample verable 346981
Analyte			Added	Recult	Qual	lifior	Unit		D %Pac	1 imite	
Boron			1.25	1.174	Qual	iller	mg/L	_	94	80 - 120	_
Lab Sample ID: 180-117074- Matrix: Water Analysis Batch: 347383	1 MS	mnle	Spike	MS	MS				Clier Prep T	nt Sample ID: Al ype: Total Reco Prep Batch:	P MW-5 verable 346981
Analyte	Result Ou	alifior	Added	Result	Qual	ifier	Unit			l imits	
Arsenic	0.00950		1.00	1 036	MUB	actes.	mañ	_	102	75, 125	
Banum	0.0556		1.00	1.000			mañ		103	75 125	
Bendlium	0.0550		0.500	0.5400			mg/L		104	75 125	
Derymum	0.0520		0.000	0.0490			mg/L		. 89	10 - 120	
									Eurofins	TestAmerica, Pit	tsburgh

Method: EPA 6020B - N	letals (ICI	P/MS) (Co	ontinued)								
Lab Sample ID: 180-11707	4-1 MS							Client	Sample I	D: AP	MW-
Matrix: Water							F	rep Ty	pe: Total I	Recove	rable
Analysis Batch: 347383									Prep Ba	atch: 34	4698
	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		_
Cadmium	0.00523		0.500	0.5079		mg/L		101	75 - 125		
Calcium	354		25.0	382.6	4	mg/L		114	75 - 125		
Chromium	0.00228		0.500	0.5056		mg/L		101	75-125		
Cobalt	0.115		0.500	0.6355		mg/L		104	75 - 125		
Molybdenum	< 0.000610		0.500	0.5356		mg/L		107	75 - 125		
Lead	0.00473		0.500	0.5229		mg/L		104	75 - 125		
Antimony	0.000664	J	0.250	0.2355		mg/L		94	75-125		
Selenium	< 0.00151		1.00	0.9908		mg/L		99	75-125		
Thallum	0.00213		1.00	1.093		mg/L		109	75-125		
Lithium	0.381		0.500	0.8527		mg/L		94	75 - 125		
Lab Sample ID: 180-11707 Matrix: Water	4-1 MS						F	Client Prep Ty	Sample I pe: Total I	D: AP	MW-
Analysis Batch: 347908								53 8	Prep Ba	atch: 34	4698
			1000000000		110				0/ D		
	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Sample Result	Sample Qualifier	Spike Added	Result	Qualifier	Unit	D	%Rec	Limits		
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water	Sample Result 3.53	Sample Qualifier	Spike Added 1.25	MS Result 4.884	Qualifier	Unit mg/L	D F	%Rec 108 Client Prep Ty	Limits 75-125 Sample I pe: Total I	D: AP	MW-
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383	Sample Result 3.53 4-1 MSD Sample	Sample Qualifier Sample	Spike Added 1.25 Spike	MS Result 4.884 MSD	MS Qualifier MSD	Unit mg/L	D F	%Rec 108 Client Prep Ty	Limits 75-125 Sample I pe: Total I Prep Ba %Rec.	D: AP Recove	MW- rabl
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte	Sample Result 3.53 4-1 MSD Sample Result	Sample Qualifier Sample Qualifier	Spike Added 1.25 Spike Added	MS Result 4.884 MSD Result	MSD Qualifier	Unit mg/L Unit	D F D	%Rec 108 Client Prep Ty %Rec	Limits 75-125 Sample I pe: Total I Prep Ba %Rec. Limits	D: AP Recove atch: 34 RPD	MW- rabl 4698 RP Lim
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Arsenic	Sample Result 3.53 4-1 MSD Sample Result 0.00950	Sample Qualifier Sample Qualifier	Spike Added 1.25 Spike Added 1.00	MS Result 4.884 MSD Result 1.029	MSD Qualifier	Unit mg/L Unit mg/L	D	%Rec 108 Client Prep Ty %Rec 102	%Rec. Limits 75 - 125 Sample I pe: Total I Prep Ba %Rec. Limits 75 - 125	D: AP Recove atch: 34 <u>RPD</u> 1	MW- rabi 4698 RP Lim 2
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Arsenic Barium	Sample Result 3.53 4-1 MSD Sample Result 0.00950 0.0556	Sample Qualifier Sample Qualifier	Spike Added 1.25 Spike Added 1.00 1.00	MS Result 4.884 MSD Result 1.029 1.104	MSD Qualifier MSD Qualifier	Unit mg/L Unit mg/L mg/L	D	%Rec 108 Client Prep Ty %Rec 102 105	Vicec. Limits 75 - 125 Sample I pe: Total I Prep Ba %Rec. Limits 75 - 125 75 - 125 75 - 125 75 - 125	D: AP Recove atch: 34 <u>RPD</u> 1 0	MW- rabi 4698 RP Lim 2
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Arsenic Barium Beryllium	Sample Result 3.53 44-1 MSD Sample Result 0.00950 0.0556 0.0520	Sample Qualifier Sample Qualifier	Spike Added 1.25 Spike Added 1.00 1.00 0.500	MS Result 4.884 MSD Result 1.029 1.104 0.5390	MSD Qualifier MSD Qualifier	Unit mg/L Unit mg/L mg/L mg/L	PF	%Rec 108 Client Prep Ty %Rec 102 105 97	Vicec. Limits 75 - 125 Sample I pe: Total I Prep Ba %Rec. Limits 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125	D: AP Recove atch: 34 <u>RPD</u> 1 0 2	MW- rabl 1698 RP Lim 2 2 2
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Arsenic Barium Beryllium Cadmium	Sample Result 3.53 4-1 MSD Sample Result 0.00950 0.0526 0.0520 0.0523	Sample Qualifier Sample Qualifier	Spike Added 1.25 Spike Added 1.00 1.00 0.500 0.500	MS Result 4.884 MSD Result 1.029 1.104 0.5390 0.5048	MSD Qualifier MSD Qualifier	Unit mg/L Unit mg/L mg/L mg/L	D	%Rec 108 Client Prep Ty %Rec 102 105 97 100	Vicec. Limits 75 - 125 Sample I pe: Total I Prep Ba %Rec. Limits 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125	ID: AP Recover atch: 34 RPD 1 0 2 1	MW- arabi 4698 RP Lim 2 2 2 2
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Arsenic Barium Beryllum Cadmium Cadmium Calcium	Sample Result 3.53 4-1 MSD Sample Result 0.00950 0.0556 0.0520 0.00523 354	Sample Qualifier Sample Qualifier	Spike Added 1.25 Spike Added 1.00 1.00 0.500 0.500 2.5.0	MS Result 4.884 MSD Result 1.029 1.104 0.5390 0.5048 374.2	MSD Qualifier 4	Unit mg/L mg/L mg/L mg/L mg/L mg/L	P F	%Rec 108 Client Prep Ty %Rec 102 105 97 100 80	Vicec. Limits 75 - 125 Sample I pe: Total I Prep Ba %Rec. Limits 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125	Recover atch: 34 1 0 2 1 2	MW- Frabl 4698 RP Lim 2 2 2 2 2 2 2 2
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Arsenic Barium Beryllium Cadmium Calclum Calclum	Sample Result 3.53 44-1 MSD Sample Result 0.00950 0.0556 0.0520 0.00523 354 0.00228	Sample Qualifier Sample Qualifier	Spike Added 1.25 Spike Added 1.00 1.00 0.500 0.500 25.0 0.500	MS Result 4.884 MSD Result 1.029 1.104 0.5390 0.5048 374.2 0.4991	Augualifier MSD Qualifier 4	Unit mg/L mg/L mg/L mg/L mg/L mg/L mg/L	D	%Rec 108 Client Prep Ty %Rec 102 105 97 100 80 99	Areec. Limits 75 - 125 Sample I pe: Total I Prep Ba %Rec. Limits 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125	D: AP Recover atch: 34 RPD 1 0 2 1 1 2 1	MW- rabl 1698 RP Lim 2 2 2 2 2 2 2 2 2 2 2 2 2
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Arsenic Barium Barium Cadmium Cadmium Caldum Chromium Cobatt	Sample Result 3.53 24-1 MSD Sample Result 0.00950 0.0520 0.0520 0.0523 354 0.00228 0.00228 0.115	Sample Qualifier Sample Qualifier	Spike Added 1.25 Spike Added 1.00 1.00 0.500 0.500 0.500 0.500	MS Result 4.884 MSD Result 1.029 1.104 0.5390 0.5048 374.2 0.4991 0.6247	MSD Qualifier MSD Qualifier 4	Unit mg/L Mg/L mg/L mg/L mg/L mg/L mg/L mg/L	<u>P</u> P	%Rec 108 Client Prep Ty %Rec 102 105 97 100 80 99 102	Topology Limits 75 - 125 Sample I pe: Total I Prep Ba %Rec. Limits 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125	D: AP Recove atch: 34 RPD 1 0 2 1 1 2 1 2	MW- rabl 4698 RP Lim 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Arsenic Barium Beryllum Calcium Calcium Calcium Cobait Molybdenum	Sample Result 3.53 44-1 MSD Sample Result 0.00950 0.0550 0.0520 0.00523 354 0.00228 0.115 <0.000610	Sample Qualifier Sample Qualifier	Spike Added 1.25 Spike Added 1.00 1.00 0.500 0.500 0.500 0.500 0.500	MS Result 4.884 MSD Result 1.029 1.104 0.5390 0.5048 374.2 0.4991 0.6247 0.5367	MSD Qualifier MSD Qualifier 4	Unit mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	<u>P</u> <u>P</u>	%Rec 108 Client rep Ty %Rec 102 105 97 100 80 99 102 102 107	WRec. Limits 75.125 Sample I pe: Total I Prep B: %Rec. Limits 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125	D: AP Recove atch: 34 1 0 2 1 2 1 2 1 2 0	MW- erabl 4698 RP 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Chronium Cadmium Calcium Chromium Cobat Molybdenum Lead	Sample Result 3.53 44-1 MSD Sample Result 0.00556 0.0556 0.0520 0.00523 354 0.00228 0.115 <0.000610 0.00473	Sample Qualifier Sample Qualifier	Spike Added 1.25 Spike Added 1.00 1.00 0.500 0.500 0.500 0.500 0.500 0.500	MS Result 4.884 MSD Result 1.029 1.104 0.5390 0.5048 374.2 0.4991 0.6247 0.53214	MSD Qualifier MSD Qualifier 4	Unit mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	D	%Rec 108 Client rep Ty %Rec 102 105 97 100 80 99 102 107 103	Junits 75 - 125 Sample I pe: Total I Prep Ba %Rec. Limits 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125	D: AP Recover atch: 34 1 0 2 1 2 1 2 0 0 0	MW- erabl 4698 RPI 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Arsenic Barium Beryllium Cadmium Calclum Cobatt Molybdenum Lead Antimony	Sample Result 3.53 44-1 MSD Sample Result 0.00950 0.0556 0.0520 0.0552 0.0523 354 0.00228 0.115 <0.000610 0.00473 0.000664	Sample Qualifier Sample Qualifier	Spike Added 1.25 Spike Added 1.00 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500	MSD Result 4.884 4.884 1.029 1.104 0.5390 0.5048 3742 0.4991 0.6247 0.5367 0.5214 0.2365	MSD Qualifier MSD Qualifier 4	Unit mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	D	*Rec 108 Client Prep Ty *Rec 102 105 97 100 80 99 102 107 103 94	Janket Limits 75 - 125 Sample I pe: Total I Prep Ba %Rec. Limits 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125	D: AP Recover atch: 34 1 0 2 1 1 2 1 2 1 2 0 0 0 0 0	MW- erabl 4698 RP Lim 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Arsenic Barium Beryllium Cadmium Cadmium Cadmium Cadmium Cadmium Calcium Chromium Cobat Molybdenum Lead Antimony Selenium	Sample Result 3.53 24-1 MSD Sample Result 0.00950 0.0520 0.0520 0.0520 0.0520 0.0520 0.0520 0.00523 354 0.0028 0.115 <0.000610 0.00473 0.000664 <0.00151	Sample Qualifier Sample Qualifier J	Spike Added 1.25 Spike Added 1.00 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500000000	MS Result 4.884 4.884 MSD Result 1.029 1.104 0.5390 0.5048 374.2 0.4991 0.6247 0.5367 0.5214 0.2365 0.9004	MSD Qualifier MSD Qualifier 4	Unit mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	D	%Rec 108 Client rep Ty %Rec 102 102 105 97 100 80 99 102 107 93 94 98	Junits 75.125 Sample I pe: Total I Prep Bz %Rec. Limits 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125	D: AP Recover atch: 34 1 0 2 1 2 1 2 1 2 0 0 0 0 0 0	MW- erabl 4698 RP 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Arsenic Barium Beryllum Cadmium Cadmium Cadmium Cobait Molybdenum Lead Antimony Selenium Thallium	Sample Result 3.53 44-1 MSD Sample Result 0.00950 0.0550 0.00523 354 0.00228 0.115 <0.000610 0.00473 0.000664 <0.00153	Sample Qualifier Sample Qualifier	Spike Added 1.25 Added 1.00 1.00 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.250 1.00	MS Result 4.884 MSD Result 1.029 1.104 0.5048 374.2 0.4991 0.5247 0.5214 0.5250 0.9204 1.0235	MSD Qualifier MSD Qualifier 4	Unit mg/L Unit mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	D	%Rec 108 Client Yrep Ty %Rec 102 105 97 100 80 99 102 107 103 94 98 108	Junits 75 - 125 Sample I pe: Total I Prep Bz %Rec. Limits 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125	D: AP Recover atch: 34 1 0 2 1 2 1 2 1 2 0 0 0 0 1 1	MW- erabl 4698 RP 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Casenic Barium Beryllium Cadmium Calolium Chromium Cobait Molybdenum Lead Antimony Selenium Thallium	Sample Result 3.53 44-1 MSD Sample Result 0.00556 0.0520 0.00523 354 0.00228 0.115 <0.000614 0.000473 0.000664 <0.00151 0.00213 0.381	Sample Qualifier Sample Qualifier	Spike Added 1.25 Spike Added 1.00 1.00 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.250 1.00 1.00	MS Result 1.029 1.104 0.5048 374.2 0.4991 0.6247 0.5867 0.5214 0.2365 0.9804 1.083 0.8470	MSD Qualifier MSD Qualifier 4	Unit mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	D	%Rec 108 Client 'rep Ty %Rec 102 105 97 100 80 99 102 107 103 94 98 108 93	Junits 75 - 125 Sample I pe: Total I Prep B: %Rec. Limits 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75	RPD 1 0 2 1 2 1 2 0 0 0 0 0 1 1 1 2 1 1 2 0 0 0 0	MW- erabl 4698 RP 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Arsenic Barium Beryllium Cadmium Calcium Cothati Molybdenum Lead Antimony Selenium Thallium Lithium	Sample Result 3.53 44-1 MSD Sample Result 0.00950 0.0556 0.0520 0.00523 354 0.00228 0.115 <0.000610 0.00473 0.000664 <0.00151 0.00213 0.381	Sample Qualifier - Sample Qualifier -	Spike Added 1.25 Spike Added 1.00 1.00 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500	MSD Result 4.884 MSD Result 1.029 1.104 0.5390 0.5048 374.2 0.4991 0.6247 0.5367 0.5214 0.2365 0.9804 1.083 0.8470	MSD Qualifier MSD Qualifier 4	Unit mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	D	%Rec 108 Client 'rep Ty %Rec 102 105 97 100 80 99 102 107 103 94 98 108 93	Junits 75 - 125 Sample I pe: Total I Prep Ba %Rec. Limits 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125	RPD 1 0 2 1 2 1 2 0 0 0 0 1 1 1 2 1 1 2 0 0 0 0	MW- arabi 1698 RPI 2 2 2 2 2 2 2 2 2 2 2 2 2
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Arsenic Barium Beryllium Cadrium Calcium Chromium Cobalt Molybdenum Lead Antimony Selenium Thallium Lithium Lab Sample ID: 180-11707	Sample Result 3.53 44-1 MSD Sample Result 0.00950 0.0556 0.0520 0.0556 0.0520 0.00523 3554 0.0028 0.0151 0.00243 0.000644 <0.00151 0.00213 0.381 4-1 MSD	Sample Qualifier Sample Qualifier	Spike Added 1.25 Spike Added 1.00 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500	MSD Result 4.884 4.884 4.884 1.029 1.104 0.5390 0.5048 374.2 0.5948 0.6247 0.5367 0.5214 0.2365 0.9804 1.083 0.8470	MSD Qualifier MSD Qualifier 4	Unit mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	D	%Rec 108 Client rep Ty %Rec 102 105 97 100 80 99 102 107 103 94 98 108 93 Client	Junits 75.125 Sample I pe: Total I Prep Bz %Rec. Limits 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 Sample I	D: AP Recover atch: 34 1 0 2 1 1 2 2 1 2 2 0 0 0 0 0 1 1 1 1 1	MW- arabi 4698 RPI 2 2 2 2 2 2 2 2 2 2 2 2 2
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Arsenic Barium Beryllum Cadmium Calcium Cadmium Cobait Molybdenum Lead Antimony Selenium Thallium Lithium Lab Sample ID: 180-11707 Matrix: Water	Sample Result 3.53 44-1 MSD Sample Result 0.00950 0.0520 0.0520 0.00523 354 0.00228 0.115 <0.000610 0.00473 0.000664 <0.00151 0.00213 0.381 44-1 MSD	Sample Qualifier Sample Qualifier	Spike Added 1.25 Added 1.00 1.00 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500	MS Result 4.884 1.029 1.104 0.5048 374.2 0.5048 374.2 0.5214 0.6247 0.5367 0.5214 0.6247 0.5367 0.5214 0.8365 0.9804 1.083 0.8470	MSD Qualifier MSD Qualifier 4	Unit mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	D D	%Rec 108 Client rep Ty %Rec 102 105 97 100 80 99 102 107 103 94 108 93 Client trep Ty	Junits 75.125 Sample I pe: Total I Prep Bz %Rec. Limits 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125 75.125	D: AP Recove atch: 3- 1 0 2 1 1 2 2 0 0 0 0 0 0 0 0 1 1 1 1 1	MW rabil 4698 RPI 2 2 2 2 2 2 2 2 2 2 2 2 2
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Arsenic Barium Beryllum Cadmium Cadmium Cadmium Cadmium Cobait Molybdenum Lead Antimony Selenium Thallium Lithium Lithium	Sample Result 3.53 4-1 MSD Sample Result 0.0050 0.0556 0.0520 0.00523 354 0.00228 0.00555 <0.000610 0.00473 0.000664 <0.00151 0.00213 0.381 4-1 MSD	Sample Qualifier Sample Qualifier	Spike Added 1.25 Added 1.00 1.00 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500	MSD Result 4.884 MSD Result 1.029 1.104 0.5040 0.5048 374.2 0.4991 0.6247 0.5214 0.2365 0.9804 1.083 0.8470	MSD Qualifier MSD Qualifier 4	Unit mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	D D	%Rec 108 Client Prep Ty %Rec 102 105 97 100 80 99 102 107 103 94 98 93 Client Prep Ty	Weec. Limits 75 - 125 Sample I pe: Total I Prep B: %Rec. Limits 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 1	D: AP Recove atch: 3- 1 0 2 2 1 1 2 2 1 2 2 0 0 0 0 0 0 0 0 1 1 1 1	MW erabl 4698 RPI 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Arsenic Barium Beryllium Cadmium Cadmium Cabalt Molybdenum Lead Antimony Selenium Thallium Lithium Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347908	Sample Result 3.53 44-1 MSD Sample Result 0.00950 0.0556 0.0520 0.00523 354 0.00028 0.115 <0.000610 0.00473 0.000664 <0.00151 0.00213 0.381 44-1 MSD	Sample Qualifier Sample Qualifier J	Spike Added 1.25 Spike Added 1.00 1.00 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500	MSD Result 4.884 4.884 MSD Result 1.029 1.104 0.5048 374.2 0.4991 0.6247 0.5365 0.9804 1.083 0.8470 MSD	MSD Qualifier MSD Qualifier 4	Unit mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	D P	%Rec 108 Client rep Ty %Rec 102 105 97 100 80 99 102 107 103 94 98 108 103 94 98 108 108 109 109 107 107 107 107 107 107 107 107	Junits 75 - 125 Sample I pe: Total I Prep B: %Rec. Limits 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75	D: AP Recover atch: 3-4 1 0 2 1 1 2 1 2 1 2 1 2 0 0 0 0 1 1 1 1	MW
Analyte Boron Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347383 Analyte Arsenic Barium Beryllium Cadmium Calclum Chromium Cobalt Molybdenum Lead Antimony Selenium Thallium Lithium Lithium Lab Sample ID: 180-11707 Matrix: Water Analysis Batch: 347908 Analyte Demo	Sample Result 3.53 4-1 MSD 3.64 0.00950 0.0520 0.0520 0.0520 0.00228 0.0151 <0.000610 0.00473 0.0006610 0.00473 0.000610 0.00473 0.000610 0.00473 0.000610 0.000473 0.000610 0.000473 0.000610 0.000473 0.000610 0.000473 0.000610 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.000473 0.00047300000000000000000000000000000000	Sample Qualifier Sample Qualifier J Sample Qualifier	Spike Added 1.25 Spike Added 1.00 1.00 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.5000 0.5000 0.5000 0.500000000	MS Result 4.884 4.884 1.029 1.1029 1.1029 1.1029 1.1029 0.5048 374.2 0.5367 0.5214 0.6247 0.5367 0.5214 0.2365 0.9804 1.083 0.8470 MSD Result	MSD Qualifier MSD Qualifier MSD Qualifier	Unit mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	P P P	%Rec 108 Client Prep Ty 102 105 105 102 105 102 107 100 80 99 99 99 99 99 99 99 99 99 99 99 102 107 107 108 108 108 108 108 108	Junits T5 - 125 Sample I pe: Total I Prep Bz %Rec. Limits 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75 - 125 75	D: AP Recovered atch: 3-4 1 0 0 2 2 1 1 2 2 0 0 0 0 0 0 0 0 0 0 0	MW erabl 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

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		QC	Sam	ole	Resi	ults						
Client: HDR Inc Project/Site: Gibbons Creek Si	team Electric S	Station									Job ID: 180-1	17061-1
Nethod: EPA 7470A - Me	ercury (CVA	A)										
Lab Sample ID: MB 180-346	6437/1-A								Clie	ent Sam	ple ID: Metho	d Blank
Matrix: Water											Prep Type: T	otal/NA
Analysis Batch: 347409		MD									Prep Batch:	346437
Analyte	Result	MB		DI	16		1.	D	D	raparad	Analyzed	Dil Eac
Mercury	<0.000130	Quanner	0.00	0200	0.00	0130 mg	/L		02/1	12/21 13:23	02/23/21 10:43	1
	1				0.00							
Lab Sample ID: LCS 180-34	6437/2-A							Clien	t Sa	mple ID:	Lab Control	Sample
Matrix: Water											Prep Type: T	otal/NA
Analysis Batch: 347409											Prep Batch:	346437
			Spike		LCS	LCS					%Rec.	
Analyte			Added		Result	Qualifie	r Un	it	D	%Rec	Limits	
Mercury			0.00250	0	.002502		mg	/L		100	80 - 120	
Lab Sample ID: MR 180 341	130/1-A								CIL	ant Sam	nle ID: Metho	d Blank
Matrix: Water	430/1-4								Cin	ent Jam	Prop Type: T	
Analysis Batch: 347536											Pren Batch:	347430
Analysis baten. 947590	MB	MB									riep baten.	547450
Analyte	Result	Qualifier		RL	1	MDL Un	it	D	P	repared	Analyzed	Dil Fac
Mercury	<0.000130		0.00	0200	0.00	0130 mg	/L		02/2	23/21 14:39	02/24/21 11:27	1
Matrix: Water Analysis Batch: 347536	145012-14		Spike		LCS	LCS		onen	c ou	inpic ib.	Prep Type: T Prep Batch: %Rec.	otal/NA 347430
Analyte			Added		Result	Qualifie	r Un	it	D	%Rec	Limits	
Mercury			0.00250	0	.002255		mg	/L		90	80 - 120	
lethod: SM 2540C - So	lids, Total D	issolve	d (TDS	5)			257	60				
Lab Sample ID: MB 180-346	611/2								Clie	ent Sam	ple ID: Metho	d Blank
Analysis Batch: 346611											Fiep type. I	Otal/INA
Analysis Daten. 540011	MB	MB										
Analyte	Result	Qualifier		RL	1	MDL Un	it	D	P	repared	Analyzed	Dil Fac
Total Dissolved Solids	<10.0			10.0	-	10.0 mg	/L		-		02/15/21 15:28	1
Lab Sample ID: LCS 180-34 Matrix: Water	6611/1							Clien	t Sa	mple ID:	Lab Control Prep Type: T	Sample otal/NA
Analysis Batch: 346611			12/12/07		11202-008							
2 - 17 - 17			Spike		LCS	LCS			1		%Rec.	
Analyte			Added	_	Result	Qualifie	r Un	it .	D	%Rec	Limits	_
Total Dissolved Solids			457		404.0		mg	/L		88	60 = 120	
Lab Sample ID: 180-117078 Matrix: Water	-1 DU									Client	Sample ID: N Prep Type: T	INW-15 otal/NA
Analysis Batch: 346611											COLOR MAN	
Net 1992 State and strength of the second	Sample Sar	mple			DU	DU						RPD
Analyte	Result Qu	alifier			Result	Qualifie	r Un	it	D		RPI	D Limit
Total Dissolved Solids	6150				6276		mg	/L				2 10

lient: HDB Inc			QC	Samp	ole	Resu	ults				lob ID: 180-11	7061-1
Project/Site: Gibbons Creek Ste	am Electr	ric Sta	ation								505 ID. 100-11	/001-1
Method: SM 2540C - Solid	ds, Tota	al Di	ssolve	d (TDS	6) (C	ontin	ued)					
Lab Sample ID: MB 180-3468 Matrix: Water	81/2								С	lient Sam	ple ID: Method	Blank
Analysis Batch: 346881												
and the second second second second second second second second second second second second second second second		MB	MB									
Analyte	Re	sult	Qualifier		RL	1	MDL Unit		D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<	10.0			10.0	-	10.0 mg/L				02/17/21 14:56	1
Lab Sample ID: LCS 180-346 Matrix: Water	881/1							CI	ent S	ample ID:	Lab Control S Prep Type: To	ample tal/NA
Analysis Batch: 346881				0.11		1.00	1.00				0/ D	
Analysis				Spike		LUS	LUS	Ind		D N Dee	%Rec.	
Total Discolved Solids		-		Added	_	A52.0	Quaimer	mail		00	80 120	-
Total Dissolved Solids				457		432.0		mg/L		99	00-120	
Lab Sample ID: 180-117062-2	DU									CI	ient Sample ID	: FB-2
Analysis Ratch: 246991											Prep Type: 10	al/INA
Analysis Batch. 340001	Sample	Same	nle			DU	DU					RPD
Analyte	Result	Qual	ifier			Result	Qualifier	Unit	1	D	RPD	Limit
Total Dissolved Solids	<10.0	second 1				<10.0		mg/L				10
Lab Sample ID: MB 180-3468 Matrix: Water Analysis Batch: 346883	83/2								C	lient Sam	ple ID: Method Prep Type: To	Blank tal/NA
		MB	MB									
Analyte	Re	MB	MB Qualifier		RL		MDL Unit		D	Prepared	Analyzed	Dil Fac
Analyte Total Dissolved Solids	Re	MB sult	MB Qualifier		RL 10.0	1	MDL Unit		<u>D</u>	Prepared	Analyzed 02/17/21 14:59	Dil Fac 1
Analyte Total Dissolved Solids Lab Sample ID: LCS 180-346 Matrix: Water Analysis Ratch: 346883	Re < 883/1	MB sult	MB Qualifier		RL 10.0		MDL Unit 10.0 mg/L	CI	D ient S	Prepared ample ID:	Analyzed 02/17/21 14:59 Lab Control S Prep Type: To	Dil Fac 1 ample otal/NA
Analyte Total Dissolved Solids Lab Sample ID: LCS 180-346 Matrix: Water Analysis Batch: 346883	Re < 883/1	MB esult 10.0	MB Qualifier	Spike	RL 10.0	LCS	MDL Unit 10.0 mg/L LCS	CI	D ient S	Prepared	Analyzed 02/17/21 14:59 Lab Control S Prep Type: To %Rec.	Dil Fac 1 ample tal/NA
Analyte Total Dissolved Solids Lab Sample ID: LCS 180-346 Matrix: Water Analysis Batch: 346883 Analyte	Re < 883/1	MB esult 10.0	MB Qualifier	Spike	RL 10.0	LCS Result	MDL Unit 10.0 mg/L LCS Qualifier	Cl	D ient S	Prepared ample ID:	Analyzed 02/17/21 14:59 Lab Control S Prep Type: To %Rec. Limits	Dil Fac 1 ample otal/NA
Analyte Total Dissolved Solids Lab Sample ID: LCS 180-346 Matrix: Water Analysis Batch: 346883 Analyte Total Dissolved Solids	Re < 883/1	MB esuit 10.0	MB Qualifier	Spike Added 457	RL 10.0	LCS Result 436.0	MDL Unit 10.0 mg/L LCS Qualifier	CI Unit mg/L	D ient S	Prepared ample ID: D %Rec 95 -	Analyzed 02/17/21 14:59 Lab Control S Prep Type: To %Rec. Limits 80 - 120	Dil Fac 1 ample tal/NA
Analyte Total Dissolved Solids Lab Sample ID: LCS 180-346 Matrix: Water Analysis Batch: 346883 Analyte Total Dissolved Solids Lab Sample ID: 180-117074-3 Matrix: Water	883/1	MB esult 10.0	MB Qualifier	Spike Added 457	RL 10.0	LCS Result 436.0	MDL Unit 10.0 mg/L LCS Qualifier	Unit mg/L	D ient S	Prepared ample ID: D %Rec 95 CI	Analyzed 02/17/21 14:59 Lab Control S Prep Type: To %Rec. Limits 80 - 120 ient Sample ID Prep Type: To	Dil Fac 1 ample atal/NA : EQ-1 atal/NA
Analyte Total Dissolved Solids Lab Sample ID: LCS 180-346 Matrix: Water Analysis Batch: 346883 Analyte Total Dissolved Solids Lab Sample ID: 180-117074-3 Matrix: Water Analysis Batch: 346883	- Re 883/1	MB sult 10.0	MB Qualifier	Spike Added 457	RL 10.0	LCS Result 436.0	MDL Unit 10.0 mg/L LCS Qualifier	CI Unit mg/L	D lient S	Prepared ample ID: 0 %Rec 95 Cl	Analyzed 02/17/21 14:59 Lab Control S Prep Type: To %Rec. Limits 80 - 120 ient Sample ID Prep Type: To	Dil Fac 1 ample tal/NA : EQ-1 tal/NA
Analyte Total Dissolved Solids Lab Sample ID: LCS 180-346 Matrix: Water Analysis Batch: 346883 Analyte Total Dissolved Solids Lab Sample ID: 180-117074-3 Matrix: Water Analysis Batch: 346883	883/1	MB ssult 10.0	MB Qualifier	Spike Added 457	RL 10.0	LCS Result 436.0 DU	MDL Unit 10.0 mg/L LCS Qualifier DU	Unit mg/L	D lent S	Prepared ample ID: D %Rec 95 Cl	Analyzed 02/17/21 14:59 Lab Control S Prep Type: To %Rec. Limits 80-120 ient Sample ID Prep Type: To	Dil Fac 1 ample tal/NA : EQ-1 ttal/NA RPD
Analyte Total Dissolved Solids Lab Sample ID: LCS 180-3460 Matrix: Water Analysis Batch: 346883 Analyte Total Dissolved Solids Lab Sample ID: 180-117074-3 Matrix: Water Analysis Batch: 346883 Analyte Total Dissolved Solids	Re 883/1 DU Sample Result <10.0	MB ssult 10.0 Samj Qual	MB Qualifier ple ifier	Spike Added 457	RL 10.0	LCS Result 436.0 DU Result <10.0	MDL Unit 10.0 mg/L LCS Qualifier DU Qualifier	Unit mg/L Unit	D lent S	Prepared ample ID: D %Rec 95 Cl	Analyzed 02/17/21 14:59 Lab Control S Prep Type: To %Rec. Limits 80-120 ient Sample ID Prep Type: To RPD NC	Dil Fac 1 ample ttal/NA : EQ-1 ttal/NA RPD Limit 10
Analyte Total Dissolved Solids Lab Sample ID: LCS 180-3460 Matrix: Water Analysis Batch: 346883 Analyte Total Dissolved Solids Lab Sample ID: 180-117074-3 Matrix: Water Analysis Batch: 346883 Analyte Total Dissolved Solids Matrix: 000 0 - Badium: 2000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000 0 - 1000	Re 883/1 5 DU Sample Result <10.0 226. (CE	MB esult 10.0 Sam Qual	MB Qualifier ple ifier	Spike Added 457	RL 10.0	LCS Result 436.0 DU Result <10.0	MDL Unit 10.0 mg/L LCS Qualifier DU Qualifier	Unit mg/L Unit	D ient S	Prepared ample ID: D %Rec 95 CI	Analyzed 02/17/21 14:59 Lab Control S Prep Type: To %Rec. Limits 80-120 ient Sample ID Prep Type: To NC	Dil Fac 1 ample ttal/NA : EQ-1 ttal/NA RPD Limit 10
Analyte Total Dissolved Solids Lab Sample ID: LCS 180-3466 Matrix: Water Analysis Batch: 346883 Analyte Total Dissolved Solids Lab Sample ID: 180-117074-3 Matrix: Water Analysis Batch: 346883 Analyte Total Dissolved Solids Method: 903.0 - Radium-2 Lab Sample ID: MB 160-4989 Matrix: Water Analysis Batch: 501646	Re 883/1 5 DU Sample Result <10.0 226 (GF 81/23-A	MB esult 10.0 Samj Qual	MB Qualifier ple ifier	Spike Added 457	RL 10.0	LCS Result 436.0 DU Result <10.0	MDL Unit 10.0 mg/L LCS Qualifier DU Qualifier	Unit mg/L Unit mg/L	D	Prepared ample ID: D %Rec 95 Cl D Cl D lient Sam	Analyzed 02/17/21 14:59 Lab Control S Prep Type: To %Rec. Limits 80 - 120 ient Sample ID Prep Type: To NC ple ID: Method Prep Type: To Prep Batch: 4	Dil Fac 1 ample tal/NA : EQ-1 tal/NA <u>RPD</u> Limit 10 Blank tal/NA 98981
Analyte Total Dissolved Solids Lab Sample ID: LCS 180-3466 Matrix: Water Analysis Batch: 346883 Analyte Total Dissolved Solids Lab Sample ID: 180-117074-3 Matrix: Water Analysis Batch: 346883 Analyte Total Dissolved Solids Method: 903.0 - Radium-2 Lab Sample ID: MB 160-4989 Matrix: Water Analysis Batch: 501646	Re 883/1 5 DU Sample Result <10.0 226 (GF 81/23-A	MB esuit 10.0 Samp Qual	MB Qualifier ple ifier Count	Spike Added 457	RL 10.0	LCS Result 436.0 DU Result <10.0	MDL Unit 10.0 mg/L LCS Qualifier DU Qualifier	Unit mg/L	D1	Prepared ample ID: 0 %Rec 95 Cl 0	Analyzed 02/17/21 14:59 Lab Control S Prep Type: To %Rec. Limits 80 - 120 ient Sample ID Prep Type: To NC ple ID: Method Prep Type: To Prep Batch: 4	Dil Fac 1 ample tal/NA : EQ-1 tal/NA RPD Limit 10 Blank tal/NA
Analyte Total Dissolved Solids Lab Sample ID: LCS 180-3466 Matrix: Water Analysis Batch: 346883 Analyte Total Dissolved Solids Lab Sample ID: 180-117074-3 Matrix: Water Analysis Batch: 346883 Analyte Total Dissolved Solids Matrix: Water Analysis Batch: 501646 MB Analyte Matrix: Water Analysis Batch: 501646	Re 883/1 BBB3/1 BDU Sample Result <10.0	MB esult 10.0 Samj Qual	MB Qualifier ple ifier Jncert. Jncert.	Spike Added 457 Total Uncert. (2at+1)	RL 10.0	LCS Result 436.0 DU Result <10.0	MDL Unit 10.0 mg/L LCS Qualifier DU Qualifier	CI Unit mg/L Unit	D!	Prepared ample ID: D %Rec 95 - Cl D lient Samp Prepared	Analyzed 02/17/21 14:59 Lab Control S Prep Type: To %Rec. Limits 80-120 ient Sample ID Prep Type: To NC ple ID: Method Prep Type: To Prep Type: To Prep Batch: 4	Dil Fac 1 ample tal/NA : EQ-1 tal/NA RPD Limit 10 Blank tal/NA P098981
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Lab Sample I Matrix: Water Analysis Batu Analyte Radium-226 Carrier Lab Sample I Matrix: Water Analysis Batu Matrix: Water Analysis Batu Carrier Ba Carrier	D: MB 1 r ch: 5019 D: LCS r ch: 5016 	60-4991 46 MB Result -0.02075 MB %Yield 91.9 160-499 661 LCS Qualifier	33/23-A MB Qualifier U MB Qualifier 133/1-A Spike Added 11.3 Limits 40 - 110	Count Uncert. (20+/-) 0.0544 40 - 110 LCS Result 9.860	Total Uncert. (2σ+t) 0.0545	RL 1.00 Total Uncert. (20+/-) 1.02	MDC 0.121 RL 1.00	Unit pCi/L Clin MDC 0.104	Cli 	ent Samp Prepared 18/21 09:54 Prepared 18/21 09:54 mple ID: 	Analyze 03/15/21 1 Analyze 03/15/21 1 Analyze 03/15/21 1 Lab Com Prep Typ Prep Bal %Rec. Limits 75-125	thod I ee: Tot cch: 45 ed i6:54 trol Sa ee: Tot tch: 45	Blank al/NA 99133 Dil Fac 1 <i>Dil Fac</i> 1 sample al/NA 99133
Lab Sample I Matrix: Water Analysis Bate Radium-226 Carrier Ba Carrier Lab Sample I Analysis Bate Analysis Bate Carrier Ba Carrier Ba Carrier Lab Sample I	D: MB 1 r ch: 5019 D: LCS r ch: 5016 <u>LCS</u> %Yield 91.9 D: LCSE	60-4991 46 MB Result -0.02075 MB %Yield 97.9 160-499 661 LCS Qualifier 0 160-49	33/23-A MB Qualifier U MB Qualifier 133/1-A 133/1-A Spike Added 11.3 Limits 40 - 110 99133/2-A	Count Uncert. (20+/-) 0.0544 40 - 110 LCS Result 9.860	Total Uncert. (20+/-) 0.0545	RL 1.00 Total Uncert. (2c+/-) 1.02	MDC 0.121 RL 1.00	Unit pCi/L Clia 0.104	Cli - F 02/ 02/ P 02/ 02/ 02/ 02/ 02/ 02/ 02/ 02/	ent Samp Prepared 18/21 09:54 mple ID: - <u>%Rec</u> 87	Analyze 03/15/21 1 Analyze 03/15/21 1 Analyze 03/15/21 1 Lab Com Prep Bal %Rec. Limits 75-125	thod I e: Tot cch: 45 ed 1 6:54 trol Sa e: Tot cch: 45 ample	Blank al/NA 99133 Dil Fac 1 Dil Fac 1 mple al/NA 99133
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Lab Sample I Matrix: Water Analysis Bate Radium-226 Carrier Ba Carrier Lab Sample I Matrix: Water Analysis Bate Carrier Ba Carrier Ba Carrier Lab Sample I Matrix: Water Analysis Bate	D: MB 1 r ch: 5019 D: LCS r ch: 5016 <u>UCS</u> %Yield 91.9 D: LCSI r ch: 5016	60-4991 46 MB Result -0.02075 MB %Yield 97.9 160-499 661	33/23-A MB Qualifier U MB Qualifier 133/1-A Spike Added 11.3 Limits 40-110 09133/2-A	Count Uncert. (2σ+/-) 0.0544 40.110 LCS Result 9.860	Total Uncert. (20+/-) 0.0545	RL 1.00 - Total Uncert. (2c+/-) 1.02 Total	MDC 0.121 RL 1.00	Unit pCi/L Cli 0.104 Client S	Cli D2/ D2/ Pci/L Cli Cli Cli Cli Cli Cli Cli Cli Cli Cli	ent Samp Prepared 18/21 09:54 Prepared 18/21 09:54 mple ID: %Rec 87	Analyze Ositiszta a state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of th	thod I te: Tot tch: 49 dd 1 6:54 d trol Sa trol Sa trol Sa trol Sa trol Sa trol Sa trol Sa trol Sa tch: 49 tch: Blank al/NA 99133 Dil Fac 1 Dil Fac 1 mple al/NA 99133	
Lab Sample I Matrix: Water Analysis Bate Radium-226 Carrier Ba Carrier Analysis Bate Analysis Bate Carrier Ba Carrier Ba Carrier Lab Sample I Matrix: Water Analysis Bate Matrix: Water Analysis Bate	D: MB 1 r ch: 5019 D: LCS r ch: 5016 <u>UCS</u> %Vield 91.9 D: LCSE r ch: 5016	60-4991 46 MB Result -0.02075 MB %Yield 97.9 160-499 661 LCS Qualifier 0 160-49	33/23-A MB Qualifier U MB Qualifier 133/1-A 133/1-A Spike Added 11.3 Uimits 40 - 110 19133/2-A Spike Added	Count Uncert. (20+/-) 0.0544 40-110 LCS Result 9.860	Total Uncert. (20+/-) 0.0545 UCS Qual	RL 1.00 Total Uncert. (2α+/-) 1.02	MDC 0.121 RL 1.00	Unit pCi/L Clin MDC 0.104	Cli P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 02/ P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P 0 P P P P P P P P P P P P P	ent Samp Prepared 18/21 09:54 Prepared 18/21 09:54 mple ID: 87 9 ID: Lab %Rec	Analyze 03/15/21 1 Analyze 03/15/21 1 Analyze 03/15/21 1 Lab Com Prep Typ Prep Bal %Rec. Limits 75 - 125	thod I te: Tot tch: 45 ad trol Sa trol	Blank al/NA 99133 Dil Fac 1 1 Dil Fac 1 1 mple al/NA 99133 e Dup al/NA 99133 RER

Eurofins TestAmerica, Pittsburgh

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				QC	Samp	le Resu	ilts					
Client: HDR Inc Project/Site: Git	bons Ci	reek Ste	am Electric \$	Station						1	Job ID: 180-1	17061-
Method: 903	.0 - Ra	dium-3	226 (GFPC	C) (Con	tinued)							
Lab Sample II Matrix: Water Analysis Bate	D: LCSC :h: 5016	0 160-49 61	9133/2-A					Client S	ample	ID: Lab	Control Sam Prep Type: T Prep Batch:	ple Du otal/N/ 49913
	LCSD	LCSD										
Carrier	%Yield	Qualifier	Limits	2								
Method: 904	0 - Ra	dium-	40-110	3)								
		and in a		-1					1.		1054-0012	
Lab Sample II	D: MB 1	60-4989	91/23-A						Clie	ent Samp	le ID: Metho	d Blan
Analysis Bato	ch: 5004	32									Prep Batch:	49899
				Count	Total							
A		MB	MB	Uncert.	Uncert.		MDG	11-14			Analyzed	DUE
Radium-228		0.1733	U	0.236	(20+/-)	1.00	0 394	DGi/J	02/1	7/21 14:49	03/02/21 09:08	DIFa
FROMIN EEO		MD	MP	0.200	0.201	1.00	0.004	pone	0201		0000212100100	
Carrier		%Yield	MD Qualifier	Limits					P	repared	Analyzed	Dil Fa
Ba Carrier		91.6		40 - 110					02/1	7/21 14:48	03/02/21 09:08	
Y Carrier		86.0		40 - 110					02/1	7/21 14:48	03/02/21 09:08	
Matrix: Water Analysis Bate	ch: 5004	42	991/1-A			Total		CI	ent Sar	npie iD:	Prep Type: T Prep Batch:	otal/N/ 49899
			Spike	LCS	LCS	Uncert.					%Rec.	
Analyte			Added	Decult				1000		the second second second second second second second second second second second second second second second se		
Ded: 000			7.00	- di oi	Qual	(20+/-)	RL	MDC	Unit	%Rec	Limits	_
Radium-228			7.39	11.04	Qual	<u>(2σ+/-)</u> 1.32	RL 1.00	0.509	Unit pCi/L	%Rec 149	Limits 75 - 125	-
Radium-228	LCS	LCS	7.39	11.04	Qual	(2σ+/-) 1.32	RL 1.00	0.509	Unit pCi/L	%Rec 149	Limits 75 - 125	
Radium-228 Carrier Ba Carrier	LCS %Yield	LCS Qualifier	7.39	11.04	Qual + -	(2σ+/-) 1.32	1.00	0.509	Unit pCi/L	%Rec 149	Limits	_
Radium-228 Carrier Ba Carrier Y Carrier	LCS %Yield 85.6 72.5	LCS Qualifier	7.39 Limits 40 - 110 40 - 110	11.04	Qual * -	(2σ+/-) 1.32	RL 1.00	0.509	Unit pCi/L	%Rec 149	Limits	
Radium-228 Carrier Ba Carrier Y Carrier Lab Sample II Matrix: Water	LCS %Yield 85.6 72.5 D: LCSE	LCS Qualifier) 160-49	7.39 Limits 40 - 110 40 - 110 88991/2-A	11.04	Qual	1.32	RL 1.00	0.509	Unit pCi/L	%Rec 149	Limits 75-125 Control Samj Prep Type: T	ple Du otal/N
Radium-228 Carrier Ba Carrier Y Carrier Lab Sample II Matrix: Water Analysis Bato	LCS %Yield 85.6 72.5 D: LCSE ch: 5004	LCS Qualifier 0 160-49	7.39 Limits 40 - 110 40 - 110 88991/2-A	11.04	Qual	(2a+l-) 1.32	RL 1.00	0.509	Unit pCi/L	%Rec 149	Control Sam Prep Type: T Prep Batch:	ple Du otal/N 49899
Radium-228 Carrier Ba Carrier Y Carrier Lab Sample II Matrix: Water Analysis Bato	LCS %Yield 85.6 72.5 D: LCSE ch: 5004	LCS Qualifier 0 160-49	7.39 <u>Limits</u> 40 - 110 40 - 110 89991/2-A Spike	LCSD	Qual	(2σ+/-) 1.32 Total Uncert.	RL 1.00	0.509	Unit pCi/L	Mec 149	Limits 75-125 Control Sam Prep Type: T Prep Batch: %Rec.	ple Du otal/N 49899
Radium-228 Carrier Ba Carrier Y Carrier Lab Sample II Matrix: Water Analysis Bato Analyte	LCS %Yield 85.6 72.5 D: LCSE ch: 5004	LCS Qualifier) 160-49 42	7.39 Limits 40 - 110 40 - 110 89991/2-A Spike Added	LCSD Result	Qual	(2σ+/-) 1.32 Total Uncert. (2σ+/-)	RL 1.00	MDC 0.509 Client S	Unit pCi/L ample	%Rec 149	Limits 75.125 Control Sam Prep Type: T Prep Batch: %Rec. Limits RE	ple Du otal/N 49899 RE R Lim
Radium-228 Carrier Ba Carrier Y Carrier Lab Sample II Matrix: Water Analysis Bato Analyte Radium-228	LCS %Yield 85.6 72.5 D: LCSE ch: 5004	LCS Qualifier 0 160-49 42	7.39 Limits 40 - 110 40 - 110 08991/2-A Spike Added 7.39	LCSD Result 9.565	LCSD Qual	(2σ+/-) 1.32 Total Uncert. (2σ+/-) 1.18	RL 1.00 RL 1.00	MDC 0.509 Client S MDC 0.506	Unit pCi/L ample Unit pCi/L	%Rec 149 ID: Lab %Rec 129	Limits 75.125 Control Sam Prep Type: T Prep Batch: %Rec. Limits 75.125 0.5	ple Du iotal/N 49899 RE R Lim 9
Radium-228 Carrier Ba Carrier Y Carrier Lab Sample II Matrix: Water Analysis Bato Analyte Radium-228	LCS %Yield 85.6 72.5 D: LCSE ch: 5004	LCS Qualifier 0 160-49 42 LCSD	7.39 <u>Limits</u> 40 - 110 40 - 110 98991/2-A Spike Added 7.39	LCSD Result 9.565	LCSD Qual	Total Uncert. (2σ+/-) 1.32	RL 1.00 RL 1.00	MDC 0.509 Client S MDC 0.506	Unit pCi/L ample Unit pCi/L	%Rec 149 ID: Lab %Rec 129	Limits 75-125 Control Sam Prep Type: T Prep Batch: %Rec. Limits 75-125 0.5	ple Du otal/N/ 49899 RE R 9
Radium-228 Carrier Ba Carrier Y Carrier Lab Sample II Matrix: Water Analysis Bato Analyte Radium-228 Carrier	LCS %Yield 85.6 72.5 D: LCSE ch: 5004 LCSD %Yield	LCS Qualifier 0 160-49 42 LCSD Qualifier	7.39 <u>Limits</u> 40 - 110 40 - 110 18991/2-A Spike <u>Added</u> 7.39 Limits	LCSD Result 9.565	Qual	(204/-) 1.32 Total Uncert. (204/-) 1.18	RL 1.00 RL 1.00	MDC 0.509 Client S MDC 0.506	Unit pCi/L ample Unit pCi/L	%Rec 149 ID: Lab %Rec 129	Limits 75.125 Control Sam Prep Type: T Prep Batch: %Rec. Limits RE 75.125 0.5	ple Du otal/N/ 49899 RE R Lim 9
Radium-228 Carrier Ba Carrier Y Carrier Lab Sample II Matrix: Water Analysis Bato Analyte Radium-228 Carrier Ba Carrier Ba Carrier	LCS %Yield 85.6 72.5 D: LCSE ch: 5004 LCSD %Yield 82.6	LCS Qualifier 0 160-49 42 LCSD Qualifier	7.39 <u>Limits</u> 40 - 110 40 - 110 18991/2-A Spike Added 7.39 <u>Limits</u> 40 - 110	LCSD Result 9.565	Cual LCSD Qual	(234/-) 1.32 Total Uncert. (204/-) 1.18	RL 1.00 RL 1.00	MDC 0.509 Client S MDC 0.506	Unit pCi/L ample Unit pCi/L	%Rec 149 ID: Lab %Rec 129	Limits 75.125 Control Sam Prep Type: T Prep Batch: %Rec. Limits 75.125 REC. 0.5	ple Du otal/N. 49899 RE R _ Lim
Radium-228 Carrier Ba Carrier Y Carrier Lab Sample II Matrix: Water Analysis Batc Analyte Radium-228 Carrier Ba Carrier Y Carrier	LCS %Yield 85.6 72.5 D: LCSE ch: 5004 LCSD %Yield 82.6 77.4	LCS Qualifier 0 160-49 42 LCSD Qualifier	7.39 <u>Limits</u> 40 - 110 40 - 110 89991/2-A Spike Added 7.39 <u>Limits</u> 40 - 110 40 - 110	LCSD Result 9.565	Cual LCSD Qual	Total Uncert. (2σ+/-) 1.18	RL 1.00 RL 1.00	MDC 0.509 Client S MDC 0.506	Unit pCi/L ample Unit pCi/L	%Rec 149 ID: Lab %Rec 129	Limits 75 - 125 Control Sam Prep Type: T Prep Batch: %Rec. Limits 75 - 125 RE 0.5	ple Du otal/N/ 49899 RE R 9
Radium-228 Carrier Ba Carrier Y Carrier Lab Sample II Matrix: Water Analysis Batc Analyte Radium-228 Carrier Ba Carrier Y Carrier Lab Sample II	LCS %Yield 85.6 72.5 D: LCSE ch: 5004 LCSD %Yield 82.6 77.4 D: MB 1	LCS Qualifier 0 160-49 42 LCSD Qualifier 60-4991	7.39 <u>Limits</u> 40 - 110 40 - 110 89991/2-A Spike Added 7.39 <u>Limits</u> 40 - 110 40 - 110 36/23-A	LCSD Result 9.565	Cual LCSD Qual	(234/-) 1.32 Total Uncert. (234/-) 1.18	RL 1.00 RL 1.00	MDC 0.509 Client S MDC 0.506	Unit pCi/L unit pCi/L	%Rec 149 ID: Lab %Rec 129 ent Samp	Limits 75.125 Control Sam Prep Type: T Prep Batch: %Rec. Limits 75.125 REC. 0.5	ple Du otal/N/ 49899 RE R 9 9
Radium-228 Carrier Ba Carrier Y Carrier Lab Sample II Matrix: Water Analyte Radium-228 Carrier Ba Carrier Y Carrier Lab Sample II Matrix: Water	LCS %Yield 85.6 72.5 D: LCSE ch: 5004 LCSD %Yield 82.6 77.4 D: MB 1	LCS Qualifier 0 160-49 42 LCSD Qualifier 60-4991	7.39 <u>Limits</u> 40 - 110 40 - 110 18991/2-A Spike Added 7.39 <u>Limits</u> 40 - 110 40 - 110 36/23-A	LCSD Result 9.565	Cual LCSD Qual	(204/-) 1.32 Total Uncert. (204/-) 1.18	RL 1.00 RL 1.00	MDC 0.509 Client S <u>MDC</u> 0.506	Unit pCi/L Unit pCi/L Clie	%Rec 149 ID: Lab - %Rec 129	Limits 75-125 Control Sam Prep Type: T Prep Batch: %Rec. Limits 75-125 0.5 Ne ID: Metho Prep Type: T	ple Du otal/NJ 49899 RE R Lim 9 d Blan
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Prep Batch: 502687 Prep Batch: 502088 Analysis Batch: 502687 Count Total Prep Batch: 502088 Analyte Result Qualifier (2σ+/-) RL MDC Unit Prepared Analyzed Dil Fac Analyte Result Qualifier (2σ+/-) RL MDC Unit Prepared Analyzed Dil Fac Analyte Result Qualifier Limits Analyzed Dil Fac O3/16/21 16:51 O3/22/21 13:10 Dil Fac Sa Carrier 88.2 40.110 O3/16/21 16:51 O3/22/21 13:10 Dil Fac Sa Carrier 84.5 40.110 O3/16/21 16:51 O3/22/21 13:10 Dil Fac Lab Sample ID: LCS 160-502088/1-A Client Sample ID: Lab Control Sample Prep Batch: 502088 Prep Batch: 502088 Matrix: Water Total Kec Kec Kec Kec Malyte Added Result Qual Qual Added Actor Area Actor Client	Lab Sample Matrix: Wate	ID: MB 1 er	60-5020)88/16-A						C	lient Samp	ole ID: Metho Prep Type:	od Blank Total/NA
Iotal MB MB Uncert. Uncert. MDC Unit Prepared Analyzed Dil Fac Radium-228 0.1107 U 0.308 0.308 1.00 0.534 pCi/L 03/16/21 16:51 03/22/21 13:10 1 MB MB MB Imits Imits Prepared Analyzed Dil Fac 2arrier % Yield Qualifier Limits 03/16/21 16:51 03/22/21 13:10 1 3a Carrier 88.2 40.110 03/16/21 16:51 03/22/21 13:10 1 Lab Sample ID: LCS 160-502088/1-A Client Sample ID: Lab Control Sample Prep Type: Total/NA Vatrix: Water Prep Batch: 502708 Prep Batch: 502088 Prep Batch: 502088 Valyte Added Result Qual (2α+/-) RL MDC Unit %Rec.	Analysis Ba	tch: 5026	587		6							Prep Batch	: 502088
MB MB Limits Qualifier (2σ+/-) RL MDC Unit Prepared Analyzed Dil Fac Radium-228 0.1107 0 0.308 1.00 0.534 pCi/L 03/16/21 16:51 03/22/21 13:10 1 Carrier % Vield Qualifier Limits 03/16/21 16:51 03/22/21 13:10 1 2arrier 88.2 40.110 03/16/21 16:51 03/22/21 13:10 1 1 Carrier 84.5 40.110 03/16/21 16:51 03/22/21 13:10 1 Lab Sample ID: LCS 160-502088/1-A Client Sample ID: Lab Control Sample Prep Type: Total/NA Vatrix: Water Prep Batch: 502708 Prep Batch: 502088 Prep Batch: 502088 Total Spike LCS LCS Uncert. %Rec. valyte Added Result Qual (2σ+/-) RL MDC Unit %Rec.			MP	MB	Count	Iotal							
MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MB MD Maintysted Maintysted Maintysted Maintysted Maintysted Maintysted Maintysted Maintysted Maintysted MB MB MI (10 / 10 / 10 / 10 / 10 / 10 / 10 / 10	Analyte		Result	Qualifier	(2g+/-)	(2a+/-)	RI	MDC	Unit		Prepared	Analyzed	Dil Fac
MB MB Carrier % Vield Qualifier Limits Prepared Analyzed Dil Fac 3a Carrier 88.2 40.110 03/16/21 16.51 03/22/21 13:10 1 Carrier 84.5 40.110 03/16/21 16.51 03/22/21 13:10 1 Lab Sample ID: LCS 160-502088/1-A Client Sample ID: Lab Control Sample Prep Type: Total/NA Matrix: Water Prep Batch: 502088 Prep Batch: 502088 Analysis Batch: 502708 Total %Rec. Valyte Added Result Qual (Zo+/-) Nalyte Added Result Qual 20/10	Radium-228		0.1107	U	0.308	0.308	1.00	0.534	pCi/L	03	/16/21 16:51	03/22/21 13:1	0 1
Mild Differ Limits Prepared Analyzed Dil Fac 3a Carrier 88.2 40.110 03/16/21 16.51 03/22/21 13:10 11 3a Carrier 84.5 40.110 03/16/21 16.51 03/22/21 13:10 1 .ch Sample ID: LCS 160-502088/1-A Client Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Contr				MD					1.00000000000				
Sa Carrier 88.2 40.110 03/16/21 16:51 03/22/21 13:10 11 Y Carrier 84.5 40.110 03/16/21 16:51 03/22/21 13:10 1 Lab Sample ID: LCS 160-502088/1-A Client Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sample ID: Lab Control Sam	Carrier		WB %Yield	Qualifier	Limits						Prepared	Analyzed	Dil Fac
Y Carrier 84.5 40.110 03/16/21 16:51 03/22/21 13:10 1 Lab Sample ID: LCS 160-502088/1-A Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA Analysis Batch: 502708 Total Spike LCS LCS Uncert. Value Added Result Qual (20+/-) RL MDC Unit MDC Unit	Ba Carrier		88.2	quanner	40 - 110					03	/16/21 16:51	03/22/21 13:1	0 1
Lab Sample ID: LCS 160-502088/1-A Vatrix: Water Analysis Batch: 502708 Total Spike LCS LCS Uncert. Nalyte Added Result Qual (2d+/-) RL MDC Unit %Rec Limits	Y Carrier		84.5		40 - 110					03	/16/21 16:51	03/22/21 13:1	0 1
Analysis Batch: 502708 Prep Batch: 502088 Total Spike LCS LCS Uncert. %Rec. Analyte Added Result Qual (2a+/-) RL MDC Unit %Rec Limits	Lab Sample Matrix: Wate	ID: LCS	160-502	088/1-A					Cli	ent S	ample ID:	Lab Contro Prep Type:	I Sample Total/NA
Total Spike LCS LCS Uncert. %Rec. Analyte Added Result Qual (2c+/-) RL MDC Unit %Rec Limits	Analysis Ba	tch: 5027	708									Prep Batch	: 502088
Spike LCS LCS Uncert. %Rec. Analyte Added Result Qual (2c+/-) RL MDC Unit %Rec. Limits	100						Total					95. Marcanana	
Analyte Added Result Qual (2σ+/-) RL MDC Unit %Rec Limits	283203			Spike	LCS	LCS	Uncert.	222	1242925	122-22	2004200	%Rec.	
	Analyte			Added	Result	Qual	(20+/-)	RL	MDC	Unit	%Rec	Limits	

				QC	Sam	ple Res	ults						
Client: HDR In Project/Site: 0	nc Gibbons C	reek Stean	n Electric S	tation		14					Job ID: 18	30-117	061-1
Method: 90	04.0 - Ra	dium-22	8 (GFPC) (Con	tinued)							
Lab Sample	ID: LCS	160-50208	8/1-A					Cli	ent Sa	mple ID:	Lab Con	trol Sa	mple
Matrix: Wat	er										Prep Typ	e: Tot	al/NA
Analysis Ba	atch: 5027	708									Prep Ba	tch: 50)2088
	LCS	LCS											
Carrier	%Yield	Qualifier	Limits										
Ba Carrier	90.0		40 - 110										
Y Carrier	82.2		40 - 110										
Lab Sample	ID: LCS	D 160-5020	088/2-A					Client S	ample	ID: Lab	Control S	ample	e Dup
Matrix: Wat	er										Prep Typ	e: Tot	al/NA
Analysis Ba	atch: 5027	708									Prep Ba	tch: 50	02088
						Total							
			Spike	LCSD	LCSD	Uncert.					%Rec.		RER
Analyte			Added	Result	Qual	(20+/-)	RL	MDC	Unit	%Rec	Limits	RER	Limit
Radium-228			9.79	11.98		1.46	1.00	0.482	pCi/L	122	75 - 125	0.41	1
	LCSD	LCSD											
Carrier	%Yield	Qualifier	Limits										
Ba Carrier	79.4		40 - 110										
Y Carrier	82.6		40 - 110										

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Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

HPLC/IC

Analysis Batch: 346554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
180-117073-1	SFL MW-3	Total/NA	Water	EPA 9056A		100
180-117073-1	SFL MW-3	Total/NA	Water	EPA 9056A		Э
180-117073-2	SFL MW-4	Total/NA	Water	EPA 9056A		
180-117073-2	SFL MW-4	Total/NA	Water	EPA 9056A		
180-117073-3	SFL MW-7	Total/NA	Water	EPA 9056A		1.000
180-117073-3	SFL MW-7	Total/NA	Water	EPA 9056A		
180-117073-4	SFL MW-6	Total/NA	Water	EPA 9056A		
180-117073-4	SFL MW-6	Total/NA	Water	EPA 9056A		
180-117073-5	SSP MW-2	Total/NA	Water	EPA 9056A		
180-117073-5	SSP MW-2	Total/NA	Water	EPA 9056A		
180-117074-1	AP MW-5	Total/NA	Water	EPA 9056A		
180-117074-1	AP MW-5	Total/NA	Water	EPA 9056A		
180-117074-2	AP MW-4	Total/NA	Water	EPA 9056A		
180-117074-2	AP MW-4	Total/NA	Water	EPA 9056A		14
180-117074-3	EQ-1	Total/NA	Water	EPA 9056A		
180-117078-1	MNW-15	Total/NA	Water	EPA 9056A		
180-117078-1	MNW-15	Total/NA	Water	EPA 9056A		
180-117078-2	DUP-1	Total/NA	Water	EPA 9056A		100
180-117078-2	DUP-1	Total/NA	Water	EPA 9056A		13
180-117078-3	SFL MW-2	Total/NA	Water	EPA 9056A		
180-117078-3	SFL MW-2	Total/NA	Water	EPA 9056A		
180-117078-4	SFL MW-5	Total/NA	Water	EPA 9056A		
180-117078-4	SFL MW-5	Total/NA	Water	EPA 9056A		
180-117078-5	FB-1	Total/NA	Water	EPA 9056A		
MB 180-346554/49	Method Blank	Total/NA	Water	EPA 9056A		
MB 180-346554/6	Method Blank	Total/NA	Water	EPA 9056A		
LCS 180-346554/48	Lab Control Sample	Total/NA	Water	EPA 9056A		
LCS 180-346554/5	Lab Control Sample	Total/NA	Water	EPA 9056A		

Analysis Batch: 346770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117061-1	MNW-18	Total/NA	Water	EPA 9056A	1.2
180-117061-1	MNW-18	Total/NA	Water	EPA 9056A	
180-117061-2	SSP/AP MW-1	Total/NA	Water	EPA 9056A	
180-117061-2	SSP/AP MW-1	Total/NA	Water	EPA 9056A	
180-117062-1	SSP MW-3	Total/NA	Water	EPA 9056A	
180-117062-1	SSP MW-3	Total/NA	Water	EPA 9056A	
180-117062-2	FB-2	Total/NA	Water	EPA 9056A	
180-117062-3	SSP MW-4	Total/NA	Water	EPA 9056A	
180-117062-3	SSP MW-4	Total/NA	Water	EPA 9056A	
180-117062-4	AP MW-3	Total/NA	Water	EPA 9056A	
180-117062-4	AP MW-3	Total/NA	Water	EPA 9056A	
180-117062-5	AP MW-1D	Total/NA	Water	EPA 9056A	
180-117062-5	AP MW-1D	Total/NA	Water	EPA 9056A	
MB 180-346770/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-346770/5	Lab Control Sample	Total/NA	Water	EPA 9056A	

QC Association Summary

Project/Site: Gibbons Creek Steam Electric Station

Metals Prep Batch: 346437

Client: HDR Inc

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117061-1	MNW-18	Total/NA	Water	7470A	
180-117061-2	SSP/AP MW-1	Total/NA	Water	7470A	
180-117062-1	SSP MW-3	Total/NA	Water	7470A	
180-117062-2	FB-2	Total/NA	Water	7470A	
80-117062-3	SSP MW-4	Total/NA	Water	7470A	
80-117062-4	AP MW-3	Total/NA	Water	7470A	
80-117062-5	AP MW-1D	Total/NA	Water	7470A	
180-117074-1	AP MW-5	Total/NA	Water	7470A	
180-117074-2	AP MW-4	Total/NA	Water	7470A	
180-117074-3	EQ-1	Total/NA	Water	7470A	
AB 180-346437/1-A	Method Blank	Total/NA	Water	7470A	
CS 180-346437/2-A	Lab Control Sample	Total/NA	Water	7470A	
rep Batch: 346793					
ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
80-117073-1	SFL MW-3	Total Recoverable	Water	3005A	
80-117073-2	SFL MW-4	Total Recoverable	Water	3005A	
180-117073-3	SFL MW-7	Total Recoverable	Water	3005A	
80-117073-4	SFL MW-6	Total Recoverable	Water	3005A	
MB 180-346793/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-346793/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 346794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117073-5	SSP MW-2	Total Recoverable	Water	3005A	-0255 - 55
MB 180-346794/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-346794/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 346914

180-117078-4

180-117078-5

MB 180-346981/1-A

SFL MW-5

Method Blank

FB-1

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117061-1	MNW-18	Total Recoverable	Water	3005A	100
180-117061-2	SSP/AP MW-1	Total Recoverable	Water	3005A	
180-117062-1	SSP MW-3	Total Recoverable	Water	3005A	
180-117062-2	FB-2	Total Recoverable	Water	3005A	
180-117062-3	SSP MW-4	Total Recoverable	Water	3005A	
180-117062-4	AP MW-3	Total Recoverable	Water	3005A	
180-117062-5	AP MW-1D	Total Recoverable	Water	3005A	
MB 180-346914/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-346914/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
Prep Batch: 346981					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117074-1	AP MW-5	Total Recoverable	Water	3005A	
180-117074-2	AP MW-4	Total Recoverable	Water	3005A	
180-117074-3	EQ-1	Total Recoverable	Water	3005A	
180-117078-1	MNW-15	Total Recoverable	Water	3005A	
180-117078-2	DUP-1	Total Recoverable	Water	3005A	
180-117078-3	SFL MW-2	Total Recoverable	Water	3005A	

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Total Recoverable

Total Recoverable

Total Recoverable Water

Water

Water

3005A

3005A

3005A

Eurofins TestAmerica, Pittsburgh

Job ID: 180-117061-1

Job ID: 180-117061-1

Pro	ect/Site:	Gibbons	Creek	Steam	Electric	Station	
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Metals (Continued)

Client: HDR Inc

Prep Batch: 346981 (Continued) Lab Sample ID **Client Sample ID** Prep Type Method Matrix Prep Batch LCS 180-346981/2-A 3005A Lab Control Sample Total Recoverable Water 180-117074-1 MS AP MW-5 Total Recoverable 3005A Water 180-117074-1 MSD AP MW-5 Total Recoverable 3005A Water Analysis Batch: 347047 Lab Sample ID **Client Sample ID** Prep Type Matrix Method Prep Batch 180-117073-1 SFL MW-3 Total Recoverable EPA 6020B 346793 Water 180-117073-2 SFL MW-4 Total Recoverable Water EPA 6020B 346793 180-117073-3 SFL MW-7 Total Recoverable Water EPA 6020B 346793 180-117073-4 SFL MW-6 Total Recoverable EPA 6020B 346793 Water 180-117073-5 SSP MW-2 Total Recoverable Water EPA 6020B 346794 MB 180-346793/1-A Method Blank Total Recoverable Water EPA 6020B 346793 346794 MB 180-346794/1-A Method Blank Total Recoverable Water EPA 6020B LCS 180-346793/2-A Lab Control Sample Total Recoverable EPA 6020B 346793 Water LCS 180-346794/2-A Lab Control Sample Total Recoverable Water EPA 6020B 346794 Analysis Batch: 347383 Lab Sample ID **Client Sample ID** Prep Type Matrix Method Prep Batch 180-117061-1 **MNW-18** Total Recoverable Water EPA 6020B 346914 180-117061-2 SSP/AP MW-1 Total Recoverable Water EPA 6020B 346914 180-117062-1 SSP MW-3 Total Re rable **FPA 6020B** 346914

100-11/002-1	001 1111-0	TOTAL LICEOVERDDIE	**cicor	LIAOOZOD	540514
180-117062-2	FB-2	Total Recoverable	Water	EPA 6020B	346914
180-117062-3	SSP MW-4	Total Recoverable	Water	EPA 6020B	346914
180-117062-4	AP MW-3	Total Recoverable	Water	EPA 6020B	346914
180-117062-5	AP MW-1D	Total Recoverable	Water	EPA 6020B	346914
180-117074-1	AP MW-5	Total Recoverable	Water	EPA 6020B	346981
180-117074-2	AP MW-4	Total Recoverable	Water	EPA 6020B	346981
180-117074-3	EQ-1	Total Recoverable	Water	EPA 6020B	346981
180-117078-1	MNW-15	Total Recoverable	Water	EPA 6020B	346981
180-117078-2	DUP-1	Total Recoverable	Water	EPA 6020B	346981
180-117078-3	SFL MW-2	Total Recoverable	Water	EPA 6020B	346981
180-117078-4	SFL MW-5	Total Recoverable	Water	EPA 6020B	346981
180-117078-5	FB-1	Total Recoverable	Water	EPA 6020B	346981
MB 180-346914/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	346914
MB 180-346981/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	346981
LCS 180-346914/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	346914
LCS 180-346981/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	346981
180-117074-1 MS	AP MW-5	Total Recoverable	Water	EPA 6020B	346981
180-117074-1 MSD	AP MW-5	Total Recoverable	Water	EPA 6020B	346981

Analysis Batch: 347409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117061-1	MNW-18	Total/NA	Water	EPA 7470A	346437
180-117061-2	SSP/AP MW-1	Total/NA	Water	EPA 7470A	346437
180-117062-1	SSP MW-3	Total/NA	Water	EPA 7470A	346437
180-117062-2	FB-2	Total/NA	Water	EPA 7470A	346437
180-117062-3	SSP MW-4	Total/NA	Water	EPA 7470A	346437
180-117062-4	AP MW-3	Total/NA	Water	EPA 7470A	346437
180-117062-5	AP MW-1D	Total/NA	Water	EPA 7470A	346437
180-117074-1	AP MW-5	Total/NA	Water	EPA 7470A	346437
180-117074-2	AP MW-4	Total/NA	Water	EPA 7470A	346437

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QC Association Summary

Job ID: 180-117061-1

Project/Site: Gibbons Creek Steam Electric Station

Metals (Continued)

Client: HDR Inc

Analysis Batch: 347409 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117074-3	EQ-1	Total/NA	Water	EPA 7470A	346437
MB 180-346437/1-A	Method Blank	Total/NA	Water	EPA 7470A	346437
LCS 180-346437/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	346437
Prep Batch: 347430					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117073-1	SFL MW-3	Total/NA	Water	7470A	
180-117073-2	SFL MW-4	Total/NA	Water	7470A	
180-117073-3	SFL MW-7	Total/NA	Water	7470A	
180-117073-4	SFL MW-6	Total/NA	Water	7470A	
180-117073-5	SSP MW-2	Total/NA	Water	7470A	
180-117078-1	MNW-15	Total/NA	Water	7470A	
180-117078-2	DUP-1	Total/NA	Water	7470A	
180-117078-3	SFL MW-2	Total/NA	Water	7470A	
180-117078-4	SFL MW-5	Total/NA	Water	7470A	
180-117078-5	FB-1	Total/NA	Water	7470A	
MB 180-347430/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-347430/2-A	Lab Control Sample	Total/NA	Water	7470A	

Lab Sample ID **Client Sample ID** Prep Type Matrix Method Prep Batch 180-117073-1 SFL MW-3 Total/NA Water EPA 7470A 347430 180-117073-2 SFL MW-4 Total/NA Water EPA 7470A 347430 SFL MW-7 180-117073-3 Total/NA EPA 7470A 347430 Water SFL MW-6 EPA 7470A 347430 180-117073-4 Total/NA Water 180-117073-5 SSP MW-2 Total/NA Water EPA 7470A 347430 **MNW-15** EPA 7470A 180-117078-1 Total/NA Water 347430 180-117078-2 DUP-1 EPA 7470A 347430 Total/NA Water 180-117078-3 SFL MW-2 EPA 7470A 347430 Total/NA Water 180-117078-4 SFL MW-5 Total/NA Water EPA 7470A 347430 180-117078-5 FB-1 EPA 7470A 347430 Total/NA Water MB 180-347430/1-A 347430 Method Blank Total/NA EPA 7470A Water LCS 180-347430/2-A Lab Control Sample Total/NA Water EPA 7470A 347430

Analysis Batch: 347575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117061-1	MNW-18	Total Recoverable	Water	EPA 6020B	346914
180-117061-2	SSP/AP MW-1	Total Recoverable	Water	EPA 6020B	346914
180-117062-1	SSP MW-3	Total Recoverable	Water	EPA 6020B	346914
180-117062-2	FB-2	Total Recoverable	Water	EPA 6020B	346914
180-117062-3	SSP MW-4	Total Recoverable	Water	EPA 6020B	346914
180-117062-4	AP MW-3	Total Recoverable	Water	EPA 6020B	346914
180-117062-5	AP MW-1D	Total Recoverable	Water	EPA 6020B	346914
MB 180-346914/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	346914
MB 180-346981/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	346981
LCS 180-346914/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	346914
LCS 180-346981/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	346981
Analysis Batch: 347	728				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117078-2	DUP-1	Total Recoverable	Water	EPA 6020B	346981

Eurofins TestAmerica, Pittsburgh

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Job ID: 180-117061-1

Proje	ect/Site:	Gibbons	Creek	Steam	Electric	Station	
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Metals (Continued)

Client: HDR Inc

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Analysis Batch: 347728 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117078-3	SFL MW-2	Total Recoverable	Water	EPA 6020B	346981
180-117078-4	SFL MW-5	Total Recoverable	Water	EPA 6020B	346981
180-117078-5	FB-1	Total Recoverable	Water	EPA 6020B	346981

Analysis Batch: 347908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
180-117074-1	AP MW-5	Total Recoverable	Water	EPA 6020B	346981	-
180-117074-2	AP MW-4	Total Recoverable	Water	EPA 6020B	346981	
180-117074-3	EQ-1	Total Recoverable	Water	EPA 6020B	346981	
180-117078-1	MNW-15	Total Recoverable	Water	EPA 6020B	346981	
MB 180-346981/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	346981	-
LCS 180-346981/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	346981	
180-117074-1 MS	AP MW-5	Total Recoverable	Water	EPA 6020B	346981	
180-117074-1 MSD	AP MW-5	Total Recoverable	Water	EPA 6020B	346981	1

General Chemistry

Analysis Batch: 346611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117061-1	MNW-18	Total/NA	Water	SM 2540C	28
180-117061-2	SSP/AP MW-1	Total/NA	Water	SM 2540C	
180-117073-4	SFL MW-6	Total/NA	Water	SM 2540C	
180-117078-1	MNW-15	Total/NA	Water	SM 2540C	
180-117078-2	DUP-1	Total/NA	Water	SM 2540C	
180-117078-3	SFL MW-2	Total/NA	Water	SM 2540C	
180-117078-4	SFL MW-5	Total/NA	Water	SM 2540C	
180-117078-5	FB-1	Total/NA	Water	SM 2540C	
MB 180-346611/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-346611/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-117078-1 DU	MNW-15	Total/NA	Water	SM 2540C	

Analysis Batch: 346881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117062-1	SSP MW-3	Total/NA	Water	SM 2540C	
180-117062-2	FB-2	Total/NA	Water	SM 2540C	
180-117062-3	SSP MW-4	Total/NA	Water	SM 2540C	
180-117062-4	AP MW-3	Total/NA	Water	SM 2540C	
180-117062-5	AP MW-1D	Total/NA	Water	SM 2540C	
180-117073-1	SFL MW-3	Total/NA	Water	SM 2540C	
180-117073-2	SFL MW-4	Total/NA	Water	SM 2540C	
180-117073-3	SFL MW-7	Total/NA	Water	SM 2540C	
180-117073-5	SSP MW-2	Total/NA	Water	SM 2540C	
180-117074-1	AP MW-5	Total/NA	Water	SM 2540C	
180-117074-2	AP MW-4	Total/NA	Water	SM 2540C	
MB 180-346881/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-346881/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-117062-2 DU	EB.2	Total/NA	Water	SM 2540C	

Analysis Batch: 346883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117074-3	EQ-1	Total/NA	Water	SM 2540C	

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

General Chemistry (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-346883/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-346883/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-117074-3 DU	EQ-1	Total/NA	Water	SM 2540C	
Rad					
Prep Batch: 498981					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
180-117061-1	MNW-18	Total/NA	Water	PrecSep-21	Trop Buto
180-117061-2	SSP/AP MW-1	Total/NA	Water	PrecSep-21	
180-117062-1	SSP MW-3	Total/NA	Water	PrecSep-21	
180-117062-2	FB-2	Total/NA	Water	PrecSep-21	
180-117062-3	SSP MW-4	Total/NA	Water	PrecSep-21	
180-117062-4	AP MW-3	Total/NA	Water	PrecSep-21	
180-117062-5	AP MW-1D	Total/NA	Water	PrecSep-21	
180-117073-1	SEL MW-3	Total/NA	Water	PrecSep-21	
180-117073-2	SEL MW-4	Total/NA	Water	PrecSep-21	
180-117073-3	SFL MW-7	Total/NA	Water	PrecSep-21	
180-117073-4	SEL MW-6	Total/NA	Water	PrecSep-21	
180-117073-5	SSP MW-2	Total/NA	Water	PrecSep-21	
180-117074-1	AP MW-5	Total/NA	Water	PrecSep-21	
180-117074-2	AP MW-4	Total/NA	Water	PrecSep-21	
180-117074-3	EQ-1	Total/NA	Water	PrecSep-21	
180-117078-1	MNIW-15	Total/NA	Water	PrecSep-21	
180-117078-2	DUP-1	Total/NA	Water	PrecSep-21	
MB 160-408081/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCC 160 409091/1 A	Lob Control Somolo	Total/NA	Water	Proceep-21	
LCSD 160-490901/1-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	
Cost 100-45050 1/2-4	Lab Control Sample Dup	Iotainio	vvalci	Fieldep-21	
			-		
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-11/062-2	FB-2	Total/NA	Vvator	PrecSep_0	
180-11/074-3	EQ-1	Total/NA	Water	PrecSep_0	
180-11/0/8-1	MNW-15	Total/NA	Water	PrecSep_0	
180-11/0/8-2	DUP-1	Total/NA	vvater	PrecSep_0	
MB 160-498991/23-A	Method Blank	Total/NA	Water	PrecSep_0	
1.00.100.10000111.1		1007 A. 1 A. 1 A. 1		PrecSep 0	
LCS 160-498991/1-A	Lab Control Sample	Total/NA	Water	Treadup_d	
LCS 160-498991/1-A LCSD 160-498991/2-A	Lab Control Sample Lab Control Sample Dup	Total/NA Total/NA	Water Water	PrecSep_0	
LCS 160-498991/1-A LCSD 160-498991/2-A Prep Batch: 499133	Lab Control Sample Lab Control Sample Dup	Total/NA Total/NA	Water Water	PrecSep_0	
LCS 160-498991/1-A LCSD 160-498991/2-A Prep Batch: 499133 Lab Sample ID	Lab Control Sample Lab Control Sample Dup Client Sample ID	Total/NA Total/NA Prep Type	Water Water Matrix	PrecSep_0	Prep Batch
LCS 160-498991/1-A LCSD 160-498991/2-A Prep Batch: 499133 Lab Sample ID 180-117078-3	Lab Control Sample Lab Control Sample Dup Client Sample ID SFL MW-2	Total/NA Total/NA Prep Type Total/NA	Water Water Matrix Water	PrecSep_0 Method PrecSep-21	Prep Batcl
LCS 160-498991/1-A LCSD 160-498991/2-A Prep Batch: 499133 Lab Sample ID 180-117078-3 180-117078-4	Lab Control Sample Lab Control Sample Dup Client Sample ID SFL MW-2 SFL MW-5	Total/NA Total/NA Prep Type Total/NA Total/NA	Water Water Matrix Water Water	PrecSep_0 Method PrecSep-21 PrecSep-21	Prep Batcl
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Job ID: 180-117061-1

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Job ID: 180-117061-1

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Chain of Custody Record

Eurofins TestAmerica, Pittsburgh 301 Apha Drive RIOC Park Pittsburgh, PA 15238 Phone (412) 963-7058 Fax (412) 963-2468

Client: HDR Inc Project/Site: Gibbons Creek Steam Electric Station

Rad (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117078-4	SFL MW-5	Total/NA	Water	PrecSep_0	
180-117078-5	FB-1	Total/NA	Water	PrecSep_0	
MB 160-499136/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-499136/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-499136/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	
Prep Batch: 502088					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117061-1	MNW-18	Total/NA	Water	PrecSep_0	
180-117061-2	SSP/AP MW-1	Total/NA	Water	PrecSep_0	
180-117062-1	SSP MW-3	Total/NA	Water	PrecSep_0	
180-117062-3	SSP MW-4	Total/NA	Water	PrecSep_0	
180-117062-4	AP MW-3	Total/NA	Water	PrecSep_0	
180-117062-5	AP MW-1D	Total/NA	Water	PrecSep_0	
180-117073-1	SFL MW-3	Total/NA	Water	PrecSep_0	
180-117073-2	SFL MW-4	Total/NA	Water	PrecSep_0	
180-117073-3	SFL MW-7	Total/NA	Water	PrecSep_0	
180-117073-4	SFL MW-6	Total/NA	Water	PrecSep_0	
180-117073-5	SSP MW-2	Total/NA	Water	PrecSep_0	
180-117074-1	AP MW-5	Total/NA	Water	PrecSep_0	
180-117074-2	AP MW-4	Total/NA	Water	PrecSep_0	
MB 160-502088/16-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-502088/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-502088/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep 0	

Eurofins TestAmerica, Pittsburgh

01 Alpha Drive RIDC Park	Eurofins TestAmerica,	Pittsburgh
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Chain of Custody Record

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Pritsburgh, PA 15238 Phone (412) 963-7058 Fax (412) 963-2468			w.		America
Client Information	Sempler WILL WICHOUSAN JONE	Hand HI what	ab PM age, Gail	Carrier Tracking No(s)	COC No 180-67956-13428.2
Client Contact David Vogt	Phone 1418	10	Awi 3ail Lage옚Eurofinset.com	State of Orgin	Page of
Catripany HDR Inc	<u>a</u>	WSID	Analysis R	equested	a nor
Address 17111 Preston Road Suite 200	Due Date Roquested				Preservation Codes:
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Stute. Zp TX: 75248-1232	Compliance Project: A Yes A	05	I		D - Nitric Acid P - Na2O4S E - NaHSO4 D - Na2SO3
Phone 972-960-4461(Tel)	# 0d		poute)		F - MeOH R - Ma25303 G - Amichlor S - H2304
Email david vogt@hdnnc.com	WO.W.		01 NO 001 NO		1 - Negarac Acc 1 - 134 Looceanyura 1 - Ico U - Acetane J - Di Water V - MCAA
Proyect Name Gibborns Creek Steam Electric Station Site	Project # 18023511 550W#		eef Method (Yes of N arget List arget List arget List bothod		K - EDTA N - pH 45 L - EDA Z - officer (soledity) Other:
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Deliverable Requested: I, II, III, IV, Other (specify) Report values down to MDL with J-flags.			Special Instructions/QC Requirer megan.seymour@hdrinc.com. a	nents: Email lab results to the and william.nicholson@hdrinc	following: david.vcgt@hdrinc.com, com
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Eurofins TestAmerica, Pittsburgh	
301 Alpha Drive RIDC Park	
Pittsburgh, PA 15238	23
Phone (412) 963-7058 Fax (412) 963-2468	201
	Sampler
Client Information	A TRIAL
Client Contact	Phone
David Vogt	2-0105

Chain of Custody Record

🔆 eurofins

Client Information	WILL NICHOLSON	Lage.	Gait	Camler Tracking No(s)	COC No 180-67956-13428.2
Liter curact David Vogt	Phone -252-1416	E-Mac Gail.Lr	ige@Eurofinset.com	State of Origin.	Page of
Compary HDR Inc	hd	(SD	Analysis Re	auested	# 00F
Address 17111 Preston Road Suite 200	Due Date Requested:				Preservation Codes
City Dallas	TAT Requested (days):				A HCL M Hoxane B NaCH N Norte C - Zh Antate O Antaco
Sister .2p TX, 75248-1232	Compliance Project: A Yes & No				D - Nahls Acid P - Na2045 E - NaH5O4 Q - Na2503
Phone 972-960-4461(Tel)	PO#		pouta		F - MeOH R - Na2S203 G - Amchior S - H2SOA
Email david vogl@hdnnc.com	WOR:	01 10	(0) (0)		1-1ce U-Acettor 1-15P Undecarydrate 1-1ce U-Acettore J-1 Di Water V-MCAA
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Custody Seals Intact Custody Seal No.:			Codier Temperature(s) "C and Other R	lemarks.	

Eurofins TestAmerica, Pittsburgh 301 Apria Dive RIDC Park Pittsburgh, PA 15238

Chain of Custody Record

Seurofins Eminant

Client Information	WAR NURHORSON/ PM	Sdway/ MAH4	U Lage, Gail					180-67956-134	28.2
Coert Contact David Vogt	706-252-1418		E-Mail Gait Lage@	Eurofinse	t com	State of Drig-	c :	Page of	
Company. HDR Inc		DISMO	_		Ar	naivsis Requested		an dol	
Address 17111 Preston Road Suite 200	Due Date Requested:		a data data	_	F			Preservation Co	des:
Cry Dailas	TAT Requested (days):		Ī		_			A - HCt. B - NaOH C - Zn Acetate	M - Hexane N None D - AshaO2
State Zp TX, 75248-1232	Compliance Project: A Yes	A No	T		-			D - Nitric Acid E - NisHSO4	P - N8204S 0 - N82503
Phone 972-960-4461(Tel)	FO#		(1		poute			F - MeDH G - Amchior H - Accordio	R - Na25203 S - H2SO4
Email david.yogi@hdrinc.cogi	MO#		OF NO	_	lisso.			i - Ice J - Di Weter	 I.S. controlinguistic U. MCAA
Project Name Gibbons Creek Steam Electric Station	Project # 18023511		50 £1	1971 1971	(00W	potte		K-EDTA L-EDA	W - pH 4-5 2 - other (specify)
Gie	SSOW#		dures	99367) 99367)) - 082	M liise.		of Other.	
Sample (dentification	Sample Date Time	Sample M Type (v (Cacomp, on Georab)	E III III	brebnet2 - 0.506 brebnet2 - 0.506	M30FO_A820	1 - Caled - L		nedmuki leto	
	XX	Preservation	Code XX	0 0	D N	2		A period	ISU UCUUIIS/MORE:
MNNN-15	2/9/2021 15:55	0	later.	××	××	X			
1-dna	2/9/2021 /8:10	0	later	××	XX	X			
SFL MW-2	5/1:1/ 1202/15/2	9	later	××	×	×			
SFL MW -85	2/9/2021/3:35	0	later	××	××	×			
F8-1	2/9/2021 13:45	6	later	XX	X X	×			
		~	later						
		~	later				180-117078	Chain of Custody	
		>	later				-		
		A	ater						
		A	later						
		V	later						
Possible Hazard Identification	Devisor B Linknown	Radiological	Sau	Patrick	To Clan	fee may be assessed if	samples are ret	ained longer than	/ month)
Deliverable Requested: I, III, IV, Other (specify) Report values down to MDL with J-flags.		(m)-1	Sp	scial Instru dan sevr	octions/Q	C Requirements: Email I rinc com and william n	lab results to the	e following: david.	vogt@hdrinc.com,
Empty Kit Relinguished by:	Date:		Time:			Method	t of Shipment.		
Retrezinition of the	Date 7-9-2-21/1	7: 5 C Com	Satt	Received	1	1 we water	DateJane	18-1	Campon TAD
Reingurdied by	DateTime	Com	Aus	Received b			Date/Time:	11.00	Company
Reinquished by	Date/Time	Com	hue	Received b			Date/Time		Company
Custody Seals Intact: Custody Seal No.:				Cooler Tem	n-ordinaria)	^o C and Other Remarks:			

17 IN 19






13

Job Number: 180-117061-1

Login Sample Receipt Checklist

-117061-1 3 5t. Louis 01:46 PM 5 6 7 8 9 10

13

Login Number: 117061		List Source: Eurofins TestAmerica, Pittsburgh
List Number: 1		
Creator: Watson, Debbie		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client: HDR Inc Login Number: 117061 List Number: 2		Job Number: 18	
		List Source: Eurofins TestAmerica, S List Creation: 02/13/21 0	
Creator: Boyd, Jacob C			
Question	Answer	Comment	
Radioactivity wasn't checked or is = background as measured by a survey<br meter.	True		
The cooler's custody seal, if present, is intact.	True		
Sample custody seals, if present, are intact.	True		
The cooler or samples do not appear to have been compromised or tampered with.	True		
Samples were received on ice.	N/A		
Cooler Temperature is acceptable.	True		
Cooler Temperature is recorded.	True		
COC is present.	True		
COC is filled out in ink and legible.	True		
COC is filled out with all pertinent information.	True		
Is the Field Sampler's name present on COC?	True		
There are no discrepancies between the containers received and the COC.	True		
Samples are received within Holding Time (excluding tests with immediate HTs)	True		
Sample containers have legible labels.	True		
Containers are not broken or leaking.	True		
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	True		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		

Eurofins TestAmerica, Pittsburgh

13

Job Number: 180-117061-1

Login Sample Receipt Checklist

13

Login Number: 117062		List Source: Eurofins TestAmerica, Pittsburgh
List Number: 1		
Creator: Watson, Debbie		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client: HDR Inc		Job Number: 180-11
Login Number: 117062 List Number: 2		List Source: Eurofins TestAmerica, St List Creation: 02/13/21 01
Question		Comment
Radioactivity wasn't checked or is = background as measured by a survey<br meter.	True	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

13

Client: HDR Inc

Login Sample Receipt Checklist

1 Job Number: 180-117061-1 fins TestAmerica, St. Louis freation: 02/13/21 01:56 PM 5 6 7 8 9

13

Login Number: 117073		List Source: Eurofins Test
List Number: 1		
Creator: Watson, Debbie		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

rce: Eurofins TestAmerica, Pittsburgh

Job Number: 180-117061-1

Login Number: 117073		List Source: Eurofins TestAmeri
List Number: 2		List Creation: 02/13/
Creator: Boyd, Jacob C		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Client: HDR Inc

Login Sample Receipt Checklist

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 Job Number: 180-117061-1

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 fins TestAmerica, St. Louis

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13

Login Number: 117074		List Source: Eurofins TestA
List Number: 1 Creater: Wetcon, Debbie		
Creator: Watson, Debbie		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ource: Eurofins TestAmerica, Pittsburgh

Login Number: 117074		List Source: Eurofin
List Number: 2 Creator: Boyd, Jacob C	List Cre	
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Eurofins TestAmerica, Pittsburgh

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13

Job Number: 180-117061-1

Login Sample Receipt Checklist

117061-1 3 St. Louis 12:12 PM 6 7 8 9 10

13

Login Number: 117078		List Source: Eurofins TestAmerica, Pittsburgh
List Number: 1		
Creator: Watson, Debbie		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client: HDR Inc		Job Number: 180-1
Login Number: 117078 List Number: 2 Creator: Boyd. Jacob C		List Source: Eurofins TestAmerica, S List Creation: 02/13/21 12
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey<br meter.	True	200mmont 2
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	