October 2024
Monthly Compliance Report

Solid Waste Permit No. 588
Bristol Integrated Solid Waste Management Facility
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02218208.05-30 | November 8, 2024

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INTRODUCTION

On behalf of the City of Bristol, Virginia (City), SCS Engineers has prepared this report to the Virginia Department of Environmental Quality (VDEQ) in accordance with item 8.iii in Appendix A of the Consent Decree between the City and VDEQ. This report provides updates regarding the progress towards completion of the items outlined in Appendix A of the Consent Decree between the City and VDEQ. The following sections outline progress during the month of October 2024 related to Solid Waste Permit (SWP) No. 588.

1.0 GAS COLLECTION

The following sections describe the steps the City, in collaboration with its consultants and contractors, has taken to improve the operation, monitoring, and performance of the facility's landfill gas collection and control system (GCCS).

1.1 SURFACE AND LEACHATE COLLECTION EMISSIONS

1.1.1 Surface Emissions

1.1.1.1 Quarterly SEM

SCS performed the Third Quarter surface emissions monitoring event on September 23, 2024. The results of the Quarterly SEM were summarized in the September 2024 Compliance Report for the SWP No. 588 Landfill. A report outlining the results and exceedance locations will be included in the Semi-Annual Report to be submitted to VDEQ prior to March 1, 2025.

The Fourth Quarter 2024 SEM Event is scheduled to be completed by December 31, 2024.

1.1.1.2 Weekly SEM

In addition to the standard regulatory quarterly surface emissions monitoring, SCS performed additional surface emissions monitoring on October 1, 2024; October 9, 2024; October 16, 2024: October 21, 2024; and October 30, 2024. These weekly surface emissions monitoring (SEM) events were performed in accordance with item 1.i in Appendix A of the Consent Decree between the City and VDEQ.

The monitoring in October generally conformed to the requirements of 40 CFR 63.1960(c) and (d), and 40 CFR 60.36f(c) and (d), and 40 CFR 60, Appendix A, Method 21. The landfill gas (LFG) collection system is required to operate such that the methane concentration is less than 500 ppm above background at the landfill surface.

The surface emission monitoring route included the entire waste footprint of the Permit No. 588 landfill. Sampling was conducted with a Thermo Scientific TVA-2020 Flame Ionization Detector (FID) at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all applicable surface cover penetrations within the waste footprint.

The Facility submitted letters to VDEQ outlining the results of the October monitoring events on October 9, 2024; October 16, 2024; October 23, 2024; October 30, 2024; and November 6, 2024.

Table 1. Summary of October Surface Emissions Monitoring

Description	October 1, 2024	October 9, 2024	October 16, 2024	October 21, 2024	October 30, 2024
Number of Points Sampled	167	167	167	167	166
Number of Points in Serpentine Route	100	100	100	100	100
Number of Points at Surface Cover Penetrations	67	67	67	67	67
Number of Exceedances	5	7	7	8	8
Number of Serpentine Exceedances	0	0	0	0	0
Number of Pipe Penetration Exceedances	5	7	7	8	8

During the October monitoring events, no new exceedances were detected on the serpentine route. However, new exceedances were detected at two surface cover pipe penetrations (EW-82 and EW-95). The new exceedances at EW-82 was likely caused by voluntarily reduced vacuum at the wellhead by the Facility in an effort to avoid an SSO in this vicinity of the landfill. The new exceedance at EW-95 was likely a result of insufficient cover at the surface cover pipe penetration. The majority of the ongoing exceedances during October are located at wellheads where vacuum is being voluntarily restricted. It is believed that once conditions allow for normal operation of these wellheads, surface emissions will be reduced. In addition, additional soil placement is planned for the Fourth Quarter 2024.

Furthermore, the Facility is taking proactive steps to limit fugitive surface emissions including placement of additional soil, continued and improved dewatering activities, and well tuning to increase gas extraction.

1.1.2 Leachate Collection Emissions

SCS Field Services (SCS-FS) visited the Bristol Landfill on October 28, 2024, and performed monitoring of the leachate, witness zone, northern cleanouts, and gradient control clean-outs at the southern end of the landfill. The results of that monitoring are included in Table 2. Table 2 also lists the cleanout pipe description based on site records and a review of correspondence.

Please note that LC07 is not connected to the LFG collection system. During connection of the other leachate cleanouts to the LFGCCS in 2020, measurements of gas composition in LC07 indicated low levels of landfill gas in this cleanout.

Table 2. Leachate Cleanout Pipe Monitoring Results

Description	ID#	Record Date	CH4 (% by Vol)	CO2 (% by Vol)	O2 (% by Vol)	Balance Gas (% by Vol)	Initial Temp (°F)	Adj Temp (°F)	Initial Static Pressure (in H2O)	Adj Static Pressure (in H2O)	System Pressure (in H2O)
Southern Cleanouts Gradient West	LC01	10/28/2024 8:05:14 AM	55.6	41.9	0.0	2.5	58.8	58.8	-12.22	-12.27	-16.49
Southern Cleanouts Gradient East	LC02	10/28/2024 8:13:34 AM	45.3	41.9	0.0	12.8	58.7	58.9	-12.57	-12.49	-16.73
Southern Cleanouts Leachate Center	LC03	10/28/2024 8:17:39 AM	9.9	5.2	18.5	66.4	47.3	46.9	-15.64	-15.53	-16.16
Southern Cleanouts Witness East	LC04	10/28/2024 8:21:54 AM	5.7	4.8	19.6	69.9	46.2	46.0	-16.21	-16.44	-16.22
Southern Cleanouts Leachate West	LC05	10/28/2024 8:44:22 AM	51.0	42.8	0.0	6.2	65.1	65.0	-13.30	-13.40	-16.56
Southern Cleanouts Gradient Center West	LC06	10/28/2024 8:39:48 AM	18.3	10.1	16.5	55.1	46.1	46.1	-16.83	-16.55	-15.61
Southern Cleanouts Leachate East	LC08	10/28/2024 8:26:53 AM	43.7	42.2	0.1	14.0	57.2	57.3	-12.44	-12.50	-16.86
Southern Cleanouts Gradient Center East	LC09	10/28/2024 8:35:26 AM	7.1	3.1	19.0	70.8	44.5	44.4	-7.07	-7.07	-9.23
Southern Cleanouts Leachate West	LC10	10/28/2024 8:31:43 AM	0.0	0.1	21.9	78.0	44.4	44.4	-6.07	-6.06	-8.24
Northern Cleanouts Leachate East	NC01	10/28/2024 8:52:04 AM	0.2	0.5	21.7	77.6	47.5	47.3	-8.77	-8.75	-0.10
Northern Cleanouts Leachate Center	NC02	10/28/2024 8:54:13 AM	0.4	0.3	21.7	77.6	47.6	47.6	-8.75	-8.75	0.11
Northern Cleanouts Leachate West	NC03	10/28/2024 8:56:14 AM	1.1	0.8	21.4	76.7	47.7	47.6	-8.75	-8.75	-0.10
Northern Cleanouts Witness East	NC04	10/28/2024 8:58:07 AM	0.0	0.1	21.9	78.0	47.5	47.5	-10.10	-10.10	-0.04
Northern Cleanouts Witness Center	NC05	10/28/2024 9:00:02 AM	0.0	0.0	22.0	78.0	48.0	48.0	-9.76	-9.76	-0.02
Northern Cleanouts Witness West	NC06	10/28/2024 9:04:18 AM	0.0	0.0	22.0	78.0	50.0	50.3	-9.76	-9.76	-0.05
Northern Cleanouts Gradient East	NC07	10/28/2024 9:05:50 AM	0.0	0.1	21.9	78.1	51.9	51.9	-12.45	-12.45	-0.03
Northern Cleanouts Gradient Center East	NC08	10/28/2024 9:07:21 AM	0.1	0.2	21.3	78.4	51.7	51.5	-12.45	-12.45	-0.05
Northern Cleanouts Gradient Center West	NC09	10/28/2024 9:09:57 AM	0.9	1.5	18.4	79.2	50.3	50.1	-12.45	-12.45	0.10
Northern Cleanouts Gradient West	NC10	10/28/2024 9:11:50 AM	0.0	0.0	21.9	78.0	49.8	49.8	-12.45	-12.45	0.09

1.2 EXISTING GAS EXTRACTION SYSTEM PERFORMANCE

SCS and SCS-FS have been coordinating with the City to improve the performance of the existing gas system. Specific actions taken to maintain and improve the system are detailed in the following sections of this report.

Additional actions taken by SCS-FS include the following:

- Adjustments to LFGCCS
- Maintenance of air lines and pressurized air infrastructure
- Maintenance of wellhead and other gas collection infrastructure

- Removal of liquids from landfill gas headers

1.3 REMOTE MONITORING SYSTEM

In the Fall of 2022, SCS Remote Monitoring & Control (SCS-RMC) installed 25 industrial internet of things (IIoT) temperature sensors in the landfill gas wellheads. The purpose of the sensors is to record and transmit well-head gas temperatures via a cellular connection to a database managed by SCS-RMC.

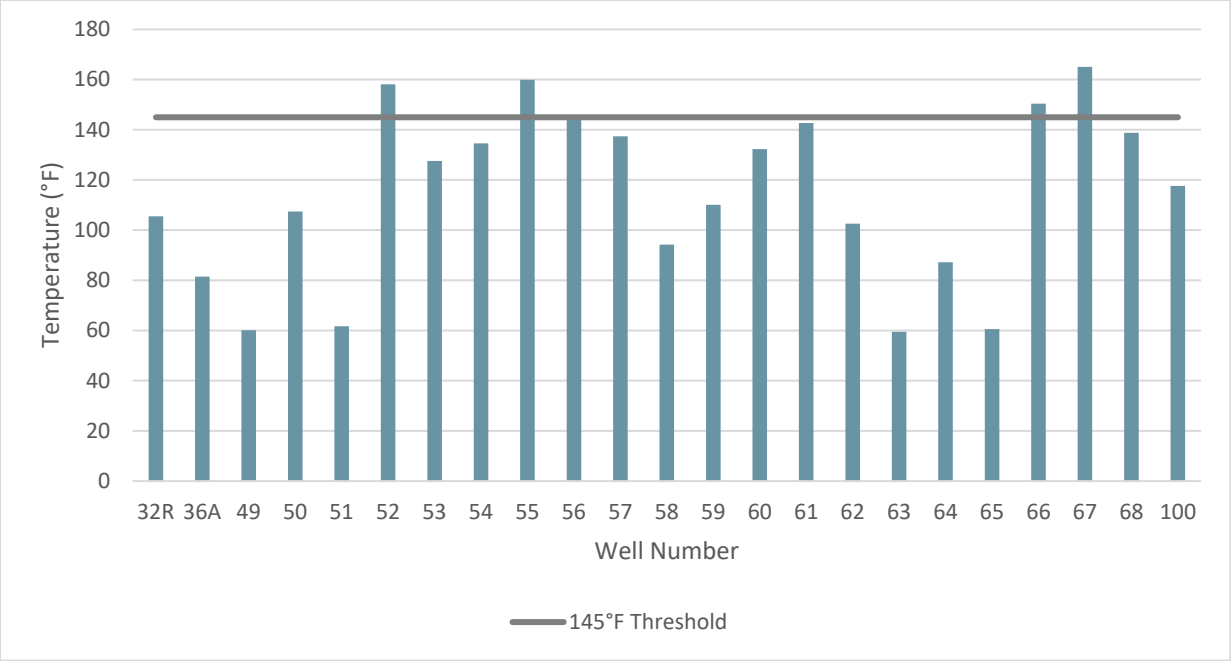
The City is providing average temperatures recorded by the sensors to VDEQ on a daily basis via email. Average daily temperatures recorded by the remote monitoring system during the month of October are included in Appendix C. In addition, SCS previously prepared semi-monthly status updates to satisfy the conditions of compliance provision no. 2 of the Environmental Protection Agency (EPA) Region III letter, Approval of Higher Operating Temperature Values for Landfill Gas Wells and Submission of Gas Treatment Alternatives at the Bristol Virginia Integrated Solid Waste Management Facility, dated August 23, 2021. On August 2, 2023, VDEQ requested that such updates be included in the monthly compliance reports going forward. Accordingly, this section is a summary of temperature monitoring activities during the monthly monitoring period of October 2024.

1.3.1 Automated Wellhead Temperature Measurements

SCS reviewed the automated hourly temperature measurements from October 2024, and identified the following trends:

- **Temperatures over 145°F:** Average temperatures at EW-52, 54, 55, 56, 66, and 67 were above the NESHAP AAAA compliance threshold most often throughout the monitoring period. However, wells EW-53, EW- 57, EW-60, EW-61, and EW-68 also experienced temperatures greater than 145°F sporadically. The highest average temperature, 165.0°F, was measured at EW-67 (see Figure 1). The average LFG temperatures recorded by automated wellhead sensors for the month of September were similar to the values measured in August.
- **Temperature probes removed at decommissioned wells:** Temperature probes at EW-34 and EW-40 were removed in December of 2023 due to the decommissioning of the wells. Additionally, the temperature probe at EW-35 was removed in May 2024, due to the decommissioning of the well. One probe was added to EW-61 in August 2024, and SCS was informed of the City's plans to purchase additional temperature sensors.
- **Signal issue at 36A, 57, 60, 61, 82, and 93 and**: SCS-FS reported that the sensors in EW-57 and EW-61 have been sporadically malfunctioning, but resetting the sensor often temporarily resolves the issue. The malfunctioning of the rest of these wells is new in October, and SCS-RMC staff have been notified and are working to identify the source of the issue.

Figure 1. Average Automated Wellhead Temperatures

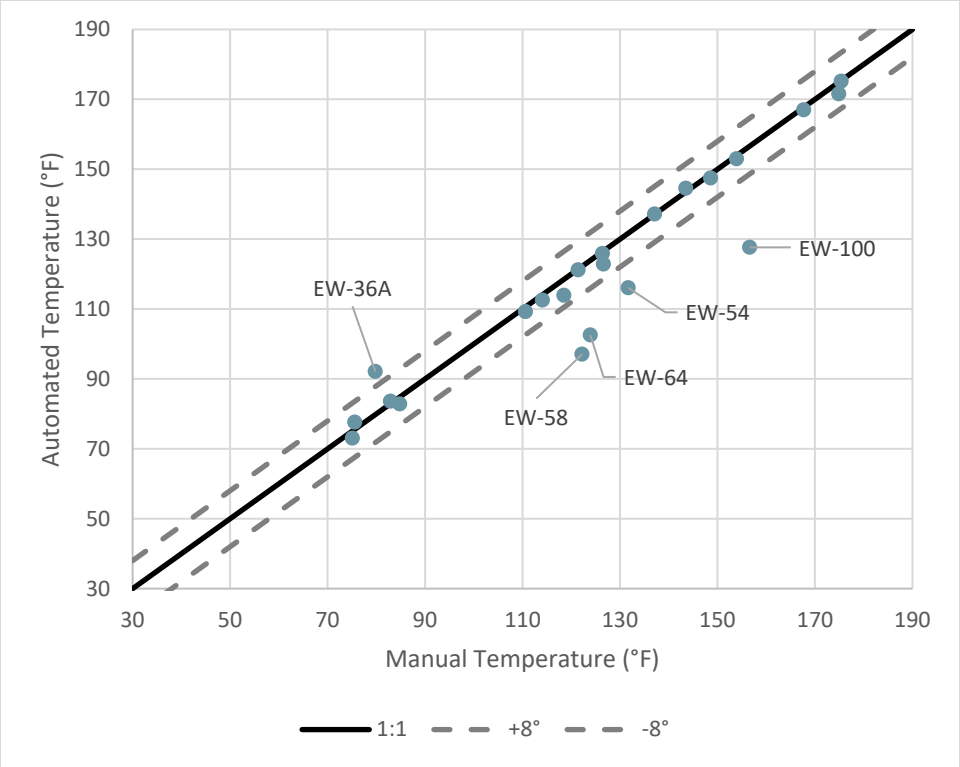


1.3.2 Comparison with Manual Temperature Measurements

Per the approval issued by VDEQ on August 2, 2023, the Facility ceased dedicated daily manual temperature measurements in the Permit No. 588 Landfill. In lieu of these measurements, the City has agreed to compare instantaneous hourly automated temperature measurements with temperatures measured at each wellhead with a handheld sensor during monthly compliance monitoring. These comparisons are shown in Figure 2, with the ±8°F deviation goals as prescribed in the VDEQ approval. Temperature comparison for EW-57 is omitted as automated data was unavailable to compare to the manual readings due to the offline periods.

Temperature comparisons outside the ±8% deviation goal lines were found again at EW-36A, 58, 64 and 100. The disparity between automated and manual temperature measurements at EW-58, 64, and 100 continued to be significant without evidence of low LFG flow rates, which have sometimes caused the automated temperature probes to record lower temperatures than manual measurements. Additionally, the EW-36A automated temperature measurement was outside the ±8% deviation goal this month, with automated temperature measurement greater than the manual temperature measurement, unlike the other wells. This has also been observed in the past. The City, SCS, and SCS-RMC are coordinating a test using buckets of water of known temperature to assess the functionality of all four sensors.

Figure 2. Automated vs. Manual Temperature Measurements



1.3.3 Monthly Regulatory Wellhead Temperature Measurements

Routine monthly temperature monitoring for purposes of complying with 40 CFR 60.36f(a)(5) was conducted October 7, 2024. During this monitoring period, temperature exceedances were resolved at EW-49, EW-52, EW-54, EW-82, EW-89, and EW-94. Table 3 provides the status of all exceedances recorded during this monitoring period.

Table 3. October Temperature Exceedance Summary

Well ID	Initial Exceedance Date	Last date/temperature measured	Duration of Exceedance	Status as of 11/1/2024
EW-52	10/7/24	10/10/24 158.8°F	4 days	Resolved within 15-day timeline
EW-52	10/22/24	10/24/24 152.8°F	3 days	Resolved within 15-day timeline
EW-55	9/25/24	10/16/24 135.4°F	22 days	Resolved within 60-day timeline
EW-55	10/22/24	10/31/24 173.5°F	11 days	Ongoing, within 15-day timeline
EW-56	9/9/24	10/10/24 144.7°F	32 days	Resolved within 60-day timeline
EW-56	10/22/20	10/24/24 143.5°F	3 days	Resolved within 15-day timeline

Well ID	Initial Exceedance Date	Last date/temperature measured	Duration of Exceedance	Status as of 11/1/2024
EW-60	9/25/24	10/4/24 162.9°F	10 days	Resolved within 15-day timeline
EW-60	10/22/24	10/24/24 126.6°F	3 days	Resolved within 15-day timeline
EW-68	10/7/24	10/10/24 137.1°F	4 days	Resolved within 15-day timeline
EW-81	10/22/24	10/31/24 173.4°F	10 days	Resolved within 15-day timeline
EW-87	10/22/24	10/24/24 136.7°F	3 days	Resolved within 15-day timeline
EW-89	9/9/24	10/4/24 183.8°F	26 days	Resolved within 60-day timeline
EW-89	10/22/24	10/31/24 187.4°F	11 days	Ongoing, within 15-day timeline
EW-92	10/7/24	10/10/24 128.2°F	4 days	Resolved within 15-day timeline
EW-94	9/25/24	10/4/24 108.5°F	10 days	Resolved within 15-day timeline

1.3.4 LFG Sampling

SCS collected weekly LFG samples from wells with temperature exceedances lasting more than seven days using 1.5-L Summa canisters. The samples were sent to Enthalpy Analytical for lab analysis of carbon monoxide (CO) and hydrogen (H_2) content. As of November 1, 2024, the City is in possession of lab results for sampling on September 25, October 4 and October 10, 2024 to fulfill the requirement in 40 CFR 63.1961(a)(5). Lab results are summarized in Table 4.

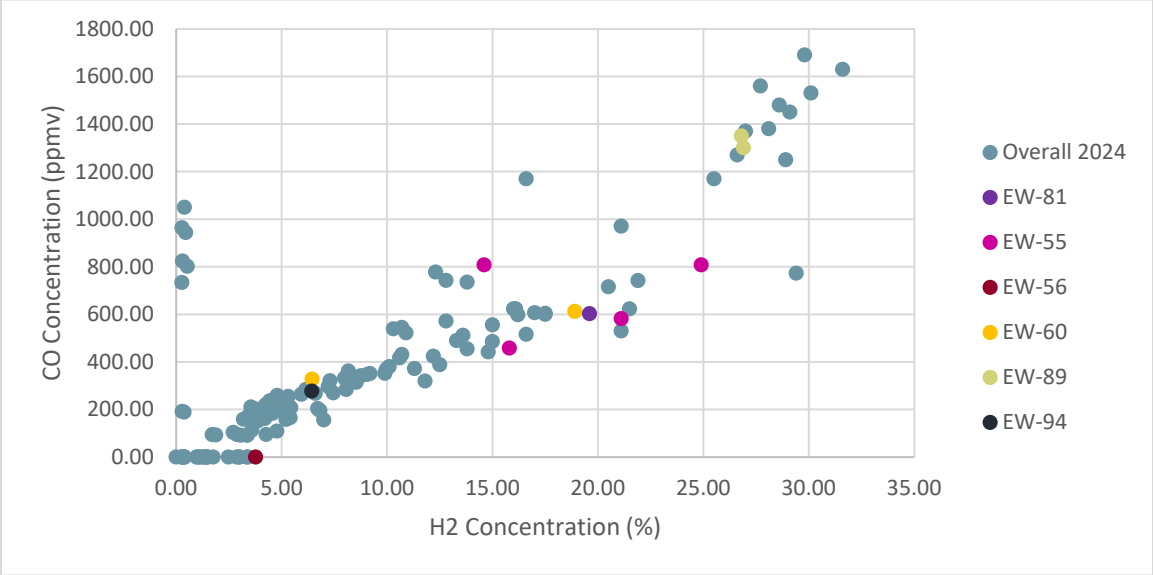
Table 4. LFG Wellhead Sampling Summary

Sample Date		9/25/24	10/4/24	10/10/24	10/24/24
EW-55	CO (ppmv)	808	582	458	744
	H2 (Vol. %)	24.9	21.1	15.8	14.6
EW-56	CO (ppmv)	ND	95.6		
	H2 (Vol. %)	3.77	3.33		
EW-60	CO (ppmv)	328			
	H2 (Vol. %)	6.45			
EW-81	CO (ppmv)				603
	H2 (Vol. %)				19.6
EW-89	CO (ppmv)	1300			1350
	H2 (Vol. %)	26.9			26.8
EW-94	CO (ppmv)	277			
	H2 (Vol. %)	6.43			

The presence of hydrogen in the samples collected during this monitoring period indicates that combustion reactions are unlikely.

As shown in Figure 3, the majority of the carbon monoxide and hydrogen data during this period appear to be consistent with sampling data at other wells collected in 2024. The elevated CO and H_2 found at EW-89 is consistent with other data with greater than 25% hydrogen. This well has exhibited similar carbon monoxide and hydrogen composition in previous samples.

Figure 3. CO and H_2 Concentration Scatter Plot



1.4 LARGE-DIAMETER DUAL-PHASE EXTRACTION WELLS

SCS completed design work on an expansion of the existing GCCS during the month of December 2022. The expansion included at least 5 large diameter dual-phase extraction wells. The wells and supporting infrastructure were completed by October 12, 2023.

1.5 VDEQ CONCURRENCE ON WELLS

As described in previous monthly compliance reports, the City engaged with VDEQ in discussions about the proposed approach for landfill GCCS improvements and expansions. Upon completion of the landfill gas collection system, SCS will submit updated as-built drawings to VDEQ that depict the completed system.

2.0 SIDEWALL ODOR MITIGATION

The City has designed and constructed a system to control fugitive emissions emanating from the quarry sidewalls. Specific aspects of the proposed design features are described in the following sections.

2.1 PERIMETER GAS COLLECTION SYSTEM

SCS's design of the GCCS expansion described in Section 1.4 included perimeter LFG wells. These wells are closer to the sidewall to intercept landfill gas that potentially could migrate to the quarry wall. These wells supplement the sidewall odor mitigation system described in Section 2.2. As described in the April 2023 Monthly Compliance Report for the SWP No. 588 Landfill, construction of the perimeter gas collection system was completed.

2.2 SIDEWALL ODOR MITIGATION SYSTEM

On behalf of the City and in an effort to capture emissions from the quarry sidewall, SCS designed a sidewall odor mitigation system (SOMS) during the month of October 2022. The design of this system was prepared and submitted to VDEQ on November 1, 2022.

2.3 PILOT SYSTEM CONSTRUCTION

SCS-CONS completed substantial construction of Phase 1 of the SOMS during the month of February 2023, SCS-FS began monitoring Phase 1 connected Horizontal Collector (HC) wellheads during the month of March 2023, and SCS-FS continued weekly wellhead monitoring into the month of May 2023. Phase 1 is considered the pilot system portion of the SOMS. SCS submitted a design engineer certification to VDEQ on February 10, 2023 that documented the substantial completion of Phase 1 of the SOMS. Details of Phase 1 construction progress and monitoring can be found in the monthly compliance reports for the SWP No. 588 landfill.

2.4 FULL SYSTEM CONSTRUCTION

SCS-CONS substantially completed construction of Phase 2 of the SOMS during the month of June 2023 as Phase 2 was connected to vacuum as of June 14, 2023. Cover soil placement continued into the month of October 2023, and ceased when the construction crew left site on October 12, 2023 upon project final completion.

During the month of October 2024, SCS-FS collected monitoring data at each wellhead under vacuum. A summary of those measurements is shown in Table 5.

Table 5. System Averages of Sidewall Wellhead Gas Quality

Record Date	Average CH_4 [%]	Average CO_2 [%]	Average O_2 [%]	Average Bal Gas [%]
10/8/2024	3.1	4.9	19.3	72.7
10/28/2024	3.6	5.5	18.5	72.4

The sidewall system average gas composition indicates lower methane content than typical landfill gas collection systems. The gas quality measurements indicate that the SOMS is functioning as designed because landfill gas is being withdrawn and oxygen intrusion is acceptable.

3.0 WASTE TEMPERATURE MONITORING

On behalf of the City, SCS designed a temperature monitoring system to collect temperature data throughout the waste mass. The steps taken by the City to implement this system are described in the following sections.

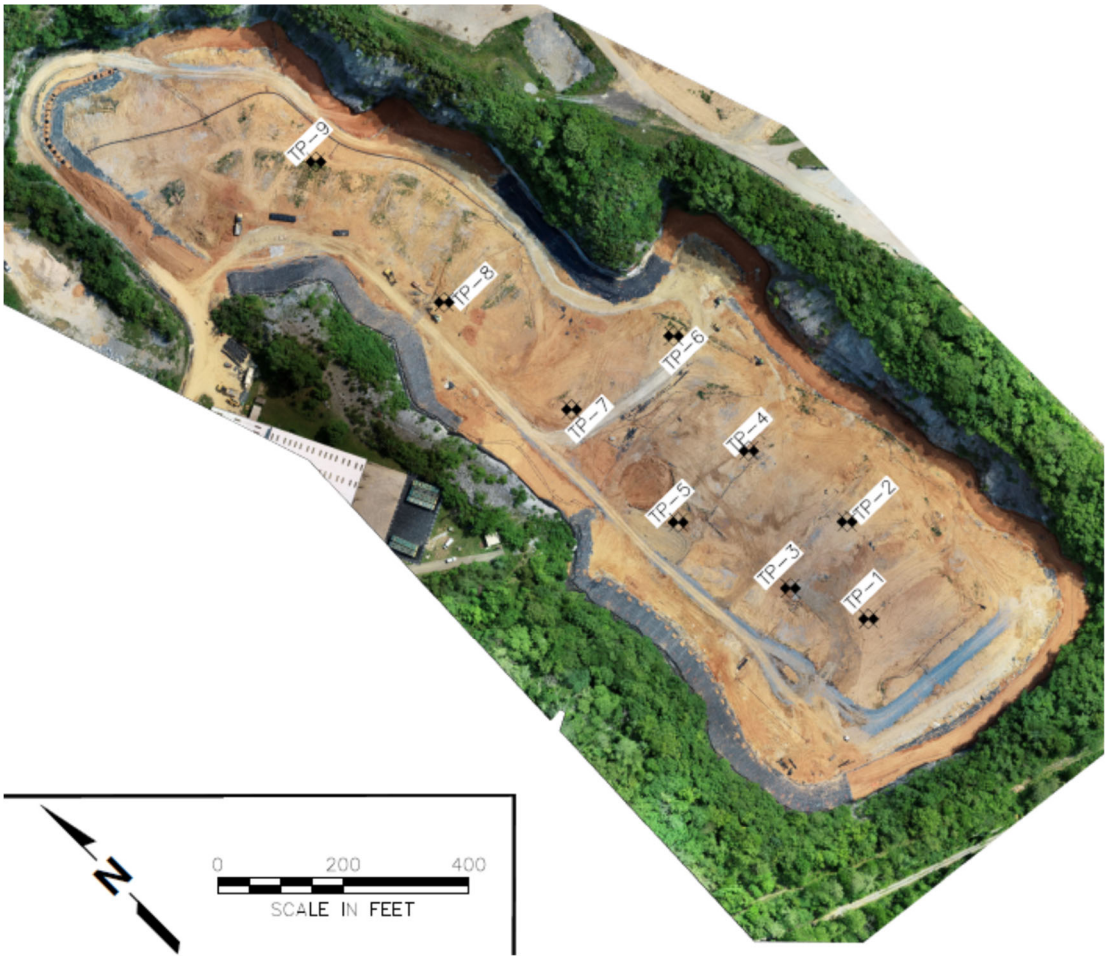
3.1 TEMPERATURE MONITORING SYSTEM DESIGN

The temperature monitoring system consists of nine boreholes drilled into the waste mass. A steel casing was placed in each borehole and the hole was backfilled around the casing with aggregate. A series of temperature sensors was placed inside the steel casing. At the top of each borehole, an IIoT transmitter collects the data from the sensors and transmits it to a cloud-based RMC system. The City submitted design of the temperature monitoring system to VDEQ on November 30, 2022.

3.2 TEMPERATURE MONITORING SYSTEM INSTALLATION

Installation of the in-situ Landfill Temperature Monitoring System began in October of 2022 and installation of replacement sensors was completed in February of 2023. Details of construction progress can be found in the monthly compliance reports for the SWP No. 588 Landfill. The locations of the temperature probes are shown in Figure 4.

Figure 4. Temperature Monitoring Probe Locations



SCS began collecting temperature data daily on February 15, 2023. The temperature sensors continued to transmit temperature data during the month of October 2024. Average daily temperatures recorded by the sensors for the Month of October are included in Appendix D. Each week the average temperatures from a select day of that week are downloaded and compared to temperatures recorded during the previous week. Average daily temperatures recorded on select days during the month of October are shown in Appendix B. The average temperatures recorded for select months between October 2023 through October 2024 are shown in Figures 5 through 13 on the following pages.

Figure 5 shows daily average temperatures recorded by Temperature Probe 1 (TP-1) during the months of October 2023, January 2024, April 2024, July 2024, and October 2024. Based on the data, temperatures have stayed generally consistent based on measurements collected in the last year, with some decrease in temperatures between July 2024 and October 2024.

TP-1 was originally drilled to a depth of 180 feet, but the contractor was unable to install the casing beyond a depth of 160 feet. TP-1 did not record temperatures between July 23, 2023 and July 30, 2023 due to a dead battery. The battery was replaced and TP-1 began recording temperatures again on July 31, 2023.

Figure 5. TP-1 Average Temperatures for the Months of October 2023, January 2024, April 2024, July 2024, and October 2024

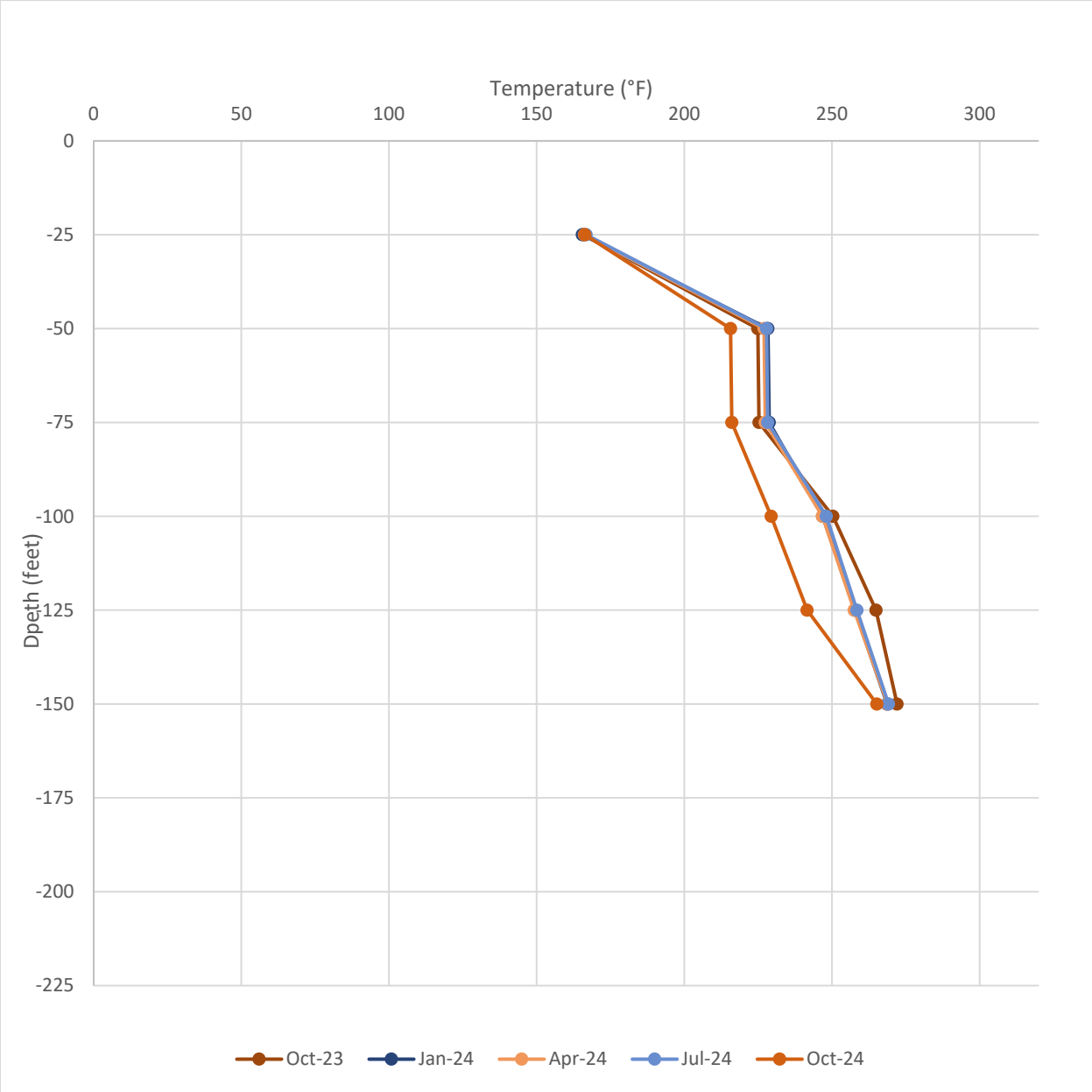


Figure 6 shows daily average temperatures in Temperature Probe 2 (TP-2) during the months of October 2023, January 2024, April 2024, July 2024, and October 2024. Based on the data, temperatures have been consistent during the last year with some fluctuation at the 25-foot depth.

TP-2 was originally drilled to a depth of 160 feet. TP-2 did not record temperatures between August 15, 2023 and September 17, 2023 due to a dead battery. A replacement battery was installed in September of 2023 and TP-2 recording temperatures again on September 18, 2023.

Figure 6. TP-2 Average Temperatures for the Months of October 2023, January 2024, April 2024, July 2024, and October 2024

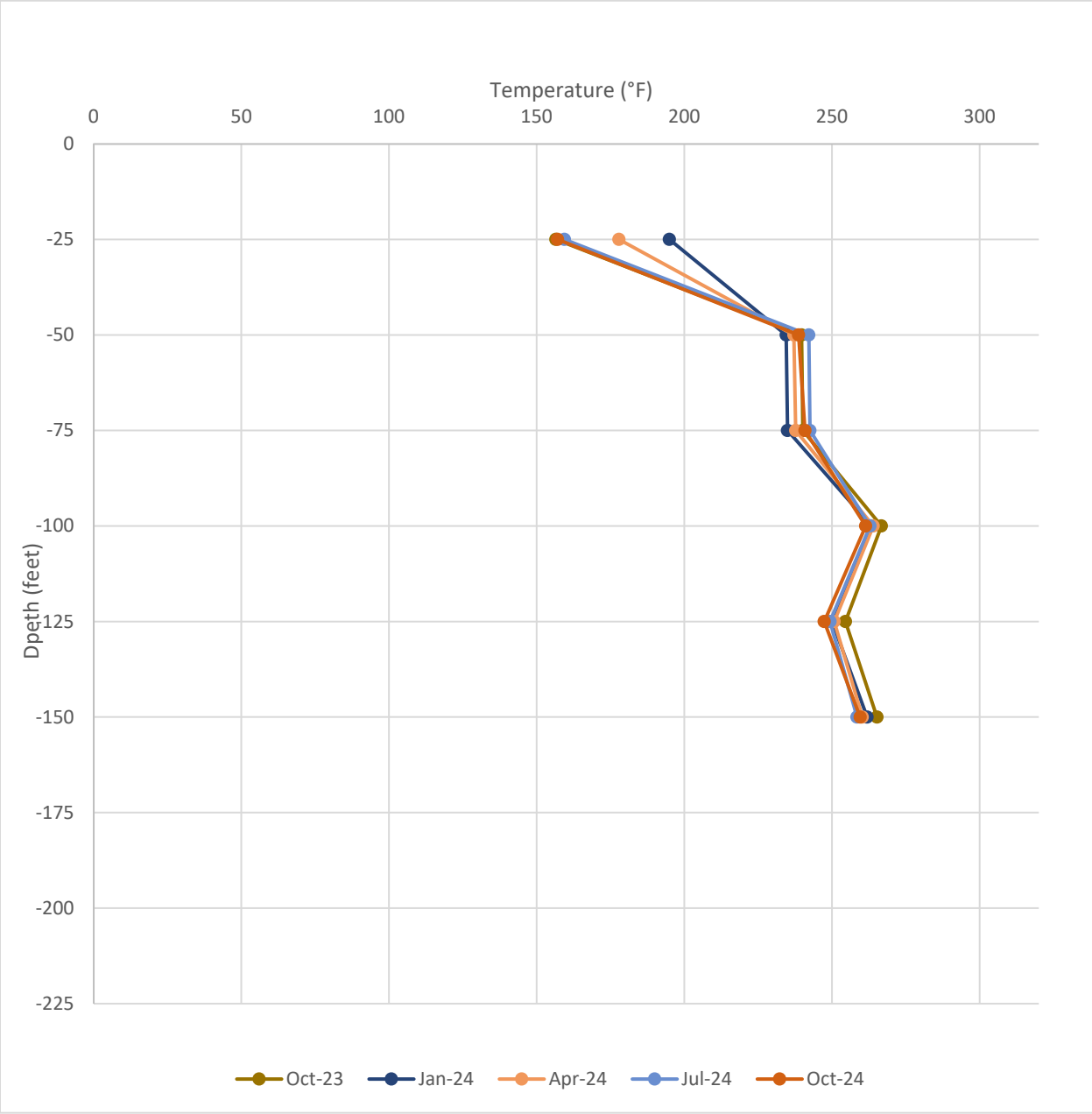


Figure 7 shows daily average temperatures in Temperature Probe 3 (TP-3) during the months of October 2023, January 2024, April 2024, July 2024, and October 2024. Based on the data, temperatures have been generally consistent below the 100-foot depth during the last year. Temperatures above the 100-foot depth dropped between January 2024 to April 2024.

TP-3 began having sensor reading issues at the 150-foot depth at the end of October and is currently being investigated.

Figure 7. TP-3 Average Temperatures for the Months of October 2023, January 2024, April 2024, July 2024, and October 2024

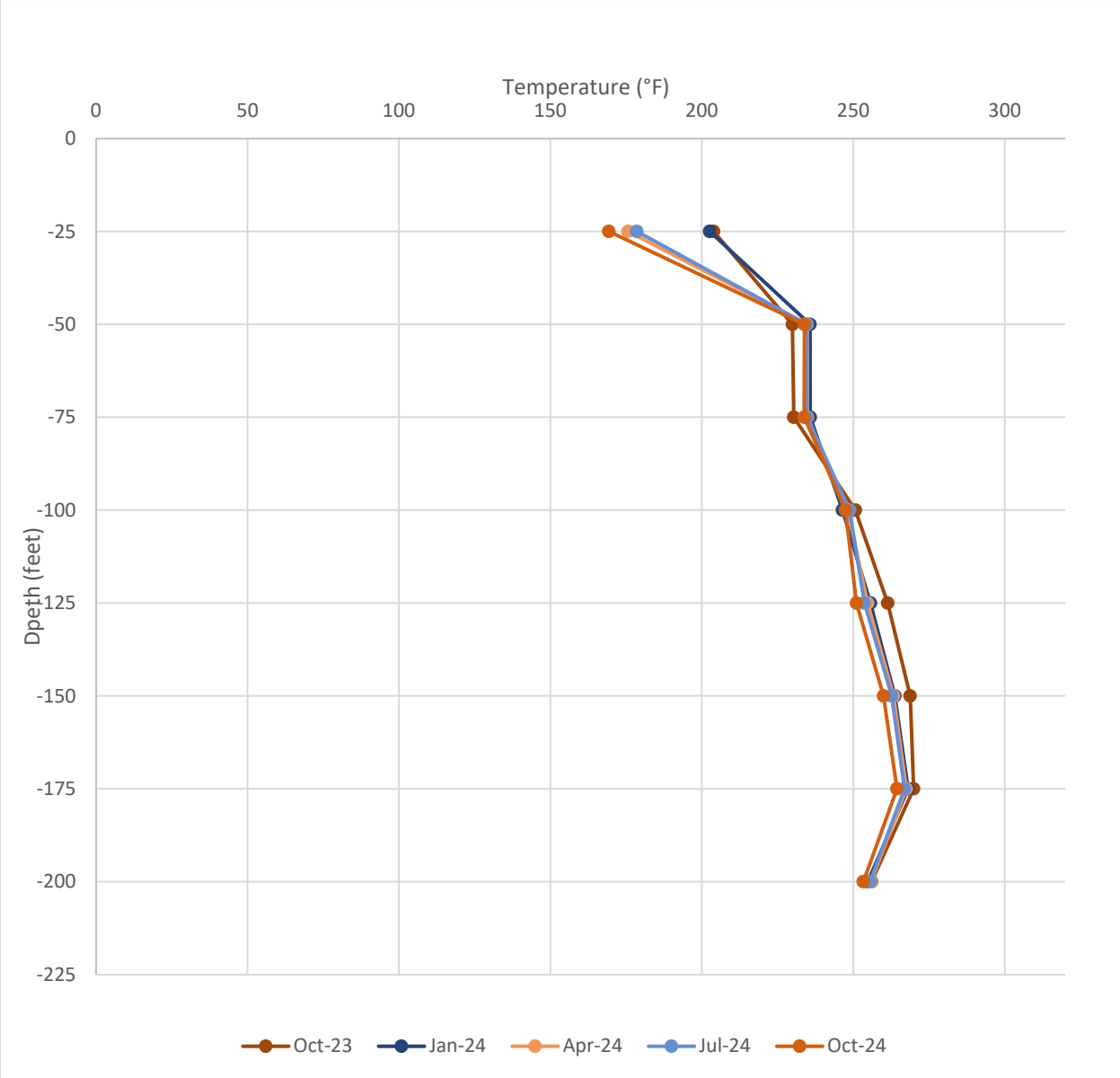


Figure 8 shows daily average temperatures in Temperature Probe 4 (TP-4) during the months of October 2023, January 2024, April 2024, July 2024, and October 2024. The temperatures during this time have been somewhat inconsistent, rising at some depths and lowering at others.

Figure 8. TP-4 Average Temperatures for the Months October 2023, January 2024, April 2024, July 2024, and October 2024

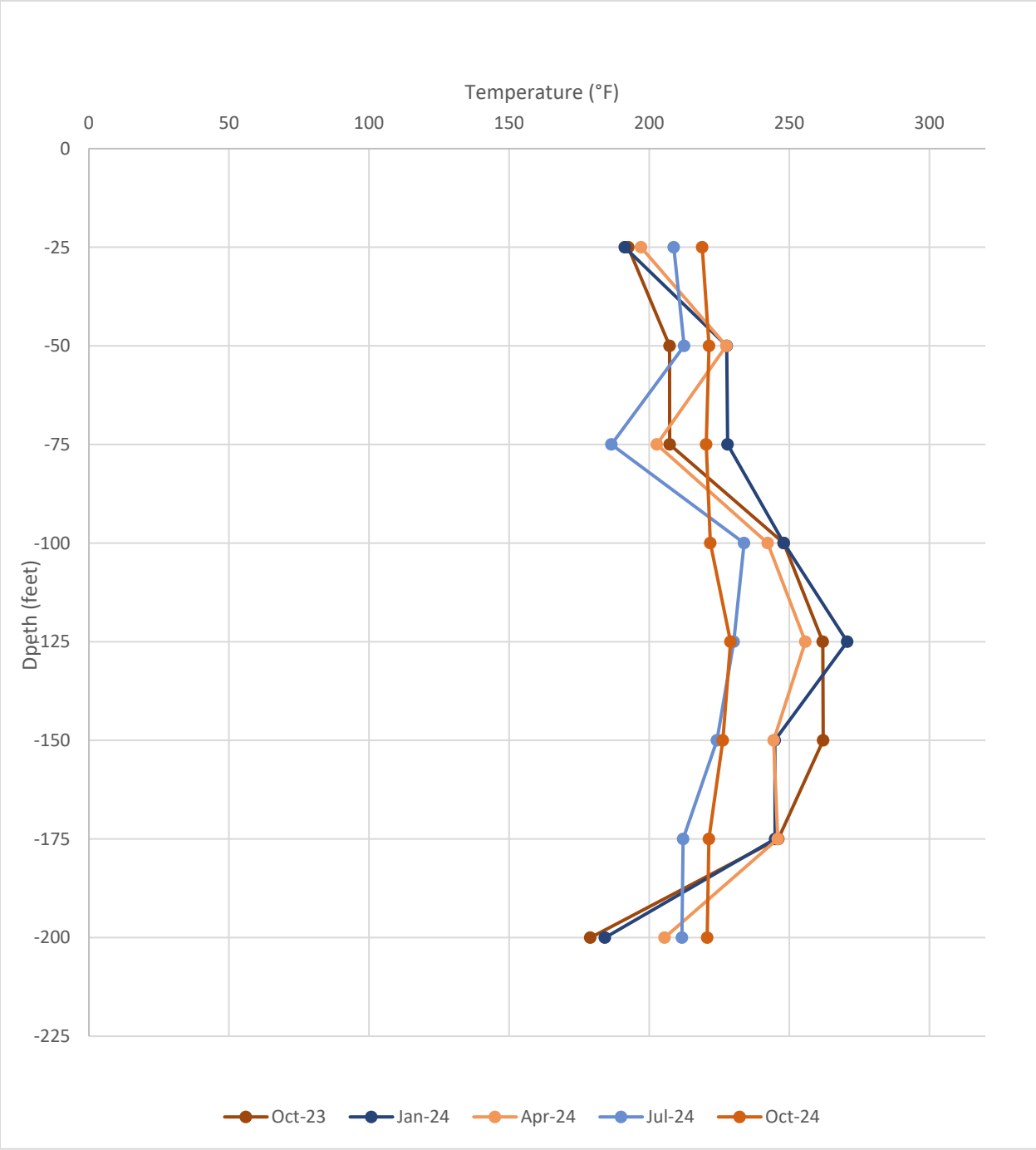


Figure 9 shows daily average temperatures in Temperature Probe 5 (TP-5) during the months of October 2023, January 2024, April 2024, July 2024, and October 2024. Based on the data, temperatures have been consistent with fluctuations below the 100-foot depth. Between October 2023 and October 2024, temperatures dropped at the 125-foot, 150-foot, and 175-foot levels.

TP-5 was damaged in late October 2023 and the sensors at the 125-foot, 150-foot, 175-foot, and 200-foot depths stopped functioning. SCS completed troubleshooting during the month of November 2023 and the sensors returned to operation later that month. TP-5 appears to have stopped recording temperatures again during the latter half of February 2024 due to a dead battery. The battery for the temperature probe was replaced in early April 2024 and has been in operation since.

Figure 9. TP-5 Average Temperatures for the Months October 2023, January 2024, April 2024, July 2024, and October 2024

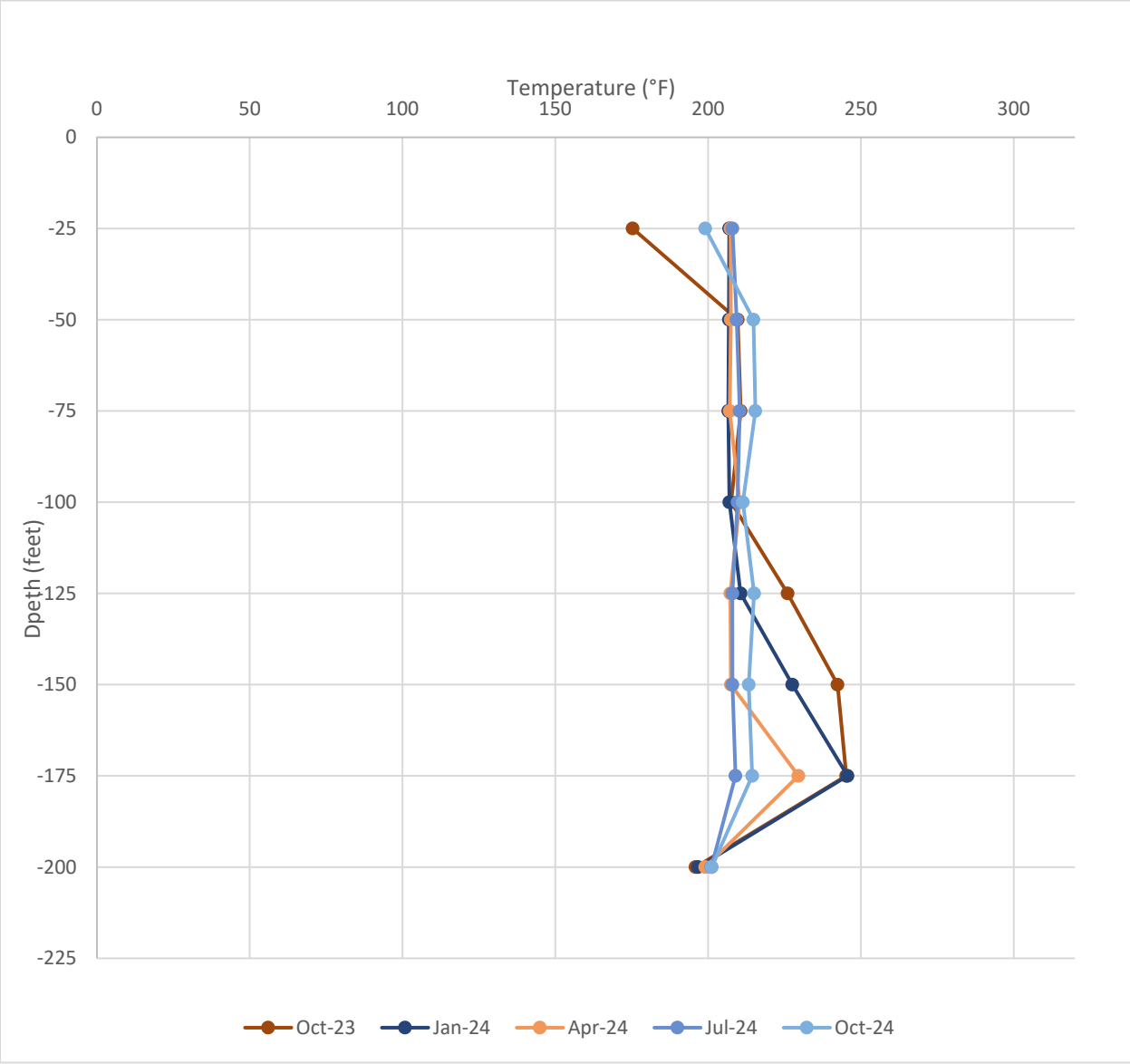


Figure 10 shows daily average temperatures in Temperature Probe 6 (TP-6) during the months of October 2023, January 2024, April 2024, July 2024, and October 2024. In June of 2024 the temperature sensor reported temperature at the 125-foot level exceeding 300 degrees. These readings correlated to decreases in temperature for the sensor at the 100-foot level. SCS believes that these readings are erroneous given the conflicting data from the sensor above. The City is working with SCS-RMC to identify the cause of these errors and is considering replacement of the sensors. In September of 2024 temperatures returned to the typical operating range based on historical data and have even shown some long-term decrease.

TP-6 was originally drilled to a depth of 208 feet and casing was installed to the full depth. During the installation of the installation of replacement sensors, a blockage within the casing prevented placement of sensors below the 125-foot depth.

Figure 10. TP-6 Average Temperatures for the Months of October 2023, January 2024, April 2024, July 2024, and October 2024

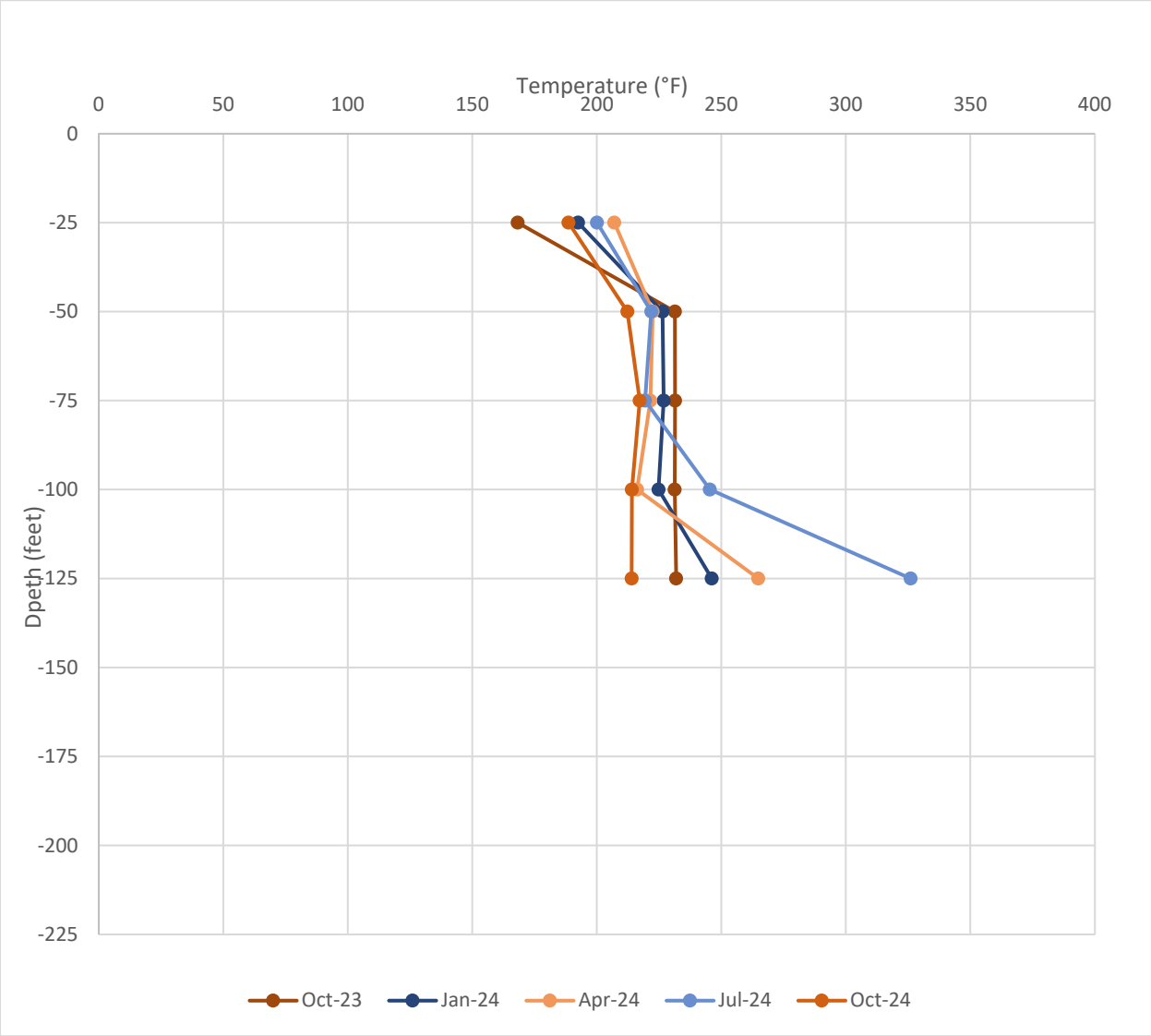


Figure 11 shows daily average temperatures in Temperature Probe 7 (TP-7) during the months of October 2023, January 2024, April 2024, July 2024, and October 2024. Based on the data, temperatures have fluctuated greatly over the last year, with temperatures at depth dropping. Observations of adjacent wells indicate that there may be below grade settlement of waste occurring in this area.

TP-7 did not record temperatures between August 15, 2023 and September 17, 2023 due to a dead battery. A replacement battery was installed in September of 2023 and TP-7 recording temperatures again on September 18, 2023.

Figure 11. TP-7 Average Temperatures for the Months of October 2023, January 2024, April 2024, July 2024, and October 2024

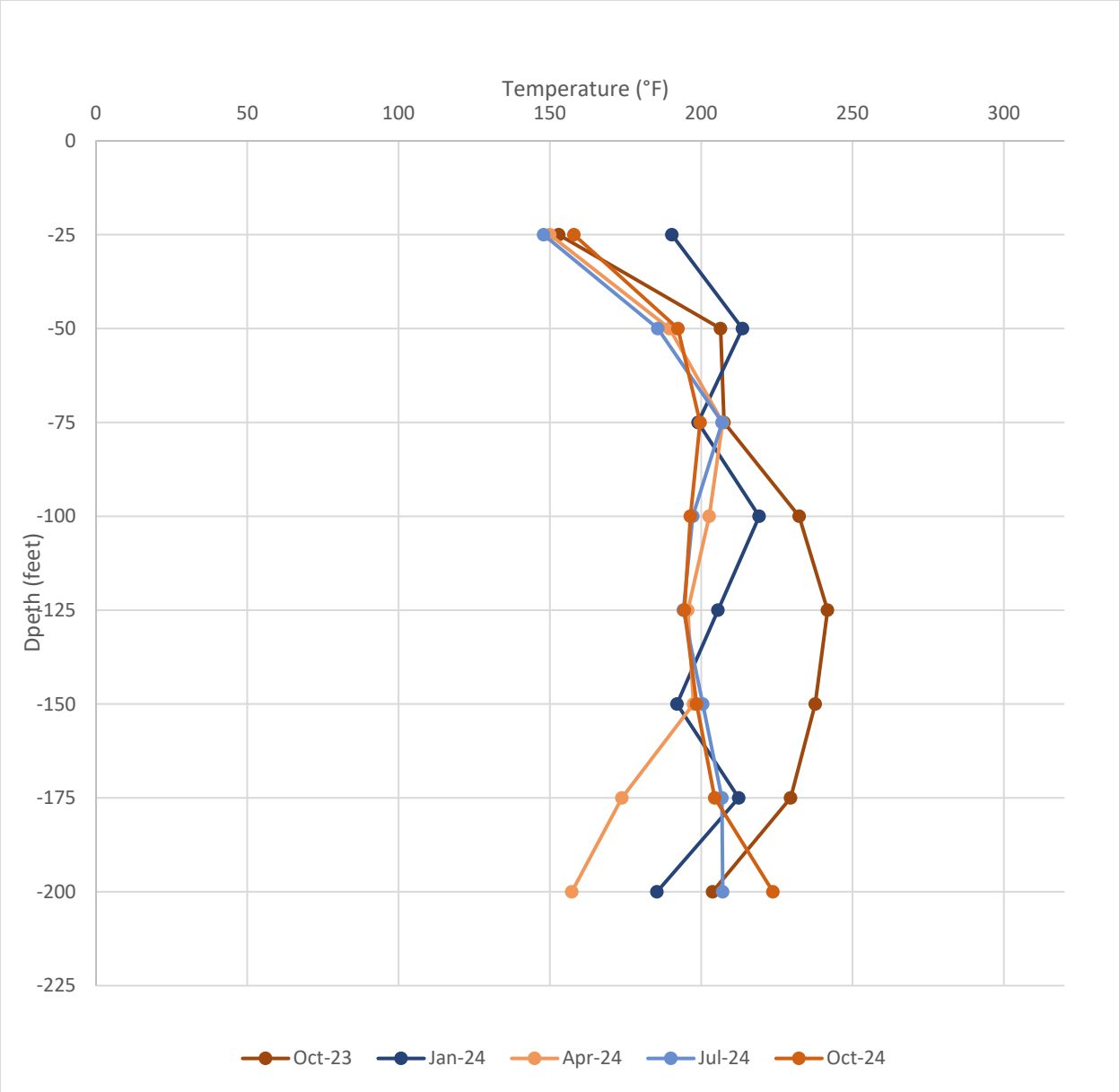


Figure 12 shows daily average temperatures in Temperature Probe 8 (TP-8) during the months of October 2023, January 2024, April 2024, July 2024, and October 2024. Based on the data, temperatures have been consistent over the past year.

TP-8 did not record temperatures from November 8, 2023 to November 27, 2023 due to a faulty battery which was replaced on November 28, 2023. Recordings from August 30, 2024 to September 6, 2024 became inconsistent, and sensor reading issues began at the 50-foot depth at the end of October 2024. The cause is currently being investigated.

Figure 12. TP-8 Average Temperatures for the Months of October 2023, January 2024, April 2024, July 2024, and October 2024

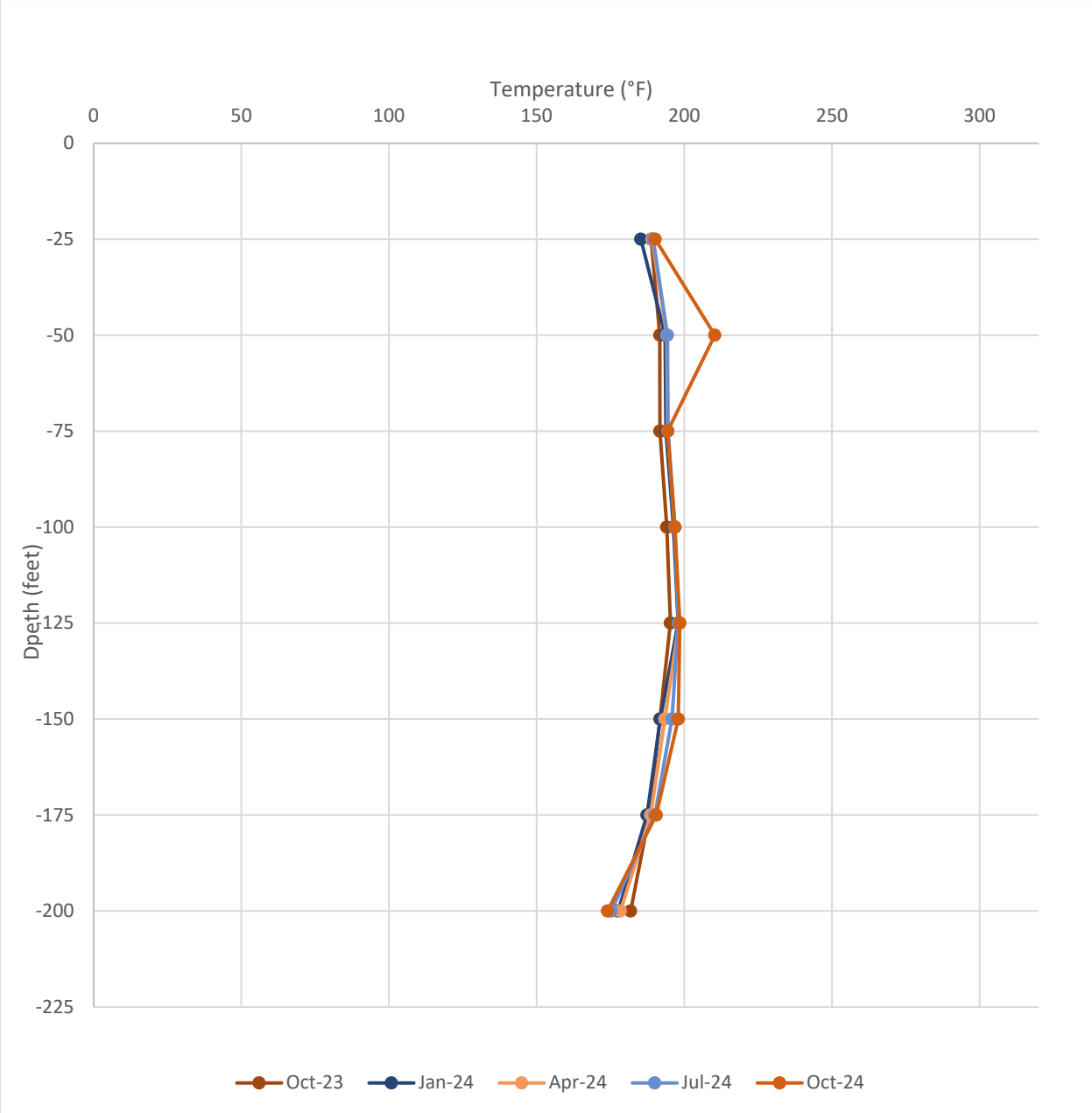
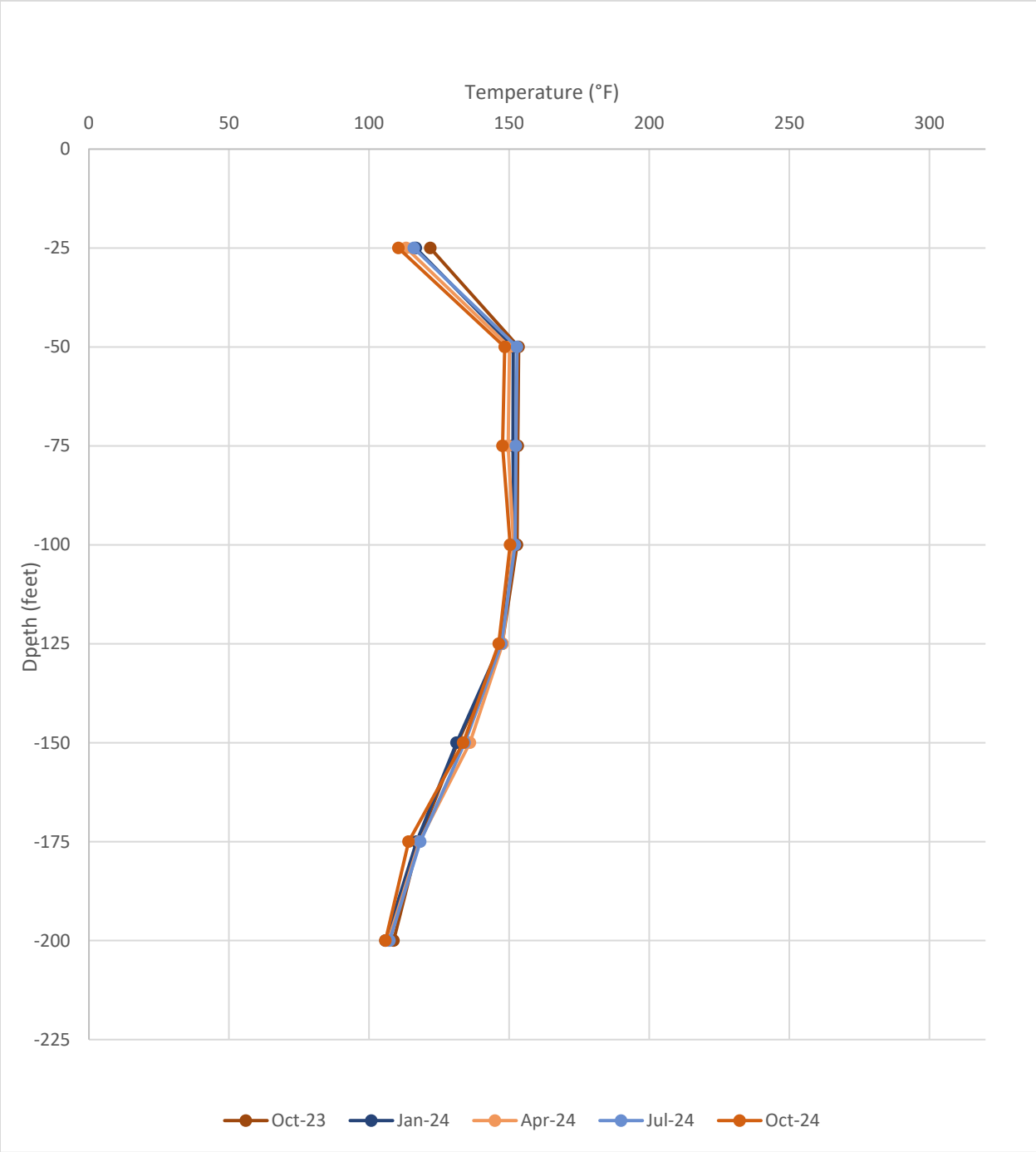


Figure 13 shows daily average temperatures in Temperature Probe 9 (TP-9) during the months of October 2023, January 2024, April 2024, July 2024, and October 2024. Based on the data, temperatures have been consistent during the last year.

Figure 13. TP-9 Average Temperatures for the Months of October 2023, January 2024, April 2024, July 2024, and October 2024



This data indicates that temperatures within the landfill are generally stable and are typical of those observed at elevated temperature landfills (ETLFs). During the months of May 2023 through September 2023, substantial construction occurred at the landfill including deep dual extraction wells that may have impacted temperatures within the waste mass adjacent to the probes. While quantifying the effect of the construction of addition wells is difficult, changes in wellhead temperature have been observed in existing wells adjacent to newly installed wells. The temperatures recorded are substantially lower than those associated with landfill fires or other combustion processes, which can exceed 1000°F. This further indicates that the elevated temperatures are due to sources other than combustion.

4.0 LEACHATE EXTRACTION AND MONITORING

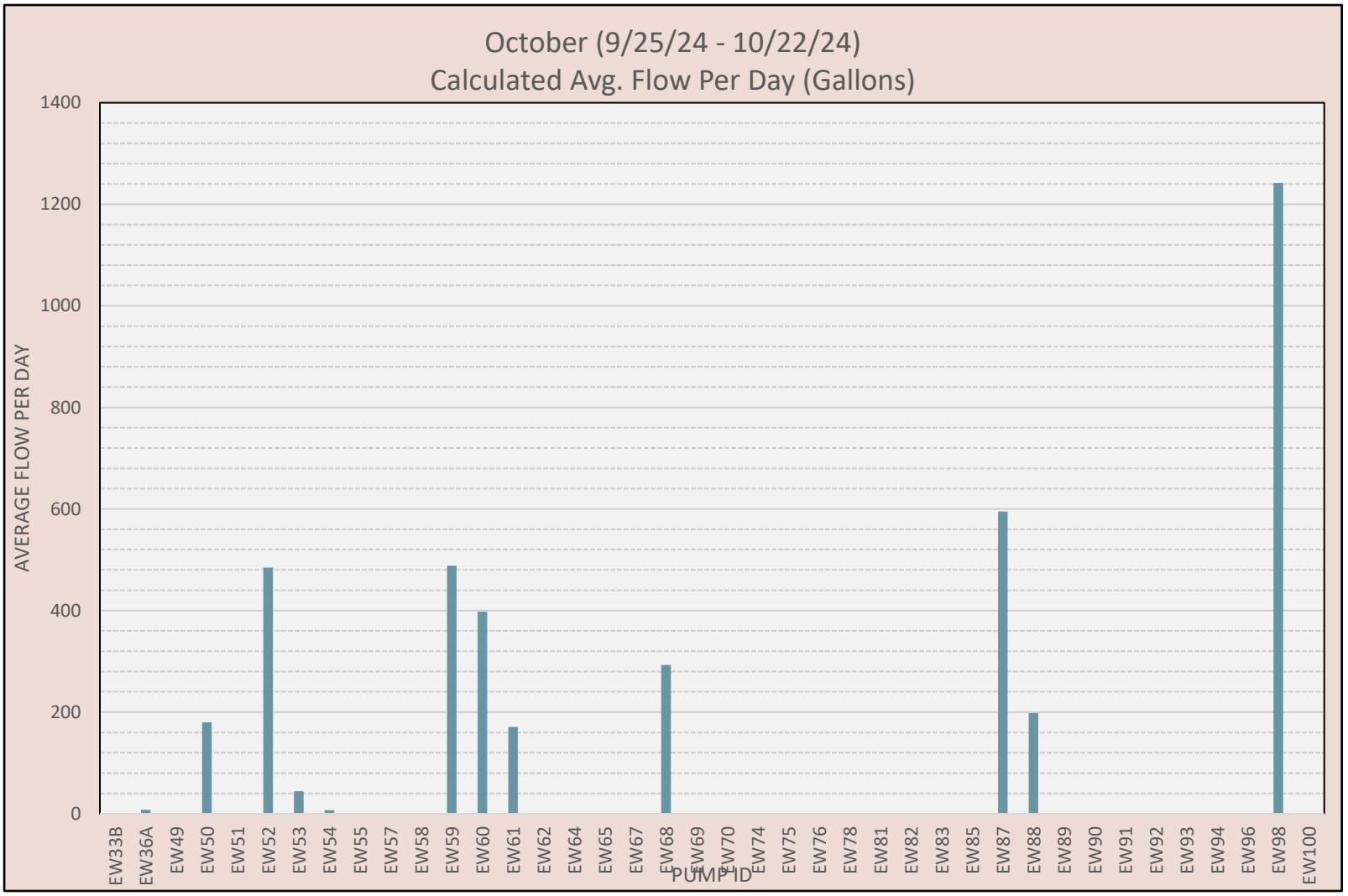
The City is taking steps to improve the extraction of leachate from the waste mass and collect analytical data on leachate characteristics. The following sections detail steps taken to achieve these goals.

4.1 EXISTING SYSTEM OPTIMIZATION

During the monthly liquid depth measurement event, SCS also collected stroke counter data from the pumps installed in the GCCS extraction wells. These stroke counts were collected from 40 wells from September 25– October 22, 2024.

Based on this data, SCS can estimate the number of gallons of liquid pumped from each well. SCS assumed that each stroke from a float-style pneumatic pump correlates to approximately 0.3 gallons of liquid removed from the well. Additionally, Blackhawk piston-style pumps remove approximately 0.11 gallons per stroke recorded. Estimates of the quantities of liquids removed from each well during October are shown in Figure 14.

Figure 14. Estimated October Dewatering Liquid Removal by Well



SCS-FS continues to implement a routine maintenance schedule for landfill gas liquids removal pumps. The pumps at wells EW-52, EW-59, EW-68, EW-87, and EW-98 removed the most liquid in October, according to the stroke count data. Several of the pumps that are not stroking, i.e. wells with no calculated flow in Figure 14, are either lodged in wells or are experiencing a buildup of solids that makes them inoperable. Several pumps have already been replaced and repaired due to experiencing significant wear and tear from ETLF conditions. Listed below are the documented repairs and replacements that occurred for landfill gas liquids removal pumps during the month of October:

- **Week of October 7:** Pump pulled and swapped in EW-87; pump pulled and swapped in EW-60 and tri-tubing replaced; pump installed in EW-93; pulled and cleaned ARV-1 and ARV-2; pump lost in EW-100 during attempted removal; pump cleaning and maintenance
- **Week of October 14:** Blackhawk pump at EW-81 replaced, fiberglass broke and will need to be replaced; air line stick ups installed at EW-56 and EW-66 to install pumps; pump cleaning and maintenance

- **Week of October 21:** Pumps pulled and swapped at EW-54, EW-94, and EW-98; pump built and installed at EW-55; cycle counters repaired at EW-55, EW-60, and EW-61; force main repaired at EW-55; pump cleaning and maintenance
- **Week of October 28:** Daily bump/check pumps in wellfield, bleed force main pressure, pump maintenance, cleaning, and testing; excessive force main pressure bled throughout the field daily; pulled and swapped pumps in EW-52, -67, -89, replacing pump tubing for each pump; blockage in the main force main discharge line successfully released

In some cases, low volumes of landfill liquids removed correlate to low measured liquid levels within the gas wells. This was true of well EW-69 in October 2024. When this condition is identified, pumps may be relocated to wells with consistently higher liquid levels.

The City and SCS understand that operations of dewatering pumps are critical to address issues related to heat, odors, and the efficient operation of the GCCS. The landfill conditions present a challenging environment for pump operations. Pumps require servicing after relatively short intervals. The SWP No. 588 Landfill's float-style pumps are bump-checked daily, and Blackhawk piston drive rods are cleaned routinely each week.

Daily pump checks and maintenance of spare pumps will continue in the coming month along with pump replacements as needed. The City, along with SCS-FS, has determined that the best pumps for the landfill's current conditions are QED pumps designed for high temperature operation. The City received eight additional eight pumps in October that were used to install pumps in different wells and to swap/replace others. The additional pumps will help with the rotation of field pumps needing maintenance and replacement going forward.

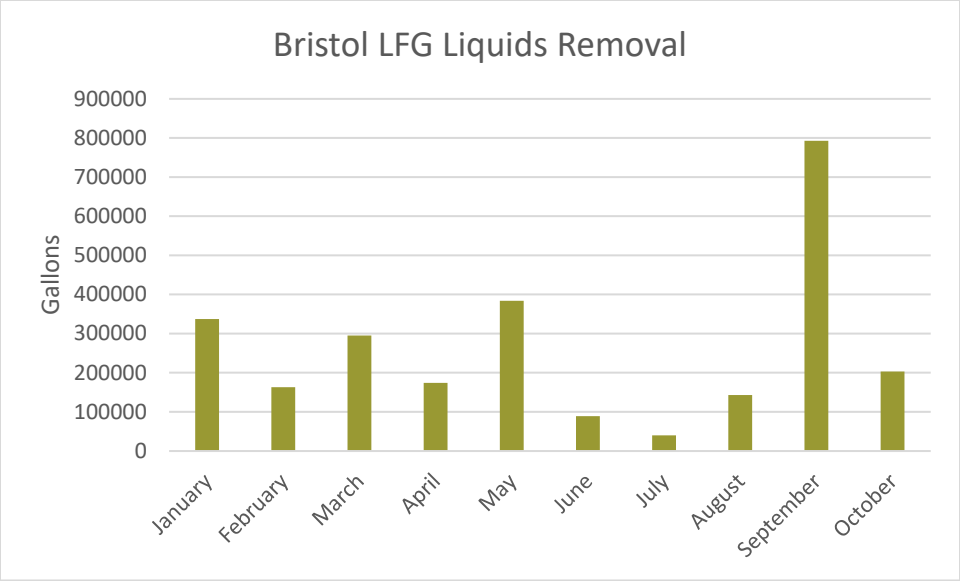
4.1.1 Total LFG Liquids Removal

To improve the accuracy of the total landfill gas liquids flow rate, two flow meters were installed on the landfill gas liquid forcemains in December 2023. One flow meter was installed on the SWP No. 588 primary landfill gas liquid forcemain. The other was installed on the SWP No. 588 alternate landfill gas liquids forcemain, which also serves as the conduit for condensate from the SWP No. 498 landfill gas liquids and the SWP No. 588 stormwater pump.

The progress in landfill gas liquids removal over the past nine months is depicted in Figure 15. Given the improved accuracy of a flowmeter compared to flow estimates based on collected stroke counter data, SCS and the City will only use calculated flow rates to track individual pump performance going forward, not the total liquids removal from the system.

In October, the total liquids flow recorded by the SWP No. 588 primary landfill gas liquids flowmeter was 203,000 gallons. The decrease in recorded LFG liquids flow since the spike in September is likely reflective of forcemain drainage exercises cited in the September report.

Figure 15. Estimated Volume of Liquids Removed from Landfill Gas Wells



4.2 SAMPLING AND ANALYSIS PLAN

On November 1, 2022, SCS submitted to VDEQ the Dual Phase Landfill Gas Extraction Well Leachate Monitoring Plan for the Bristol Integrated Solid Waste Management Facility Solid Waste Permit No. 588 Landfill and the plan was subsequently revised on December 1, 2022. Refer to the November 2022 and December 2022 Compliance Reports for the SWP No. 588 Landfill for additional information.

4.2.1 Sample Collection

On October 2 and 3, 2024, SCS collected leachate samples from three Dual Phase LFG extraction wells (EW-36A, EW-50, EW-52, and EW-82). At the time of sample collection only dissolved oxygen, oxidation-reduction potential, pH, specific conductance, temperature, and turbidity were measured and recorded at the time of sample collection. The associated field logs are included in **Appendix F**. SCS' field staff were not able to collect samples from select wells as summarized in **Table 6**.

Table 6. Summary Wells Unable to be Sampled for Leachate

Wells With Pumps	Wells Without Pumps
• Pump was not running at the time of monitoring for the following wells: EW-51, EW-53, EW-54, EW-59, EW-60, EW-61, EW-62, EW-67, EW-68, EW-69, EW-74, EW-78, EW-82, EW-85, EW-87, EW-88, EW-91, EW-92, EW-96, EW-98, and EW-100.	• There was no pump at the time of the monitoring for the following wells: EW-55, EW-57, EW-58, EW-66, EW-71, EW-72, EW-73, EW-86, EW-93, EW-95, and EW-99.

Table 6. Summary Wells Unable to be Sampled for Leachate

Wells With Pumps	Wells Without Pumps
• Pump was not running at the time of monitoring for the following wells and the liquid level could not be gauged as well was under vacuum thus unsafe to open for water level: EW-33B, EW-49, EW-64, EW-65, EW-81, and EW-83. • Pump was disconnected at the time of monitoring for EW-89. • Pump was not running for EW-90 and the liquid depths were not measured at the time of monitoring due to a potential blockage. • Pump was not running for EW-70 and the liquid depth was not measured at the time of monitoring as there was standing water around the well and not safely accessible. • Pump was not running, and the liquid depth was not measured at the time of monitoring for EW-76 and EW-94.	• There was no pump at the time of the monitoring for the following wells and the liquid level could not be gauged as well was under vacuum thus unsafe to open for water level: EW-63, EW-75, EW-77, EW-79, EW-80, and EW-84. • There is no pump and the well appeared dry at the time of monitoring for EW-56. • There was no pump at the time of the monitoring for EW-97 and well was too tall to safely measure the liquid level.

The samples were delivered to Enthalpy Analytical (Enthalpy) in Richmond, Virginia and Pace Analytical Services, LLC (Pace) in Baton Rouge, Louisiana for analysis. Enthalpy's and Pace's Virginia Division of Consolidated Laboratory Services (VELAP) certification is provided on the certificates of analysis (COAs) included in Appendix F. The samples were analyzed for the parameters utilizing the analytical methods described in the Dual Phase Landfill Gas Extraction Well Leachate Monitoring Plan.

4.2.1 Quality Assurance and Quality Control

Field quality control (QC) involved the collection and analysis of trip blanks to verify that the sample collection and handling processes did not impair the quality of the samples. Trip blanks were prepared for VOC analysis via Solid Waste (SW)-846 Method 8260D. In conjunction with the preparation of the groundwater sample collection bottle set, laboratory personnel filled each trip blank sample bottle with distilled/deionized water and transported them with the empty bottle kits to SCS. Field personnel handled the trip blanks like a sample; they remained un-opened, were transported in the sample cooler, and were returned to the laboratory for analyses. A trip blank is used to indicate potential contamination due to the potential migration of VOCs from the air at the site or in the sample shipping containers, through the septum or around the lid of the sampling vials and into the sample.

Laboratory quality assurance/quality control (QA/QC) involves the routine collection and analysis of method reagent blanks, matrix spike (MS) and matrix spike duplicate (MSD) samples, and laboratory control samples (LCS). A summary of each of these is presented below:

- Method Blank – The method blank is deionized water subjected to the same reagents and manipulations to which site samples are subjected. Positive results in the method blanks may indicate either contamination of the chemical reagents or the glassware and implements used to store or prepare the sample and resulting solutions.

- MS/MSD – A MS is an aliquot of a field sample with a known concentration of target parameter added to it. An MSD is an intra-laboratory split sample spiked with a known concentration of target parameter. Spiking for each occurs prior to sample analysis. MS/MSD samples are collected for every batch of twenty or fewer samples. Matrix spike recoveries are used to indicate what effect the sample matrix may have on the reported concentration and/or the performance of the sample preparation and analysis.

- LCS – These samples consist of distilled/deionized water injected with the parameters of interest for single parameter methods and selected parameters for multi-parameter methods according to the appropriate analytical method. LCS samples are prepared and analyzed for each batch containing twenty or fewer samples. LCS recoveries are used to monitor analytical accuracy.

Surrogate recoveries are also measured as a part of laboratory QA/QC. Surrogates are organic compounds that are like the parameters of interest in chemical composition, extraction, and chromatography, but are not normally found in environmental samples. These compounds are inserted into blank, standards, samples, and spiked samples prior to analysis for organic parameters only. Percent recoveries are calculated for each surrogate. Spike recoveries at or below acceptance criteria indicate whether analytical results can be considered biased high or biased low.

No trip or method blank detects were identified for the October 2024 monitoring event. The laboratory analysis report for the October 2024 monitoring event trip blank is included in **Appendix F**. The October 2024 monitoring event laboratory QA/QC reports, including the method blank results, are included in the COA in **Appendix F**.

4.2.2 Data Validation

To identify analytical data that may not represent valid results, data from the monitoring events were validated by the Laboratory and SCS in accordance with United States Environmental Protection Agency (EPA) guidance[1]. Data flagged with a "J" qualifier indicates the quantitation of the parameter is less than the laboratory's limit of quantitation but greater than the laboratory's limit of detection (LOD); thus, the concentration is considered estimated. Samples with parameter detections less than five times that of the trip blank, field blank, and/or method blank detection but greater than the laboratory's LOD are flagged with a "B" qualifier. Samples with common laboratory contaminant parameter detections less than 10 times that of the trip blank, field blank, and/or

[1] United States Environmental Protection Agency. Guidance for Data Usability in Risk Assessment (Part A-14). April 1992.
United States Environmental Protection Agency. Office of Superfund Remediation and Technology Innovation. National Functional Guidelines for Inorganic Superfund Methods Data Review. November 2020.
United States Environmental Protection Agency. Office of Superfund Remediation and Technology Innovation. National Functional Guidelines for Organic Superfund Methods Data Review. November 2020.

method/laboratory blank detection but greater than the laboratory's LOD are flagged with a "B" qualifier. Data with a "B" qualifier are considered not validated as the detection may be anomalous due to cross-contamination during sampling, transportation of samples, or laboratory analysis.

No leachate results were flagged with a "B" qualifier for the October 2024 monitoring event as no detections were identified in the trip or method blanks. The October 2024 detections flagged with a "J" qualifier are shown on Table 6.

4.2.3 Laboratory Analytical Results

The analytical results for the October 2024 leachate samples collected from extraction wells EW-36A, EW-50, EW-52, and EW-82 are summarized in Table 7. The associated COA is included in Appendix F. Parameter results from September 2024 and previous monitoring events (November 2022 – September 2024) are presented on a table in Appendix F. Time-series plots of each VOC for the wells that have historically been sampled are also included in Appendix F.

Table 7. Monthly LFG-EW Leachate Monitoring Event Summary

Well ID	EW-36A	EW-50	EW-52	EW-82	LOD	LOQ
Parameter	**October 2024 Concentration**					
Ammonia as N (mg/L)	**343**	---	---	**1490**	73.1	100
	---	**1370**	**2180**	---	146	200
Biological Oxygen Demand (mg/L)	**180**	**6680**		**36100**	0.2	2
Chemical Oxygen Demand (mg/L)	**951**	---	---	---	500	500
	---	**10700**	---	---	2000	2000
	---	---	**83300**	**62000**	10000	10000
Nitrate as N (mg/L)	ND	---	---	---	0.1	0.5
	---	ND	---	ND	1	5
	---	---	ND	---	10	50
Nitrite as N (mg/L)	ND	---	---	---	0.1	0.5
	---	ND	---	ND	1	5
	---	---	ND	---	10	50
Total Kjeldahl Nitrogen (mg/L)	**351**	---	---	**1870**	40	100
	---	**1360**	**2850**	---	100	250
Total Recoverable Phenolics (mg/L)	**0.376**	---	---	---	0.03	0.05
	---	**8.4**	---	---	0.3	0.5
	---	---	---	**45.1**	1.5	2.5
	---	---	**37.6**	---	3	5
SEMI-VOLATILE ORGANIC COMPOUND (ug/L)						
Anthracene	ND	ND	---	---	50	100
	---	---	ND	ND	200	400
TOTAL METALS (mg/L)						
Arsenic	**0.1**	**0.26**	**0.24**	**0.18**	0.005	0.01
Barium	**0.26**	**0.568**	**1.17**	**3.33**	0.01	0.05
Cadmium	**0.00117 J**	ND	ND	ND	0.001	0.01

Table 7. Monthly LFG-EW Leachate Monitoring Event Summary

Well ID	EW-36A	EW-50	EW-52	EW-82	LOD	LOQ
Parameter	**October 2024 Concentration**					
TOTAL METALS (mg/L)						
Chromium	**0.0873**	**0.246**	**0.929**	**0.349**	0.004	0.01
Copper	**0.00612 J**	ND	ND	**0.00306 J**	0.003	0.01
Lead	ND	ND	**0.12**	ND	0.01	0.01
Mercury	ND	ND	ND	**0.00254**	0.002	0.002
Nickel	**0.07251**	**0.115**	**0.3536**	**0.05751**	0.01	0.01
Selenium	ND	ND	ND	ND	0.0085	0.01
Silver	ND	ND	ND	ND	0.0006	0.01
Zinc	**0.266**	**0.077**	---	**0.342**	0.025	0.05
	---	---	**20.2**	---	0.25	0.5
VOLATILE FATTY ACIDS (mg/L)						
Acetic Acid	ND	---	---	---	---	50
	---	260	---	---	---	100
	---	---	---	**4780**	---	250
	---	---	**9410**	---	---	1250
Butyric Acid	ND	---	---	---	---	50
	---	**ND**	---	---	---	100
	---	---	---	**1630**	---	250
	---	---	**3070**	---	---	1250
Lactic Acid	ND	---	---	---	---	50
	---	ND	---	---	---	100
	---	---	---	2590	---	250
	---	---	5630	---	---	1250
Propionic Acid	ND	---	---	---	---	50
	---	**275**	---	---	---	100
	---	---	---	**1470**	---	250
	---	---	**2240**	---	---	1250
Pyruvic Acid	ND	---	---	---	---	50
	---	ND	---	---	---	100
	---	---	---	ND	---	250
	---	---	ND	---	---	1250
VOLATILE ORGANIC COMPOUNDS (ug/L)						
2-Butanone (MEK)	**28.2**	---	---	---	3	10
	---	**2770**	---	---	60	200
	---	---	**13000**	**10800**	150	500

Table 7. Monthly LFG-EW Leachate Monitoring Event Summary

Well ID	EW-36A	EW-50	EW-52	EW-82	LOD	LOQ
Parameter	**October 2024 Concentration**					
VOLATILE ORGANIC COMPOUNDS (ug/L)						
Acetone	**30.1**	---	---	---	7	10
	---	**5230**	---	---	140	200
	---	---	**49800**	**40700**	3500	5000
Benzene	**306**	---	---	---	0.4	1
	---	**429**	---	---	2	5
	---	---	**1200**	**828**	20	50
Ethylbenzene	**59.6**	---	---	---	0.4	1
	---	**112**	---	---	2	5
	---	---	**62.5**	**76**	20	50
Tetrahydrofuran	**248**	---	---	---	10	10
	---	**318**	---	---	50	50
	---	---	**2580**	**2730**	500	500
Toluene	**55.7**	---	---	---	0.5	1
	---	**173**	---	---	2.5	5
	---	---	**65.5**	**72**	25	50
Xylenes, Total	**54.3**	---	---	---	1	3
	---	**201**	---	---	5	15
	---	---	**144 J**	**75.5 J**	50	150

--- = not applicable
J = Constituent was detected at a concentration above the laboratory's LOD but below the laboratory's LOQ. Concentration is estimated and not validated.
LOD = laboratory's Limit of Detection
LOQ = laboratory's Limit of Quantitation
mg/L = milligrams per liter
ND = Not Detected
ug/L = micrograms per liter

5.0 SETTLEMENT MONITORING AND MANAGEMENT

The City is taking steps to track and manage settlement occurring in the landfill. A summary of actions taken to quantify and manage settlement is included in the sections below.

5.1 SETTLEMENT MONITORING AND MANAGEMENT PLAN

On behalf of the City, SCS submitted a settlement monitoring and management plan to VDEQ on November 15, 2022. Refer to the 2022 November Monthly Compliance Report for the SWP No. 588 Landfill for additional information.

5.2 MONTHLY SURVEYS

5.2.1 Topographic Data Collection

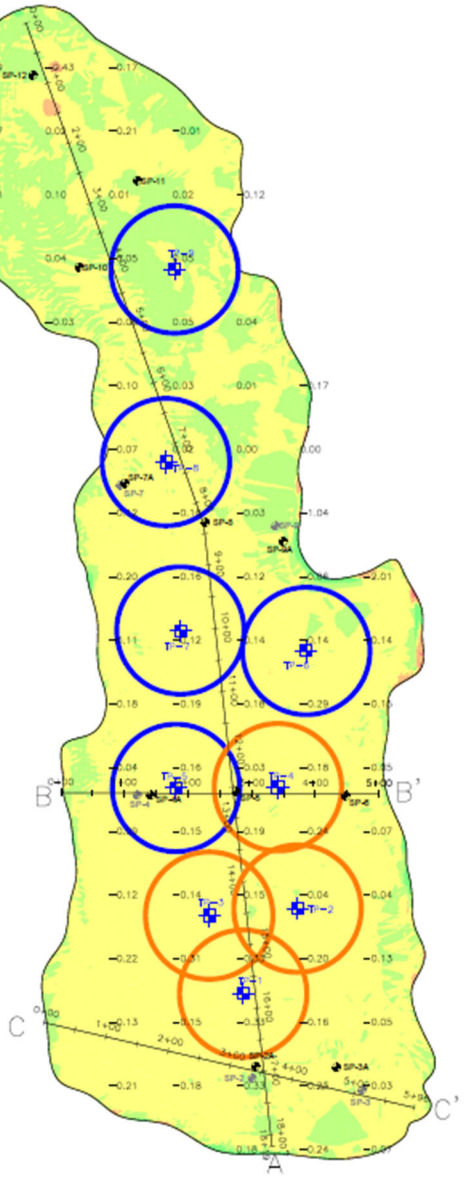
The City, through SCS, collected topographic data of the Solid Waste Permit No. 588 Landfill using photogrammetric methods via an unmanned aerial vehicle (UAV or drone). On October 16, 2024 the flight was completed and the topographic data collected. The topographic data collected is shown on Sheet 4 in Appendix E.

The topography within the landfill footprint was compared to topographic data collected by SCS using photogrammetric methods on September 23, 2024. A drawing depicting the September 23, 2024 topography is included as Sheet 3 in Appendix E.

Based on a comparison of the topographic data collected on those two dates, the data shows a fill of 800 cubic yards throughout the entire site. Fill may have been placed on the site to address differential settlement, in response to surface emissions monitoring results, and to provide access to landfill gas collection vertical wells. During that same time period, calculations indicate a "cut" value of approximately 3,800 cubic yards. Cut volumes are typically attributed to settlement. This resulted in a net volume decrease of approximately 3,000 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in Figure 16. Areas in yellow, orange, and red indicate where elevations decreased and areas in green indicate areas where elevations have increased. Darker colors indicate greater changes in elevation. This drawing is also included as Sheet 5 in Appendix E.

Figure 16. 1-Month Elevation Change Map



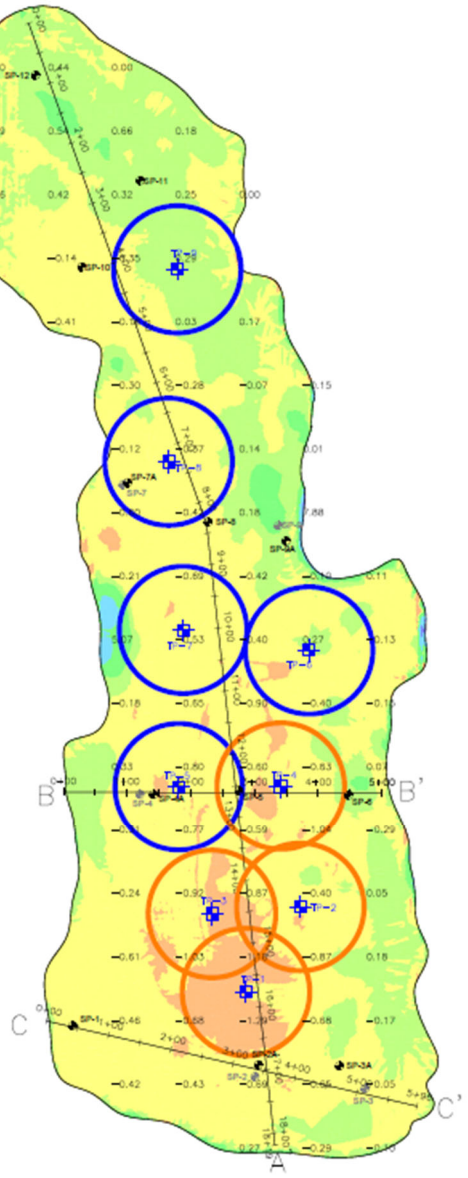
The locations of in-waste temperature monitoring probes are also shown on Figure 16, Figure 17, and Figure 18. The circles around the probes in each of these figures are indicative of the average borehole temperature. The circles shown are offset from the probes for clarity only and do not necessarily indicate temperatures measured at locations away from the probe. Probes with a blue circle around them typically have an average temperature less than 200°F across the full depth of the probe. Probes with an orange circle around them typically have an average temperature greater than 200°F and less than 250°F across the full depth of the probe. There were no probes measuring average temperatures greater than 250°F and less than 300°F during the month of September 2024.

SCS calculated the waste footprint for purposes of analysis to be 752,610 square feet. Based on that area and the net volume change, the average elevation decrease between the flyover dates was 0.1 feet.

SCS also compared the topographic data collected in October to the topographic data collected on July 16, 2024. Based on a comparison of the topographic data collected on those two dates, settlement occurred that reduced the volume of waste in the landfill by approximately 9,800 cubic yards. During that same time period calculations indicate approximately 3,900 cubic yards of fill were placed on the landfill, for a net decrease in waste volume of 5,900 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in Figure 17. Areas in orange/yellow indicate where elevations decreased and areas in green indicate areas where elevations have increased. Darker colors indicate greater changes in elevation. This drawing is also included as Sheet 6 in Appendix E.

Figure 17. 3-Month Elevation Change Map

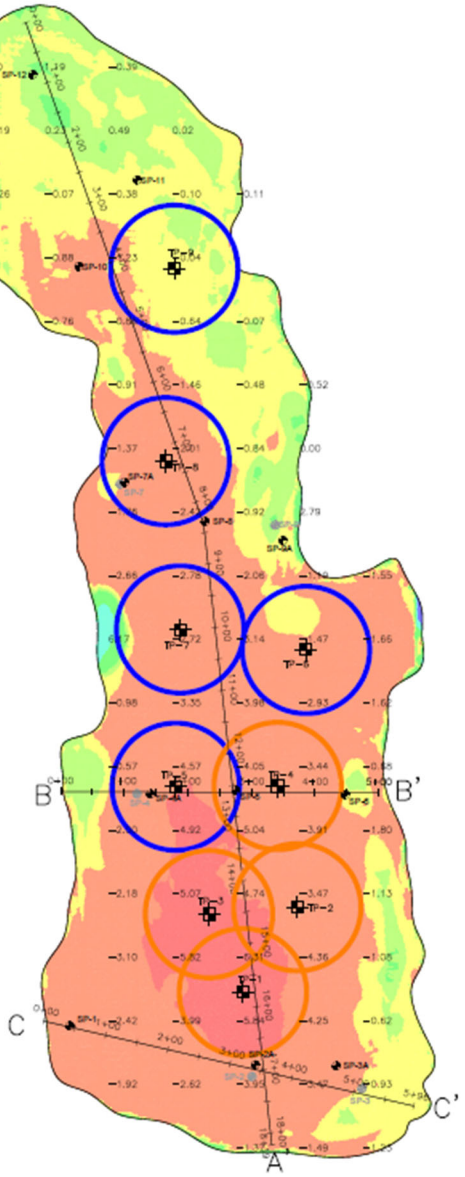


Based on the area of the landfill and the net volume change, the average elevation decrease was approximately 0.2 feet.

SCS also compared the topographic data collected in October 2024 to the drone topographic data collected on October 12, 2023 by SCS. Based on a comparison of the topographic data collected on those two dates, settlement occurred that reduced the volume of waste in the landfill by approximately 56,300 cubic yards. During that same time period approximately 2,300 cubic yards of construction-related fill were placed on the landfill. This fill was primarily soil placed as part of the sidewall odor mitigation system construction and ongoing maintenance (i.e. filling to compensate for settlement). This resulted in a net volume decrease of approximately 54,000 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in Figure 18. Areas in red indicate where elevations decreased and areas in green indicate areas where elevations have increased. Darker colors indicate greater changes in elevation. This drawing is also included as Sheet 7 in Appendix E.

Figure 18. 1-Year Elevation Change Map



The largest settlement occurred primarily in the southern end of the landfill where the waste settled by approximately 6 feet or more in some areas. These significant settlement values are typical of elevated temperature landfill conditions. The landfill perimeter exhibited an increase in elevation, likely due to soil placement associated with construction and/or ongoing maintenance of the

Sidewall Odor Mitigation System. There were variations in elevation associated with soil stockpiling operations.

Based on the landfill area and the net volume change, the average elevation decrease was approximately 1.8 feet.

SCS will collect topographic data covering the landfill surface again in November using photogrammetric methods via UAV. This data will be compared to the data collected in November 2023, August 2024, and October 2024.

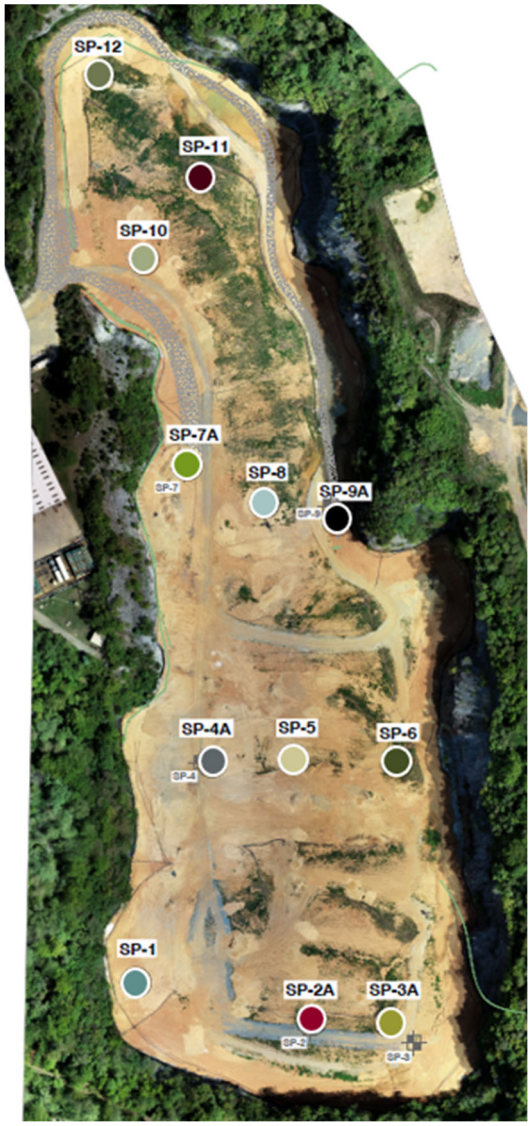
5.2.2 Settlement Plate Surveys

On November 7, 2022 SCS field services installed 12 settlement plates on the Solid Waste Permit No. 588 landfill. The construction and installation of the settlement plates generally conforms to the design outline in the Settlement Monitoring and Management Plan. The tops of the PVC pipes were painted orange to improve visibility.

Five new settlement plates (SP-2A, SP-3A, SP-4A, SP-7A, and SP-9A) installed during June 2024 are intended to replace non-operational settlement plates. SP-9A was installed due to the existing SP-9's location in a low area which is prone to flooding after rain. The first elevation survey of the new settlement plates was completed on 7/10/24. They have replaced the decommissioned plates in the readings.

The settlement plate locations are depicted in Figure 19 and on Sheet 1 in Appendix E.

Figure 19. Settlement Plate Locations



The locations of the settlement plates were surveyed on November 14, 2022. The settlement plates were surveyed again on December 13, 2022; January 3, 2023; February 6, 2023; March 8, 2023; April 3, 2023; May 11, 2023; June 5, 2023; July 10, 2023; August 17, 2023; September 11, 2023; October 11, 2023; November 6, 2023; December 12, 2023; January 11, 2024; February 6, 2024; March 13, 2024; April 9, 2024; May 8, 2024; June 4, 2024; July 10, 2024; July 31, 2024; September 10, 2024; and October 28, 2024. The surveyed coordinates[2] and elevation changes of the settlement plates are shown in Table 7.

[2] Settlement plate locations and coordinates are based on a local coordinate system.

Table 8. Elevation and Strain Data at Settlement Plate Locations

Settlement Plate	Northing	Easting	Elevation on Oct. 28, 2024	Elevation Change Since Sept. 10, 2024	Strain[3] Since Sept. 10, 2024	Elevation Change Since Installation	Strain/Year
SP-1	3,397,887.5	10,412,080.4	1,829.4	-0.1	-0.2%	-5.0	-1.3%
SP-2A	3,397,822.7	10,412,370.5	1,794.7	-0.3	-0.2%	-1.1	-1.5%
SP-3A	3,397,820.0	10,412,498.3	1,779.8	-0.1	-0.1%	-0.4	-0.7%
SP-4A	3,398,247.1	10,412,206.4	1,804.3	-0.3	-0.2%	-0.8	-1.4%
SP-5	3,398,255.8	10,412,339.4	1,790.1	-0.3	-0.1%	-10.6	-1.0%
SP-6	3,398,248.8	10,412,509.9	1,773.7	0.0	0.0%	-3.9	-0.2%
SP-7A	3,398,732.0	10,412,157.7	1,823.0	-0.1	-0.1%	-0.4	-0.7%
SP-8	3,398,678.3	10,412,290.8	1,800.7	-0.2	-0.1%	-6.7	-0.5%
SP-9A	3,398,644.3	10,412,416.2	1,788.6	-0.1	-0.1%	-0.2	-0.9%
SP-10	3,399,080.2	10,412,093.1	1,837.4	-0.1	0.0%	-2.8	-0.3%
SP-11	3,399,216.3	10,412,183.8	1,814.9	-0.1	0.0%	-1.5	-0.2%
SP-12	3,399,381.7	10,412,019.6	1,809.9	0.0	0.0%	-0.7	0.2%

Prior to April 2024, the City's in-house surveyor read the settlement plate elevations. Starting April 2024, the settlement plate elevations were measured by FEI Civil Engineers and Land Surveyors.

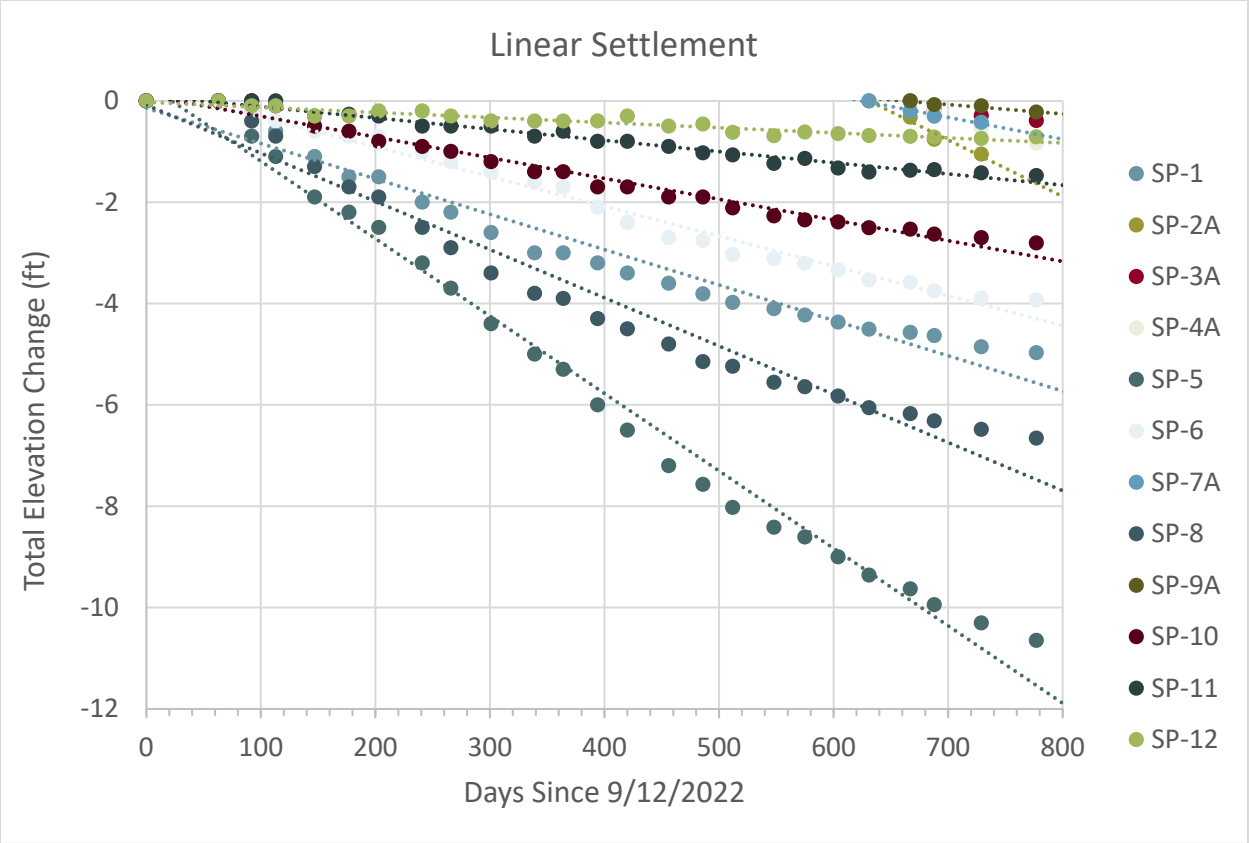
Settlement Plates 1, 2A, and 4A demonstrated larger settlements than at other locations. Settlement Plates 1, 2A and 4A are located in the southern end of the landfill. This area is the location of the gas wells and temperature probes exhibiting higher temperatures. These higher settlement values are typical of elevated temperature landfill conditions.

The change in elevation at the rest of the settlement plates was lower and more representative of typical settlement at municipal landfills with waste of similar depth.

Figure 20 shows the changes in elevation of select settlement plates over time. Best-fit lines for these changes in elevation are also shown on the graph. For the purposes of recording data in this figure, times are measured in days since the landfill was required to stop accepting waste.

Figure 20. Elevation Change of Select Settlement Plates Over Time

[3] Strain is defined as the change in elevation divided by the estimated waste depth.



The settlement plates will be surveyed again during the month of November 2024. The elevations surveyed will be compared to the elevations surveyed the previous months.

6.0 INTERMEDIATE COVER AND EVOH COVER SYSTEM

The City is taking steps to provide intermediate and temporary cover of the wastes in the landfill. The sections below outline the steps taken by the City.

6.1 INTERMEDIATE COVER INSTALLATION

The City completed hauling and placement of a 12-inch-thick intermediate cover across the entire landfill prior to October 10, 2022. The cover was placed in accordance with 9VAC20-81-140(B)(1)(d). SCS coordinated with the City to dig a series of test holes to verify cover thickness in select locations. Details of these verifications were discussed in the October 2022 Monthly Compliance Report for the SWP No. 588 Landfill.

6.2 EVOH COVER SYSTEM DESIGN

On December 4, 2023, SCS submitted a revised stormwater management plan to submit to VDEQ, including revised drawings and calculations. The revised SWMP includes the three quarry basins, additional stormwater pumps, new stormwater force mains, and the preliminary layout of the new electrical infrastructure along the quarry rim.

On December 18, 2023 SCS and VDEQ met to discuss concerns about the impact of settlement on the proposed EVOH Cover System. The City discussed the appropriate schedule for EVOH deployment with VDEQ given the significant settlement the site is experiencing. An amendment to the Consent Decree was subsequently issued which requires the EVOH deployment no later than December 1, 2026. The amended Consent Decree also requires regular settlement assessments, and the EVOH deployment may occur earlier if settlement rates appear acceptable. The first of these assessments was submitted to VDEQ on April 11, 2024. The most recent assessment was completed on October 11, 2024. The next assessment will be submitted on or before January 11, 2025.

6.3 EVOH COVER SYSTEM PROCUREMENT

Drawings used for the purposes of bidding, procurement and construction of the EVOH cover system will generally conform to the layout and details in the drawings described in section 6.2. SCS also prepared and submitted to VDEQ a specification for the EVOH geomembrane on January 30, 2023 based upon industry standards and discussions with material manufacturers. This specification and drawing set represent the first steps in the procurement process. SCS and the City have coordinated with potential suppliers to specify a product that is not currently anticipated to have long lead times. SCS has received a pro-forma data sheet from one manufacturer which is preparing a customized EVOH product for the No. 588 landfill.

6.4 EVOH COVER SYSTEM INSTALLATION

SCS will prepare regular settlement assessments for VDEQ per the amended Consent Decree. EVOH deployment will commence, with VDEQ's concurrence, if the latest assessment shows acceptable settlement rates. The amended consent decree requires installation of the EVOH cover system by December 1, 2026.

7.0 STORMWATER MANAGEMENT

The City is taking steps to implement a stormwater management plan at the landfill. The sections below outline the steps taken by the City.

7.1 STORMWATER MANAGEMENT PLAN DEVELOPMENT

The initial stormwater management plan (SWMP) was submitted to VDEQ on April 28, 2023.

The revised SWMP was submitted to VDEQ on December 4, 2023. The plan proposes a stormwater pumping system to convey stormwater collected atop the EVOH cover system to an existing discharge point permitted under VPDES permit VAR050053. The proposed system includes the construction of three stormwater collection basins in the quarry and the installation of pairs of skid-mounted stormwater pumps. The stormwater will be conveyed by force main pipes to the existing stormwater basins located west of the quarry.

The plan proposes modifications to the existing stormwater basins west of the quarry to achieve discharge quantity targets. Modifications include increasing the basin depths and installing new outlet riser structures.

7.2 STORMWATER MANAGEMENT BASIN DESIGN AND CONSTRUCTION

The landfill surface will be regraded to form the SWM basins proposed in the stormwater management plan. The earthwork will be completed as the first stage of the interim EVOH cover system installation project. A revised landfill gas management plan is being prepared to facilitate the regrading of the landfill, which will affect existing landfill gas infrastructure. The landfill gas system will be modified to accommodate the earthwork.

Attention is being given to settlement concerns in the vicinity of the stormwater basin or basins. Calculations provided to VDEQ on June 23, 2023 demonstrate the weight of the ponded water should not cause excessive settlement relative to ongoing settlement observed within the quarry. Including additional stormwater basins within the quarry will distribute the weight of ponded water over a wider area relative to the single stormwater basin design.

7.3 STORMWATER MANAGEMENT PLAN IMPLEMENTATION

The stormwater management plan design drawings are being incorporated into the overall construction drawings for the interim EVOH cover system. The interim EVOH cover system installation and stormwater management features will be bid and constructed as one project to facilitate simultaneous progress and completion.

As an interim measure, the City is currently operating a temporary stormwater pump to remove stormwater from the landfill surface.

7.4 LONG-TERM STORMWATER CONTROL AND REMOVAL

The stormwater management plan is designed with resiliency and redundancy to promote long-term operation. Refer to previously submitted compliance reports for details of long-term stormwater control and removal.

7.5 STORMWATER MONITORING

Stormwater monitoring will commence upon initial discharge of stormwater from the quarry stormwater pumping system. As stated in the stormwater management plan drawings, the stormwater shall be monitored in accordance with the facility's VPDES general permit for discharge of stormwater associated with industrial activity. Additional requirements include collecting additional stormwater samples at the discharge pipes for the quarry stormwater pumping system. The stormwater from the quarry basins will be sampled on a monthly basis prior to discharge to the upper stormwater ponds. The Operations Manual will be revised to include these additional requirements.

If the stormwater becomes contaminated or sampling indicates contamination above discharge limits, the stormwater will be diverted to the sanitary sewer system. The diversion to the sanitary sewer system will continue until the source of contamination is identified and resolved. The stormwater discharge pipe alignment will pass adjacent to the existing sanitary sewer manhole. A tee with isolation valves will be used to direct the stormwater to the upper basins or the sanitary sewer manhole.

Stormwater currently pumped from the surface of the landfill is discharged to the sanitary sewer and is sampled with other wastewater discharges in accordance with the facility's industrial wastewater discharge permit.

8.0 MISCELLANEOUS

8.1 CEASE WASTE ACCEPTANCE

The City ceased acceptance of offsite waste at the Solid Waste Permit No. 588 landfill prior to September 12, 2022.

8.2 LONG-TERM PLAN

SCS submitted the Monitoring, Maintenance, and Repair Plan to VDEQ for the SWP No. 588 landfill on December 30, 2022. Refer to the December 2022 Monthly Compliance Report for the SWP No. 588 Landfill for additional information. The City has taken steps to implement the plan that were detailed in the March 2023 Monthly Compliance Report for the SWP No. 588 Landfill.

8.3 MONTHLY COMPLIANCE REPORTS

As described in the introduction this report is intended to provide comprehensive updates regarding progress towards completion of each item described in Appendix A of the Consent Decree between the City and VDEQ.

- Ongoing basis: Four (4) posts on each the BristolVALandfill.org site and the existing City of Bristol Landfill Notifications and Information page covering important updates including:
    - Progress updates related to remediation efforts and normal maintenance activities at the Quarry Landfill
    - Updates included activities at the quarry landfill such as successful management in dealing with heavy rains related to hurricane Helene, announcement of the EPA's report of no potential issues identified in their site visit, an inspection by DEQ to examine the installation of a replaced groundwater well, and highlighting the new odor reporting form which is accessible on the quarry landfill website.

- Weekly updates on landing page on Bristolvalandfill.org titled "Air Sampling and Air Monitoring" that includes a summary of the air sampling and monitoring being conducted by Bristol, VA around the quarry landfill.
    - Website now includes weekly air monitoring reports starting with May 15th, 2023 and running through May 19th of 2024. More reports will be posted as the transition to a new air monitoring system is being implemented.

- E-mail communication sent to the list of members of the public signed up through the Bristol, VA website, the BristolVALandfill.org website, or at subsequent Open Houses to receive information via e-mail
    - E-mails sent included weekly remediation progress update and links to website updates and latest news articles.

Appendix A

Surface Emissions Monitoring Summary Letters

October 9, 2024
File No. 02218208.04

Mr. Jonathan Chapman
Enforcement Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – October 1, 2024
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Mr. Chapman:

On behalf of the City of Bristol (City), SCS Engineers (SCS), is pleased to submit the results of the Weekly Surface Emissions Monitoring event performed at the Bristol Integrated Solid Waste Facility located in Bristol, Virginia on October 1, 2024. This Weekly Surface Emissions Monitoring (SEM) Event was performed in accordance with Appendix A.1.i of the Consent Decree between the Commonwealth of Virginia and the City of Bristol.

The monitoring generally conforms to the requirements of 40 CFR 63.1960(c) and (d), and 40 CFR 60.36f(c) and (d), and 40 CFR 60, Appendix A, Method 21. The landfill gas (LFG) collection system is required to operate such that the methane concentration is less than 500 ppm above background at the landfill surface.

The monitoring route includes the entire waste footprint of the Permit No. 588 Landfill. Sampling was conducted with a Thermo Scientific TVA-2020 Flame Ionization Detector (FID) at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint, including at the temperature probes and the newly installed and connected gas extraction wells. The approximate monitoring route and sampling locations are presented in the attached Drawing.

At the time of monitoring, all areas of the Permit No. 588 Landfill footprint are subject to regulatory monitoring based on the regulatory time schedule stipulated in 40 CFR 63.1960(b) and 40 CFR 60.36f(b). The Permit No. 588 Landfill has a surface area of approximately 17.3 acres. Therefore, the minimum number of sampling points to cover the appropriate portion of the landfill footprint, utilizing a 30-meter grid interval, is approximately 82 (4.75 points per acre). A summary of the results of the surface emissions monitoring is provided in Table 1.

Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	167
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	67
Number of Exceedances	5
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	5

REMONITORING OF ONGOING EXCEEDANCES

In accordance with 40 CFR 63.1960(c)(4)(ii) and 40 CFR 60.36f(c)(4)(ii), corrective actions and a remonitoring event are to be performed within 10 days of the initial exceedance. In accordance with 40 CFR 63.1960(c)(4)(iii) and 40 CFR 60.36f(c)(4)(iii) additional corrective actions and a second 10-day retest are to be performed if the initial 10-day retest indicates methane values greater than the regulatory threshold. The Facility performs corrective actions, as necessary, including wellhead vacuum adjustments, the installation of well-bore seals, and addition of soil cover prior to weekly monitoring events at locations that previously exhibited elevated methane concentrations.

In accordance with 40 CFR 63.1960(c)(4)(v) and 40 CFR 60.36f(c)(4)(v) a new well or collection device must be installed or an alternate remedy must be submitted within 120 days at locations that continue to exhibit methane concentrations above the regulatory threshold for two consecutive re-tests.

The Facility observed a decrease in exceedance points during this weekly event. The Facility will continue to adjust vacuum at extraction wells in an effort to reduce the number of exceedances.

A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	10/1/24 Event	10/1/24 Event Result	Comments
EW-79	7/22/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-63	8/1/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-64	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-77	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-33B	8/7/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-65	8/21/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
Tag 61	8/21/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-67	9/9/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-96	9/5/24	1-Month Retest	Passed	Exceedance Resolved
EW-75	9/9/24	2nd 10-Day Retest	Passed	Requires 1-Month Retest
EW-80	9/16/24	N/A	Failed	Requires 2nd 10-Day Retest

If you have questions or require additional information, please contact either of the undersigned.

Sincerely,

William J. Fabrie

Lucas S. Nachman

William J. Fabrie
Staff Professional
SCS Engineers

Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WJF

cc: Randall Eads, City of Bristol
Jonathan Hayes, City of Bristol
Laura Socia, City of Bristol
Susan “Tracey” Blalock, VDEQ

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 1, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
1	12.7 PPM	OK			Start Serpentine Route
2	6.0 PPM	OK			
3	20.1 PPM	OK			
4	2.9 PPM	OK			
5	7.3 PPM	OK			
6	3.5 PPM	OK			
7	3.1 PPM	OK			
8	5.3 PPM	OK			
9	3.8 PPM	OK			
10	4.7 PPM	OK			
11	3.8 PPM	OK			
12	3.7 PPM	OK			
13	3.3 PPM	OK			
14	3.3 PPM	OK			
15	2.6 PPM	OK			
16	3.9 PPM	OK			
17	4.9 PPM	OK			
18	2.2 PPM	OK			
19	1.9 PPM	OK			
20	2.0 PPM	OK			
21	2.2 PPM	OK			
22	2.1 PPM	OK			
23	1.9 PPM	OK			
24	2.0 PPM	OK			
25	1.8 PPM	OK			
26	1.7 PPM	OK			
27	1.8 PPM	OK			
28	1.6 PPM	OK			
29	1.5 PPM	OK			
30	1.6 PPM	OK			
31	1.5 PPM	OK			
32	8.3 PPM	OK			
33	15.6 PPM	OK			
34	27.9 PPM	OK			
35	96.3 PPM	OK			
36	96.5 PPM	OK			
37	55.0 PPM	OK			
38	43.6 PPM	OK			
39	29.8 PPM	OK			
40	4.1 PPM	OK			
41	7.8 PPM	OK			
42	17.0 PPM	OK			
43	3.1 PPM	OK			
44	14.1 PPM	OK			
45	8.0 PPM	OK			
46	3.4 PPM	OK			
47	33.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 1, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
48	23.8 PPM	OK			
49	14.3 PPM	OK			
50	10.8 PPM	OK			
51	10.3 PPM	OK			
52	5.4 PPM	OK			
53	5.0 PPM	OK			
54	10.1 PPM	OK			
55	30.7 PPM	OK			
56	32.6 PPM	OK			
57	19.0 PPM	OK			
58	83.0 PPM	OK			
59	80.1 PPM	OK			
60	26.0 PPM	OK			
61	198.0 PPM	OK			
62	42.1 PPM	OK			
63	14.7 PPM	OK			
64	2.1 PPM	OK			
65	4.9 PPM	OK			
66	1.4 PPM	OK			
67	1.2 PPM	OK			
68	1.2 PPM	OK			
69	6.9 PPM	OK			
70	10.2 PPM	OK			
71	1.3 PPM	OK			
72	1.2 PPM	OK			
73	1.1 PPM	OK			
74	81.0 PPM	OK			
75	6.2 PPM	OK			
76	6.0 PPM	OK			
77	2.0 PPM	OK			
78	70.5 PPM	OK			
79	26.1 PPM	OK			
80	21.9 PPM	OK			
81	6.5 PPM	OK			
82	12.7 PPM	OK			
83	12.4 PPM	OK			
84	15.3 PPM	OK			
85	7.3 PPM	OK			
86	1.6 PPM	OK			
87	26.6 PPM	OK			
88	16.2 PPM	OK			
89	32.7 PPM	OK			
90	84.5 PPM	OK			
91	2.9 PPM	OK			
92	13.7 PPM	OK			
93	10.4 PPM	OK			
94	42.1 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 1, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
95	161.0 PPM	OK			
96	2.4 PPM	OK			
97	2.0 PPM	OK			
98	6.1 PPM	OK			
99	4.1 PPM	OK			
100	3.8 PPM	OK			End Serpentine Route
101	275.0 PPM	OK			EW-52
102	17.2 PPM	OK			TP-4
103	390.0 PPM	OK			EW-60
104	149.0 PPM	OK			EW-48
105	2.2 PPM	OK			TP-6
106	2.1 PPM	OK			EW-61
107	3.1 PPM	OK			EW-50
108	2.7 PPM	OK			EW-67
109	1.6 PPM	OK			EW-47
110	1.6 PPM	OK			EW-54
111	5.6 PPM	OK			EW-55
112	1.9 PPM	OK			EW-92
113	37.2 PPM	OK			EW-91
114	2.7 PPM	OK			EW-96
115	1.5 PPM	OK			TP-2
116	1.5 PPM	OK			EW-66
117	1.8 PPM	OK			EW-58
118	17.7 PPM	OK			EW-57
119	15.4 PPM	OK			TP-1
120	5.2 PPM	OK			EW-59
121	42.1 PPM	OK			EW-100
122	96.2 PPM	OK			EW-56
123	2.8 PPM	OK			EW-97
124	40.1 PPM	OK			EW-53
125	2.0 PPM	OK			TP-3
126	8.6 PPM	OK			EW-51
127	23.9 PPM	OK			TP-5
128	2.4 PPM	OK			EW-68
129	11.6 PPM	OK			EW-87
130	27.9 PPM	OK			EW-38
131	187.0 PPM	OK			TP-7
132	3.2 PPM	OK			EW-49
133	2.6 PPM	OK			EW-83
134	197.0 PPM	OK			EW-65
135	124.0 PPM	OK			EW-81
136	20.7 PPM	OK			TP-8
137	3437.0 PPM	HIGH_ALRM	36.60056	-82.14796	EW-64
138	67.8 PPM	OK			EW-63
139	2.6 PPM	OK			EW-42
140	22.4 PPM	OK			EW-76

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 1, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
141	4.7 PPM	OK			TP-9
142	3.5 PPM	OK			EW-62
143	12.0 PPM	OK			EW-74
144	2.8 PPM	OK			EW-32R
145	5.0 PPM	OK			EW-69
146	4.8 PPM	OK			EW-71
147	2.2 PPM	OK			EW-72
148	1.9 PPM	OK			EW-73
149	1.2 PPM	OK			EW-78
150	0.8 PPM	OK			EW-82
151	1.7 PPM	OK			EW-36A
152	0.8 PPM	OK			EW-85
153	0.9 PPM	OK			EW-88
154	1.7 PPM	OK			EW-89
155	0.9 PPM	OK			EW-93
156	0.9 PPM	OK			EW-94
157	1.1 PPM	OK			EW-98
158	8.4 PPM	OK			EW-99
159	103.0 PPM	OK			EW-95
160	2.2 PPM	OK			EW-90
161	485.0 PPM	OK			EW-86
162	37.0 PPM	OK			EW-84
163	839.0 PPM	HIGH_ALRM	36.60021	-82.14845	EW-80
164	1051.0 PPM	HIGH_ALRM	36.60051	-82.14819	EW-79
165	9412.0 PPM	HIGH_ALRM	36.60072	-82.14819	EW-77
166	1999.0 PPM	HIGH_ALRM	36.60105	-82.14831	EW-33B
167	111.0 PPM	OK			EW-75

Number of locations sampled:	167
Number of exceedance locations:	5

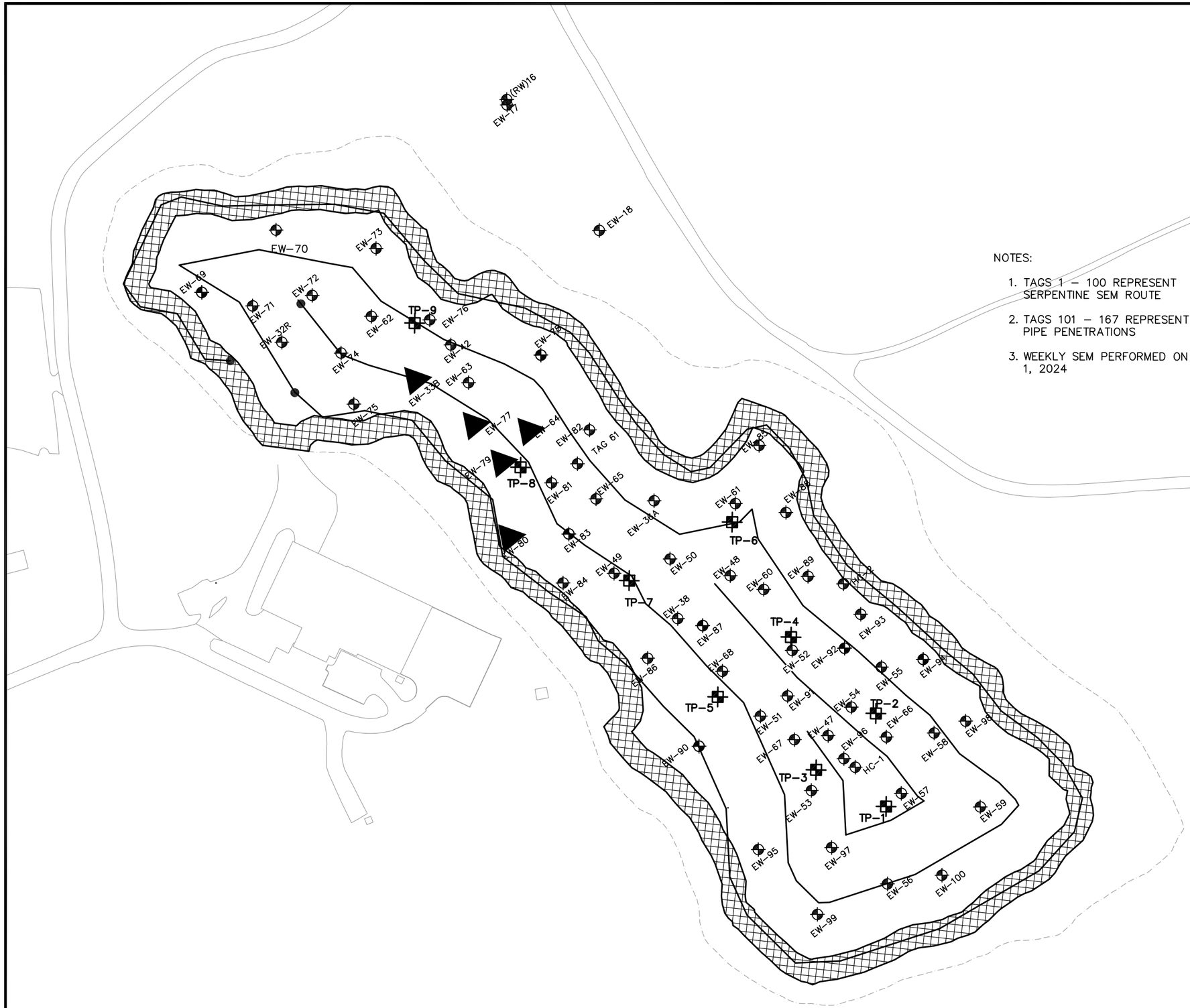
NOTES:
Points 1 through 100 represent serpentine SEM route.
Points 101 through 167 represent SEM at Pipe Penetrations
Weather Conditions: Partly Cloudy, 72°F Wind: 6 MPH SW

Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm

10/1/2024	11:17	ZERO	0.9	PPM
10/1/2024	11:21	SPAN	497.0	PPM

Background Reading:

10/1/2024	11:24	Upwind	3.2	PPM
10/1/2024	11:31	Downwind	6.5	PPM



NOTES:

1. TAGS 1 – 100 REPRESENT SERPENTINE SEM ROUTE
2. TAGS 101 – 167 REPRESENT SEM AT PIPE PENETRATIONS
3. WEEKLY SEM PERFORMED ON OCTOBER 1, 2024

0 80 160 240
SCALE IN FEET

N

LEGEND

- SEM ROUTE
- GAS WELL
- TEMPERATURE PROBE
- 79 EXCEEDANCE LOCATION
- 75 MONITORING ROUTE ENDPOINT

NO.	REVISION	DATE

SHEET TITLE
SEM ROUTE WITH BUFFER AREA

PROJECT TITLE
SURFACE EMISSIONS MONITORING
SOLID WASTE PERMIT #588

CLIENT
CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX. (804) 378-7433

PROJ. NO. 02218208.04
DSN. BY:
DWN. BY:
CHK. BY:
QA/QC BY:
APP. BY:

FILE: 02218208.04
DATE: 10/1/24
SCALE: AS SHOWN
DRAWING NO. 1 of 1

October 16, 2024
File No. 02218208.04

Mr. Jonathan Chapman
Enforcement Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – October 9, 2024
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Mr. Chapman:

On behalf of the City of Bristol (City), SCS Engineers (SCS), is pleased to submit the results of the Weekly Surface Emissions Monitoring event performed at the Bristol Integrated Solid Waste Facility located in Bristol, Virginia on October 9, 2024. This Weekly Surface Emissions Monitoring (SEM) Event was performed in accordance with Appendix A.1.i of the Consent Decree between the Commonwealth of Virginia and the City of Bristol.

The monitoring generally conforms to the requirements of 40 CFR 63.1960(c) and (d), and 40 CFR 60.36f(c) and (d), and 40 CFR 60, Appendix A, Method 21. The landfill gas (LFG) collection system is required to operate such that the methane concentration is less than 500 ppm above background at the landfill surface.

The monitoring route includes the entire waste footprint of the Permit No. 588 Landfill. Sampling was conducted with a Thermo Scientific TVA-2020 Flame Ionization Detector (FID) at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint, including at the temperature probes and the newly installed and connected gas extraction wells. The approximate monitoring route and sampling locations are presented in the attached Drawing.

At the time of monitoring, all areas of the Permit No. 588 Landfill footprint are subject to regulatory monitoring based on the regulatory time schedule stipulated in 40 CFR 63.1960(b) and 40 CFR 60.36f(b). The Permit No. 588 Landfill has a surface area of approximately 17.3 acres. Therefore, the minimum number of sampling points to cover the appropriate portion of the landfill footprint, utilizing a 30-meter grid interval, is approximately 82 (4.75 points per acre). A summary of the results of the surface emissions monitoring is provided in Table 1.

Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	167
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	67
Number of Exceedances	7
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	7

REMONITORING OF ONGOING EXCEEDANCES

In accordance with 40 CFR 63.1960(c)(4)(ii) and 40 CFR 60.36f(c)(4)(ii), corrective actions and a remonitoring event are to be performed within 10 days of the initial exceedance. In accordance with 40 CFR 63.1960(c)(4)(iii) and 40 CFR 60.36f(c)(4)(iii) additional corrective actions and a second 10-day retest are to be performed if the initial 10-day retest indicates methane values greater than the regulatory threshold. The Facility performs corrective actions, as necessary, including wellhead vacuum adjustments, the installation of well-bore seals, and addition of soil cover prior to weekly monitoring events at locations that previously exhibited elevated methane concentrations.

In accordance with 40 CFR 63.1960(c)(4)(v) and 40 CFR 60.36f(c)(4)(v) a new well or collection device must be installed or an alternate remedy must be submitted within 120 days at locations that continue to exhibit methane concentrations above the regulatory threshold for two consecutive re-tests.

The Facility continued to observe an increase of exceedance points during this weekly event, likely due to reduced vacuum at several of the vertical extraction wells. This will be addressed by increasing vacuum at these locations.

A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	10/9/24 Event	10/9/24 Event Result	Comments
EW-79	7/22/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-63	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-64	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-77	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-33B	8/7/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-65	8/21/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
Tag 61	8/21/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-67	9/9/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-80	9/16/24	2nd 10-Day Retest	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-75	9/9/24	1-Month Retest	Passed	Exceedance Resolved

If you have questions or require additional information, please contact either of the undersigned.

Sincerely,

William J. Fabrie

William J. Fabrie
Staff Professional
SCS Engineers

Lucas S. Nachman

Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WJF

cc: Randall Eads, City of Bristol
Jonathan Hayes, City of Bristol
Laura Socia, City of Bristol
Susan “Tracey” Blalock, VDEQ

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 9, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
1	68.7 PPM	OK			Start Serpentine Route
2	12.7 PPM	OK			
3	2.9 PPM	OK			
4	3.6 PPM	OK			
5	1.9 PPM	OK			
6	1.5 PPM	OK			
7	1.2 PPM	OK			
8	1.2 PPM	OK			
9	2.2 PPM	OK			
10	2.5 PPM	OK			
11	4.2 PPM	OK			
12	3.8 PPM	OK			
13	2.9 PPM	OK			
14	2.9 PPM	OK			
15	4.5 PPM	OK			
16	4.2 PPM	OK			
17	1.6 PPM	OK			
18	1.7 PPM	OK			
19	1.9 PPM	OK			
20	2.1 PPM	OK			
21	1.4 PPM	OK			
22	13.0 PPM	OK			
23	3.1 PPM	OK			
24	2.2 PPM	OK			
25	1.0 PPM	OK			
26	1.0 PPM	OK			
27	0.9 PPM	OK			
28	1.2 PPM	OK			
29	37.6 PPM	OK			
30	15.9 PPM	OK			
31	21.4 PPM	OK			
32	248.0 PPM	OK			
33	39.4 PPM	OK			
34	196.0 PPM	OK			
35	23.3 PPM	OK			
36	344.0 PPM	OK			
37	1.9 PPM	OK			
38	1.1 PPM	OK			
39	7.6 PPM	OK			
40	1.5 PPM	OK			
41	2.7 PPM	OK			
42	36.8 PPM	OK			
43	16.0 PPM	OK			
44	64.4 PPM	OK			
45	80.4 PPM	OK			
46	187.0 PPM	OK			
47	1.9 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 9, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
48	0.7 PPM	OK			
49	0.7 PPM	OK			
50	0.6 PPM	OK			
51	0.6 PPM	OK			
52	0.6 PPM	OK			
53	0.6 PPM	OK			
54	3.8 PPM	OK			
55	78.0 PPM	OK			
56	7.8 PPM	OK			
57	7.8 PPM	OK			
58	15.5 PPM	OK			
59	14.3 PPM	OK			
60	9.9 PPM	OK			
61	7.5 PPM	OK			
62	374.0 PPM	OK			
63	5.8 PPM	OK			
64	1.7 PPM	OK			
65	4.6 PPM	OK			
66	5.3 PPM	OK			
67	13.4 PPM	OK			
68	2.0 PPM	OK			
69	1.4 PPM	OK			
70	1.3 PPM	OK			
71	15.3 PPM	OK			
72	81.2 PPM	OK			
73	11.7 PPM	OK			
74	4.0 PPM	OK			
75	3.5 PPM	OK			
76	0.6 PPM	OK			
77	3.3 PPM	OK			
78	24.8 PPM	OK			
79	7.5 PPM	OK			
80	1.1 PPM	OK			
81	1.0 PPM	OK			
82	0.8 PPM	OK			
83	3.3 PPM	OK			
84	7.4 PPM	OK			
85	1.2 PPM	OK			
86	110.0 PPM	OK			
87	4.2 PPM	OK			
88	133.0 PPM	OK			
89	33.0 PPM	OK			
90	113.0 PPM	OK			
91	1.2 PPM	OK			
92	8.1 PPM	OK			
93	46.2 PPM	OK			
94	22.5 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 9, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
95	8.5 PPM	OK			
96	2.7 PPM	OK			
97	0.4 PPM	OK			
98	0.5 PPM	OK			
99	1.9 PPM	OK			
100	3.2 PPM	OK			End Serpentine Route
101	68.1 PPM	OK			EW-52
102	2.9 PPM	OK			TP-4
103	17.0 PPM	OK			EW-60
104	37.2 PPM	OK			EW-48
105	5.7 PPM	OK			TP-6
106	0.3 PPM	OK			EW-61
107	0.8 PPM	OK			EW-50
108	3.2 PPM	OK			EW-67
109	0.8 PPM	OK			EW-47
110	0.6 PPM	OK			EW-54
111	0.5 PPM	OK			EW-55
112	7.1 PPM	OK			EW-92
113	5.7 PPM	OK			EW-91
114	5.5 PPM	OK			EW-96
115	3.1 PPM	OK			TP-2
116	3.1 PPM	OK			EW-66
117	1.9 PPM	OK			EW-58
118	18.9 PPM	OK			EW-57
119	6.1 PPM	OK			TP-1
120	14.0 PPM	OK			EW-59
121	4.8 PPM	OK			EW-100
122	139.0 PPM	OK			EW-56
123	0.9 PPM	OK			EW-97
124	2.8 PPM	OK			EW-53
125	1.1 PPM	OK			TP-3
126	3.9 PPM	OK			EW-51
127	0.5 PPM	OK			TP-5
128	1.9 PPM	OK			EW-68
129	3.4 PPM	OK			EW-87
130	1.7 PPM	OK			EW-38
131	24.7 PPM	OK			TP-7
132	1.1 PPM	OK			EW-49
133	13.2 PPM	OK			EW-83
134	1085.0 PPM	HIGH_ALRM	36.60015	-82.14789	EW-65
135	106.0 PPM	OK			EW-81
136	18.6 PPM	OK			TP-8
137	3091.0 PPM	HIGH_ALRM	36.60056	-82.14796	EW-64
138	526.0 PPM	HIGH_ALRM	36.60092	-82.14812	EW-63
139	3.8 PPM	OK			EW-42
140	104.0 PPM	OK			EW-76

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 9, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
141	170.0 PPM	OK			TP-9
142	1.9 PPM	OK			EW-62
143	1.5 PPM	OK			EW-74
144	12.7 PPM	OK			EW-32R
145	1.9 PPM	OK			EW-69
146	2.1 PPM	OK			EW-71
147	2.3 PPM	OK			EW-72
148	1.3 PPM	OK			EW-73
149	12.7 PPM	OK			EW-78
150	5.0 PPM	OK			EW-82
151	0.4 PPM	OK			EW-36A
152	1.1 PPM	OK			EW-85
153	0.8 PPM	OK			EW-88
154	4.7 PPM	OK			EW-89
155	0.6 PPM	OK			EW-93
156	17.3 PPM	OK			EW-94
157	0.2 PPM	OK			EW-98
158	37.6 PPM	OK			EW-99
159	203.0 PPM	OK			EW-95
160	3.4 PPM	OK			EW-90
161	2.1 PPM	OK			EW-86
162	19.0 PPM	OK			EW-84
163	1039.0 PPM	HIGH_ALRM	36.60021	-82.14845	EW-80
164	2707.0 PPM	HIGH_ALRM	36.60051	-82.14819	EW-79
165	1230.0 PPM	HIGH_ALRM	36.60072	-82.14819	EW-77
166	1405.0 PPM	HIGH_ALRM	36.60105	-82.14831	EW-33B
167	50.3 PPM	OK			EW-75

Number of locations sampled:	167
Number of exceedance locations:	7

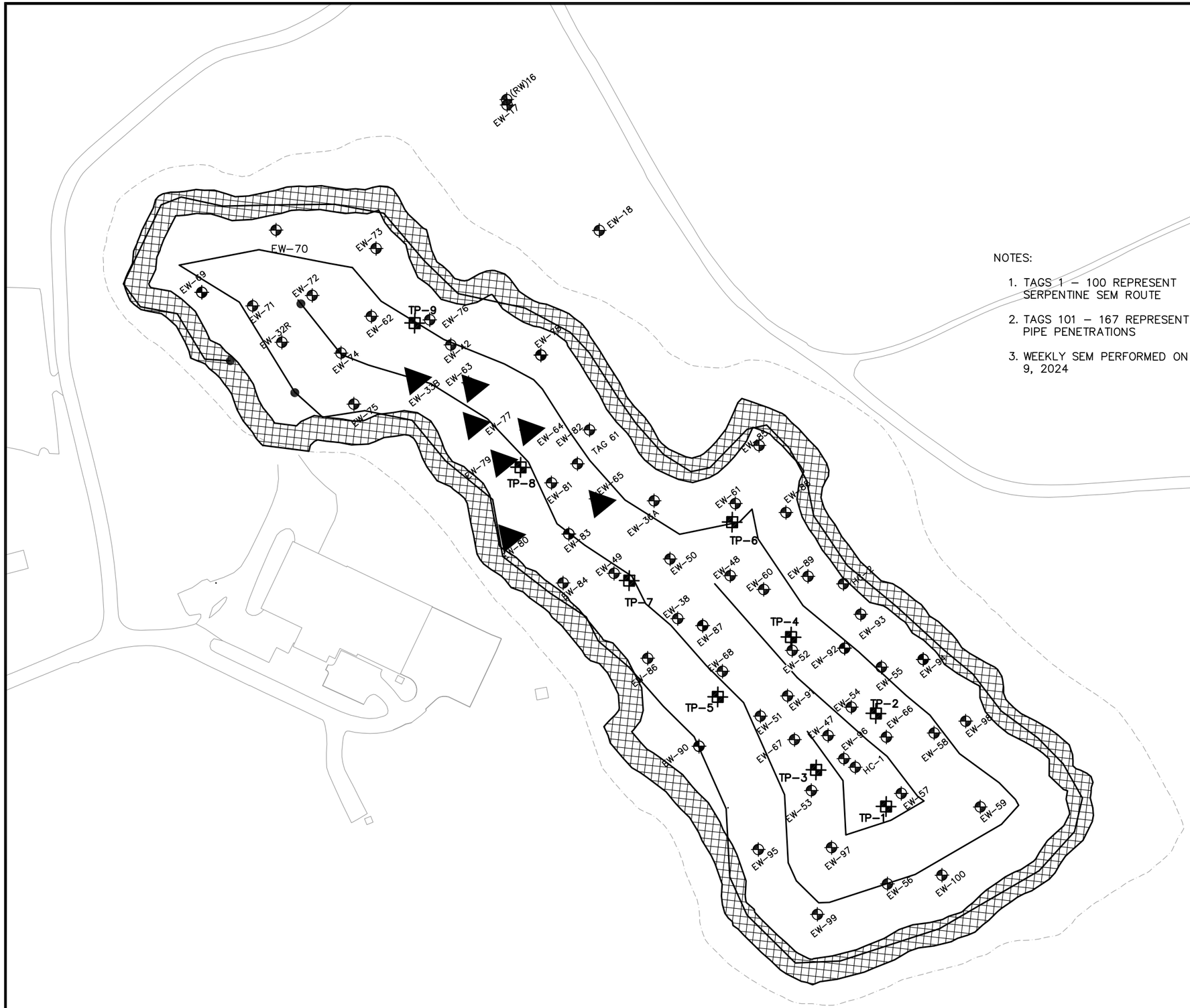
NOTES:
Points 1 through 100 represent serpentine SEM route.
Points 101 through 167 represent SEM at Pipe Penetrations
Weather Conditions: Sunny, 74°F Wind: 3 MPH SW

Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm

10/9/2024	11:04	ZERO	0.0	PPM
10/9/2024	11:06	SPAN	498.0	PPM

Background Reading:

10/9/2024	11:10	Upwind	1.9	PPM
10/9/2024	11:16	Downwind	2.3	PPM



NOTES:

1. TAGS 1 – 100 REPRESENT SERPENTINE SEM ROUTE
2. TAGS 101 – 167 REPRESENT SEM AT PIPE PENETRATIONS
3. WEEKLY SEM PERFORMED ON OCTOBER 9, 2024

0 80 160 240
SCALE IN FEET

N

LEGEND

- SEM ROUTE
- GAS WELL
- TEMPERATURE PROBE
- 79 EXCEEDANCE LOCATION
- 75 MONITORING ROUTE ENDPOINT

NO.	REVISION	DATE

SHEET TITLE
SEM ROUTE WITH BUFFER AREA

PROJECT TITLE
SURFACE EMISSIONS MONITORING
SOLID WASTE PERMIT #588

CLIENT
CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
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APP. BY:

FILE: 02218208.04
DATE: 10/9/24
SCALE: AS SHOWN
DRAWING NO. 1 of 1

October 30, 2024
File No. 02218208.04

Mr. Jonathan Chapman
Enforcement Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – October 21, 2024
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Mr. Chapman:

On behalf of the City of Bristol (City), SCS Engineers (SCS), is pleased to submit the results of the Weekly Surface Emissions Monitoring event performed at the Bristol Integrated Solid Waste Facility located in Bristol, Virginia on October 21, 2024. This Weekly Surface Emissions Monitoring (SEM) Event was performed in accordance with Appendix A.1.i of the Consent Decree between the Commonwealth of Virginia and the City of Bristol.

The monitoring generally conforms to the requirements of 40 CFR 63.1960(c) and (d), and 40 CFR 60.36f(c) and (d), and 40 CFR 60, Appendix A, Method 21. The landfill gas (LFG) collection system is required to operate such that the methane concentration is less than 500 ppm above background at the landfill surface.

The monitoring route includes the entire waste footprint of the Permit No. 588 Landfill. Sampling was conducted with a Thermo Scientific TVA-2020 Flame Ionization Detector (FID) at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint, including at the temperature probes and the newly installed and connected gas extraction wells. The approximate monitoring route and sampling locations are presented in the attached Drawing.

At the time of monitoring, all areas of the Permit No. 588 Landfill footprint are subject to regulatory monitoring based on the regulatory time schedule stipulated in 40 CFR 63.1960(b) and 40 CFR 60.36f(b). The Permit No. 588 Landfill has a surface area of approximately 17.3 acres. Therefore, the minimum number of sampling points to cover the appropriate portion of the landfill footprint, utilizing a 30-meter grid interval, is approximately 82 (4.75 points per acre). A summary of the results of the surface emissions monitoring is provided in Table 1.

Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	167
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	67
Number of Exceedances	8
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	8

REMONITORING OF ONGOING EXCEEDANCES

In accordance with 40 CFR 63.1960(c)(4)(ii) and 40 CFR 60.36f(c)(4)(ii), corrective actions and a remonitoring event are to be performed within 10 days of the initial exceedance. In accordance with 40 CFR 63.1960(c)(4)(iii) and 40 CFR 60.36f(c)(4)(iii) additional corrective actions and a second 10-day retest are to be performed if the initial 10-day retest indicates methane values greater than the regulatory threshold. The Facility performs corrective actions, as necessary, including wellhead vacuum adjustments, the installation of well-bore seals, and addition of soil cover prior to weekly monitoring events at locations that previously exhibited elevated methane concentrations.

In accordance with 40 CFR 63.1960(c)(4)(v) and 40 CFR 60.36f(c)(4)(v) a new well or collection device must be installed or an alternate remedy must be submitted within 120 days at locations that continue to exhibit methane concentrations above the regulatory threshold for two consecutive re-tests.

A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	10/21/24 Event	10/21/24 Event Result	Comments
EW-79	7/22/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-63	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-64	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-77	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-33B	8/7/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-65	8/21/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
Tag 61	8/21/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-67	9/9/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-80	9/16/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-82	10/16/24	10-Day Recheck	Failed	Requires 2nd 10-Day Recheck

If you have questions or require additional information, please contact either of the undersigned.

Sincerely,

William J. Fabrie

Lucas S. Nachman

William J. Fabrie
Staff Professional
SCS Engineers

Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WJF

cc: Randall Eads, City of Bristol
Jonathan Hayes, City of Bristol
Laura Socia, City of Bristol
Susan “Tracey” Blalock, VDEQ

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 21, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
1	5.6 PPM	OK			Start Serpentine Route
2	1.5 PPM	OK			
3	1.8 PPM	OK			
4	1.3 PPM	OK			
5	1.4 PPM	OK			
6	0.9 PPM	OK			
7	0.4 PPM	OK			
8	0.1 PPM	OK			
9	0.2 PPM	OK			
10	0.2 PPM	OK			
11	2.2 PPM	OK			
12	2.4 PPM	OK			
13	2.0 PPM	OK			
14	1.7 PPM	OK			
15	1.3 PPM	OK			
16	1.9 PPM	OK			
17	1.7 PPM	OK			
18	3.9 PPM	OK			
19	4.6 PPM	OK			
20	4.3 PPM	OK			
21	2.2 PPM	OK			
22	4.6 PPM	OK			
23	1.8 PPM	OK			
24	8.9 PPM	OK			
25	4.2 PPM	OK			
26	1.8 PPM	OK			
27	0.8 PPM	OK			
28	2.5 PPM	OK			
29	1.4 PPM	OK			
30	1.3 PPM	OK			
31	286.0 PPM	OK			
32	78.3 PPM	OK			
33	70.9 PPM	OK			
34	76.2 PPM	OK			
35	39.6 PPM	OK			
36	36.9 PPM	OK			
37	23.4 PPM	OK			
38	103.0 PPM	OK			
39	20.3 PPM	OK			
40	45.4 PPM	OK			
41	7.0 PPM	OK			
42	0.9 PPM	OK			
43	0.8 PPM	OK			
44	1.5 PPM	OK			
45	7.3 PPM	OK			
46	11.1 PPM	OK			
47	43.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 21, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
48	30.5 PPM	OK			
49	10.9 PPM	OK			
50	3.2 PPM	OK			
51	0.3 PPM	OK			
52	3.1 PPM	OK			
53	4.0 PPM	OK			
54	3.4 PPM	OK			
55	4.9 PPM	OK			
56	125.0 PPM	OK			
57	10.4 PPM	OK			
58	1.2 PPM	OK			
59	1.1 PPM	OK			
60	0.8 PPM	OK			
61	168.0 PPM	OK			
62	17.9 PPM	OK			
63	0.0 PPM	OK			
64	2.3 PPM	OK			
65	45.3 PPM	OK			
66	0.4 PPM	OK			
67	0.0 PPM	OK			
68	0.0 PPM	OK			
69	0.0 PPM	OK			
70	0.0 PPM	OK			
71	0.2 PPM	OK			
72	52.2 PPM	OK			
73	38.6 PPM	OK			
74	40.9 PPM	OK			
75	41.5 PPM	OK			
76	0.0 PPM	OK			
77	0.1 PPM	OK			
78	280.0 PPM	OK			
79	94.4 PPM	OK			
80	0.4 PPM	OK			
81	11.0 PPM	OK			
82	0.1 PPM	OK			
83	0.6 PPM	OK			
84	2.8 PPM	OK			
85	0.2 PPM	OK			
86	4.2 PPM	OK			
87	5.6 PPM	OK			
88	0.3 PPM	OK			
89	1.5 PPM	OK			
90	45.2 PPM	OK			
91	0.6 PPM	OK			
92	4.8 PPM	OK			
93	22.5 PPM	OK			
94	17.3 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 21, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
95	19.5 PPM	OK			
96	87.4 PPM	OK			
97	0.4 PPM	OK			
98	0.3 PPM	OK			
99	0.3 PPM	OK			
100	0.2 PPM	OK			End Serpentine Route
101	190.0 PPM	OK			EW-52
102	33.6 PPM	OK			TP-4
103	23.8 PPM	OK			EW-60
104	2.9 PPM	OK			EW-48
105	2.5 PPM	OK			TP-6
106	0.3 PPM	OK			EW-61
107	0.0 PPM	OK			EW-50
108	68.1 PPM	OK			EW-67
109	1.6 PPM	OK			EW-47
110	28.6 PPM	OK			EW-54
111	3.9 PPM	OK			EW-55
112	0.7 PPM	OK			EW-92
113	13.9 PPM	OK			EW-91
114	0.3 PPM	OK			EW-96
115	0.0 PPM	OK			TP-2
116	0.6 PPM	OK			EW-66
117	0.2 PPM	OK			EW-58
118	14.0 PPM	OK			EW-57
119	0.1 PPM	OK			TP-1
120	0.0 PPM	OK			EW-59
121	79.4 PPM	OK			EW-100
122	370.0 PPM	OK			EW-56
123	0.0 PPM	OK			EW-97
124	118.0 PPM	OK			EW-53
125	0.1 PPM	OK			TP-3
126	7.0 PPM	OK			EW-51
127	1.0 PPM	OK			TP-5
128	3.2 PPM	OK			EW-68
129	3.4 PPM	OK			EW-87
130	0.0 PPM	OK			EW-38
131	393.0 PPM	OK			TP-7
132	0.2 PPM	OK			EW-49
133	0.8 PPM	OK			EW-83
134	4290.0 PPM	HIGH_ALRM	36.60015	-82.14789	EW-65
135	16.4 PPM	OK			EW-81
136	9.2 PPM	OK			TP-8
137	2545.0 PPM	HIGH_ALRM	36.60056	-82.14796	EW-64
138	1759.0 PPM	HIGH_ALRM	36.60092	-82.14812	EW-63
139	25.4 PPM	OK			EW-42
140	102.0 PPM	OK			EW-76

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 21, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
141	178.0 PPM	OK			TP-9
142	2.5 PPM	OK			EW-62
143	0.2 PPM	OK			EW-74
144	1.6 PPM	OK			EW-32R
145	0.6 PPM	OK			EW-69
146	0.7 PPM	OK			EW-71
147	0.6 PPM	OK			EW-72
148	6.9 PPM	OK			EW-73
149	2.5 PPM	OK			EW-78
150	1262.0 PPM	HIGH_ALRM	36.59998	-82.14761	EW-82
151	3.3 PPM	OK			EW-36A
152	1.0 PPM	OK			EW-85
153	3.0 PPM	OK			EW-88
154	3.0 PPM	OK			EW-89
155	8.2 PPM	OK			EW-93
156	3.7 PPM	OK			EW-94
157	13.8 PPM	OK			EW-98
158	39.4 PPM	OK			EW-99
159	1267.0 PPM	HIGH_ALRM	36.59837	-82.14835	EW-95
160	12.5 PPM	OK			EW-90
161	23.0 PPM	OK			EW-86
162	231.0 PPM	OK			EW-84
163	42.5 PPM	OK			EW-80
164	3527.0 PPM	HIGH_ALRM	36.60051	-82.14819	EW-79
165	16900.0 PPM	HIGH_ALRM	36.60072	-82.14819	EW-77
166	1376.0 PPM	HIGH_ALRM	36.60105	-82.14831	EW-33B
167	92.4 PPM	OK			EW-75

Number of locations sampled:	167
Number of exceedance locations:	8

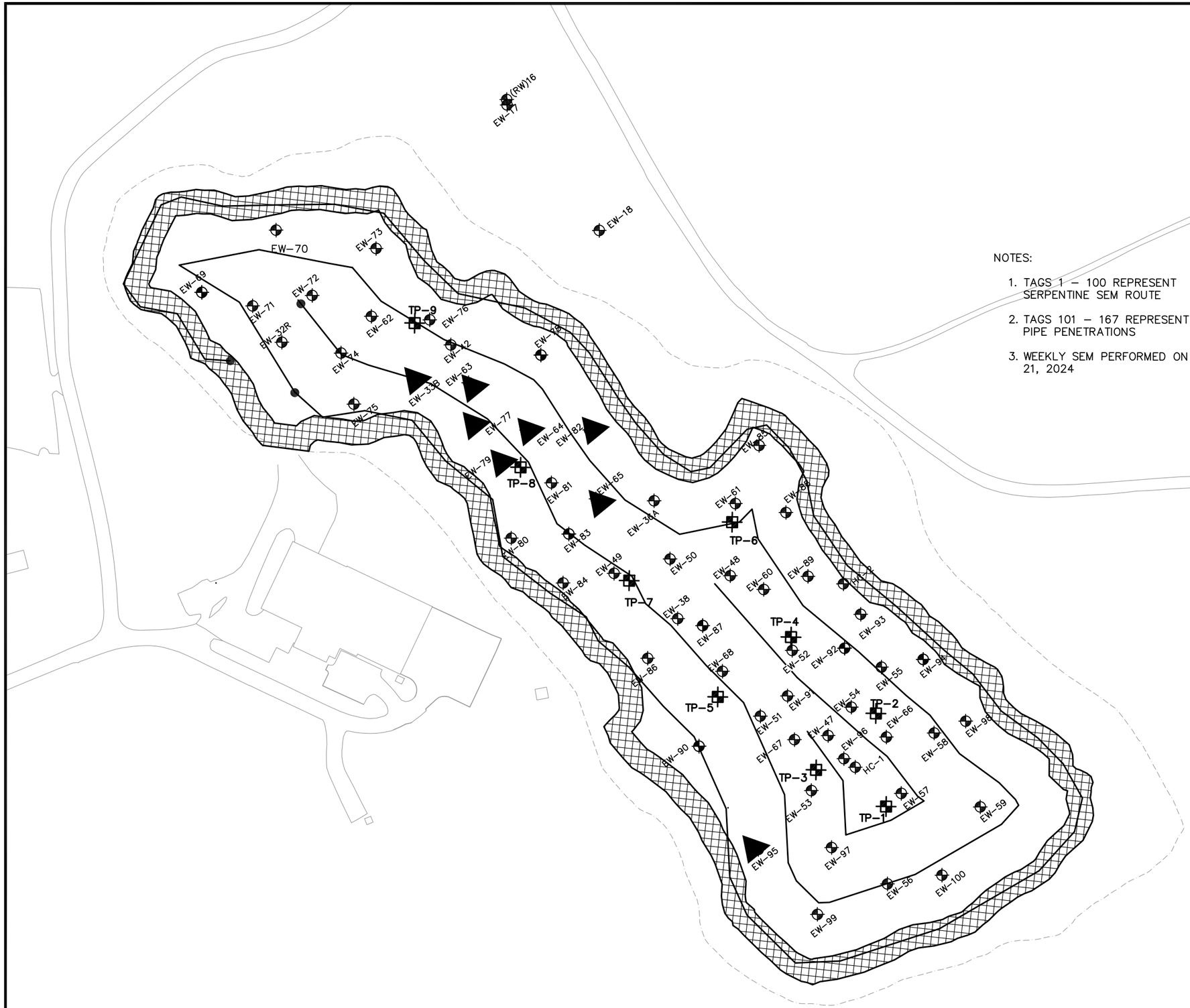
NOTES:
Points 1 through 100 represent serpentine SEM route.
Points 101 through 167 represent SEM at Pipe Penetrations
Weather Conditions: Sunny, 77°F Wind: 4 MPH SE

Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm

10/21/2024	11:01	ZERO	0.0	PPM
10/21/2024	11:03	SPAN	503.0	PPM

Background Reading:

10/21/2024	11:13	Upwind	0.6	PPM
10/21/2024	11:20	Downwind	1.0	PPM



NOTES:

1. TAGS 1 – 100 REPRESENT SERPENTINE SEM ROUTE
2. TAGS 101 – 167 REPRESENT SEM AT PIPE PENETRATIONS
3. WEEKLY SEM PERFORMED ON OCTOBER 21, 2024

0 80 160 240
SCALE IN FEET

N

LEGEND

- SEM ROUTE
- GAS WELL
- TEMPERATURE PROBE
- 79 EXCEEDANCE LOCATION
- 75 MONITORING ROUTE ENDPOINT

NO.	REVISION	DATE

SHEET TITLE
SEM ROUTE WITH BUFFER AREA

PROJECT TITLE
SURFACE EMISSIONS MONITORING
SOLID WASTE PERMIT #588

CLIENT
CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX. (804) 378-7433

PROJ. NO. 02218208.04
DSN. BY:
DWN. BY:
CHK. BY:
QA/QC BY:
APP. BY:

FILE: 02218208.04
DATE: 10/21/24
SCALE: AS SHOWN
DRAWING NO. 1 of 1

November 6, 2024
File No. 02218208.04

Mr. Jonathan Chapman
Enforcement Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – October 30, 2024
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Mr. Chapman:

On behalf of the City of Bristol (City), SCS Engineers (SCS), is pleased to submit the results of the Weekly Surface Emissions Monitoring event performed at the Bristol Integrated Solid Waste Facility located in Bristol, Virginia on October 30, 2024. This Weekly Surface Emissions Monitoring (SEM) Event was performed in accordance with Appendix A.1.i of the Consent Decree between the Commonwealth of Virginia and the City of Bristol.

The monitoring generally conforms to the requirements of 40 CFR 63.1960(c) and (d), and 40 CFR 60.36f(c) and (d), and 40 CFR 60, Appendix A, Method 21. The landfill gas (LFG) collection system is required to operate such that the methane concentration is less than 500 ppm above background at the landfill surface.

The monitoring route includes the entire waste footprint of the Permit No. 588 Landfill. Sampling was conducted with a Thermo Scientific TVA-2020 Flame Ionization Detector (FID) at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint, including at the temperature probes and the newly installed and connected gas extraction wells. The approximate monitoring route and sampling locations are presented in the attached Drawing.

At the time of monitoring, all areas of the Permit No. 588 Landfill footprint are subject to regulatory monitoring based on the regulatory time schedule stipulated in 40 CFR 63.1960(b) and 40 CFR 60.36f(b). The Permit No. 588 Landfill has a surface area of approximately 17.3 acres. Therefore, the minimum number of sampling points to cover the appropriate portion of the landfill footprint, utilizing a 30-meter grid interval, is approximately 82 (4.75 points per acre). A summary of the results of the surface emissions monitoring is provided in Table 1.

Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	167
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	67
Number of Exceedances	8
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	8

REMONITORING OF ONGOING EXCEEDANCES

In accordance with 40 CFR 63.1960(c)(4)(ii) and 40 CFR 60.36f(c)(4)(ii), corrective actions and a remonitoring event are to be performed within 10 days of the initial exceedance. In accordance with 40 CFR 63.1960(c)(4)(iii) and 40 CFR 60.36f(c)(4)(iii) additional corrective actions and a second 10-day retest are to be performed if the initial 10-day retest indicates methane values greater than the regulatory threshold. The Facility performs corrective actions, as necessary, including wellhead vacuum adjustments, the installation of well-bore seals, and addition of soil cover prior to weekly monitoring events at locations that previously exhibited elevated methane concentrations.

In accordance with 40 CFR 63.1960(c)(4)(v) and 40 CFR 60.36f(c)(4)(v) a new well or collection device must be installed or an alternate remedy must be submitted within 120 days at locations that continue to exhibit methane concentrations above the regulatory threshold for two consecutive re-tests.

A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	10/30/24 Event	10/30/24 Event Result	Comments
EW-79	7/22/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-63	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-64	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-77	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-33B	8/7/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-65	8/21/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
Tag 61	8/21/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-67	9/9/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-80	9/16/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-82	10/16/24	2nd 10-Day Recheck	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-95	10/21/24	10-Day Recheck	Failed	Requires 2nd 10-Day Retest

If you have questions or require additional information, please contact either of the undersigned.

Sincerely,

William J. Fabrie

Lucas S. Nachman

William J. Fabrie
Staff Professional
SCS Engineers

Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WJF

cc: Randall Eads, City of Bristol
Jonathan Hayes, City of Bristol
Laura Socia, City of Bristol
Susan “Tracey” Blalock, VDEQ

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 30, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
1	7.2 PPM	OK			Start Serpentine Route
2	13.5 PPM	OK			
3	3.3 PPM	OK			
4	7.3 PPM	OK			
5	1.4 PPM	OK			
6	1.2 PPM	OK			
7	1.1 PPM	OK			
8	1.1 PPM	OK			
9	1.4 PPM	OK			
10	1.7 PPM	OK			
11	1.9 PPM	OK			
12	1.8 PPM	OK			
13	2.5 PPM	OK			
14	3.0 PPM	OK			
15	2.1 PPM	OK			
16	19.5 PPM	OK			
17	137.0 PPM	OK			
18	1.4 PPM	OK			
19	2.9 PPM	OK			
20	3.0 PPM	OK			
21	1.3 PPM	OK			
22	1.3 PPM	OK			
23	2.6 PPM	OK			
24	1.3 PPM	OK			
25	3.1 PPM	OK			
26	1.8 PPM	OK			
27	8.6 PPM	OK			
28	1.1 PPM	OK			
29	0.8 PPM	OK			
30	0.8 PPM	OK			
31	210.0 PPM	OK			
32	333.0 PPM	OK			
33	118.0 PPM	OK			
34	179.0 PPM	OK			
35	222.0 PPM	OK			
36	94.5 PPM	OK			
37	23.9 PPM	OK			
38	60.8 PPM	OK			
39	14.5 PPM	OK			
40	14.0 PPM	OK			
41	1.8 PPM	OK			
42	1.2 PPM	OK			
43	1.2 PPM	OK			
44	1.8 PPM	OK			
45	5.2 PPM	OK			
46	29.2 PPM	OK			
47	33.8 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 30, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
48	33.0 PPM	OK			
49	6.5 PPM	OK			
50	20.6 PPM	OK			
51	8.5 PPM	OK			
52	7.2 PPM	OK			
53	4.4 PPM	OK			
54	6.5 PPM	OK			
55	5.2 PPM	OK			
56	2.8 PPM	OK			
57	2.4 PPM	OK			
58	1.6 PPM	OK			
59	1.2 PPM	OK			
60	14.2 PPM	OK			
61	4.9 PPM	OK			
62	4.6 PPM	OK			
63	4.3 PPM	OK			
64	1.5 PPM	OK			
65	3.8 PPM	OK			
66	3.4 PPM	OK			
67	0.4 PPM	OK			
68	1.1 PPM	OK			
69	0.5 PPM	OK			
70	0.9 PPM	OK			
71	1.2 PPM	OK			
72	21.5 PPM	OK			
73	4.4 PPM	OK			
74	13.4 PPM	OK			
75	2.8 PPM	OK			
76	2.4 PPM	OK			
77	85.4 PPM	OK			
78	34.2 PPM	OK			
79	25.7 PPM	OK			
80	1.3 PPM	OK			
81	16.0 PPM	OK			
82	12.6 PPM	OK			
83	6.8 PPM	OK			
84	4.5 PPM	OK			
85	3.4 PPM	OK			
86	5.9 PPM	OK			
87	7.1 PPM	OK			
88	13.0 PPM	OK			
89	56.0 PPM	OK			
90	16.3 PPM	OK			
91	0.7 PPM	OK			
92	3.1 PPM	OK			
93	173.0 PPM	OK			
94	2.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 30, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
95	0.5 PPM	OK			
96	0.6 PPM	OK			
97	0.5 PPM	OK			
98	0.6 PPM	OK			
99	3.9 PPM	OK			
100	24.2 PPM	OK			End Serpentine Route
101	45.3 PPM	OK			EW-52
102	0.7 PPM	OK			TP-4
103	7.5 PPM	OK			EW-60
104	1.1 PPM	OK			EW-48
105	0.5 PPM	OK			TP-6
106	1.0 PPM	OK			EW-61
107	1.7 PPM	OK			EW-50
108	165.0 PPM	OK			EW-67
109	0.6 PPM	OK			EW-47
110	119.0 PPM	OK			EW-54
111	0.3 PPM	OK			EW-55
112	0.8 PPM	OK			EW-92
113	76.6 PPM	OK			EW-91
114	3.5 PPM	OK			EW-96
115	2.1 PPM	OK			TP-2
116	1.7 PPM	OK			EW-66
117	1.3 PPM	OK			EW-58
118	15.3 PPM	OK			EW-57
119	19.2 PPM	OK			TP-1
120	1.7 PPM	OK			EW-59
121	30.6 PPM	OK			EW-100
122	217.0 PPM	OK			EW-56
123	0.6 PPM	OK			EW-97
124	293.0 PPM	OK			EW-53
125	0.9 PPM	OK			TP-3
126	16.1 PPM	OK			EW-51
127	0.4 PPM	OK			TP-5
128	4.5 PPM	OK			EW-68
129	2.4 PPM	OK			EW-87
130	0.1 PPM	OK			EW-38
131	117.0 PPM	OK			TP-7
132	0.3 PPM	OK			EW-49
133	1.1 PPM	OK			EW-83
134	3378.0 PPM	HIGH_ALRM	36.60015	-82.14789	EW-65
135	5.4 PPM	OK			EW-81
136	11.7 PPM	OK			TP-8
137	1999.0 PPM	HIGH_ALRM	36.60056	-82.14796	EW-64
138	1683.0 PPM	HIGH_ALRM	36.60092	-82.14812	EW-63
139	22.9 PPM	OK			EW-42
140	114.0 PPM	OK			EW-76

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 30, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
141	44.1 PPM	OK			TP-9
142	8.7 PPM	OK			EW-62
143	0.7 PPM	OK			EW-74
144	3.2 PPM	OK			EW-32R
145	0.4 PPM	OK			EW-69
146	0.7 PPM	OK			EW-71
147	0.4 PPM	OK			EW-72
148	15.9 PPM	OK			EW-73
149	3.1 PPM	OK			EW-78
150	2920.0 PPM	HIGH_ALRM	36.59998	-82.14761	EW-82
151	19.7 PPM	OK			EW-36A
152	1.8 PPM	OK			EW-85
153	5.1 PPM	OK			EW-88
154	1.9 PPM	OK			EW-89
155	7.6 PPM	OK			EW-93
156	16.8 PPM	OK			EW-94
157	23.4 PPM	OK			EW-98
158	42.1 PPM	OK			EW-99
159	867.0 PPM	HIGH_ALRM	36.59837	-82.14835	EW-95
160	32.3 PPM	OK			EW-90
161	441.0 PPM	OK			EW-86
162	257.0 PPM	OK			EW-84
163	64.1 PPM	OK			EW-80
164	2842.0 PPM	HIGH_ALRM	36.60051	-82.14819	EW-79
165	9965.0 PPM	HIGH_ALRM	36.60072	-82.14819	EW-77
166	1617.0 PPM	HIGH_ALRM	36.60105	-82.14831	EW-33B
167	117.0 PPM	OK			EW-75

Number of locations sampled:	167
Number of exceedance locations:	8

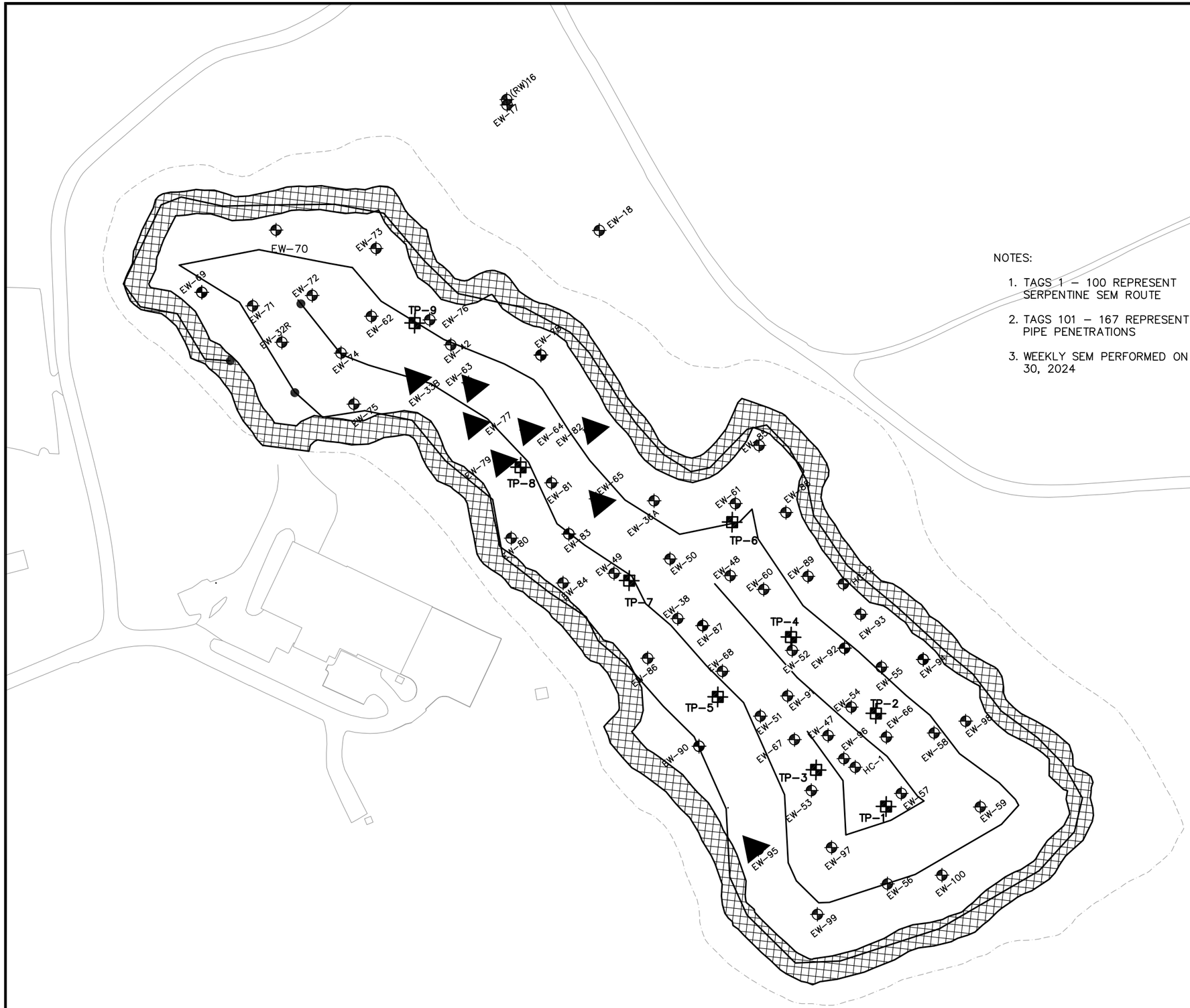
NOTES:
Points 1 through 100 represent serpentine SEM route.
Points 101 through 167 represent SEM at Pipe Penetrations
Weather Conditions: Sunny, 63°F Wind: 5 MPH NE

Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm

10/30/2024	10:54	ZERO	0.2	PPM
10/30/2024	10:55	SPAN	499.0	PPM

Background Reading:

10/30/2024	10:58	Upwind	1.5	PPM
10/30/2024	11:03	Downwind	7.8	PPM



NOTES:

1. TAGS 1 – 100 REPRESENT SERPENTINE SEM ROUTE
2. TAGS 101 – 167 REPRESENT SEM AT PIPE PENETRATIONS
3. WEEKLY SEM PERFORMED ON OCTOBER 30, 2024

0 80 160 240
SCALE IN FEET

N

LEGEND

- SEM ROUTE
- GAS WELL
- TEMPERATURE PROBE
- 79 EXCEEDANCE LOCATION
- 75 MONITORING ROUTE ENDPOINT

NO.	REVISION	DATE

SHEET TITLE
SEM ROUTE WITH BUFFER AREA

PROJECT TITLE
SURFACE EMISSIONS MONITORING
SOLID WASTE PERMIT #588

CLIENT
CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
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APP. BY:

FILE: 02218208.04
DATE: 10/30/24
SCALE: AS SHOWN
DRAWING NO. 1 of 1

October 23, 2024
File No. 02218208.04

Mr. Jonathan Chapman
Enforcement Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – October 16, 2024
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Mr. Chapman:

On behalf of the City of Bristol (City), SCS Engineers (SCS), is pleased to submit the results of the Weekly Surface Emissions Monitoring event performed at the Bristol Integrated Solid Waste Facility located in Bristol, Virginia on October 16, 2024. This Weekly Surface Emissions Monitoring (SEM) Event was performed in accordance with Appendix A.1.i of the Consent Decree between the Commonwealth of Virginia and the City of Bristol.

The monitoring generally conforms to the requirements of 40 CFR 63.1960(c) and (d), and 40 CFR 60.36f(c) and (d), and 40 CFR 60, Appendix A, Method 21. The landfill gas (LFG) collection system is required to operate such that the methane concentration is less than 500 ppm above background at the landfill surface.

The monitoring route includes the entire waste footprint of the Permit No. 588 Landfill. Sampling was conducted with a Thermo Scientific TVA-2020 Flame Ionization Detector (FID) at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint, including at the temperature probes and the newly installed and connected gas extraction wells. The approximate monitoring route and sampling locations are presented in the attached Drawing.

At the time of monitoring, all areas of the Permit No. 588 Landfill footprint are subject to regulatory monitoring based on the regulatory time schedule stipulated in 40 CFR 63.1960(b) and 40 CFR 60.36f(b). The Permit No. 588 Landfill has a surface area of approximately 17.3 acres. Therefore, the minimum number of sampling points to cover the appropriate portion of the landfill footprint, utilizing a 30-meter grid interval, is approximately 82 (4.75 points per acre). A summary of the results of the surface emissions monitoring is provided in Table 1.

Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	167
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	67
Number of Exceedances	7
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	7

REMONITORING OF ONGOING EXCEEDANCES

In accordance with 40 CFR 63.1960(c)(4)(ii) and 40 CFR 60.36f(c)(4)(ii), corrective actions and a remonitoring event are to be performed within 10 days of the initial exceedance. In accordance with 40 CFR 63.1960(c)(4)(iii) and 40 CFR 60.36f(c)(4)(iii) additional corrective actions and a second 10-day retest are to be performed if the initial 10-day retest indicates methane values greater than the regulatory threshold. The Facility performs corrective actions, as necessary, including wellhead vacuum adjustments, the installation of well-bore seals, and addition of soil cover prior to weekly monitoring events at locations that previously exhibited elevated methane concentrations.

In accordance with 40 CFR 63.1960(c)(4)(v) and 40 CFR 60.36f(c)(4)(v) a new well or collection device must be installed or an alternate remedy must be submitted within 120 days at locations that continue to exhibit methane concentrations above the regulatory threshold for two consecutive re-tests.

A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	10/16/24 Event	10/16/24 Event Result	Comments
EW-79	7/22/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-63	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-64	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-77	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-33B	8/7/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-65	8/21/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
Tag 61	8/21/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-67	9/9/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-80	9/16/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)

If you have questions or require additional information, please contact either of the undersigned.

Sincerely,

William J. Fabrie

William J. Fabrie
Staff Professional
SCS Engineers

Lucas S. Nachman

Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WJF

cc: Randall Eads, City of Bristol
Jonathan Hayes, City of Bristol
Laura Socia, City of Bristol
Susan “Tracey” Blalock, VDEQ

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 16, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
1	22.2 PPM	OK			Start Serpentine Route
2	5.6 PPM	OK			
3	2.4 PPM	OK			
4	2.4 PPM	OK			
5	2.4 PPM	OK			
6	2.4 PPM	OK			
7	2.3 PPM	OK			
8	2.4 PPM	OK			
9	3.1 PPM	OK			
10	2.4 PPM	OK			
11	2.6 PPM	OK			
12	2.8 PPM	OK			
13	2.3 PPM	OK			
14	60.9 PPM	OK			
15	2.6 PPM	OK			
16	2.7 PPM	OK			
17	2.6 PPM	OK			
18	4.8 PPM	OK			
19	9.0 PPM	OK			
20	3.6 PPM	OK			
21	3.2 PPM	OK			
22	3.7 PPM	OK			
23	3.4 PPM	OK			
24	4.7 PPM	OK			
25	3.3 PPM	OK			
26	3.0 PPM	OK			
27	3.8 PPM	OK			
28	7.1 PPM	OK			
29	14.7 PPM	OK			
30	5.4 PPM	OK			
31	30.2 PPM	OK			
32	27.7 PPM	OK			
33	165.0 PPM	OK			
34	241.0 PPM	OK			
35	30.2 PPM	OK			
36	14.1 PPM	OK			
37	26.9 PPM	OK			
38	24.7 PPM	OK			
39	36.6 PPM	OK			
40	6.6 PPM	OK			
41	4.1 PPM	OK			
42	17.5 PPM	OK			
43	43.7 PPM	OK			
44	26.9 PPM	OK			
45	25.0 PPM	OK			
46	6.0 PPM	OK			
47	2.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 16, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
48	2.2 PPM	OK			
49	2.0 PPM	OK			
50	2.0 PPM	OK			
51	2.0 PPM	OK			
52	2.3 PPM	OK			
53	5.2 PPM	OK			
54	2.2 PPM	OK			
55	30.5 PPM	OK			
56	17.3 PPM	OK			
57	14.2 PPM	OK			
58	76.1 PPM	OK			
59	14.0 PPM	OK			
60	3.4 PPM	OK			
61	2.4 PPM	OK			
62	2.7 PPM	OK			
63	4.2 PPM	OK			
64	6.7 PPM	OK			
65	4.7 PPM	OK			
66	5.5 PPM	OK			
67	3.1 PPM	OK			
68	5.3 PPM	OK			
69	36.0 PPM	OK			
70	11.9 PPM	OK			
71	60.3 PPM	OK			
72	2.9 PPM	OK			
73	4.2 PPM	OK			
74	26.0 PPM	OK			
75	92.0 PPM	OK			
76	24.1 PPM	OK			
77	24.2 PPM	OK			
78	2.7 PPM	OK			
79	3.4 PPM	OK			
80	3.4 PPM	OK			
81	3.6 PPM	OK			
82	12.3 PPM	OK			
83	2.6 PPM	OK			
84	10.9 PPM	OK			
85	22.4 PPM	OK			
86	8.4 PPM	OK			
87	13.1 PPM	OK			
88	28.3 PPM	OK			
89	47.4 PPM	OK			
90	54.6 PPM	OK			
91	7.8 PPM	OK			
92	59.5 PPM	OK			
93	4.9 PPM	OK			
94	48.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 16, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
95	12.3 PPM	OK			
96	2.5 PPM	OK			
97	2.4 PPM	OK			
98	2.4 PPM	OK			
99	2.4 PPM	OK			
100	4.4 PPM	OK			End Serpentine Route
101	119.0 PPM	OK			EW-52
102	13.8 PPM	OK			TP-4
103	160.0 PPM	OK			EW-60
104	15.5 PPM	OK			EW-48
105	6.4 PPM	OK			TP-6
106	2.1 PPM	OK			EW-61
107	3.2 PPM	OK			EW-50
108	7.5 PPM	OK			EW-67
109	6.9 PPM	OK			EW-47
110	9.2 PPM	OK			EW-54
111	3.8 PPM	OK			EW-55
112	2.4 PPM	OK			EW-92
113	45.2 PPM	OK			EW-91
114	5.3 PPM	OK			EW-96
115	5.7 PPM	OK			TP-2
116	3.5 PPM	OK			EW-66
117	3.3 PPM	OK			EW-58
118	8.1 PPM	OK			EW-57
119	27.2 PPM	OK			TP-1
120	3.2 PPM	OK			EW-59
121	14.3 PPM	OK			EW-100
122	36.9 PPM	OK			EW-56
123	4.0 PPM	OK			EW-97
124	12.7 PPM	OK			EW-53
125	3.6 PPM	OK			TP-3
126	8.5 PPM	OK			EW-51
127	2.1 PPM	OK			TP-5
128	16.5 PPM	OK			EW-68
129	2.5 PPM	OK			EW-87
130	2.3 PPM	OK			EW-38
131	13.1 PPM	OK			TP-7
132	2.2 PPM	OK			EW-49
133	15.7 PPM	OK			EW-83
134	2294.0 PPM	HIGH_ALRM	36.60015	-82.14789	EW-65
135	16.0 PPM	OK			EW-81
136	9.8 PPM	OK			TP-8
137	926.0 PPM	HIGH_ALRM	36.60056	-82.14796	EW-64
138	1328.0 PPM	HIGH_ALRM	36.60092	-82.14812	EW-63
139	11.2 PPM	OK			EW-42
140	25.3 PPM	OK			EW-76

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - OCTOBER 16, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
141	303.0 PPM	OK			TP-9
142	1.9 PPM	OK			EW-62
143	2.0 PPM	OK			EW-74
144	2.4 PPM	OK			EW-32R
145	1.8 PPM	OK			EW-69
146	1.8 PPM	OK			EW-71
147	1.8 PPM	OK			EW-72
148	1.9 PPM	OK			EW-73
149	1.8 PPM	OK			EW-78
150	1373.0 PPM	HIGH_ALRM	36.59998	-82.14761	EW-82
151	2.0 PPM	OK			EW-36A
152	3.1 PPM	OK			EW-85
153	2.9 PPM	OK			EW-88
154	4.6 PPM	OK			EW-89
155	1.9 PPM	OK			EW-93
156	3.1 PPM	OK			EW-94
157	3.4 PPM	OK			EW-98
158	4.4 PPM	OK			EW-99
159	29.9 PPM	OK			EW-95
160	4.6 PPM	OK			EW-90
161	4.2 PPM	OK			EW-86
162	25.5 PPM	OK			EW-84
163	231.0 PPM	OK			EW-80
164	7300.0 PPM	HIGH_ALRM	36.60051	-82.14819	EW-79
165	7932.0 PPM	HIGH_ALRM	36.60072	-82.14819	EW-77
166	2283.0 PPM	HIGH_ALRM	36.60105	-82.14831	EW-33B
167	65.7 PPM	OK			EW-75

Number of locations sampled:	167
Number of exceedance locations:	7

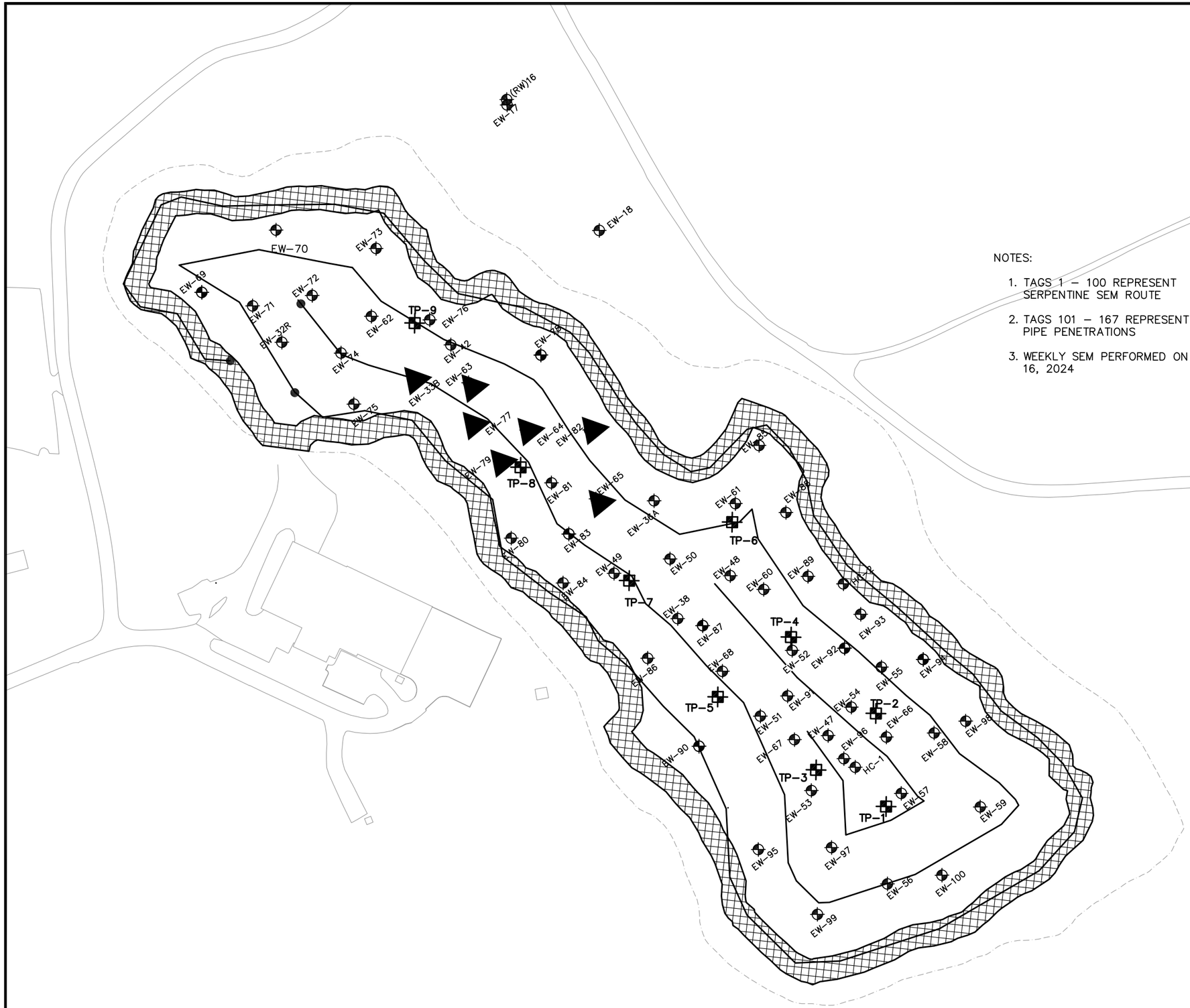
NOTES:
Points 1 through 100 represent serpentine SEM route.
Points 101 through 167 represent SEM at Pipe Penetrations
Weather Conditions: Sunny, 48°F Wind: 6 MPH NW

Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm

10/16/2024	10:50	ZERO	0.3	PPM
10/16/2024	10:53	SPAN	496.0	PPM

Background Reading:

10/16/2024	10:57	Upwind	2.7	PPM
10/16/2024	11:02	Downwind	8.0	PPM



NOTES:

1. TAGS 1 – 100 REPRESENT SERPENTINE SEM ROUTE
2. TAGS 101 – 167 REPRESENT SEM AT PIPE PENETRATIONS
3. WEEKLY SEM PERFORMED ON OCTOBER 16, 2024

0 80 160 240
SCALE IN FEET

N

LEGEND

- SEM ROUTE
- GAS WELL
- TEMPERATURE PROBE
- 79 EXCEEDANCE LOCATION
- 75 MONITORING ROUTE ENDPOINT

NO.	REVISION	DATE

SHEET TITLE
SEM ROUTE WITH BUFFER AREA

PROJECT TITLE
SURFACE EMISSIONS MONITORING
SOLID WASTE PERMIT #588

CLIENT
CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15821 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX. (804) 378-7433

PROJ. NO. 02218208.04
DSN. BY:
DWN. BY:
CHK. BY:
QA/QC BY:
APP. BY:

FILE: 02218208.04
DATE: 10/16/24
SCALE: AS SHOWN
DRAWING NO. 1 of 1

Appendix B

In-Waste Temperatures on Select Days in October

Appendix B Figures

Figure B - 1 Average Temperatures Recorded by TP-1 on October 2, 2024

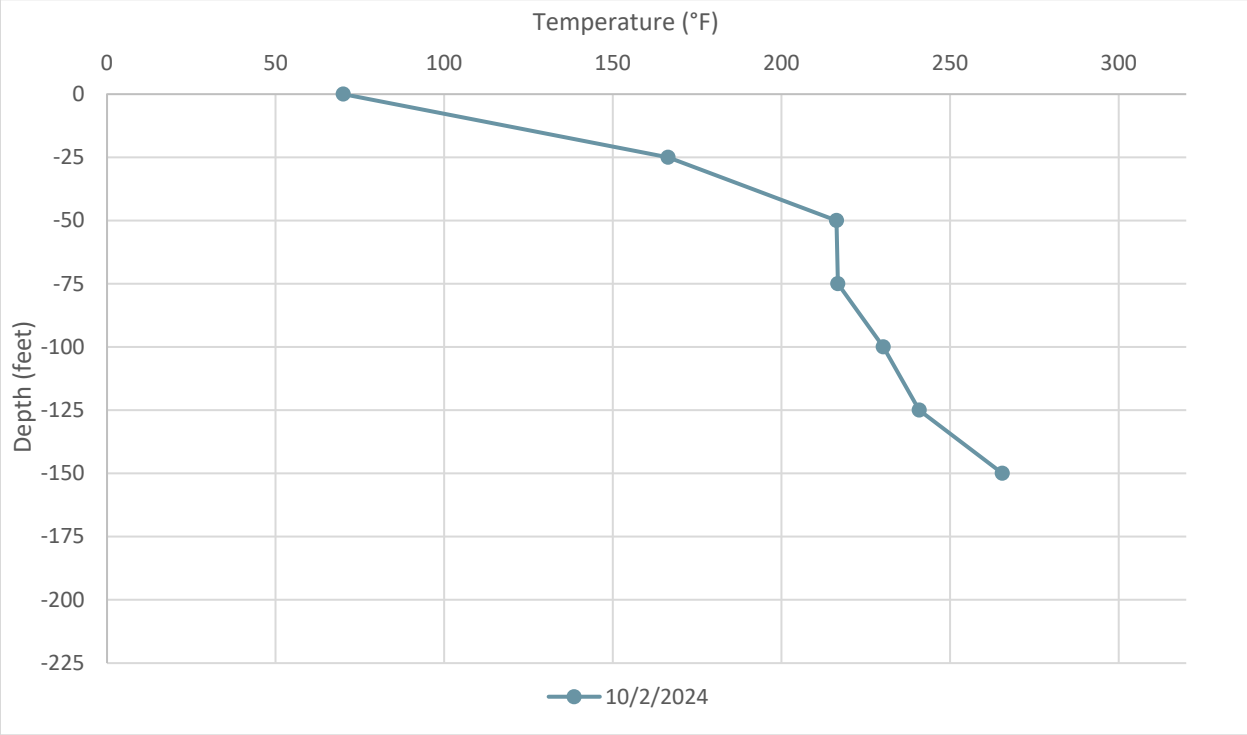


Figure B - 2 Average Temperatures Recorded by TP-1 on October 9, 2024

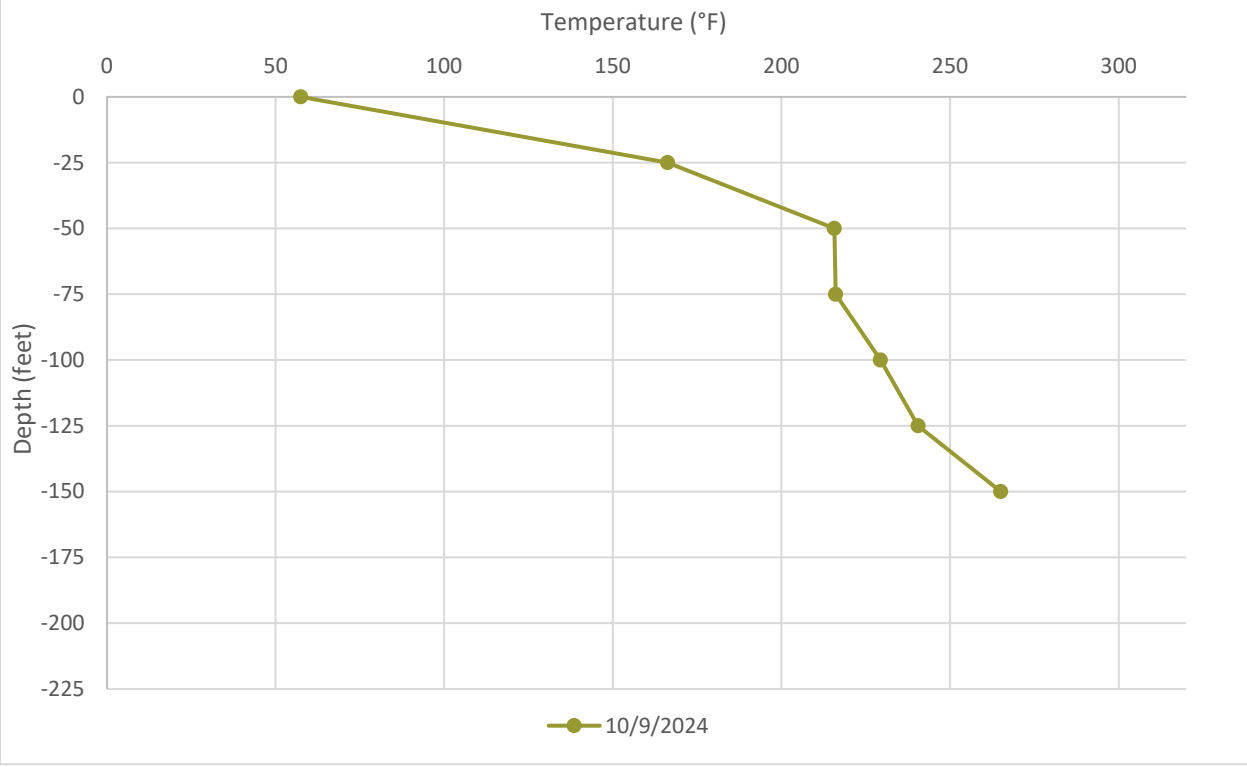


Figure B - 3 Average Temperatures Recorded by TP-1 on October 16, 2024

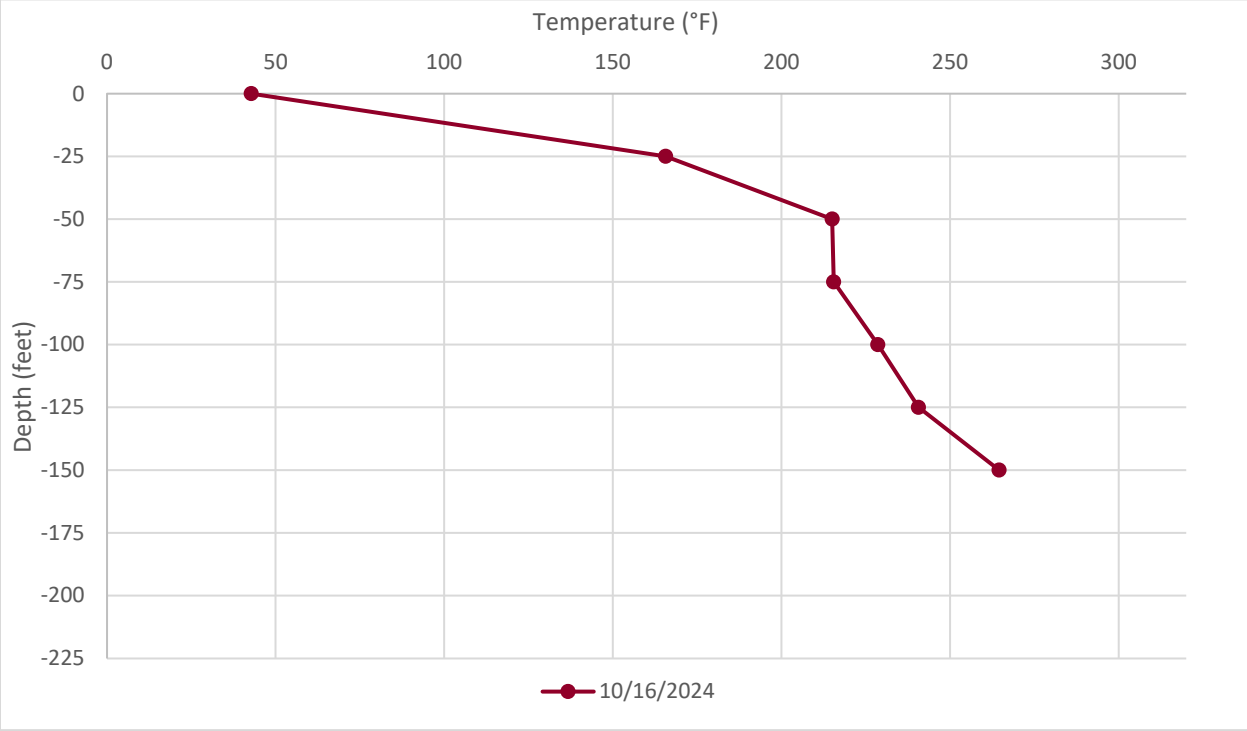


Figure B - 4 Average Temperatures Recorded by TP-1 on October 23, 2024

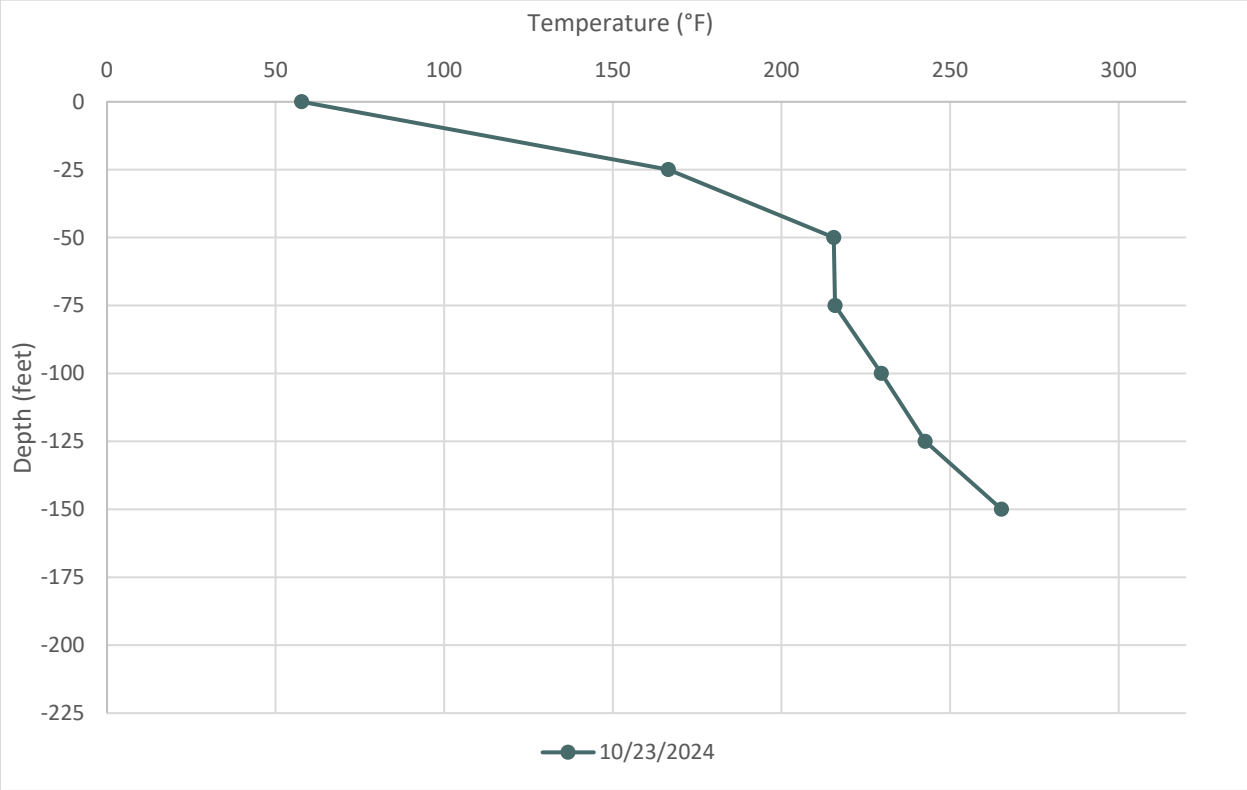


Figure B - 5 Average Temperatures Recorded by TP-1 on October 30, 2024

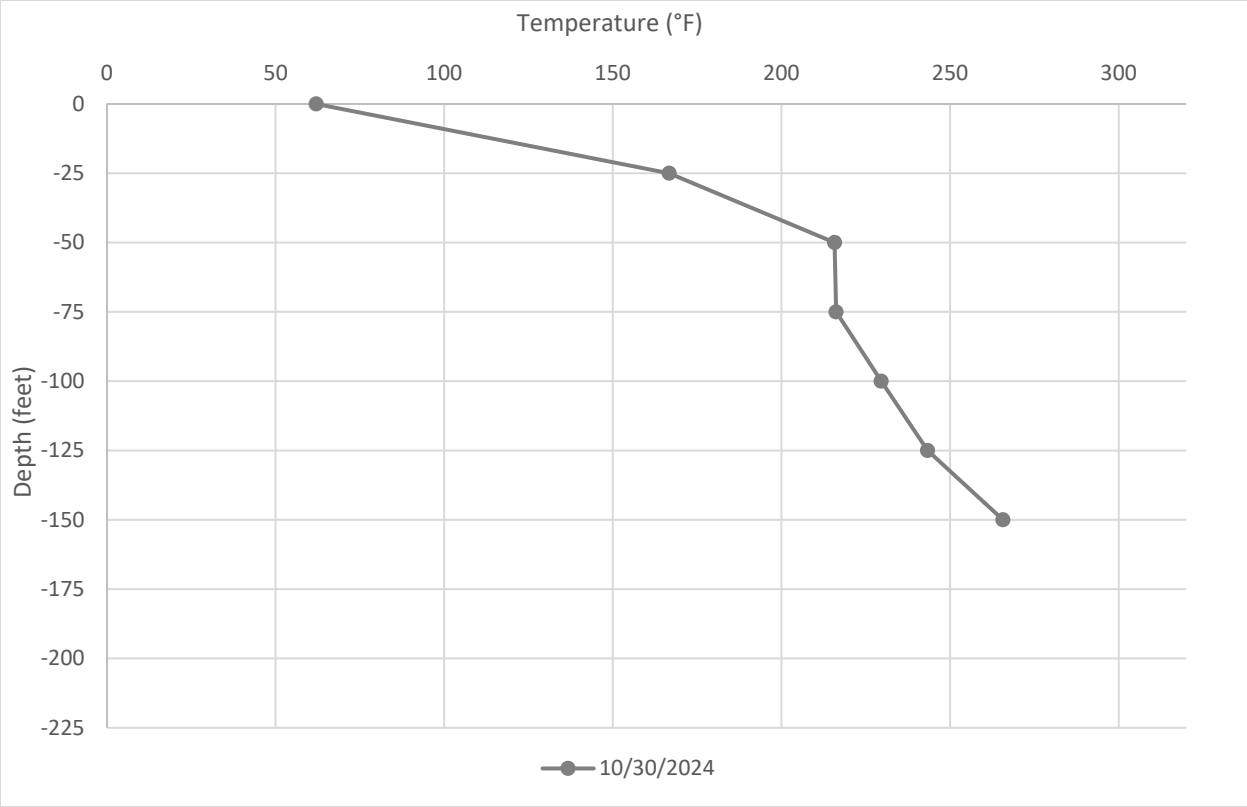


Figure B - 6 Average Temperatures Recorded by TP-2 on October 2, 2024

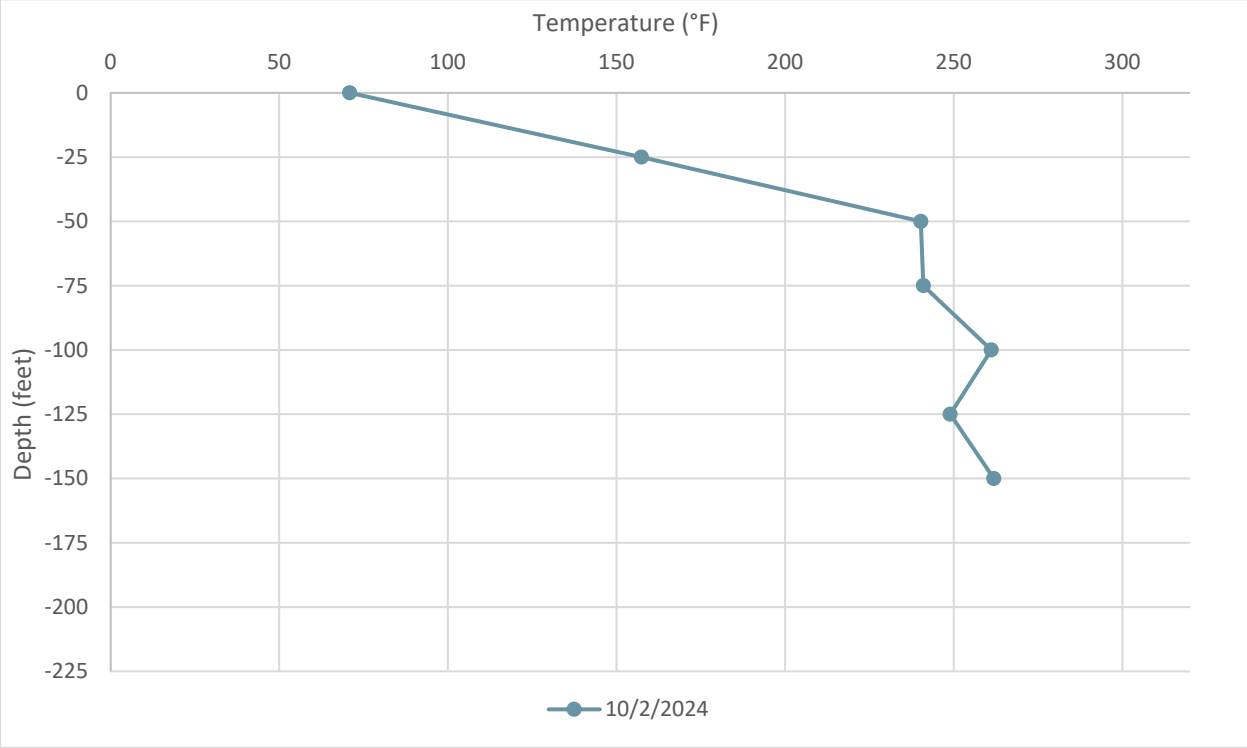


Figure B - 7 Average Temperatures Recorded by TP-2 on October 9, 2024

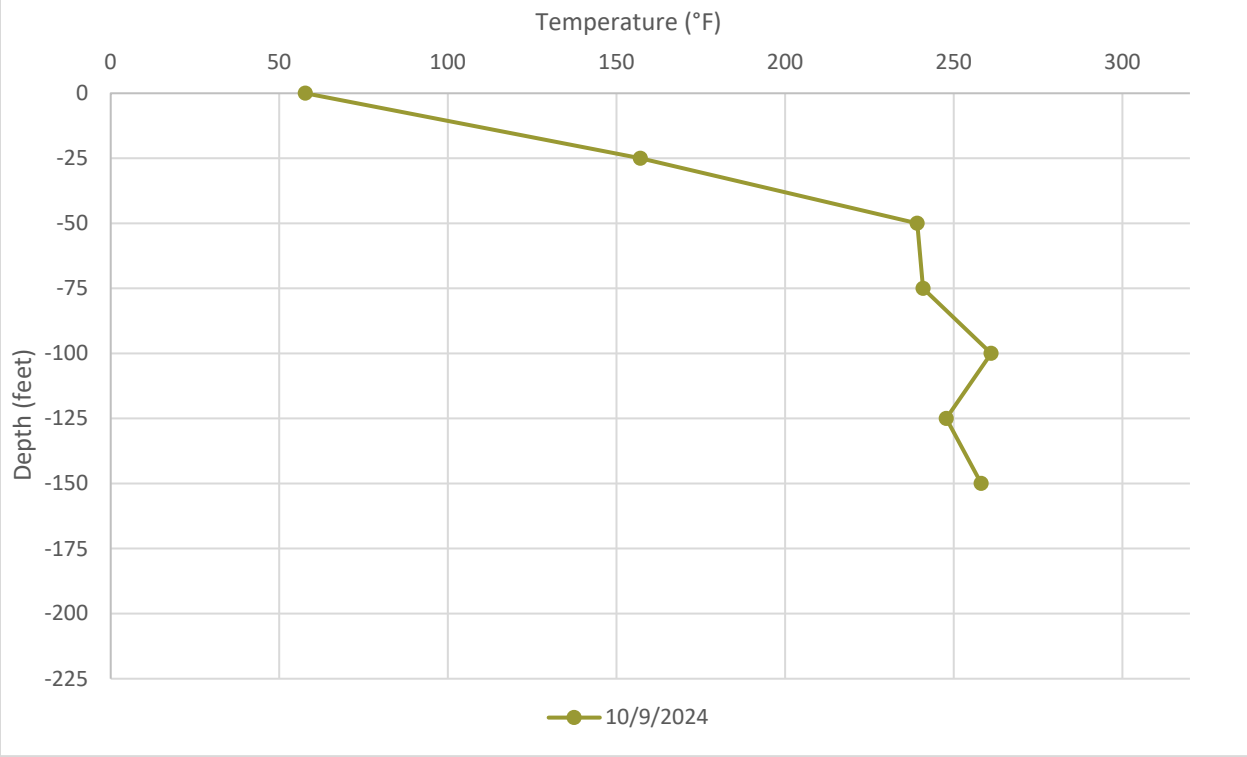


Figure B - 8 Average Temperatures Recorded by TP-2 on October 16, 2024

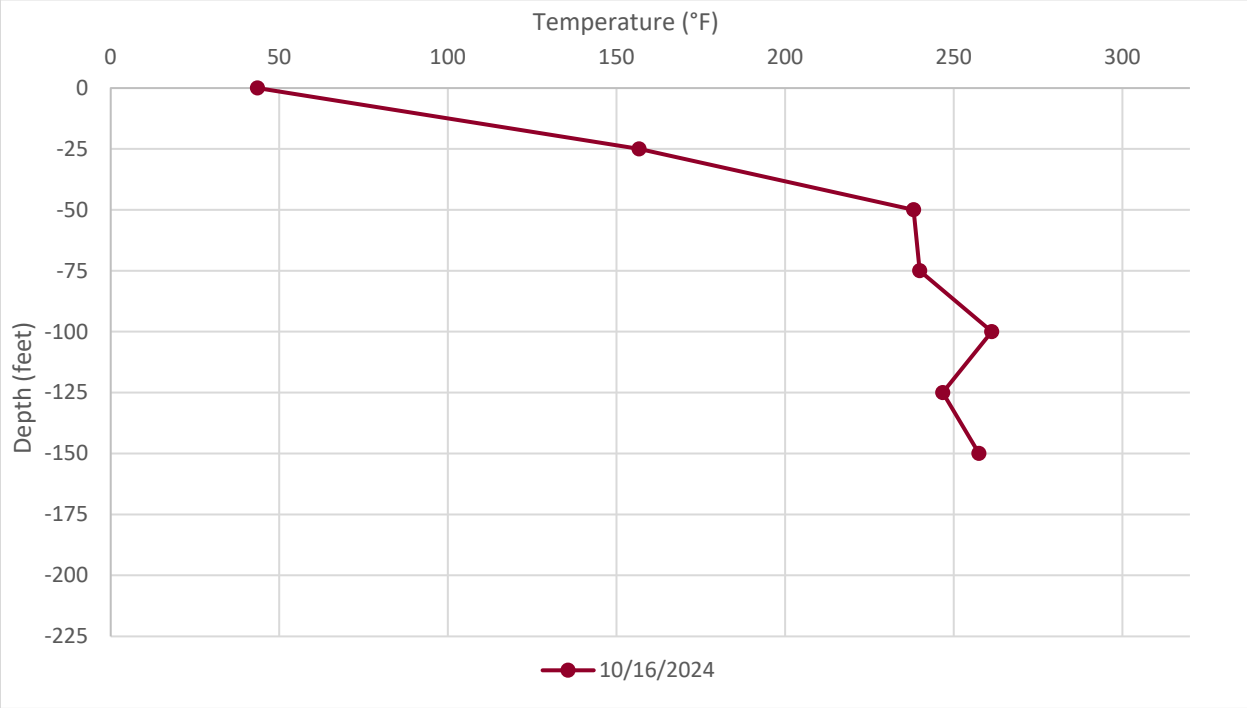


Figure B - 9 Average Temperatures Recorded by TP-2 on October 23, 2024

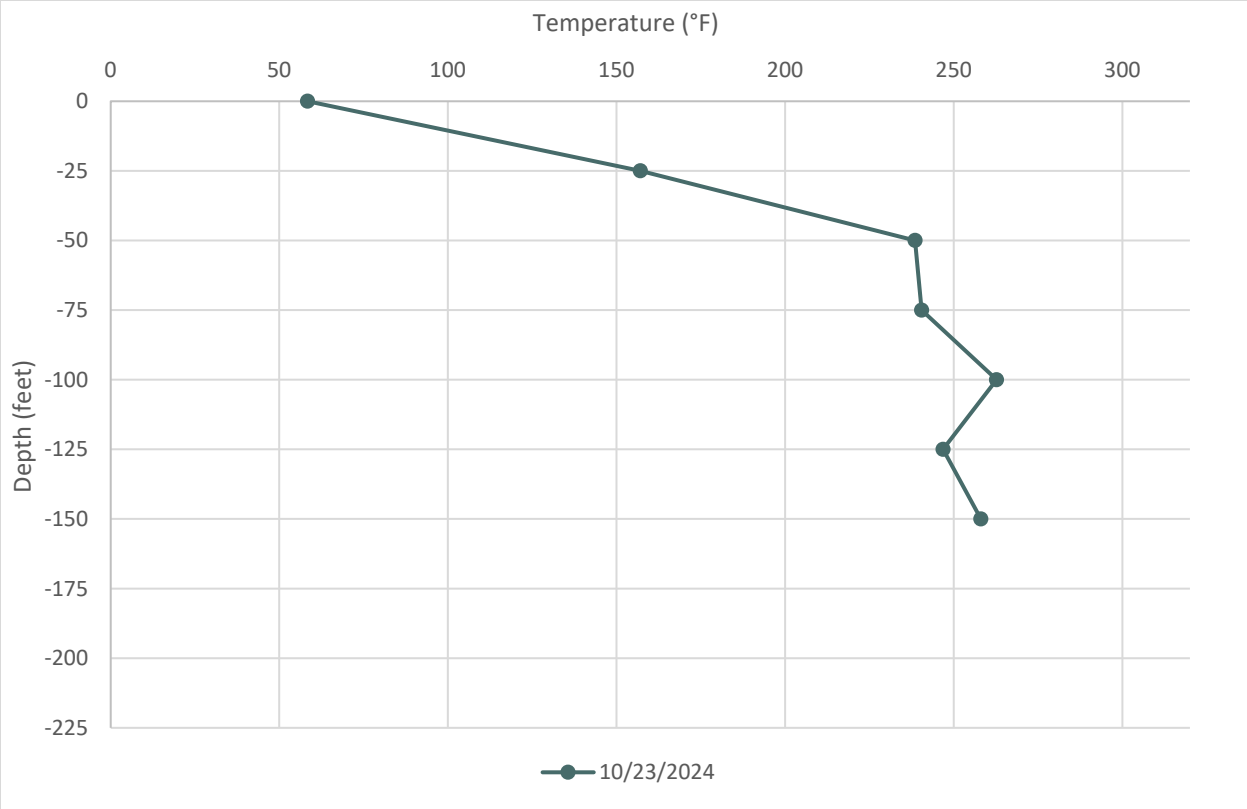


Figure B - 10 Average Temperatures Recorded by TP-2 on October 30, 2024

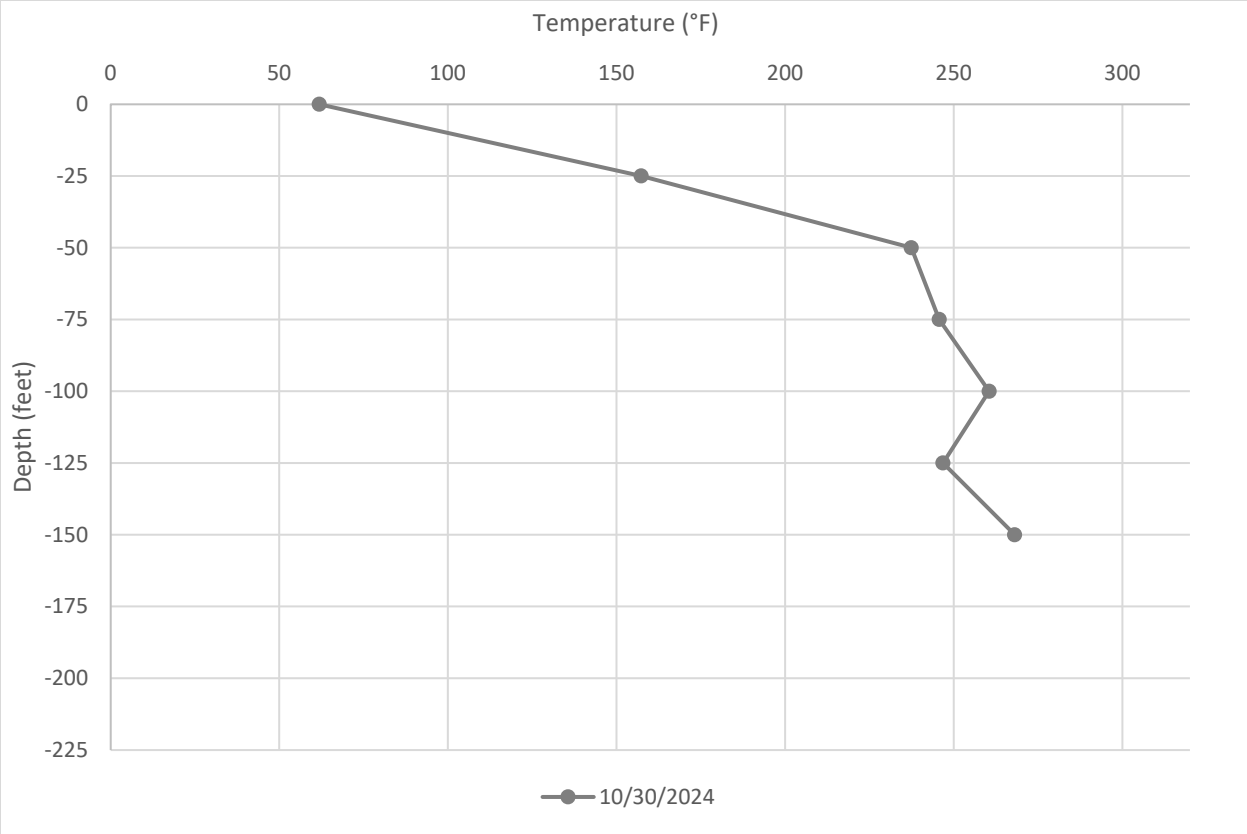


Figure B - 11 Average Temperatures Recorded by TP-3 on October 2, 2024

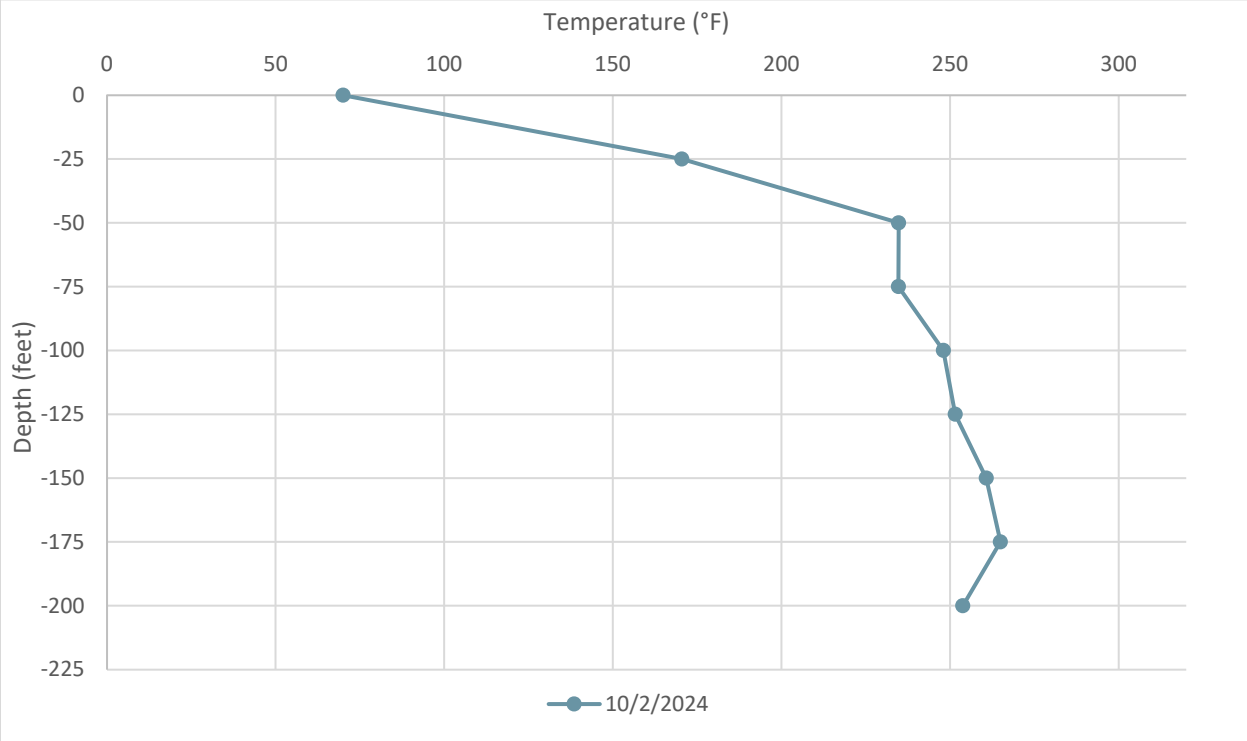


Figure B - 12 Average Temperatures Recorded by TP-3 on October 9, 2024

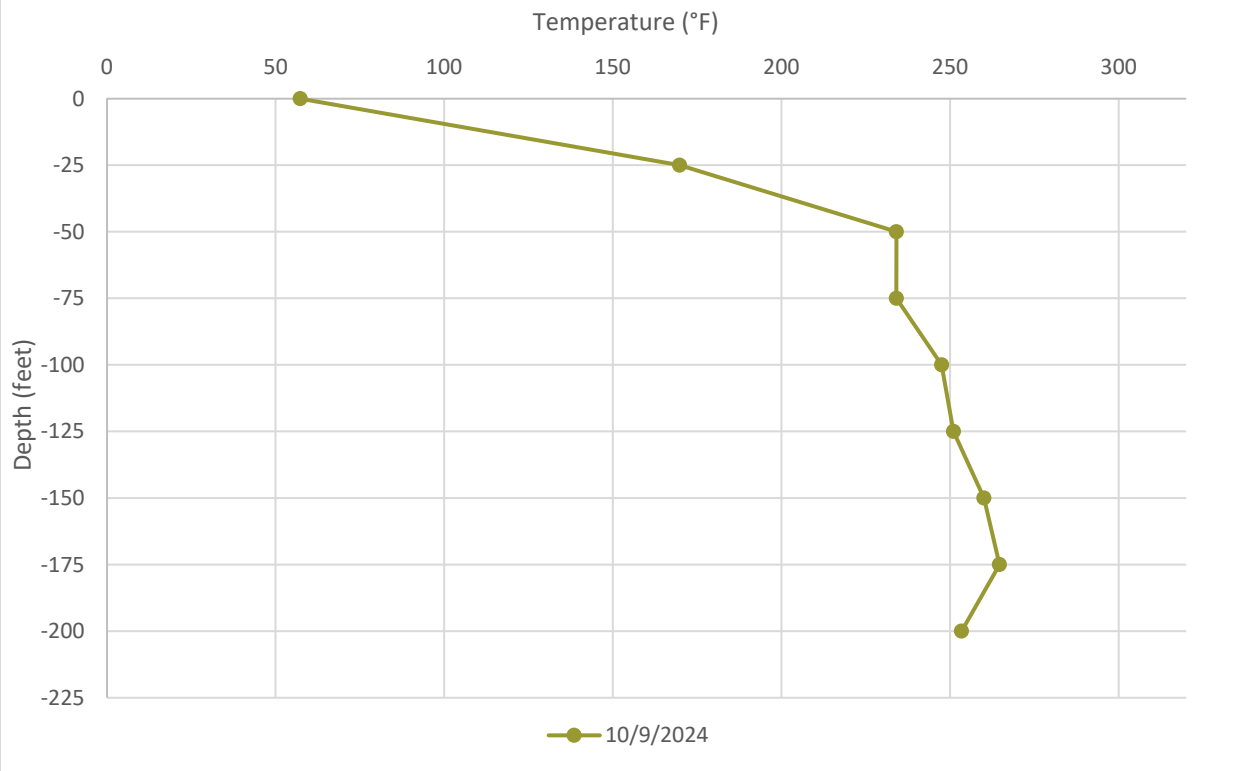


Figure B - 13 Average Temperatures Recorded by TP-3 on October 16, 2024

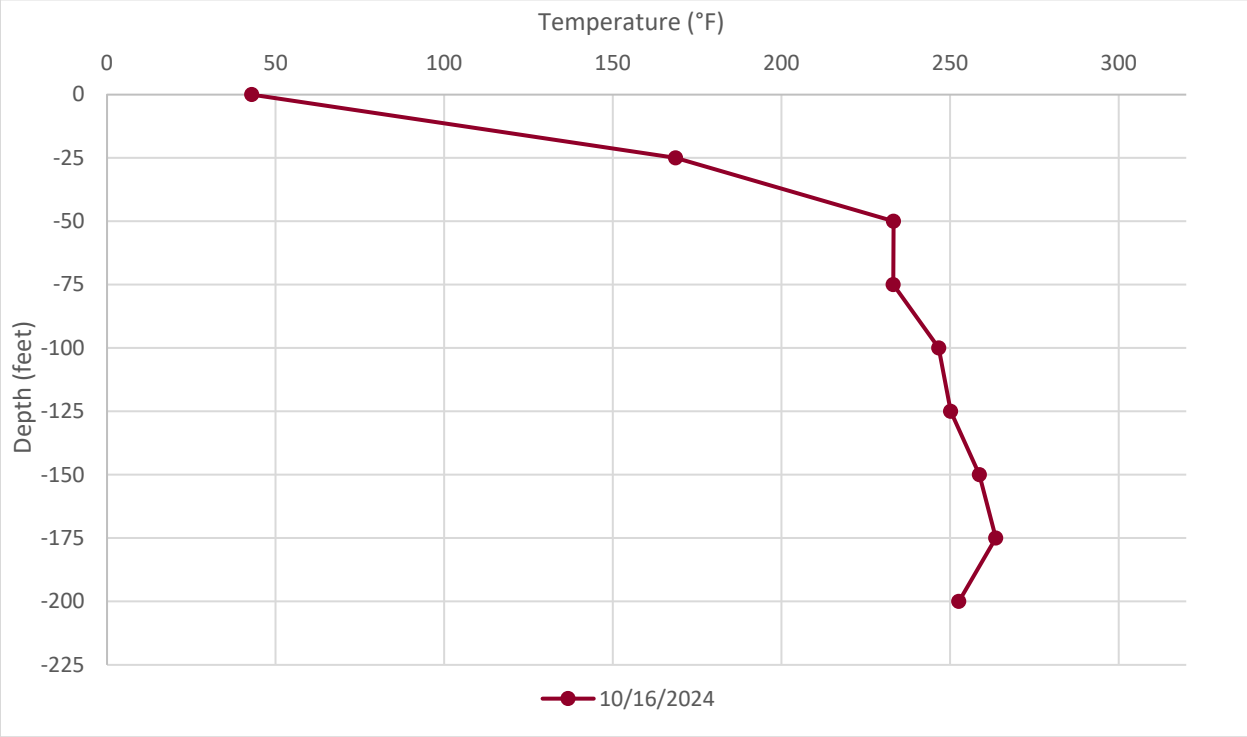


Figure B - 14 Average Temperatures Recorded by TP-3 on October 23, 2024

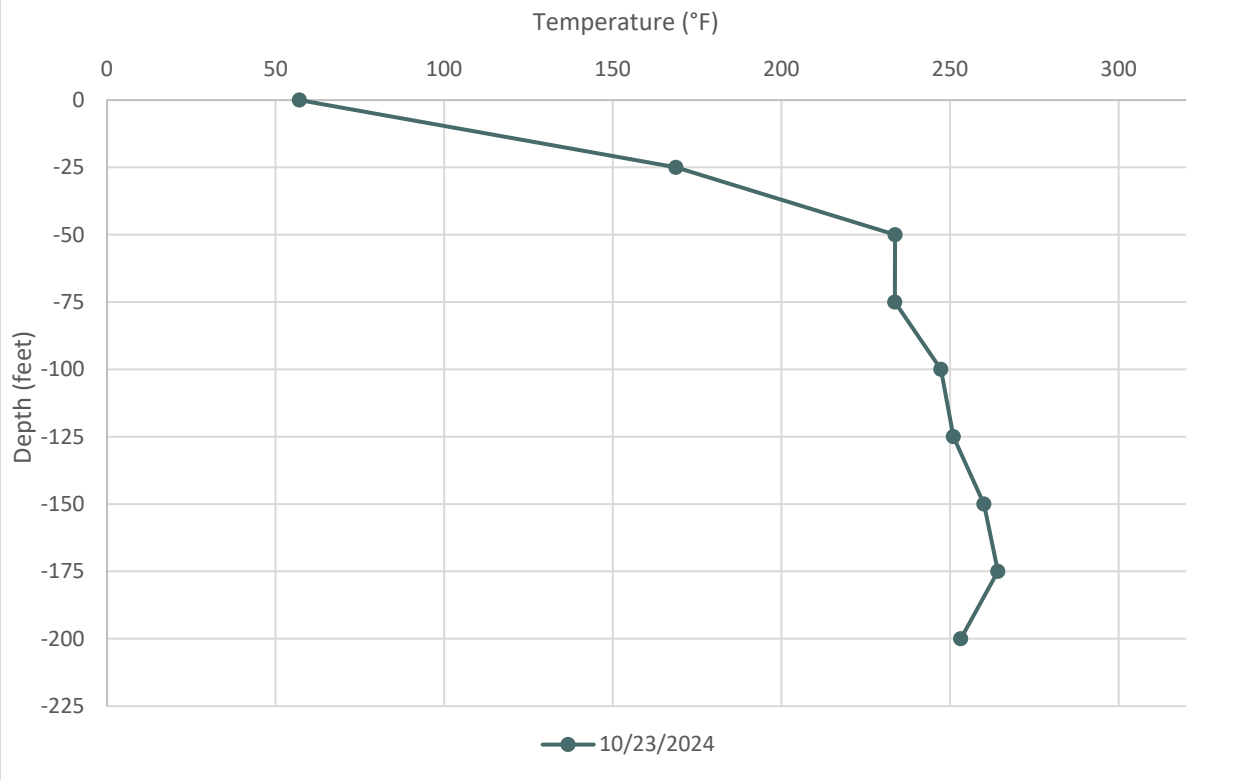


Figure B - 15 Average Temperatures Recorded by TP-3 on October 30, 2024

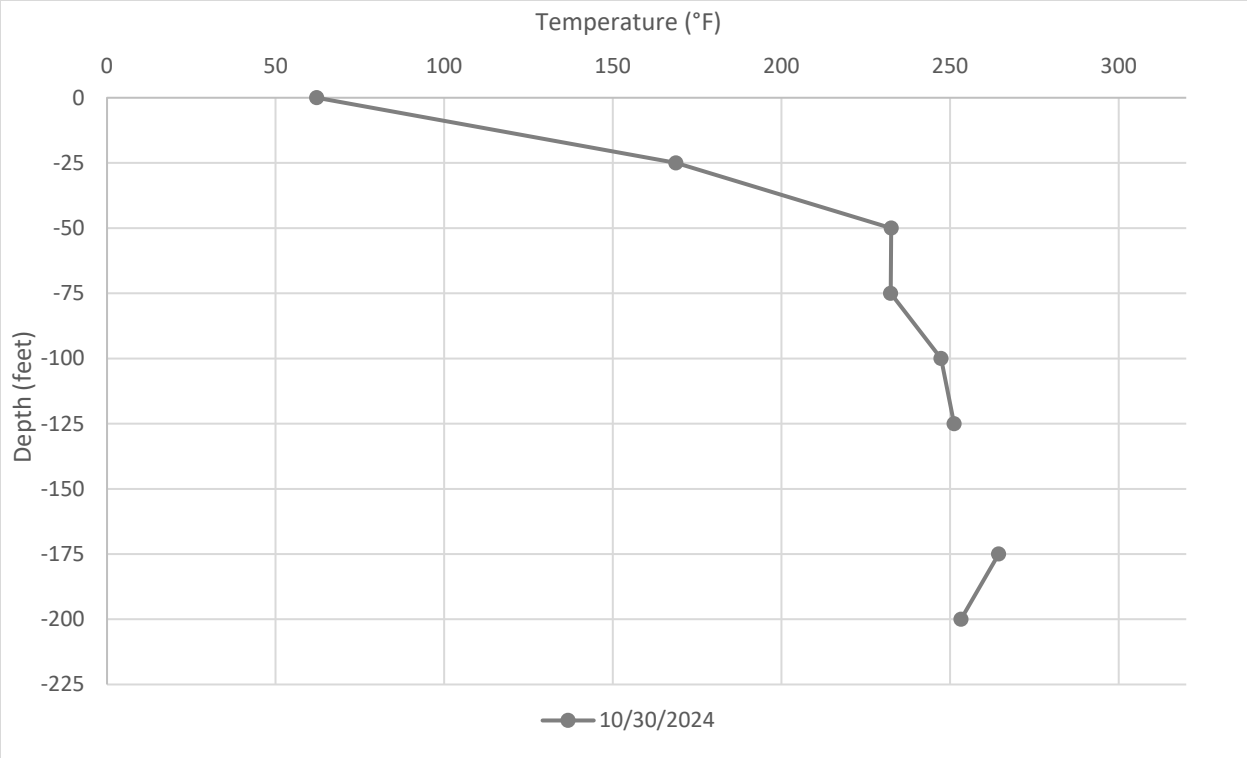


Figure B - 16 Average Temperatures Recorded by TP-4 on October 2, 2024

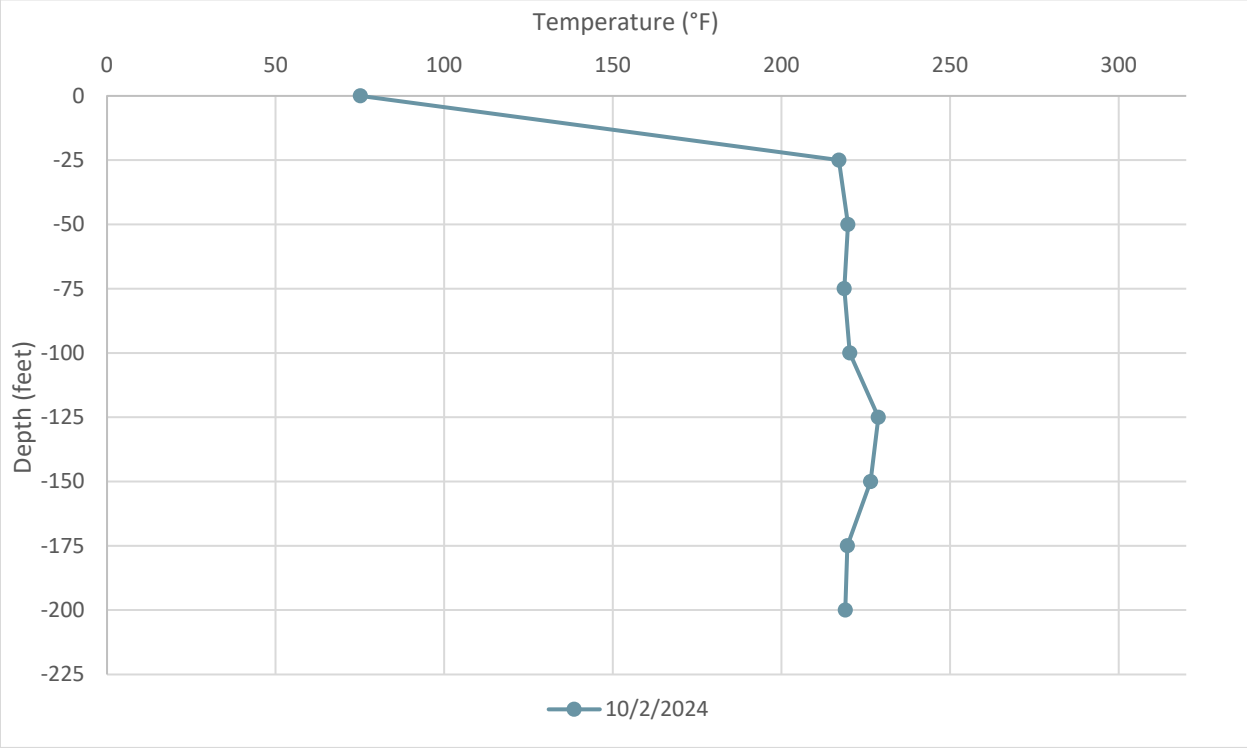


Figure B - 17 Average Temperatures Recorded by TP-4 on October 9, 2024

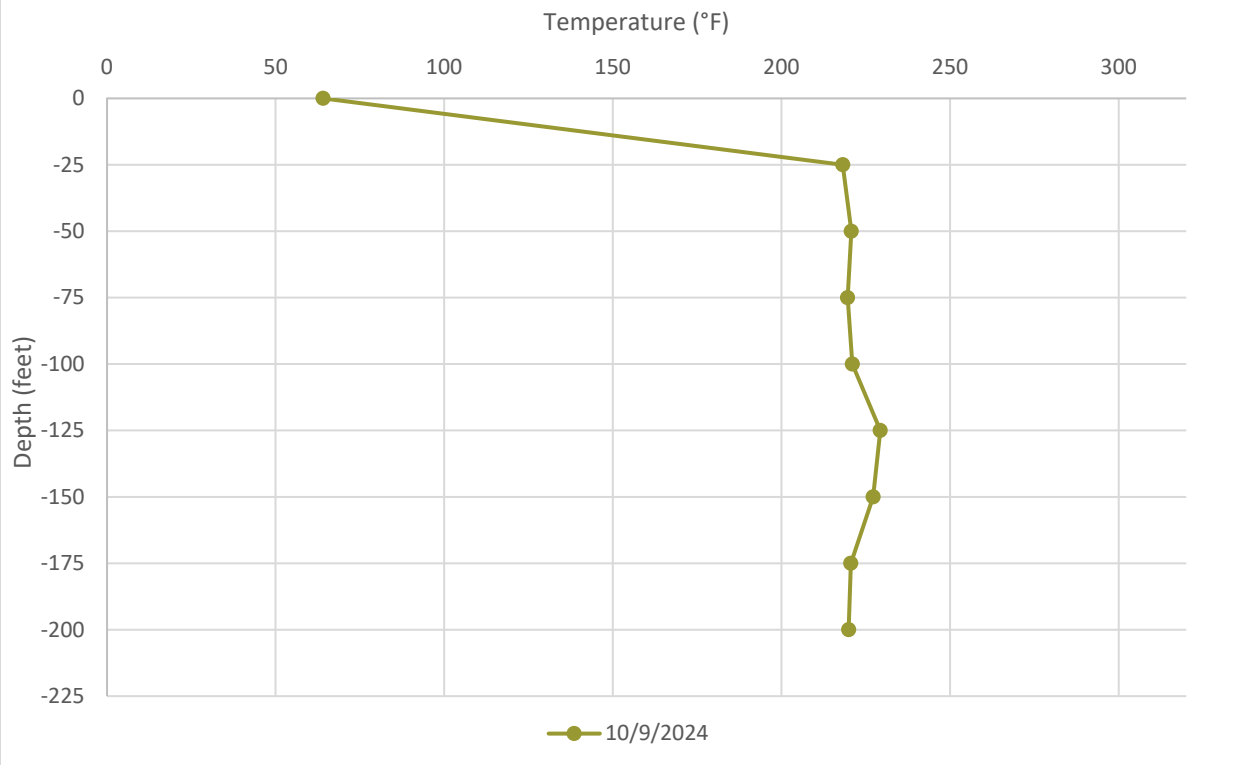


Figure B - 18 Average Temperatures Recorded by TP-4 on October 16, 2024

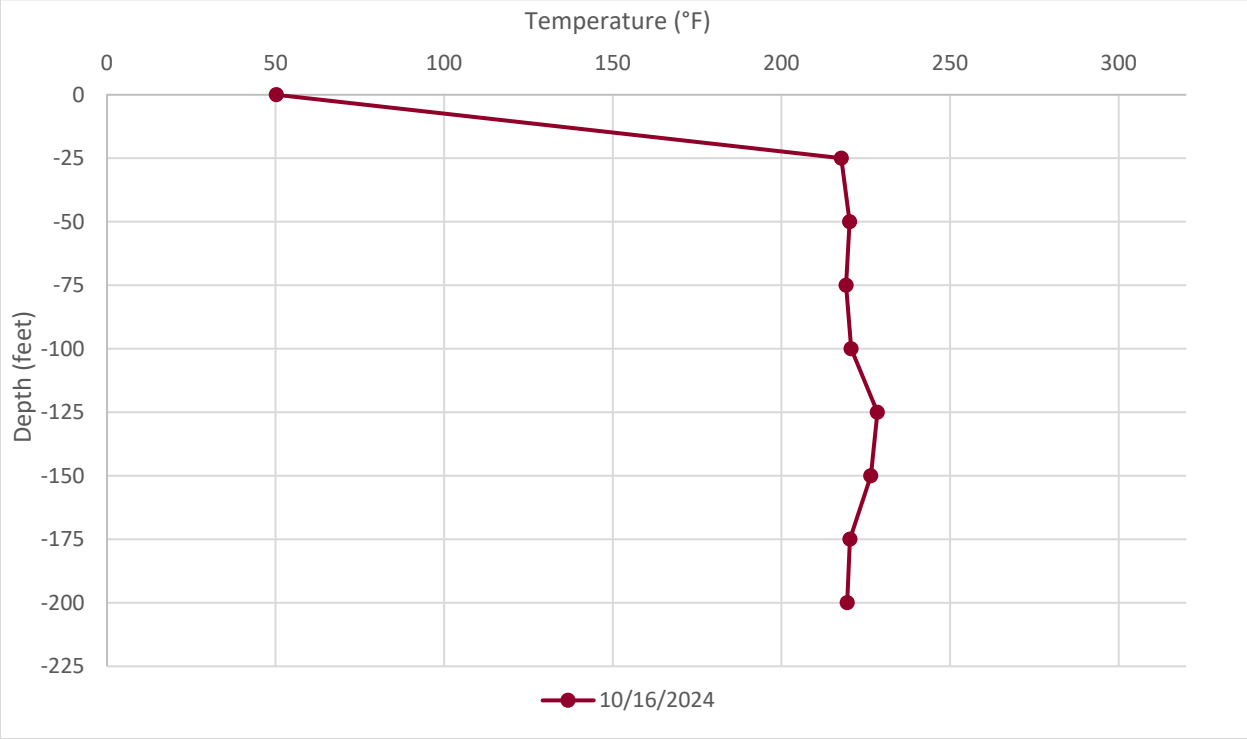


Figure B - 19 Average Temperatures Recorded by TP-4 on October 23, 2024

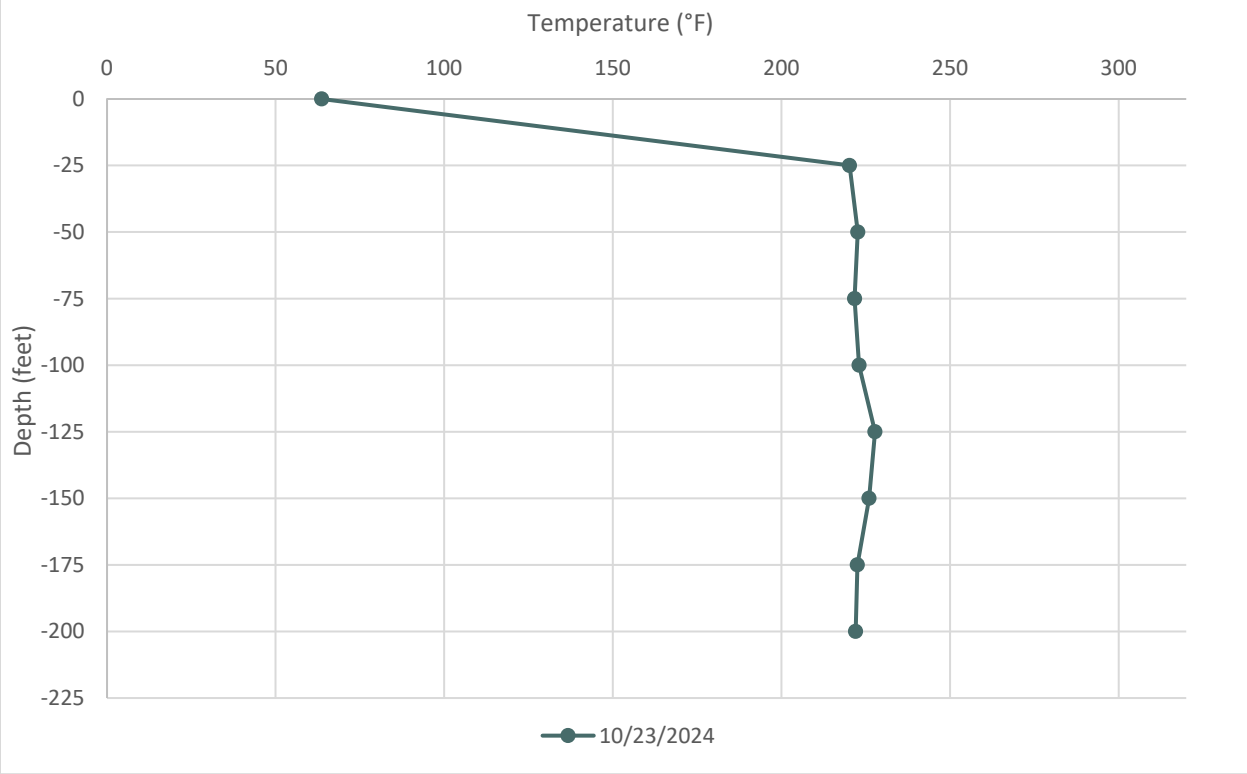


Figure B - 20 Average Temperatures Recorded by TP-4 on October 30, 2024

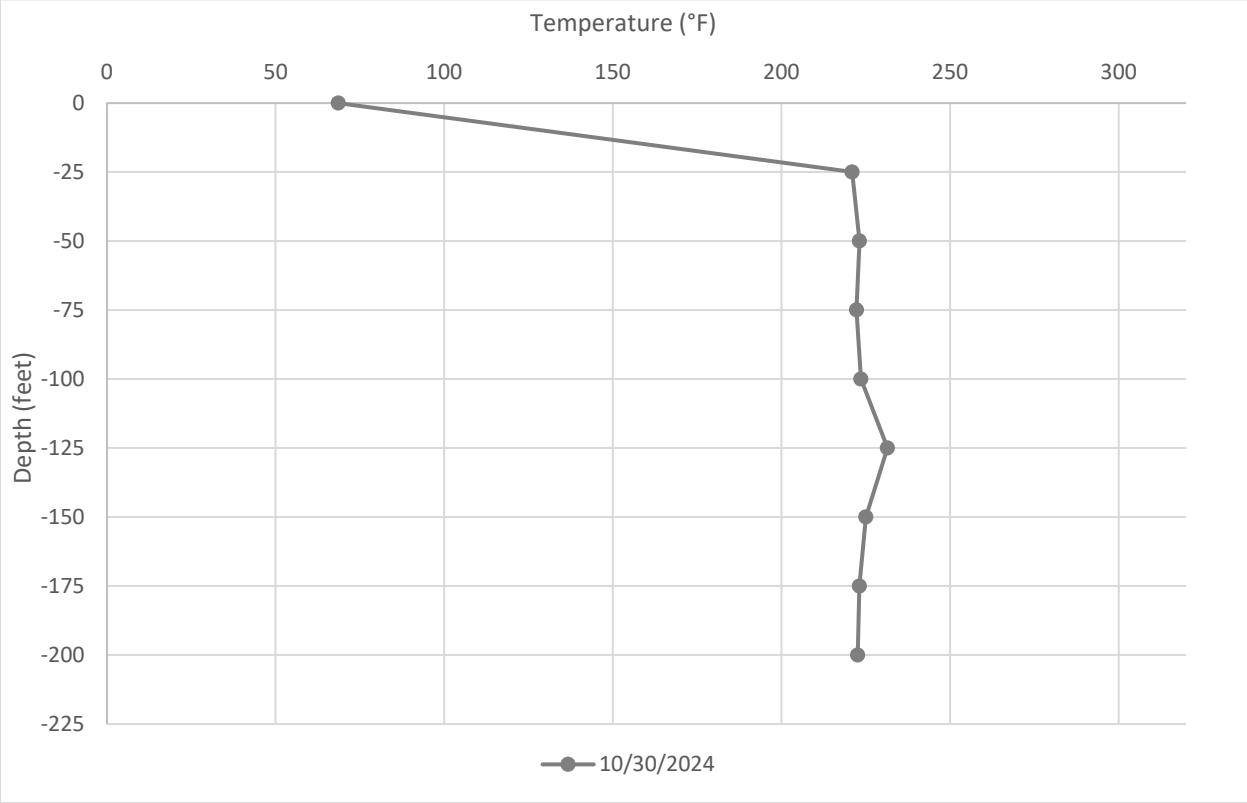


Figure B - 21 Average Temperatures Recorded by TP-5 on October 2, 2024

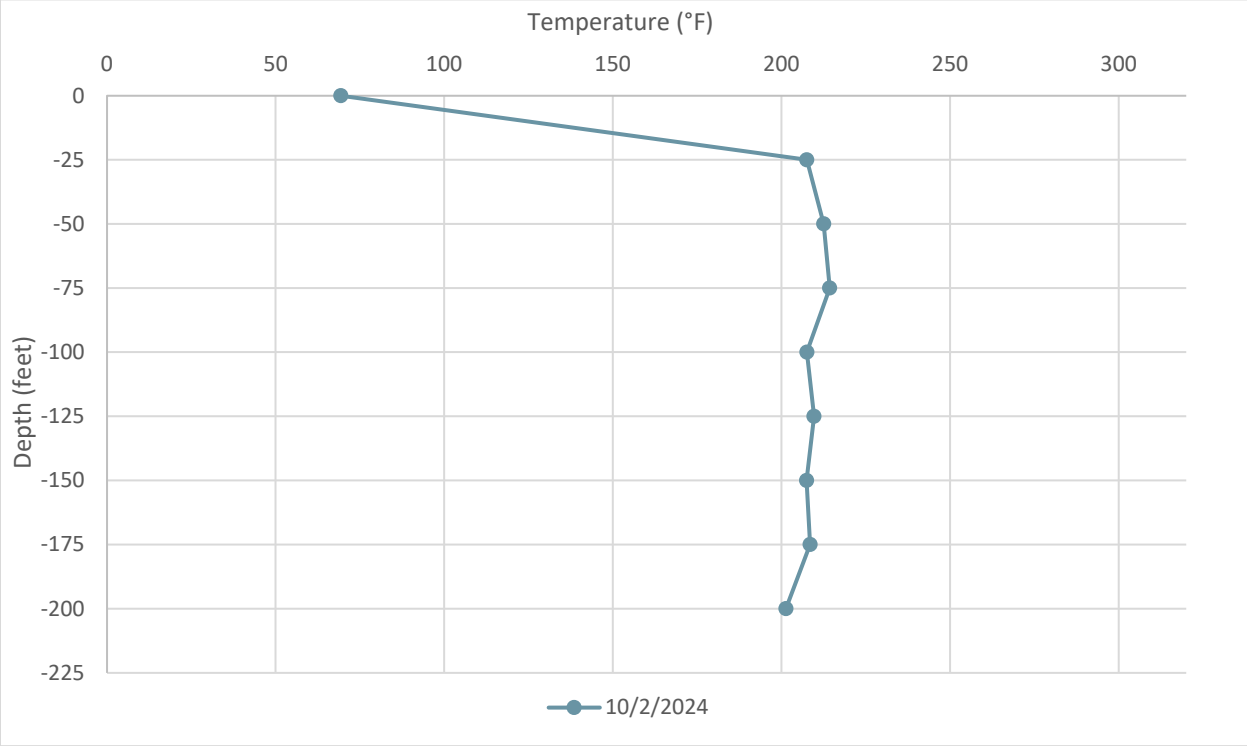


Figure B - 22 Average Temperatures Recorded by TP-5 on October 9, 2024

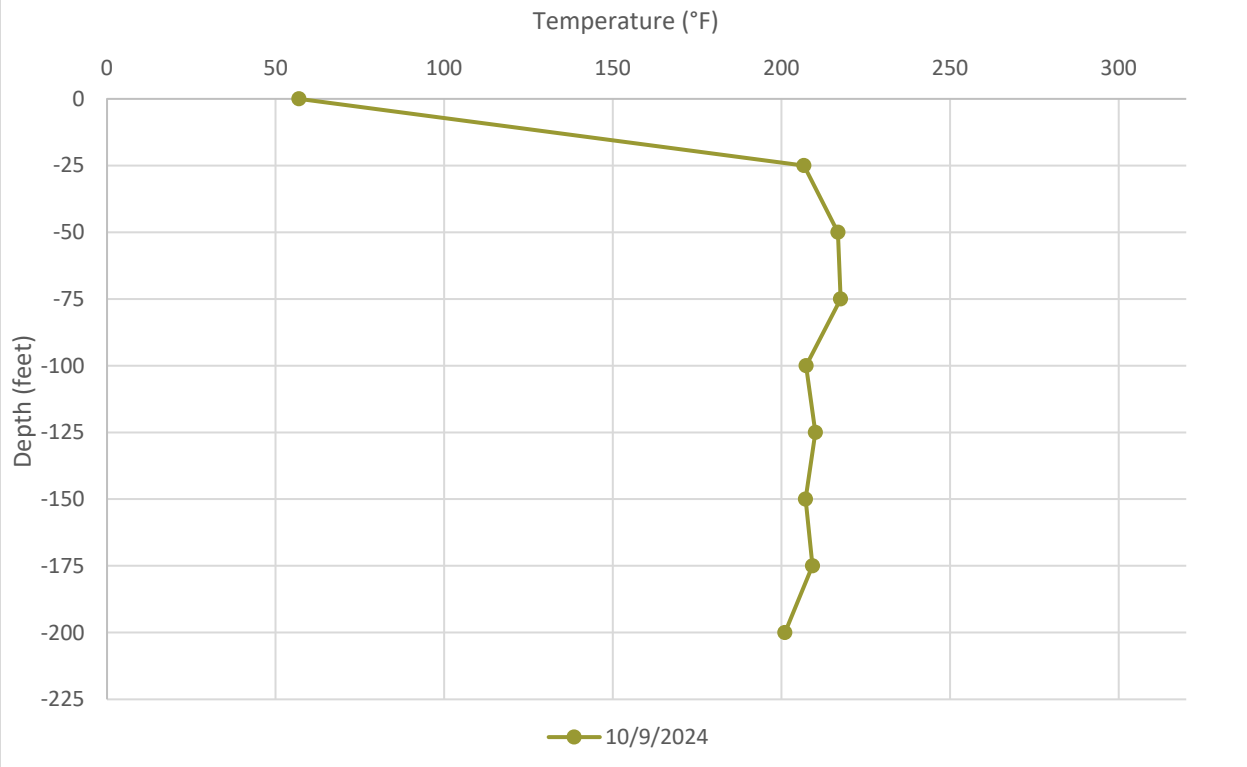


Figure B - 23 Average Temperatures Recorded by TP-5 on October 16, 2024

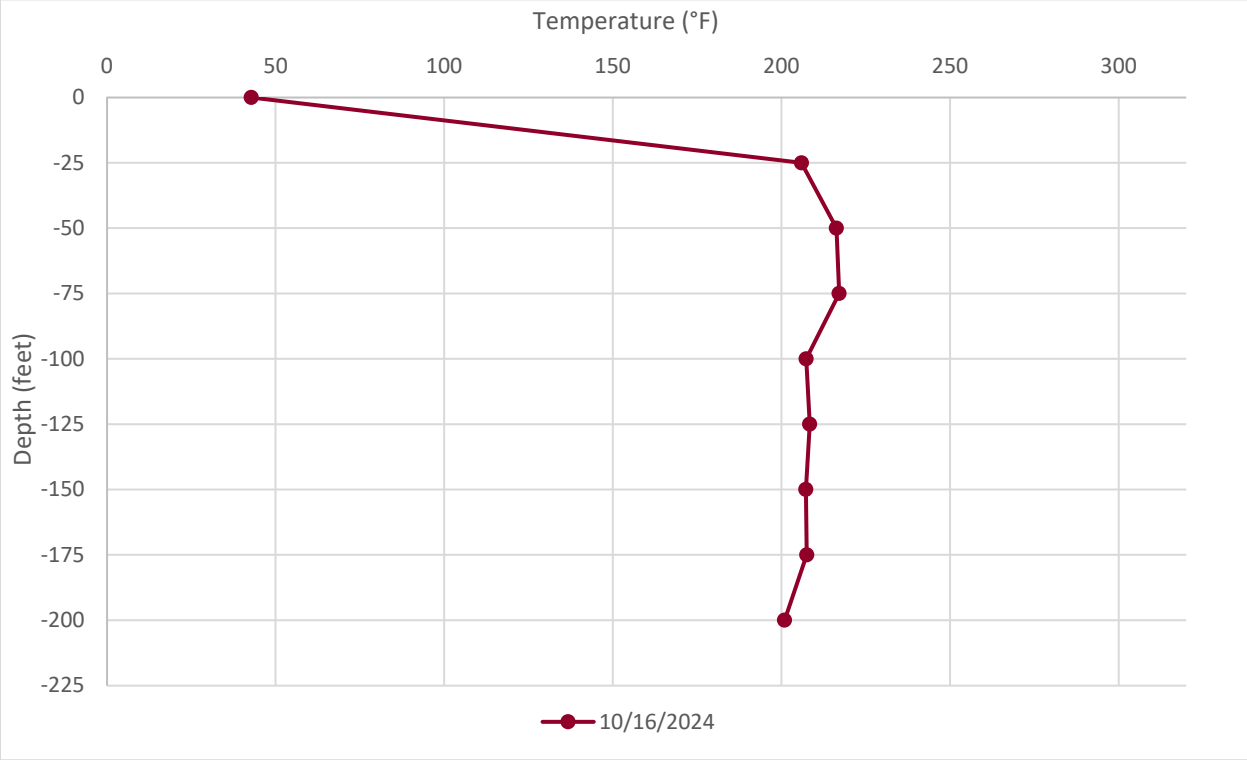


Figure B - 24 Average Temperatures Recorded by TP-5 on October 23, 2024

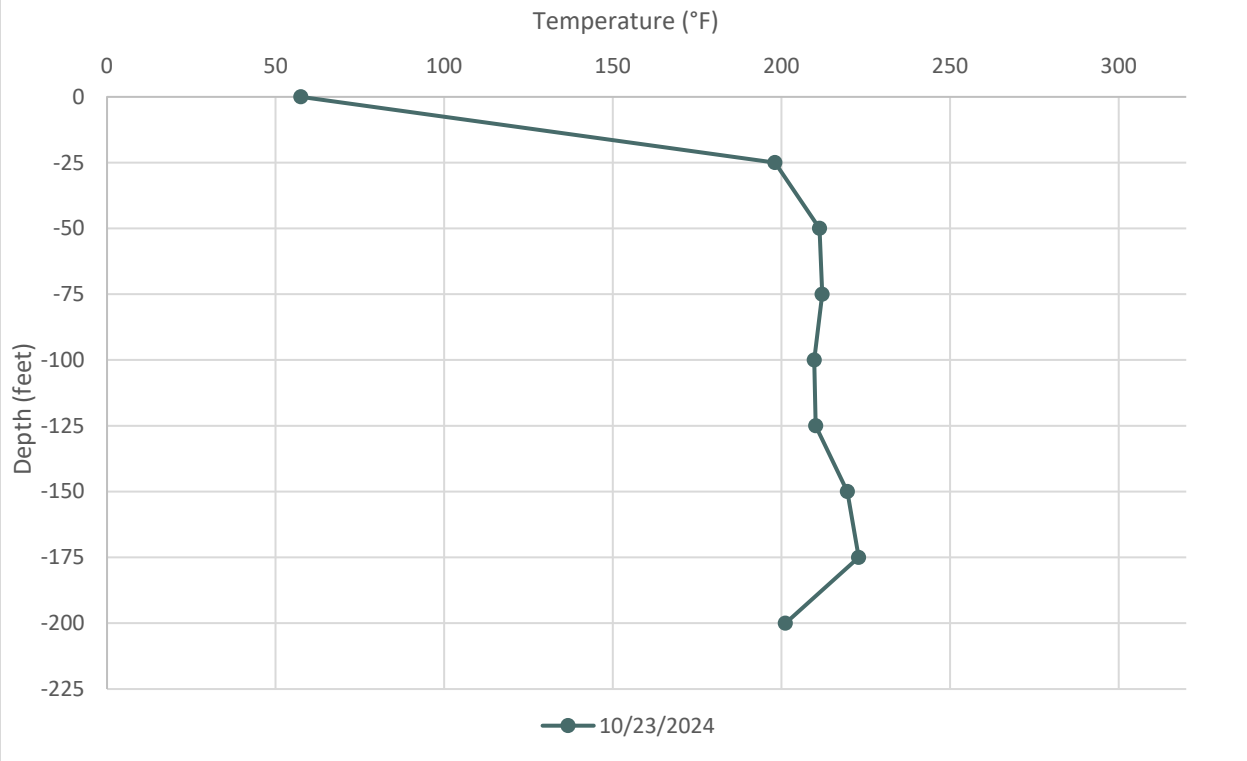


Figure B - 25 Average Temperatures Recorded by TP-5 on October 30, 2024

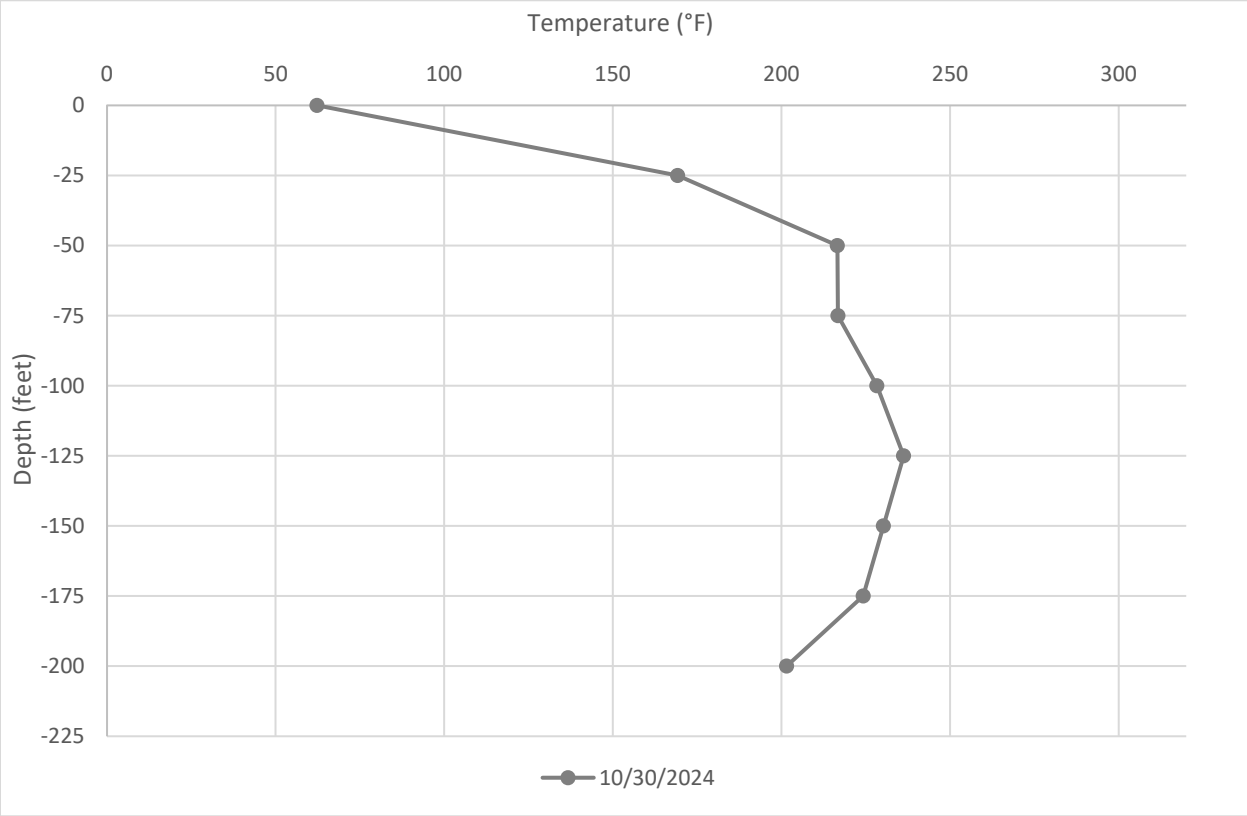


Figure B - 26 Average Temperatures Recorded by TP-6 on October 2, 2024

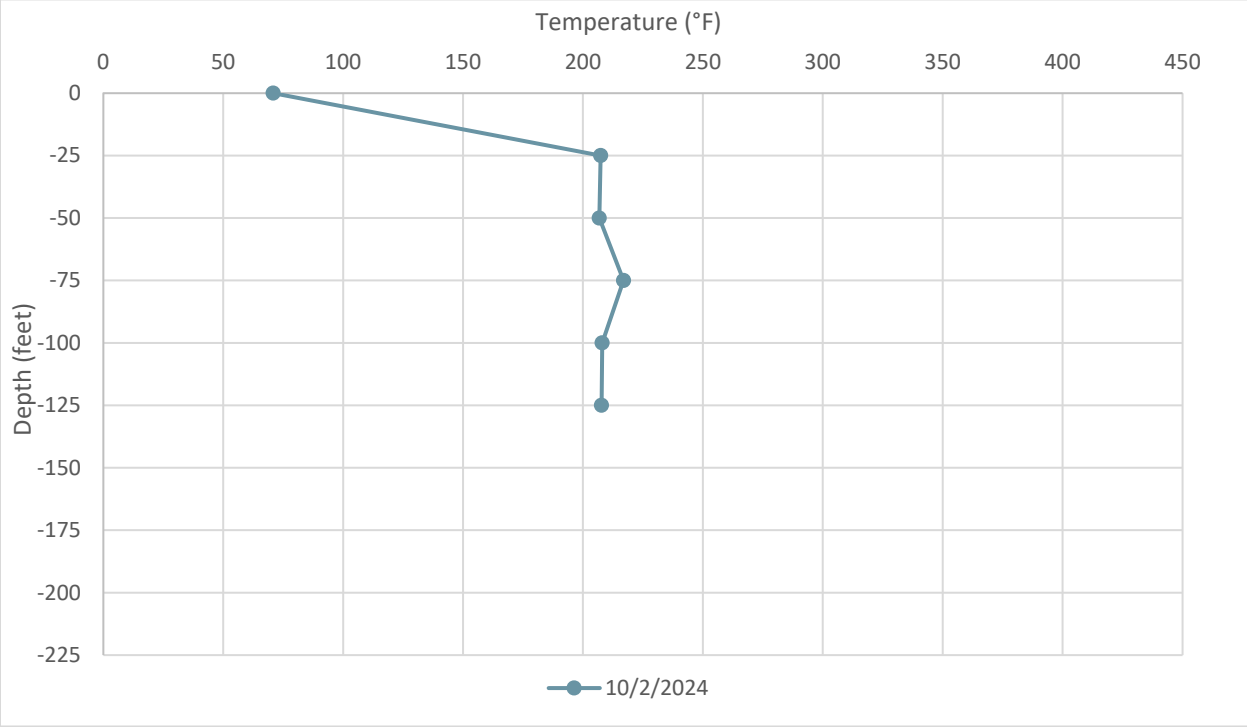


Figure B - 27 Average Temperatures Recorded by TP-6 on October 9, 2024

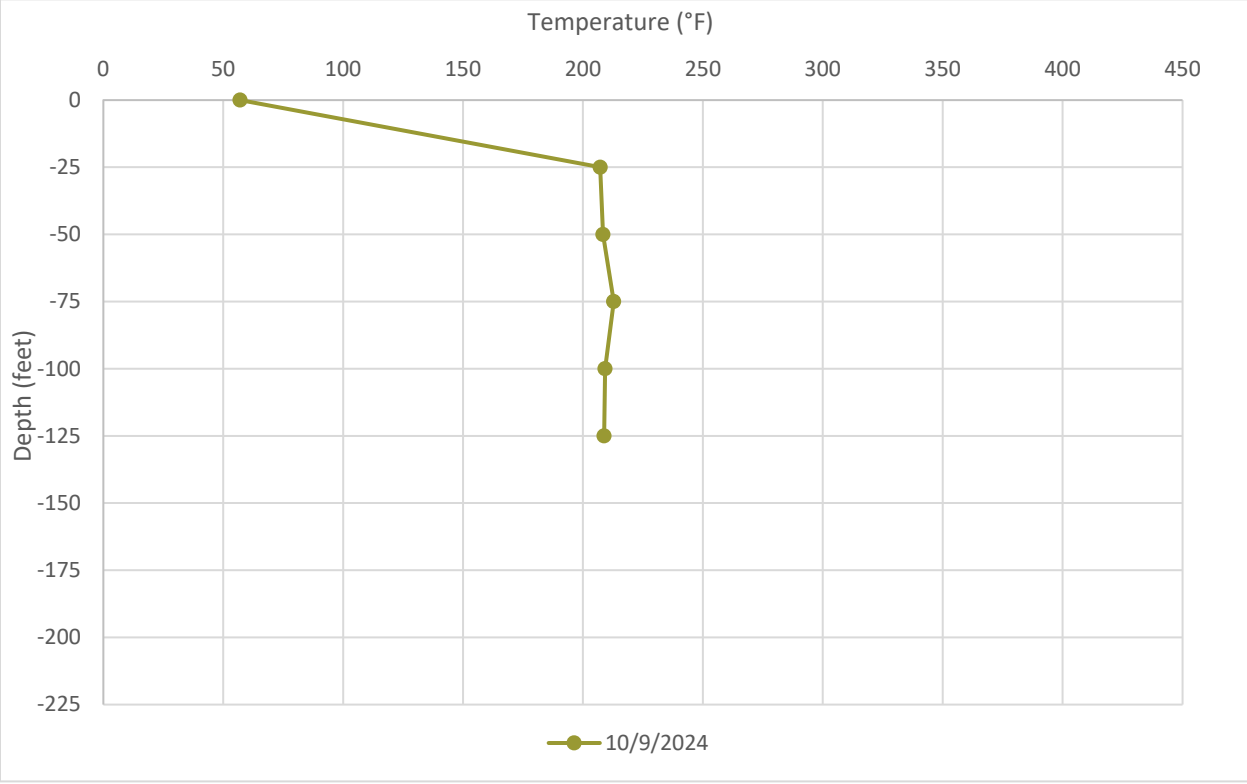


Figure B - 28 Average Temperatures Recorded by TP-6 on October 16, 2024

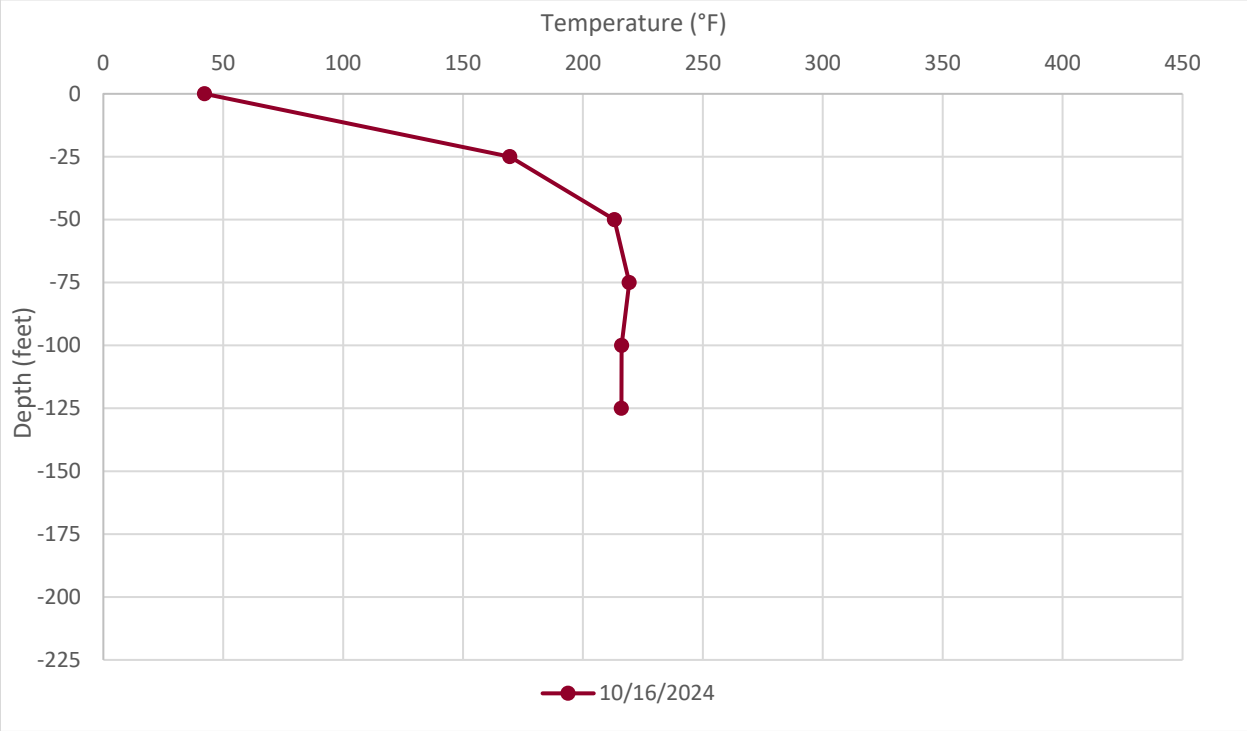


Figure B - 29 Average Temperatures Recorded by TP-6 on October 23, 2024

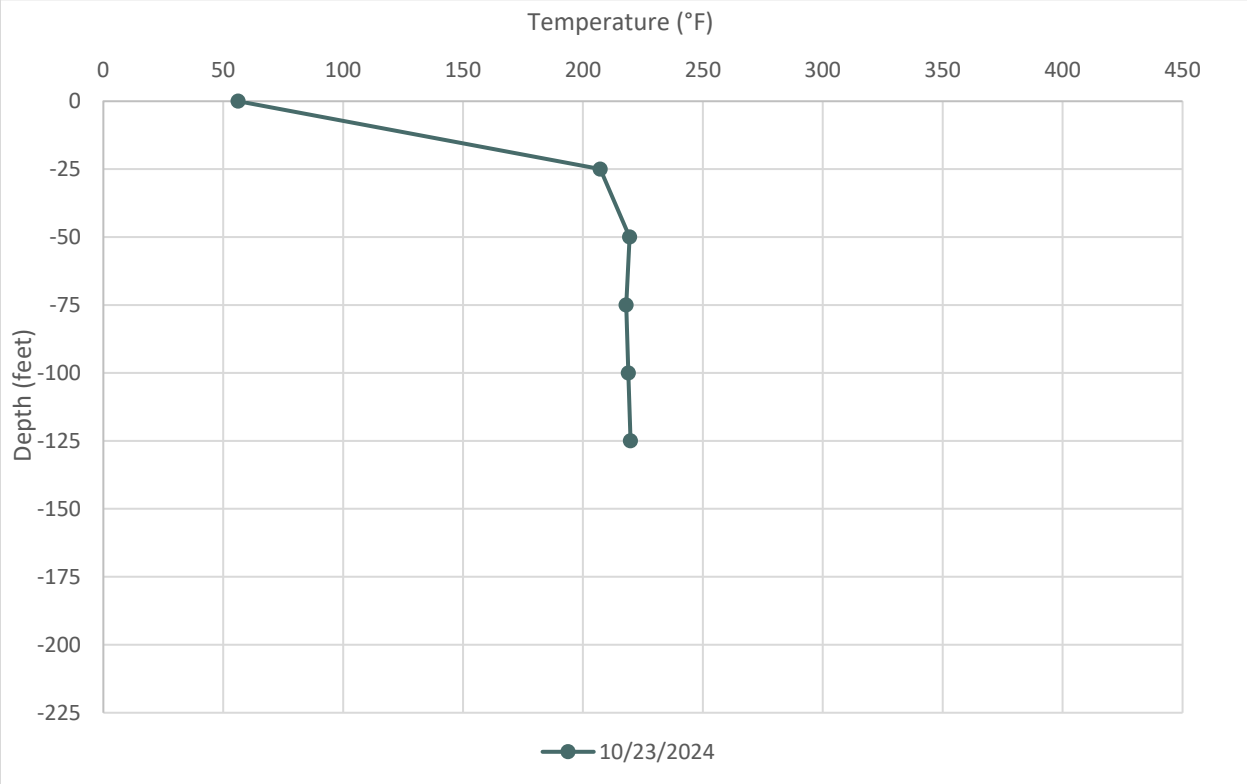


Figure B - 30 Average Temperatures Recorded by TP-6 on October 30, 2024

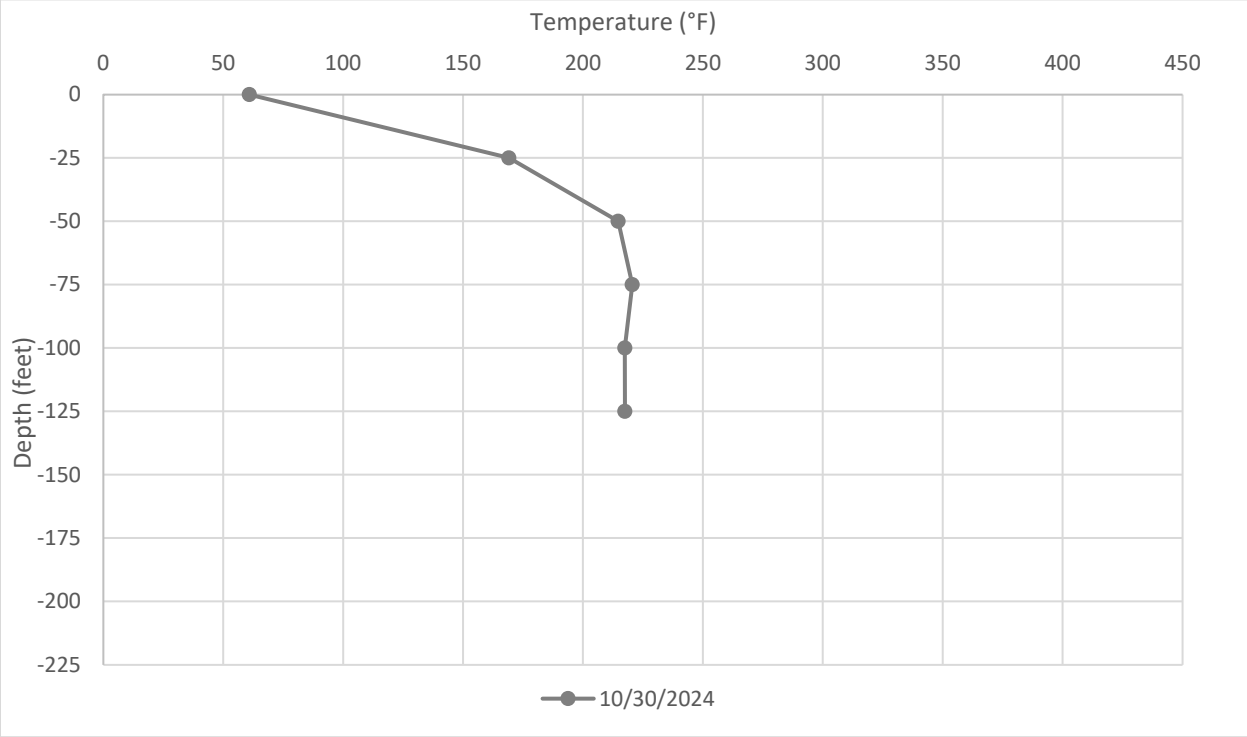


Figure B - 31 Average Temperatures Recorded by TP-7 on October 2, 2024

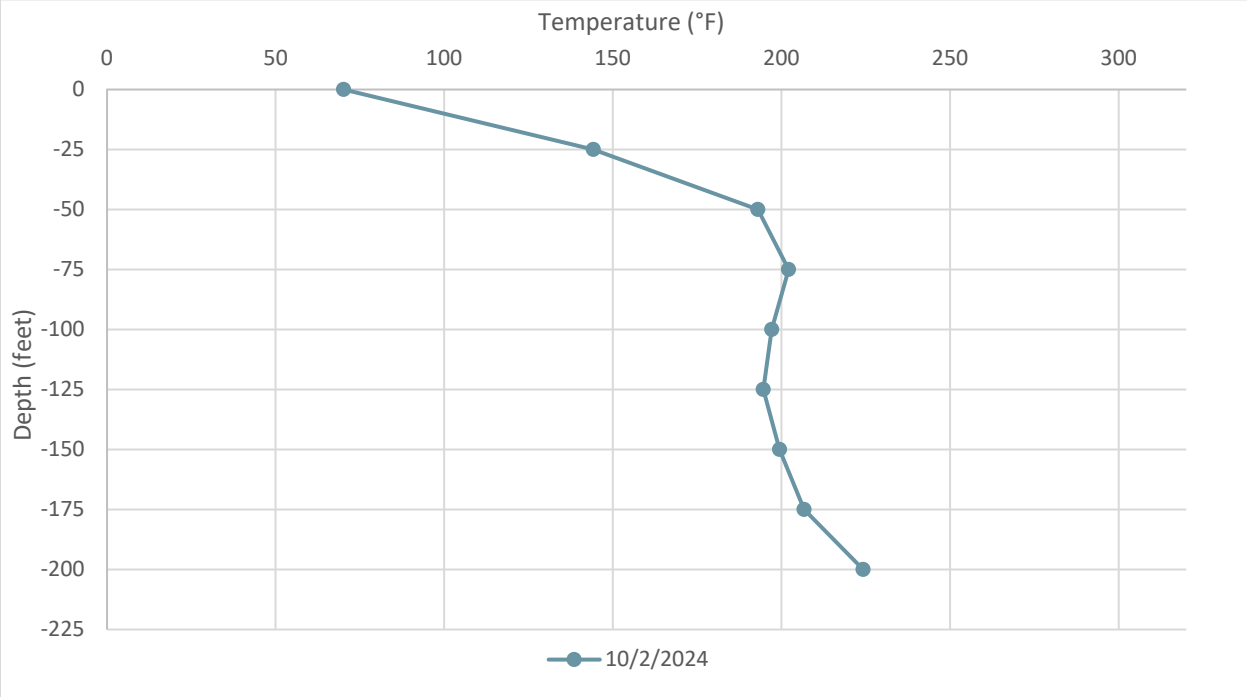


Figure B - 32 Average Temperatures Recorded by TP-7 on October 9, 2024

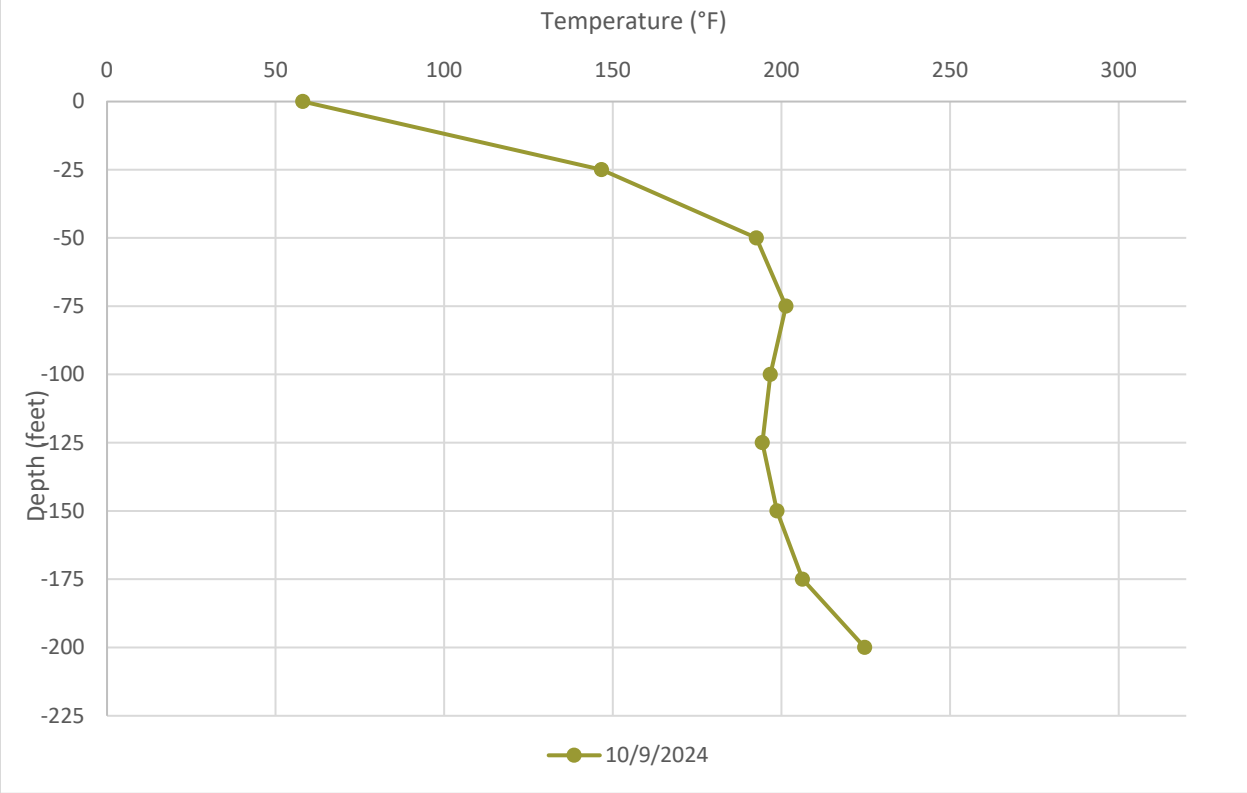


Figure B - 33 Average Temperatures Recorded by TP-7 on October 16, 2024

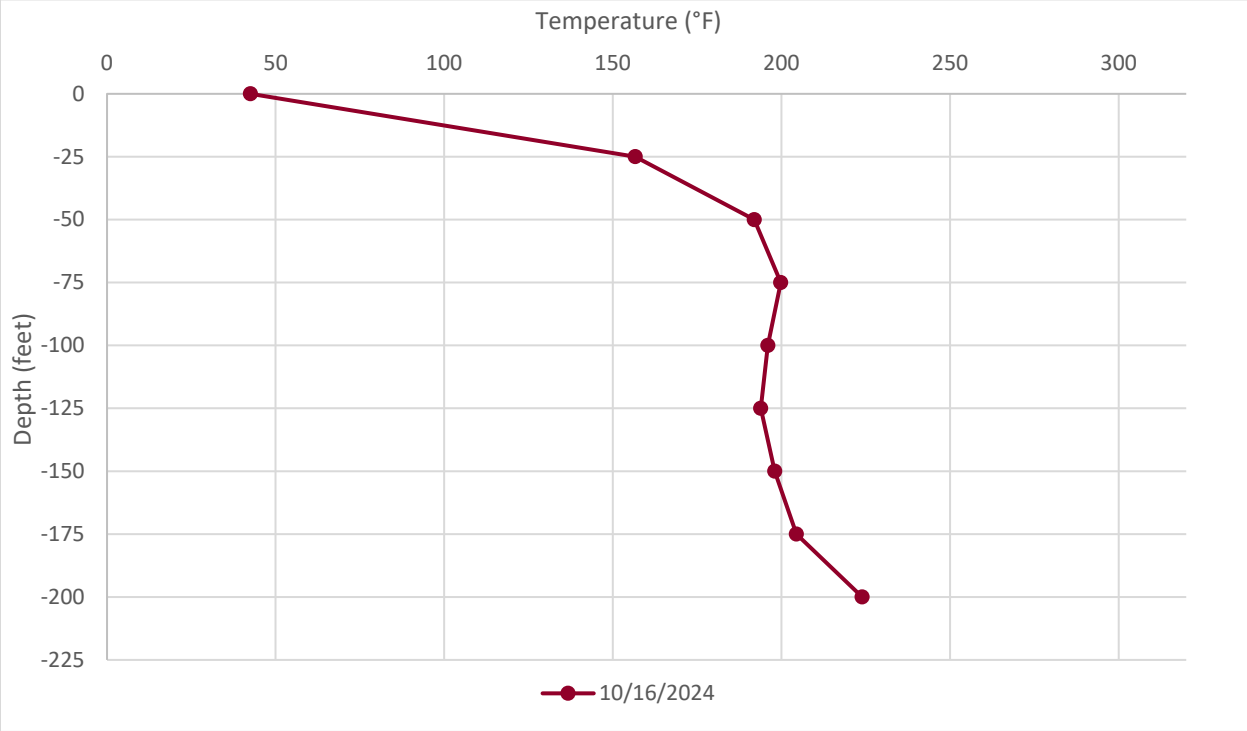


Figure B - 34 Average Temperatures Recorded by TP-7 on October 23, 2024

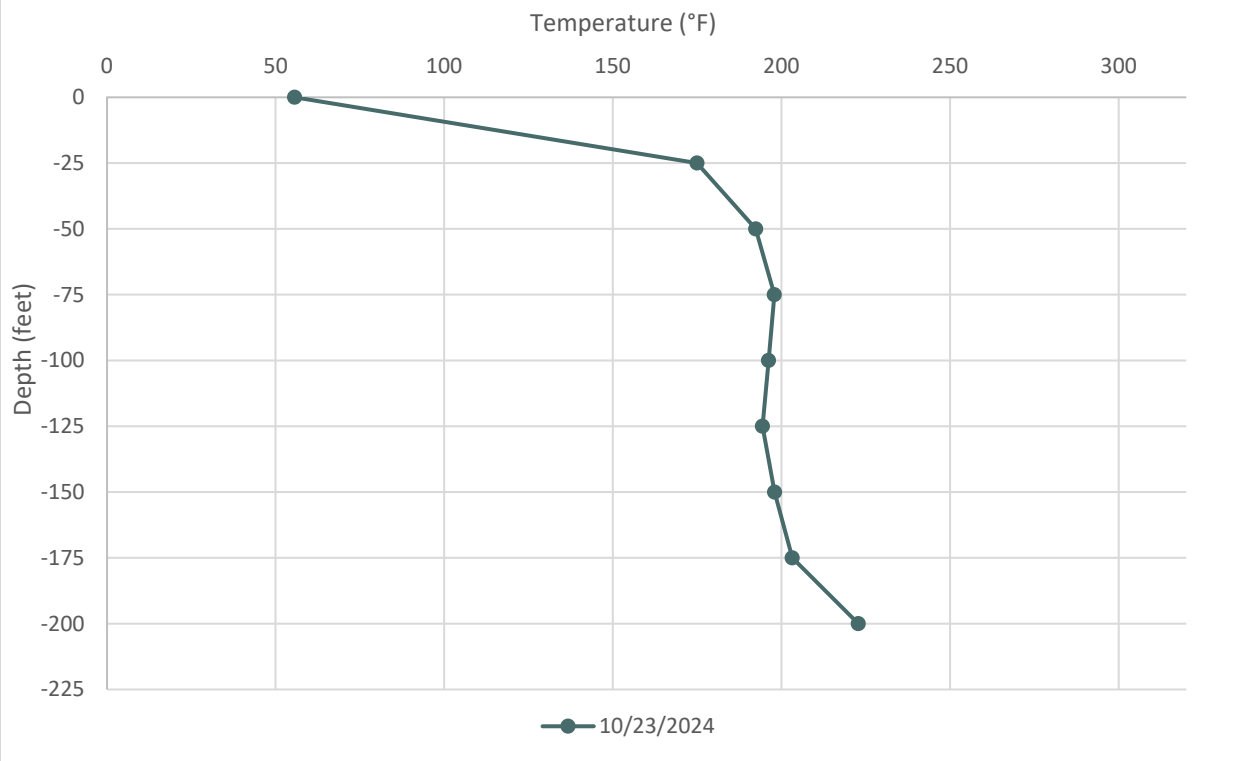


Figure B - 35 Average Temperatures Recorded by TP-7 on October 30, 2024

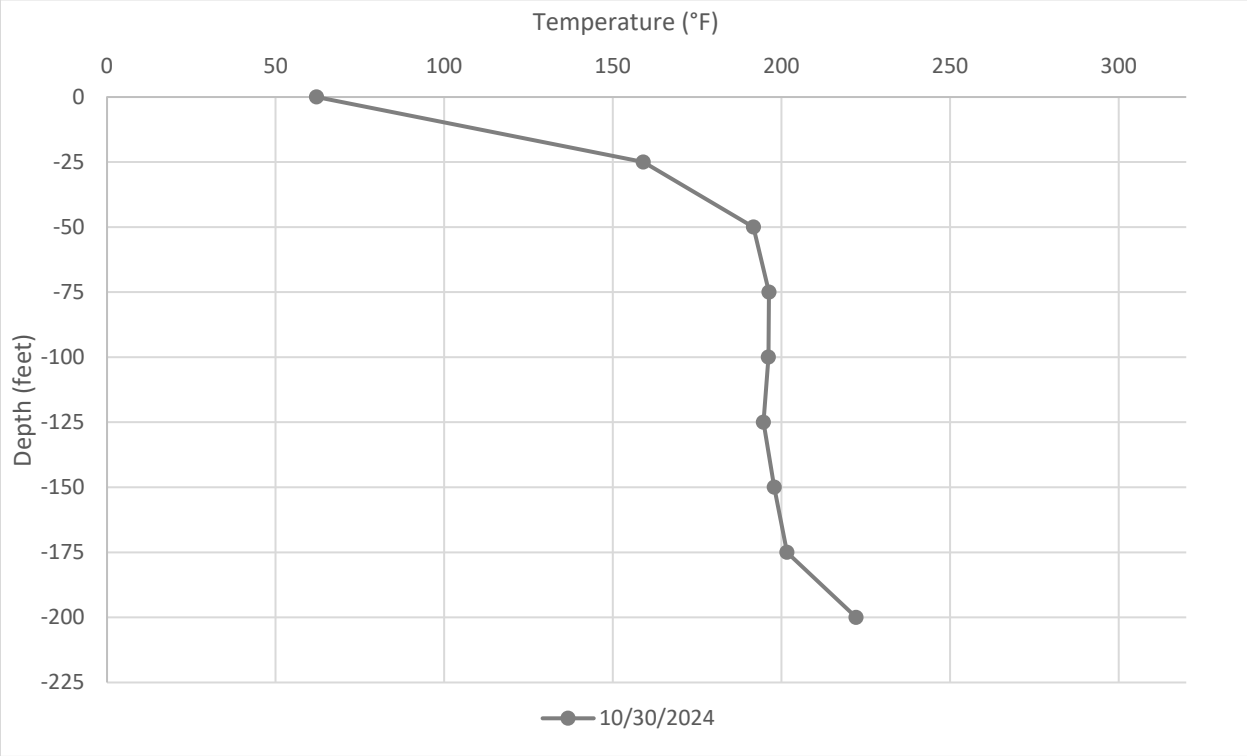


Figure B - 36 Average Temperatures Recorded by TP-8 on October 2, 2024

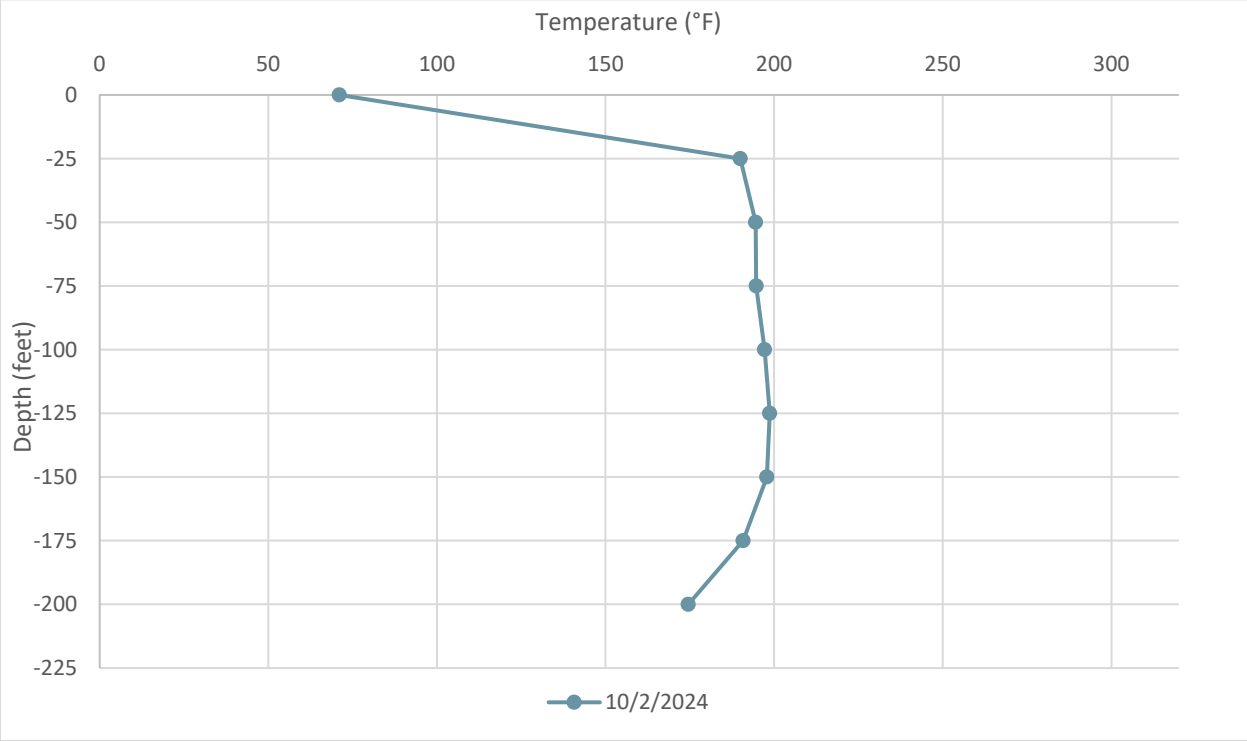


Figure B - 37 Average Temperatures Recorded by TP-8 on October 9, 2024

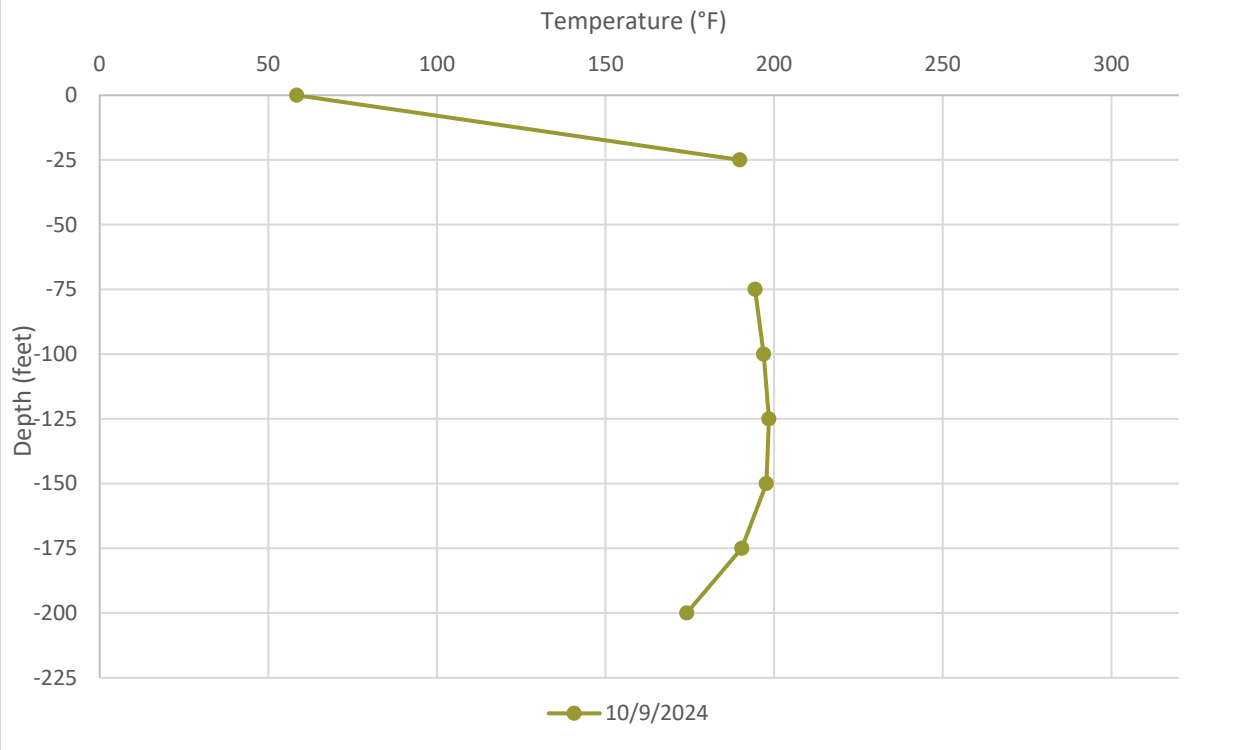


Figure B - 38 Average Temperatures Recorded by TP-8 on October 16, 2024

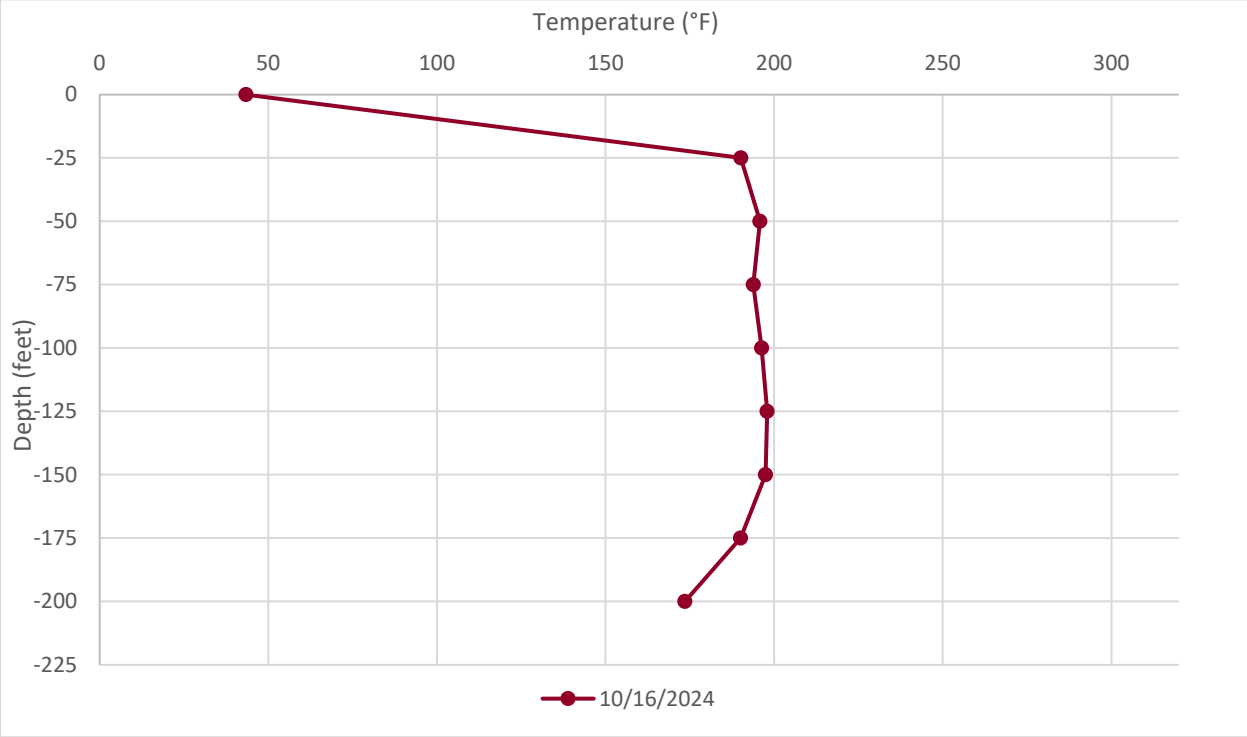


Figure B - 39 Average Temperatures Recorded by TP-8 on October 23, 2024

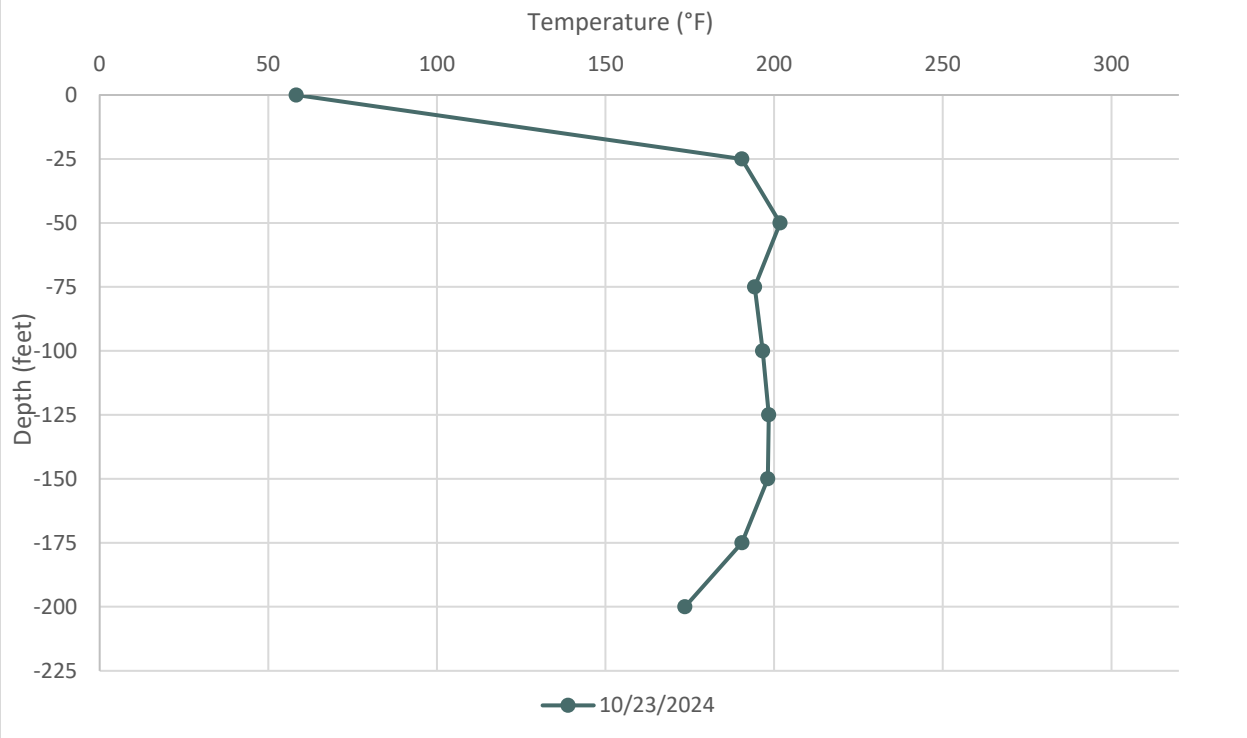


Figure B - 40 Average Temperatures Recorded by TP-8 on October 30, 2024

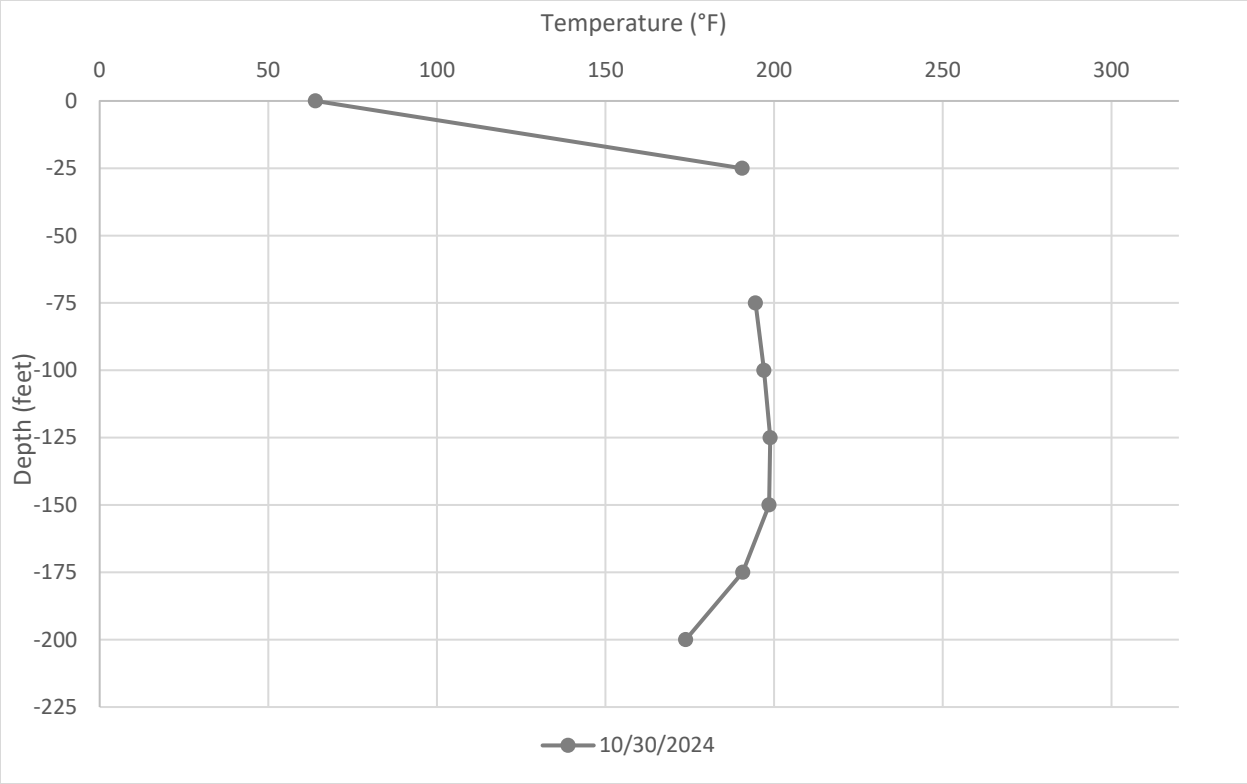


Figure B - 41 Average Temperatures Recorded by TP-9 on October 2, 2024

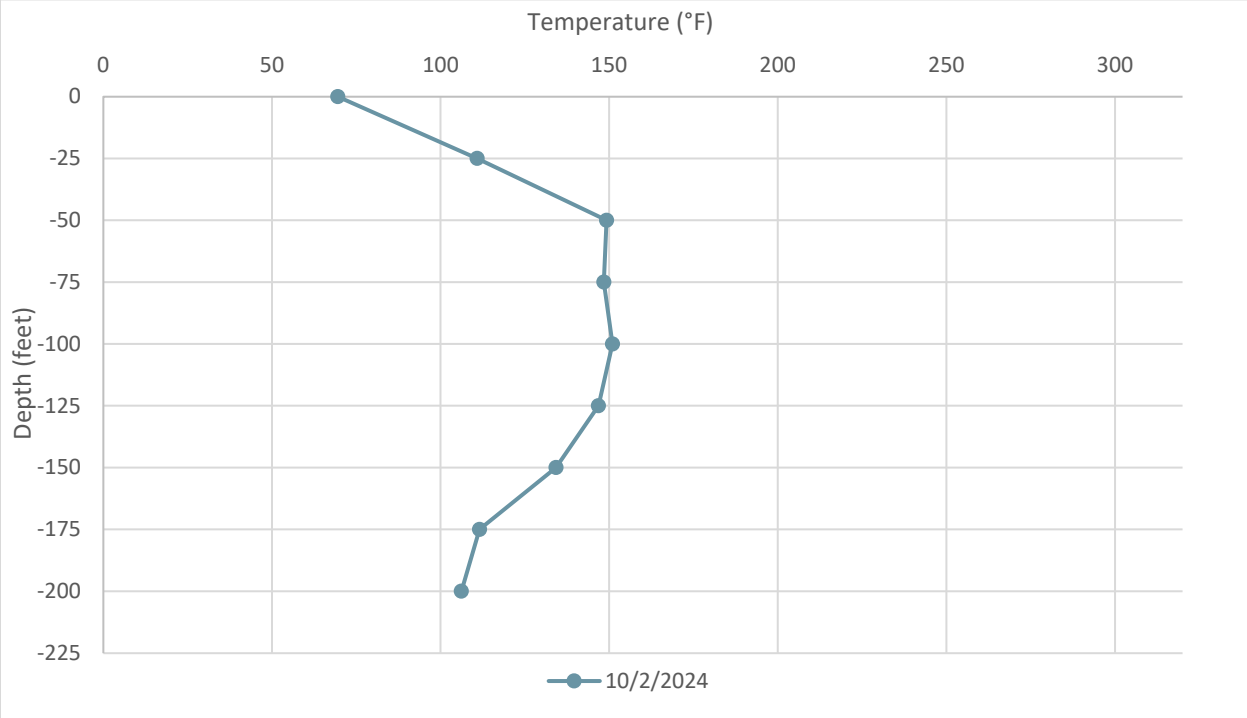


Figure B - 42 Average Temperatures Recorded by TP-9 on October 9, 2024

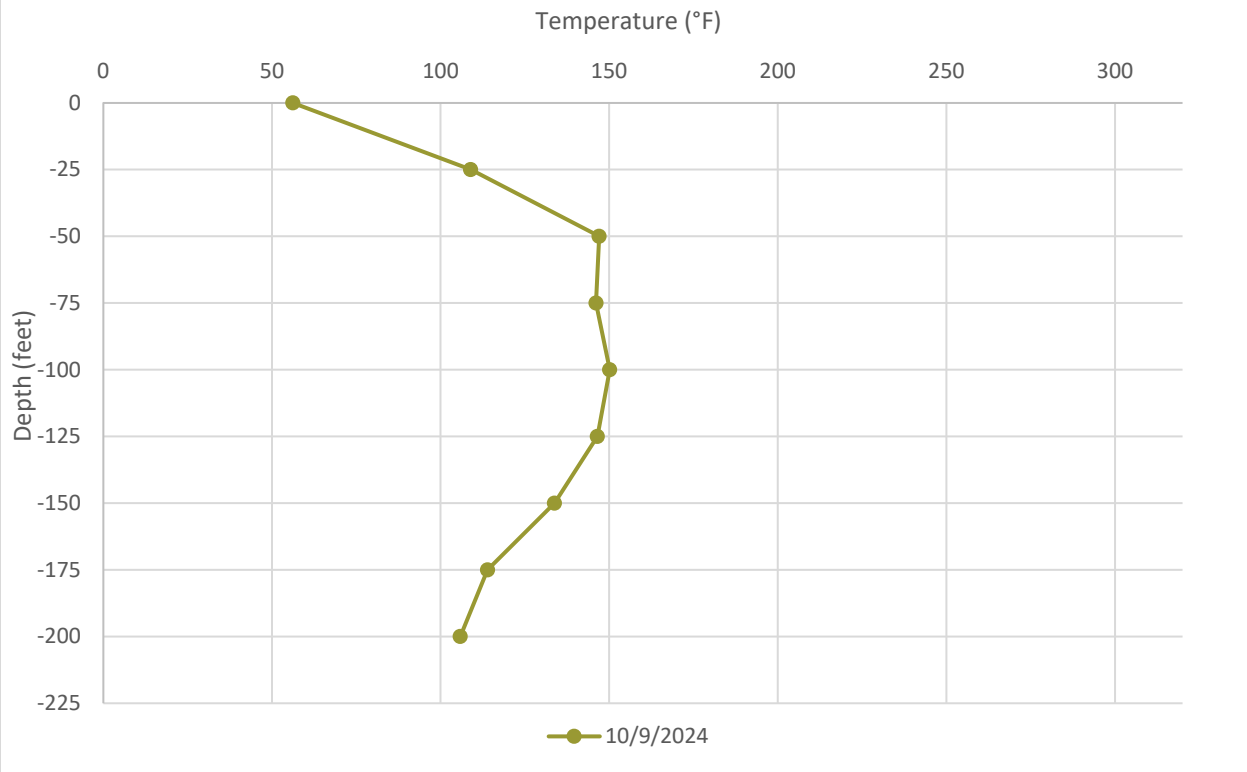


Figure B - 43 Average Temperatures Recorded by TP-9 on October 16, 2024

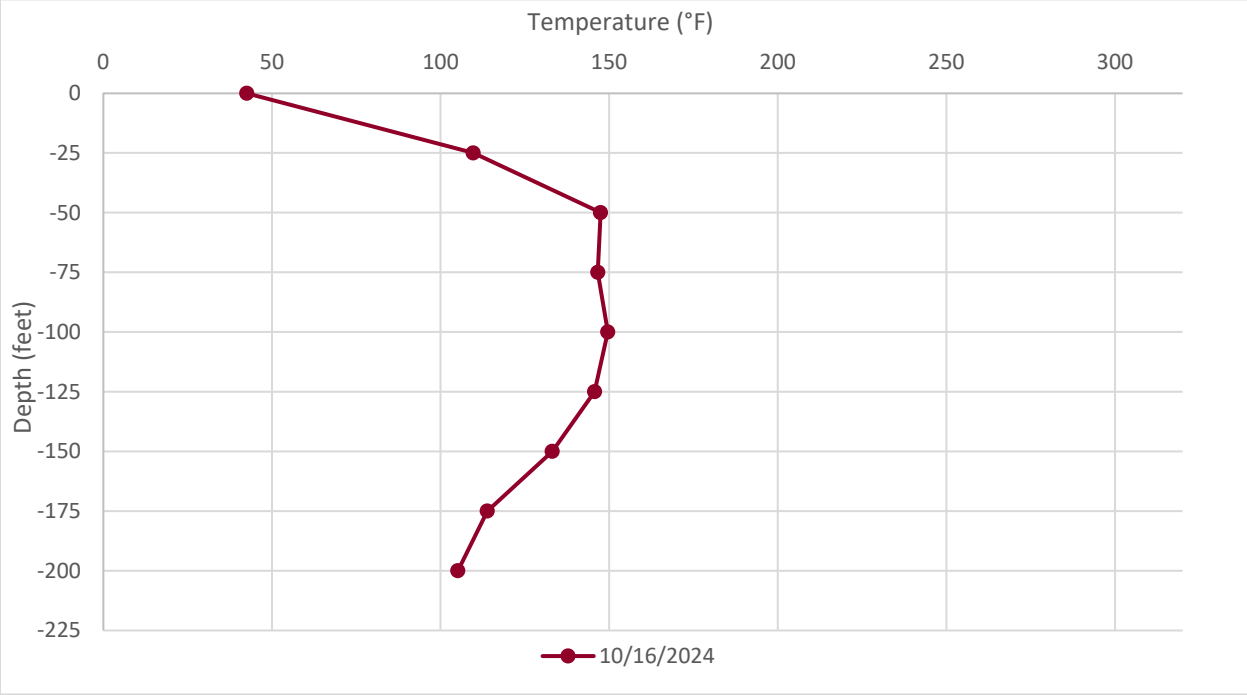


Figure B - 44 Average Temperatures Recorded by TP-9 on October 23, 2024

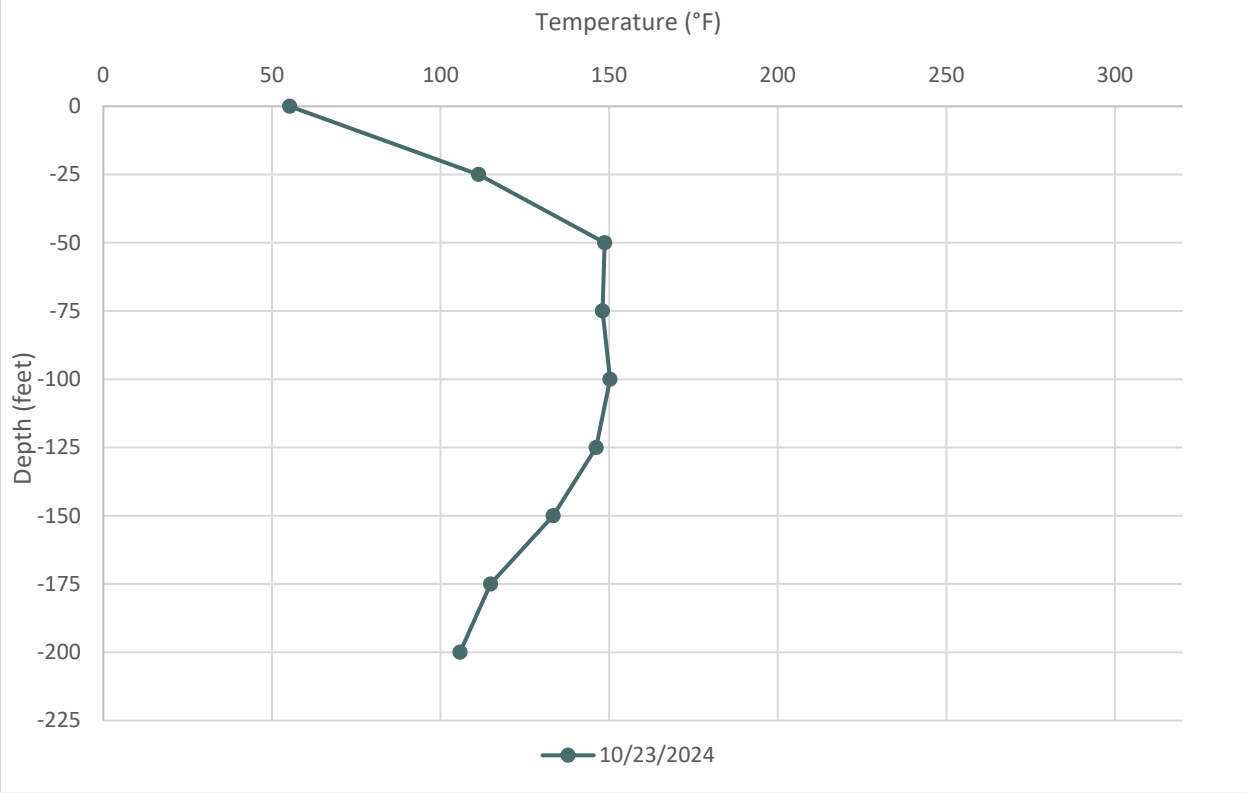
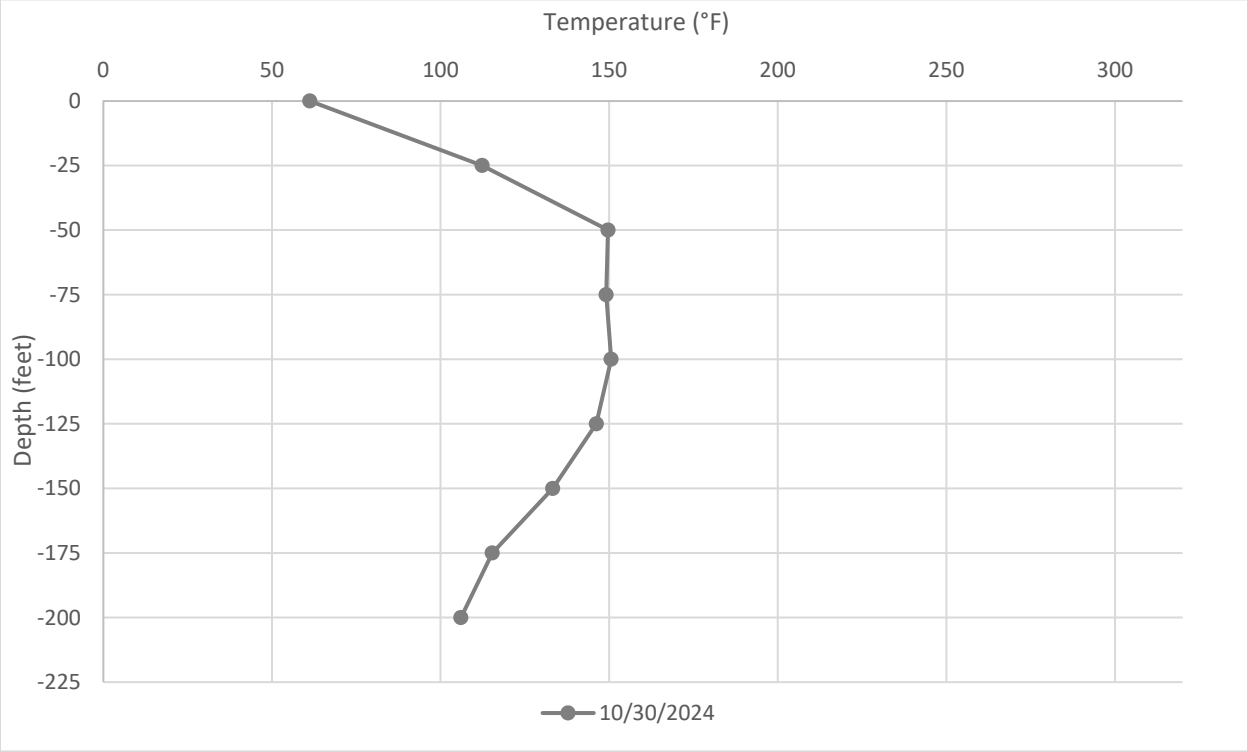


Figure B - 45 Average Temperatures Recorded by TP-9 on October 30, 2024



Appendix C

Daily Wellhead Temperature Averages

Solid Waste Permit 588 Daily Wellhead Temperature Averages

The data provided in this report represent initial readings provided by field instrumentation without Validation, analysis, quality assurance review, or context based on operating conditions. This report is subject to revision following quality assurance review and an analysis of operating conditions. SCS will continue to provide a supplemental report with additional information and further analysis on a monthly basis at a minimum.

SCS ENGINEERS

07222143.00 | November 1, 2024

274 Granite Run Drive
Lancaster, PA 17601
717-550-6330

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 32R

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	106.7	104.0	110.5
Oct 2	108.4	104.7	113.5
Oct 3	108.2	103.9	113.6
Oct 4	107.6	105.9	111.4
Oct 5	108.4	105.3	114.4
Oct 6	110.0	104.9	116.3
Oct 7	109.0	103.9	114.0
Oct 8	105.9	100.9	112.7
Oct 9	105.6	100.4	112.1
Oct 10	104.9	99.9	111.1
Oct 11	104.5	98.3	112.0
Oct 12	106.3	100.2	114.4
Oct 13	107.7	102.3	114.8
Oct 14	104.2	98.7	108.6
Oct 15	100.7	96.8	104.5
Oct 16	99.2	96.3	102.4
Oct 17	101.2	95.6	106.8
Oct 18	102.5	97.2	110.7
Oct 19	104.8	98.9	113.5
Oct 20	106.3	99.5	113.6
Oct 21	106.6	100.7	115.0
Oct 22	106.7	101.4	114.9
Oct 23	106.2	100.0	112.9
Oct 24	105.6	100.9	111.9
Oct 25	103.9	96.7	110.8
Oct 26	104.3	100.6	110.7
Oct 27	102.1	98.3	108.1
Oct 28	104.1	98.3	111.2
Oct 29	104.9	99.3	113.7
Oct 30	106.3	99.7	114.7
Summary	**105.4**	**99.2**	**110.0**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 36A

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	77.7	68.4	90.7
Oct 2	84.0	76.3	99.0
Oct 3	85.8	73.5	105.0
Oct 4	84.3	80.8	96.3
Oct 5	84.8	77.4	99.9
Oct 6	83.9	72.3	101.4
Oct 7	82.2	73.4	96.9
Oct 8	78.9	68.2	96.9
Oct 9	78.2	66.3	94.1
Oct 10	76.2	66.8	91.6
Oct 11	74.4	60.0	94.9
Oct 12	75.9	59.9	102.5
Oct 13	77.6	64.8	94.4
Oct 14	72.9	64.0	80.9
Oct 15	62.2	56.9	69.4
Oct 16	66.1	59.4	75.1
Oct 17	70.9	57.5	83.0
Oct 18	71.5	52.0	98.5
Oct 19	79.6	57.4	104.6
Oct 20	82.0	64.4	103.8
Oct 21	86.1	68.3	109.4
Oct 22	88.5	75.5	106.2
Oct 23	86.6	74.8	101.1
Oct 24	88.0	79.8	101.7
Oct 25	83.2	65.4	100.1
Oct 26	88.2	83.8	99.6
Oct 27	84.9	76.6	93.0
Oct 28	88.2	77.8	100.7
Oct 29	93.2	83.7	109.9
Oct 30	95.1	85.6	108.4
Summary	**81.0**	**62.2**	**95.1**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 49

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	67.6	64.2	78.1
Oct 2	71.5	62.8	86.4
Oct 3	72.3	58.2	89.3
Oct 4	69.8	64.5	77.6
Oct 5	69.3	59.5	86.9
Oct 6	69.1	54.7	87.1
Oct 7	67.5	53.3	84.6
Oct 8	60.9	46.9	82.6
Oct 9	60.3	42.8	83.0
Oct 10	59.0	43.1	79.2
Oct 11	56.5	38.2	79.2
Oct 12	57.9	39.2	81.0
Oct 13	61.7	42.9	81.3
Oct 14	58.9	45.9	67.2
Oct 15	44.0	35.7	54.5
Oct 16	44.6	39.5	53.3
Oct 17	46.9	32.3	64.0
Oct 18	52.8	33.7	78.4
Oct 19	56.5	36.2	86.0
Oct 20	57.0	38.0	84.2
Oct 21	58.7	40.3	86.9
Oct 22	59.4	41.4	85.5
Oct 23	59.1	42.5	79.0
Oct 24	59.8	45.9	82.8
Oct 25	57.1	37.2	77.6
Oct 26	61.8	54.4	80.4
Oct 27	55.8	48.1	66.9
Oct 28	57.8	44.8	77.5
Oct 29	59.9	44.0	84.5
Oct 30	64.3	46.8	88.3
Summary	**59.9**	**44.0**	**72.3**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 50

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	106.6	100.5	111.6
Oct 2	108.7	107.6	110.6
Oct 3	108.8	107.0	110.8
Oct 4	108.7	107.9	111.0
Oct 5	108.1	107.1	109.8
Oct 6	108.0	106.5	109.9
Oct 7	108.4	106.8	110.8
Oct 8	107.8	106.2	110.1
Oct 9	107.7	105.9	110.7
Oct 10	107.5	106.0	110.2
Oct 11	107.4	105.3	109.8
Oct 12	107.1	105.5	109.8
Oct 13	107.2	105.5	109.2
Oct 14	107.1	105.7	109.2
Oct 15	105.9	105.0	109.1
Oct 16	105.9	105.1	107.4
Oct 17	106.2	104.6	110.7
Oct 18	106.9	104.8	109.8
Oct 19	106.8	105.2	109.3
Oct 20	106.8	104.9	109.1
Oct 21	107.5	105.3	111.1
Oct 22	107.5	105.4	111.9
Oct 23	107.8	105.4	111.8
Oct 24	107.7	106.3	109.9
Oct 25	107.2	104.9	111.3
Oct 26	107.2	106.3	108.7
Oct 27	106.5	105.6	107.6
Oct 28	107.2	105.5	109.7
Oct 29	107.6	105.7	110.5
Oct 30	107.9	105.6	110.1
Summary	**107.4**	**105.9**	**108.8**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 51

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	68.6	65.1	76.3
Oct 2	73.0	64.8	89.6
Oct 3	74.0	61.0	92.6
Oct 4	71.8	66.7	82.2
Oct 5	71.0	61.7	91.6
Oct 6	70.7	57.7	92.5
Oct 7	69.3	56.9	87.2
Oct 8	63.1	50.7	87.1
Oct 9	60.7	44.1	85.3
Oct 10	60.1	46.9	83.1
Oct 11	58.8	42.4	84.5
Oct 12	59.9	43.4	87.4
Oct 13	64.3	46.3	88.2
Oct 14	60.3	47.7	71.9
Oct 15	46.7	39.6	54.9
Oct 16	47.3	43.1	55.4
Oct 17	49.5	35.9	68.1
Oct 18	54.7	37.3	84.0
Oct 19	57.8	39.2	88.5
Oct 20	58.8	40.8	87.8
Oct 21	61.5	43.9	93.5
Oct 22	61.4	45.0	89.3
Oct 23	60.8	44.5	84.9
Oct 24	61.1	48.1	83.4
Oct 25	57.7	39.6	81.0
Oct 26	63.1	56.3	81.3
Oct 27	56.4	49.9	68.5
Oct 28	57.9	44.9	77.8
Oct 29	60.8	46.4	85.6
Oct 30	64.5	48.6	88.4
Summary	**61.5**	**46.7**	**74.0**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 52

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	153.5	151.1	158.1
Oct 2	159.4	150.7	174.3
Oct 3	162.1	154.4	176.9
Oct 4	162.1	155.8	176.7
Oct 5	157.0	154.8	159.2
Oct 6	154.2	153.2	155.1
Oct 7	164.0	152.3	177.2
Oct 8	157.9	156.3	159.3
Oct 9	152.1	67.4	186.0
Oct 10	162.7	152.6	177.2
Oct 11	162.8	156.0	176.1
Oct 12	156.5	154.2	158.4
Oct 13	153.4	152.5	154.3
Oct 14	158.7	151.2	173.2
Oct 15	160.0	153.8	175.6
Oct 16	160.6	154.9	175.0
Oct 17	160.0	154.9	174.8
Oct 18	163.6	156.4	179.6
Oct 19	158.3	155.3	159.4
Oct 20	154.4	152.5	155.6
Oct 21	160.7	151.5	175.6
Oct 22	153.7	124.3	165.1
Oct 23	155.7	151.6	159.7
Oct 24	150.9	150.2	151.4
Oct 25	150.4	149.8	151.1
Oct 26	149.7	149.2	150.5
Oct 27	125.4	47.9	152.5
Oct 28	136.7	44.2	179.1
Oct 29	181.8	179.1	183.6
Oct 30	184.5	183.0	185.9
Summary	**157.4**	**125.4**	**184.5**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 53

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	129.4	115.9	139.4
Oct 2	134.6	130.4	144.1
Oct 3	135.0	129.8	142.0
Oct 4	134.4	130.1	139.2
Oct 5	130.3	63.5	141.7
Oct 6	131.3	123.5	140.9
Oct 7	133.9	125.2	148.9
Oct 8	131.3	55.1	146.0
Oct 9	135.7	130.5	144.6
Oct 10	137.9	128.3	150.7
Oct 11	131.4	59.1	142.3
Oct 12	124.0	53.3	140.8
Oct 13	129.1	120.2	139.5
Oct 14	124.9	115.3	131.0
Oct 15	119.7	112.4	132.6
Oct 16	122.9	112.7	137.3
Oct 17	120.8	112.4	130.1
Oct 18	112.0	55.4	138.3
Oct 19	123.4	110.3	140.1
Oct 20	124.6	113.5	139.9
Oct 21	126.6	114.9	141.7
Oct 22	127.4	114.8	145.8
Oct 23	128.6	118.5	140.9
Oct 24	124.6	112.7	138.8
Oct 25	125.5	112.7	141.5
Oct 26	124.4	116.8	133.7
Oct 27	120.5	113.0	128.0
Oct 28	125.3	113.7	137.8
Oct 29	126.6	116.8	139.9
Oct 30	128.3	116.5	140.9
Summary	**127.5**	**112.0**	**137.9**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 54

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	79.2	72.3	89.9
Oct 2	86.9	80.6	100.4
Oct 3	88.7	77.1	108.2
Oct 4	91.7	85.0	104.8
Oct 5	88.7	77.8	102.9
Oct 6	87.3	73.8	105.2
Oct 7	89.5	72.5	104.3
Oct 8	88.0	71.9	112.6
Oct 9	93.2	79.5	108.7
Oct 10	91.3	78.5	107.8
Oct 11	118.9	77.2	171.4
Oct 12	141.9	137.9	145.1
Oct 13	138.9	133.2	143.8
Oct 14	148.8	135.3	159.3
Oct 15	155.8	137.6	172.0
Oct 16	142.6	137.0	160.6
Oct 17	144.9	136.0	163.9
Oct 18	146.1	138.1	152.8
Oct 19	140.8	137.0	146.5
Oct 20	140.3	136.2	146.2
Oct 21	130.3	102.6	159.7
Oct 22	106.2	92.5	124.5
Oct 23	128.6	80.9	191.0
Oct 24	191.8	190.4	192.8
Oct 25	191.4	186.8	194.1
Oct 26	193.4	192.5	194.5
Oct 27	190.4	175.9	193.8
Oct 28	184.3	169.3	194.0
Oct 29	193.2	187.2	195.0
Oct 30	181.4	173.5	194.0
Summary	**133.2**	**79.2**	**193.4**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 55

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	149.4	143.4	153.4
Oct 2	153.3	146.2	159.3
Oct 3	156.9	153.1	161.2
Oct 4	156.1	153.6	158.9
Oct 5	154.8	151.6	159.7
Oct 6	154.4	150.4	161.3
Oct 7	153.0	148.8	157.8
Oct 8	151.8	147.7	157.8
Oct 9	150.4	144.9	157.0
Oct 10	149.2	146.5	154.6
Oct 11	149.0	142.2	155.8
Oct 12	148.6	142.2	157.2
Oct 13	147.9	144.4	152.2
Oct 14	140.9	132.9	150.5
Oct 15	135.7	128.4	141.7
Oct 16	135.3	128.0	140.9
Oct 17	140.1	133.5	145.0
Oct 18	144.8	135.7	155.4
Oct 19	148.9	141.6	157.7
Oct 20	149.6	142.5	157.5
Oct 21	151.7	144.1	160.1
Oct 22	152.6	148.0	159.2
Oct 23	162.8	111.9	191.9
Oct 24	193.6	191.7	195.2
Oct 25	194.5	183.1	198.2
Oct 26	198.7	198.1	199.9
Oct 27	199.1	198.9	199.4
Oct 28	189.4	27.3	199.6
Oct 29	192.0	182.4	197.4
Oct 30	179.7	176.3	183.9
Summary	**159.5**	**135.3**	**199.1**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 56

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	139.7	120.7	148.9
Oct 2	147.2	145.8	149.4
Oct 3	146.2	143.1	148.1
Oct 4	146.7	144.2	149.1
Oct 5	145.5	144.2	147.9
Oct 6	145.6	143.7	149.0
Oct 7	146.1	144.4	148.5
Oct 8	146.0	143.3	150.1
Oct 9	146.4	144.6	148.7
Oct 10	145.7	143.3	147.8
Oct 11	145.3	143.3	148.6
Oct 12	145.6	142.7	149.1
Oct 13	146.5	144.8	150.0
Oct 14	144.3	140.6	146.9
Oct 15	143.6	140.9	145.0
Oct 16	143.1	141.4	144.3
Oct 17	143.9	141.7	146.1
Oct 18	144.5	141.8	147.7
Oct 19	145.4	142.6	148.8
Oct 20	145.9	143.9	149.5
Oct 21	146.6	144.2	149.8
Oct 22	146.6	144.6	149.6
Oct 23	146.5	144.7	149.0
Oct 24	146.2	144.3	148.7
Oct 25	145.4	140.7	149.2
Oct 26	144.1	140.2	146.7
Oct 27	142.0	139.0	145.6
Oct 28	144.4	139.7	147.9
Oct 29	145.6	142.7	148.8
Oct 30	146.0	144.0	148.9
Summary	**145.2**	**139.7**	**147.2**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 57

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	131.1	95.8	151.1
Oct 2	145.8	141.4	151.3
Oct 3	142.2	138.7	148.6
Oct 4	142.3	138.1	147.4
Oct 5	137.3	130.6	145.8
Oct 6	135.0	127.3	146.1
Oct 7	135.3	126.7	144.6
Oct 8	134.2	127.0	147.5
Oct 9	135.7	124.7	142.4
Oct 10	0.0	142.4	142.4
Oct 11	0.0	142.4	142.4
Oct 12	0.0	142.4	142.4
Oct 13	0.0	142.4	142.4
Oct 14	0.0	142.4	142.4
Oct 15	0.0	142.4	142.4
Oct 16	0.0	142.4	142.4
Oct 17	0.0	142.4	142.4
Oct 18	0.0	142.4	142.4
Oct 19	0.0	142.4	142.4
Oct 20	0.0	142.4	142.4
Oct 21	0.0	142.4	142.4
Oct 22	0.0	142.4	142.4
Oct 23	0.0	142.4	142.4
Oct 24	0.0	142.4	142.4
Oct 25	0.0	142.4	142.4
Oct 26	0.0	142.4	142.4
Oct 27	0.0	142.4	142.4
Oct 28	0.0	142.4	142.4
Oct 29	0.0	142.4	142.4
Oct 30	0.0	142.4	142.4
Summary	**41.3**	**0.0**	**145.8**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 58

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	97.2	91.2	102.6
Oct 2	99.8	97.3	104.8
Oct 3	100.3	96.0	106.6
Oct 4	100.8	98.7	103.7
Oct 5	99.6	95.3	105.8
Oct 6	98.7	93.5	106.1
Oct 7	97.7	92.4	102.6
Oct 8	95.1	90.2	103.0
Oct 9	94.2	87.9	102.5
Oct 10	93.3	88.4	101.4
Oct 11	92.5	85.1	101.9
Oct 12	93.1	86.2	104.7
Oct 13	94.7	87.4	102.1
Oct 14	91.9	87.7	95.9
Oct 15	86.8	83.9	89.4
Oct 16	87.5	85.3	89.6
Oct 17	88.4	82.3	94.4
Oct 18	90.7	83.8	101.5
Oct 19	92.5	85.2	103.5
Oct 20	92.6	85.2	103.6
Oct 21	93.8	86.1	105.6
Oct 22	93.8	86.9	103.1
Oct 23	93.5	86.9	100.2
Oct 24	93.7	88.7	100.5
Oct 25	92.5	84.6	100.3
Oct 26	95.1	92.4	101.4
Oct 27	92.9	90.2	96.6
Oct 28	92.6	88.1	99.2
Oct 29	94.0	87.8	103.3
Oct 30	95.4	88.4	103.7
Summary	**94.2**	**86.8**	**100.8**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 59

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	111.5	105.8	114.6
Oct 2	112.9	94.1	120.3
Oct 3	113.6	111.4	119.2
Oct 4	116.6	112.1	129.4
Oct 5	113.3	111.6	115.7
Oct 6	112.9	111.1	115.2
Oct 7	116.4	109.2	132.7
Oct 8	109.5	33.1	126.6
Oct 9	113.9	108.9	130.1
Oct 10	109.2	98.9	127.1
Oct 11	107.5	100.5	124.5
Oct 12	108.9	105.6	114.1
Oct 13	109.0	105.8	113.1
Oct 14	110.4	106.5	125.0
Oct 15	106.9	101.1	124.2
Oct 16	109.4	105.5	125.1
Oct 17	107.0	103.7	109.6
Oct 18	105.7	101.9	111.3
Oct 19	102.7	33.2	111.8
Oct 20	106.0	100.7	112.6
Oct 21	106.6	44.4	127.4
Oct 22	108.2	105.8	111.8
Oct 23	110.3	103.6	129.6
Oct 24	119.1	107.1	133.5
Oct 25	109.9	107.4	112.6
Oct 26	108.9	107.2	111.3
Oct 27	107.5	105.7	109.9
Oct 28	109.4	105.9	116.2
Oct 29	109.6	104.7	114.5
Oct 30	108.0	26.1	114.9
Summary	**110.0**	**102.7**	**119.1**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 60

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	119.6	102.1	147.9
Oct 2	125.4	119.2	140.4
Oct 3	121.4	116.6	134.8
Oct 4	120.9	117.8	131.0
Oct 5	120.5	118.8	123.1
Oct 6	120.6	117.6	123.2
Oct 7	121.1	117.9	130.5
Oct 8	125.9	81.3	147.5
Oct 9	157.0	149.1	163.4
Oct 10	160.2	157.3	162.2
Oct 11	155.0	136.5	166.8
Oct 12	156.9	131.2	171.9
Oct 13	152.2	133.5	172.2
Oct 14	145.1	128.7	159.4
Oct 15	141.1	127.9	167.0
Oct 16	131.3	122.6	161.8
Oct 17	126.9	119.5	158.9
Oct 18	119.8	116.3	124.2
Oct 19	118.1	114.5	123.7
Oct 20	117.6	113.7	122.9
Oct 21	122.5	114.6	148.3
Oct 22	136.2	116.6	164.1
Oct 23	135.1	121.9	159.2
Oct 24	134.0	122.8	162.6
Oct 25	132.6	123.2	161.2
Oct 26	125.6	122.1	128.4
Oct 27	128.9	122.0	155.6
Oct 28	135.4	119.1	164.8
Oct 29	127.9	122.4	143.6
Oct 30	128.6	121.8	152.0
Summary	**132.1**	**117.6**	**160.2**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 61

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	140.2	136.9	147.4
Oct 2	146.1	136.8	172.6
Oct 3	143.2	137.7	170.3
Oct 4	139.1	138.5	139.7
Oct 5	138.9	138.0	140.8
Oct 6	139.1	137.9	140.9
Oct 7	152.0	138.3	173.1
Oct 8	143.4	139.4	155.4
Oct 9	143.7	137.9	169.9
Oct 10	139.1	138.2	140.5
Oct 11	146.1	137.2	172.0
Oct 12	142.1	139.1	157.1
Oct 13	139.8	138.7	141.5
Oct 14	142.4	138.6	160.3
Oct 15	153.1	138.4	172.7
Oct 16	0.0	170.6	170.6
Oct 17	0.0	170.6	170.6
Oct 18	0.0	170.6	170.6
Oct 19	0.0	170.6	170.6
Oct 20	0.0	170.6	170.6
Oct 21	0.0	170.6	170.6
Oct 22	0.0	170.6	170.6
Oct 23	0.0	170.6	170.6
Oct 24	0.0	170.6	170.6
Oct 25	0.0	170.6	170.6
Oct 26	0.0	170.6	170.6
Oct 27	0.0	170.6	170.6
Oct 28	0.0	170.6	170.6
Oct 29	0.0	170.6	170.6
Oct 30	0.0	170.6	170.6
Summary	**71.6**	**0.0**	**153.1**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 62

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	100.5	98.3	103.9
Oct 2	101.7	96.9	111.3
Oct 3	102.6	95.4	112.6
Oct 4	101.5	98.1	106.4
Oct 5	101.0	95.1	110.4
Oct 6	101.2	93.1	112.1
Oct 7	105.6	95.6	117.5
Oct 8	110.1	106.0	116.6
Oct 9	108.6	104.0	114.5
Oct 10	106.8	102.7	112.7
Oct 11	105.2	98.7	114.3
Oct 12	105.1	97.8	114.7
Oct 13	104.7	98.6	113.2
Oct 14	101.0	94.6	106.0
Oct 15	95.2	91.0	100.6
Oct 16	93.5	88.9	96.4
Oct 17	94.2	86.3	103.3
Oct 18	96.5	88.5	109.2
Oct 19	99.0	89.4	112.7
Oct 20	99.0	90.3	112.5
Oct 21	99.4	89.9	112.7
Oct 22	103.2	90.3	118.2
Oct 23	108.9	104.2	115.5
Oct 24	108.1	102.7	115.0
Oct 25	106.2	97.9	113.5
Oct 26	105.5	100.6	112.0
Oct 27	101.3	96.6	106.9
Oct 28	103.0	97.0	113.0
Oct 29	103.2	95.9	114.0
Oct 30	104.1	96.4	114.7
Summary	**102.5**	**93.5**	**110.1**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 63

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	67.4	64.1	77.4
Oct 2	71.0	61.8	85.6
Oct 3	71.5	58.2	89.4
Oct 4	69.7	64.1	78.1
Oct 5	68.9	59.4	85.0
Oct 6	68.3	54.6	85.7
Oct 7	66.4	52.4	83.1
Oct 8	59.8	46.0	79.4
Oct 9	58.9	42.5	79.9
Oct 10	57.2	43.3	76.5
Oct 11	55.5	37.3	77.0
Oct 12	56.9	39.6	78.3
Oct 13	61.7	43.2	80.3
Oct 14	58.4	44.9	65.8
Oct 15	43.5	35.7	51.9
Oct 16	44.3	39.4	52.8
Oct 17	45.9	32.5	62.9
Oct 18	51.9	33.8	75.3
Oct 19	55.4	36.1	81.3
Oct 20	56.1	37.9	80.3
Oct 21	58.5	40.4	84.3
Oct 22	59.1	41.2	85.1
Oct 23	58.8	42.2	77.2
Oct 24	59.0	45.2	78.4
Oct 25	56.9	37.3	78.1
Oct 26	61.4	54.1	77.9
Oct 27	55.6	47.0	69.6
Oct 28	57.0	44.2	76.3
Oct 29	59.2	43.8	82.3
Oct 30	63.8	46.8	85.3
Summary	**59.3**	**43.5**	**71.5**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 64

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	93.3	90.0	98.7
Oct 2	95.6	89.2	105.0
Oct 3	96.8	86.7	108.4
Oct 4	95.1	89.3	101.8
Oct 5	94.1	86.1	105.6
Oct 6	93.9	83.1	106.3
Oct 7	93.0	82.7	105.9
Oct 8	88.8	77.6	101.6
Oct 9	87.6	74.1	102.5
Oct 10	86.2	76.0	99.3
Oct 11	84.4	69.9	99.4
Oct 12	85.3	71.2	102.3
Oct 13	87.6	73.2	101.8
Oct 14	83.2	74.1	90.5
Oct 15	73.2	68.5	82.4
Oct 16	73.3	66.8	78.2
Oct 17	76.2	63.0	86.0
Oct 18	80.3	66.5	98.2
Oct 19	85.3	70.7	104.8
Oct 20	85.3	69.3	102.5
Oct 21	88.6	71.4	106.3
Oct 22	88.2	72.7	105.0
Oct 23	86.6	72.6	101.0
Oct 24	88.4	78.4	102.1
Oct 25	84.6	67.6	100.4
Oct 26	87.6	81.5	98.5
Oct 27	84.4	78.6	91.8
Oct 28	85.8	73.8	100.9
Oct 29	88.5	75.7	104.6
Oct 30	91.6	75.7	107.7
Summary	**87.1**	**73.2**	**96.8**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 65

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	68.0	64.4	77.8
Oct 2	72.0	63.1	88.9
Oct 3	72.2	58.6	93.1
Oct 4	70.3	64.8	81.4
Oct 5	69.9	59.9	89.4
Oct 6	69.6	55.1	91.5
Oct 7	67.7	53.7	85.6
Oct 8	61.1	46.7	84.9
Oct 9	60.3	43.4	82.3
Oct 10	59.2	43.6	79.9
Oct 11	57.2	38.5	83.2
Oct 12	58.4	39.6	86.1
Oct 13	62.3	43.2	84.8
Oct 14	59.9	46.5	68.9
Oct 15	44.3	36.1	56.7
Oct 16	45.3	39.7	54.9
Oct 17	47.1	32.7	65.8
Oct 18	52.1	34.0	80.5
Oct 19	56.8	36.5	86.9
Oct 20	57.7	38.2	86.3
Oct 21	61.5	40.3	88.5
Oct 22	60.0	42.0	86.7
Oct 23	59.7	42.4	81.1
Oct 24	60.2	45.7	81.4
Oct 25	57.8	37.7	79.8
Oct 26	62.0	54.3	81.8
Oct 27	55.9	47.8	68.5
Oct 28	57.9	44.9	79.0
Oct 29	60.2	43.8	85.8
Oct 30	64.7	46.9	88.9
Summary	**60.4**	**44.3**	**72.2**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 66

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	143.8	122.9	153.4
Oct 2	151.0	149.6	152.6
Oct 3	150.5	147.3	153.3
Oct 4	151.5	150.8	152.8
Oct 5	150.4	148.5	152.2
Oct 6	150.7	148.7	154.1
Oct 7	151.1	148.6	154.6
Oct 8	150.5	148.9	154.6
Oct 9	150.6	147.3	153.1
Oct 10	149.9	148.4	152.1
Oct 11	150.0	147.1	153.9
Oct 12	150.4	147.6	154.8
Oct 13	151.0	147.5	153.6
Oct 14	149.2	145.7	152.5
Oct 15	148.3	146.0	150.0
Oct 16	148.7	145.7	150.7
Oct 17	149.4	146.6	151.9
Oct 18	150.4	147.0	153.8
Oct 19	151.3	147.8	155.0
Oct 20	151.3	147.5	155.2
Oct 21	152.0	148.2	155.7
Oct 22	151.8	149.3	154.9
Oct 23	151.2	148.5	154.8
Oct 24	151.7	150.1	154.4
Oct 25	150.5	147.9	153.6
Oct 26	150.2	145.0	152.1
Oct 27	149.3	147.0	150.9
Oct 28	150.6	147.8	153.3
Oct 29	151.5	149.0	154.1
Oct 30	151.1	147.4	154.3
Summary	**150.3**	**143.8**	**152.0**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 67

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	160.2	154.5	164.2
Oct 2	163.2	161.5	164.8
Oct 3	163.3	161.8	167.1
Oct 4	163.3	162.0	164.6
Oct 5	162.2	160.3	163.5
Oct 6	162.9	160.4	166.6
Oct 7	163.9	162.1	167.6
Oct 8	163.8	160.6	167.0
Oct 9	164.4	161.8	167.9
Oct 10	163.0	161.1	166.5
Oct 11	163.1	160.2	166.4
Oct 12	163.8	160.9	167.4
Oct 13	164.7	161.8	167.1
Oct 14	162.0	159.4	166.5
Oct 15	160.8	158.1	163.2
Oct 16	159.3	154.5	162.3
Oct 17	160.2	157.6	164.2
Oct 18	161.1	157.7	165.0
Oct 19	162.6	158.8	166.4
Oct 20	163.1	158.7	166.9
Oct 21	163.9	160.5	167.5
Oct 22	164.2	161.0	167.7
Oct 23	164.5	161.6	168.0
Oct 24	164.7	162.4	167.1
Oct 25	162.9	158.9	166.0
Oct 26	155.6	137.9	164.4
Oct 27	148.6	139.9	156.4
Oct 28	161.7	119.6	182.9
Oct 29	189.0	183.6	191.8
Oct 30	193.9	191.7	195.8
Summary	**164.0**	**148.6**	**193.9**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 68

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	139.6	132.1	153.6
Oct 2	141.5	136.6	153.0
Oct 3	142.8	136.7	154.9
Oct 4	141.8	137.5	154.3
Oct 5	137.7	136.4	140.0
Oct 6	136.3	135.5	137.2
Oct 7	139.9	134.8	153.5
Oct 8	140.6	135.6	153.9
Oct 9	127.0	47.6	154.5
Oct 10	141.0	136.9	151.7
Oct 11	136.4	134.6	138.5
Oct 12	135.1	133.8	144.6
Oct 13	139.3	135.9	151.0
Oct 14	139.1	134.5	152.6
Oct 15	141.1	134.4	152.0
Oct 16	140.5	136.5	150.1
Oct 17	141.5	135.7	155.7
Oct 18	143.0	137.9	155.0
Oct 19	138.0	135.9	139.6
Oct 20	135.5	134.2	136.6
Oct 21	139.1	134.1	151.2
Oct 22	139.6	135.3	151.1
Oct 23	142.8	135.1	155.3
Oct 24	144.3	138.3	154.6
Oct 25	141.8	134.7	150.9
Oct 26	138.2	136.5	140.1
Oct 27	121.9	82.8	136.8
Oct 28	130.5	83.3	152.2
Oct 29	140.9	136.1	154.4
Oct 30	141.2	135.9	151.4
Summary	**138.6**	**121.9**	**144.3**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 100

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Oct 1	123.4	112.4	130.1
Oct 2	141.5	136.6	153.0
Oct 3	128.6	125.4	132.7
Oct 4	141.8	137.5	154.3
Oct 5	127.0	125.0	129.2
Oct 6	136.3	135.5	137.2
Oct 7	122.6	117.1	127.6
Oct 8	140.6	135.6	153.9
Oct 9	116.4	110.3	121.3
Oct 10	141.0	136.9	151.7
Oct 11	115.0	109.9	120.6
Oct 12	135.1	133.8	144.6
Oct 13	117.7	111.1	122.9
Oct 14	139.1	134.5	152.6
Oct 15	109.5	105.3	111.6
Oct 16	140.5	136.5	150.1
Oct 17	109.8	106.0	113.6
Oct 18	143.0	137.9	155.0
Oct 19	114.9	108.7	121.2
Oct 20	135.5	134.2	136.6
Oct 21	116.1	110.2	122.3
Oct 22	139.6	135.3	151.1
Oct 23	116.4	110.6	121.4
Oct 24	144.3	138.3	154.6
Oct 25	115.3	107.9	122.7
Oct 26	138.2	136.5	140.1
Oct 27	113.6	109.5	117.4
Oct 28	130.5	83.3	152.2
Oct 29	115.9	110.1	122.2
Oct 30	141.2	135.9	151.4
Summary	**117.6**	**108.9**	**129.8**

Appendix D

Solid Waste Permit 588 Daily Borehole Temperature Averages

Appendix D Table of Contents

Section Page

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 1

	Depth from Surface					
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft
1-Oct	166.3	216.3	216.6	230.2	240.8	265.3
2-Oct	166.4	216.4	216.8	230.2	240.9	265.5
3-Oct	166.4	216.3	216.7	230.2	240.9	265.6
4-Oct	166.4	216.2	216.5	229.8	240.6	265.3
5-Oct	166.6	216.2	216.6	229.8	240.8	265.5
6-Oct	166.6	216.2	216.6	229.9	240.9	265.3
7-Oct	166.7	216.0	216.5	229.7	240.8	265.4
8-Oct	166.4	215.7	216.1	229.4	240.5	265.1
9-Oct	166.3	215.7	216.1	229.4	240.6	265.0
10-Oct	166.1	215.6	216.0	229.2	240.5	265.0
11-Oct	166.0	215.6	216.1	229.1	240.6	265.1
12-Oct	166.2	215.6	216.0	229.1	240.6	265.0
13-Oct	166.4	215.7	216.0	229.2	240.9	265.2
14-Oct	166.4	215.6	216.0	229.3	241.0	265.1
15-Oct	165.7	215.0	215.3	228.5	240.4	264.4
16-Oct	165.7	215.1	215.5	228.6	240.7	264.6
17-Oct	165.9	215.2	215.7	228.8	241.1	264.9
18-Oct	166.0	215.4	215.8	229.0	241.4	265.1
19-Oct	166.0	215.4	215.9	229.1	241.5	265.1
20-Oct	166.3	215.5	215.9	229.2	241.7	265.2
21-Oct	166.3	215.5	215.9	229.3	241.9	265.2
22-Oct	166.4	215.5	215.9	229.3	242.0	265.2
23-Oct	166.5	215.5	215.9	229.6	242.6	265.3
24-Oct	166.5	215.5	216.0	229.6	243.3	265.4
25-Oct	166.3	215.3	215.8	229.1	242.6	265.2
26-Oct	166.6	215.5	216.0	229.5	242.9	265.5
27-Oct	166.6	215.3	215.7	229.7	243.3	265.2
28-Oct	166.7	215.5	216.0	229.7	243.9	265.6
29-Oct	166.6	215.6	216.1	229.4	243.3	265.5
30-Oct	166.7	215.8	216.2	229.6	243.4	265.7
31-Oct	166.9	215.7	216.2	229.7	243.4	265.7
Average	**166.3**	**215.7**	**216.1**	**229.4**	**241.6**	**265.2**

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 2

	Depth from Surface					
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft
1-Oct	157.3	240.0	240.7	261.0	247.8	260.8
2-Oct	157.5	240.3	241.0	261.2	249.0	261.9
3-Oct	157.7	240.0	240.9	261.1	248.9	262.9
4-Oct	157.3	240.0	240.9	260.7	248.8	263.4
5-Oct	157.5	239.8	240.8	260.6	248.9	265.0
6-Oct	157.6	239.7	241.4	260.4	248.7	264.3
7-Oct	157.5	239.6	241.3	260.2	248.4	257.5
8-Oct	157.2	239.3	240.9	260.9	248.0	258.1
9-Oct	157.1	239.2	240.9	261.1	247.8	258.2
10-Oct	156.7	239.1	241.0	261.1	247.6	258.2
11-Oct	157.1	239.0	240.9	261.1	247.5	258.2
12-Oct	157.1	238.9	240.9	261.1	247.6	258.2
13-Oct	157.2	238.9	240.7	261.3	247.4	258.0
14-Oct	156.8	238.7	240.5	261.4	247.4	258.0
15-Oct	156.1	238.0	239.9	261.0	246.7	257.4
16-Oct	156.7	238.1	239.9	261.3	246.8	257.5
17-Oct	156.4	238.1	240.0	261.4	246.8	257.6
18-Oct	156.7	238.2	240.2	261.5	246.9	257.7
19-Oct	157.0	238.3	240.4	261.9	247.0	258.2
20-Oct	156.8	238.4	240.5	262.1	246.8	258.1
21-Oct	157.1	238.4	240.3	262.3	246.7	258.0
22-Oct	156.6	238.5	240.5	262.5	246.8	258.2
23-Oct	157.1	238.6	240.5	262.7	246.8	258.1
24-Oct	157.2	238.5	240.4	262.8	247.0	258.1
25-Oct	157.1	238.2	239.9	262.6	246.5	257.6
26-Oct	157.3	238.0	239.9	262.7	246.7	258.0
27-Oct	157.1	237.6	239.5	262.6	246.4	257.8
28-Oct	157.2	237.5	239.7	262.5	246.7	258.4
29-Oct	157.3	237.4	242.3	261.0	246.9	261.6
30-Oct	157.3	237.4	245.7	260.5	246.8	268.1
31-Oct	157.4	237.5	243.6	259.7	246.9	263.0
Average	**157.1**	**238.7**	**240.8**	**261.4**	**247.4**	**259.5**

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 3

	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Oct	170.4	234.6	234.5	247.8	251.2	260.6	264.6	253.4
2-Oct	170.5	234.8	234.7	248.0	251.5	260.8	265.0	253.8
3-Oct	170.5	234.7	234.7	248.0	251.5	260.7	264.9	253.7
4-Oct	170.2	234.5	234.4	247.8	251.2	260.3	264.6	253.4
5-Oct	170.2	234.6	234.5	247.9	251.4	260.6	264.8	253.6
6-Oct	170.1	234.6	234.5	247.9	251.5	260.7	264.9	253.7
7-Oct	170.1	234.5	234.4	247.8	251.4	260.5	264.8	253.7
8-Oct	169.7	234.2	234.1	247.6	251.1	260.2	264.6	253.4
9-Oct	169.8	234.1	234.1	247.5	251.0	260.1	264.7	253.4
10-Oct	169.7	234.1	234.1	247.5	251.0	260.0	264.7	253.5
11-Oct	169.6	234.0	234.0	247.4	250.9	259.7	264.5	253.4
12-Oct	169.4	234.1	234.0	247.5	251.1	259.7	264.7	253.7
13-Oct	169.3	234.0	234.0	247.4	251.0	259.5	264.4	253.4
14-Oct	169.2	233.9	233.8	247.3	250.8	259.3	264.2	253.2
15-Oct	168.6	233.3	233.2	246.7	250.3	258.7	263.6	252.6
16-Oct	168.6	233.3	233.2	246.7	250.2	258.7	263.6	252.6
17-Oct	168.7	233.6	233.5	247.0	250.7	259.1	263.9	253.0
18-Oct	169.0	233.9	233.9	247.3	251.0	259.6	264.3	253.5
19-Oct	168.9	233.8	233.8	247.3	251.0	259.6	264.1	253.4
20-Oct	168.8	233.8	233.8	247.3	251.1	259.8	264.3	253.4
21-Oct	168.7	233.8	233.7	247.3	251.0	259.8	264.2	253.3
22-Oct	168.9	233.8	233.7	247.4	251.1	260.0	264.3	253.3
23-Oct	168.7	233.7	233.7	247.3	251.0	260.1	264.2	253.2
24-Oct	168.9	233.8	233.7	247.3	251.2	260.2	264.4	253.3
25-Oct	168.6	233.6	233.5	247.3	251.0	260.3	264.3	253.1
26-Oct	168.7	233.6	233.4	247.2	250.9	260.2	264.2	253.0
27-Oct	168.5	233.3	233.2	246.9	250.7	259.8	263.9	252.7
28-Oct	168.6	233.5	233.4	247.2	251.1	260.2	264.3	253.1
29-Oct	168.6	233.2	233.1	247.2	251.1	260.6	264.4	253.2
30-Oct	168.7	232.6	232.4	247.4	251.2	*	264.4	253.3
31-Oct	168.8	232.3	232.1	247.3	251.2	*	264.4	253.2
Average	**169.3**	**233.9**	**233.8**	**247.4**	**251.0**	**260.0**	**264.4**	**253.3**

* Indicates sensor reading issues

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 4

	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Oct	216.7	219.4	218.4	220.3	228.1	225.2	219.4	218.7
2-Oct	217.0	219.7	218.6	220.3	228.6	226.3	219.5	218.9
3-Oct	218.1	220.7	219.5	221.4	229.6	227.8	220.5	219.9
4-Oct	217.4	220.2	219.2	221.0	229.2	227.0	220.1	219.5
5-Oct	218.5	221.0	219.9	221.5	229.7	227.6	220.8	220.2
6-Oct	217.9	220.3	219.2	220.7	229.3	226.9	220.1	219.5
7-Oct	218.3	220.7	219.6	221.1	229.9	227.9	220.6	219.9
8-Oct	218.0	220.3	219.3	220.7	229.4	227.2	220.2	219.6
9-Oct	218.3	220.8	219.7	221.1	229.3	227.3	220.6	220.0
10-Oct	217.9	220.5	219.5	220.9	229.5	227.5	220.5	219.7
11-Oct	218.4	220.9	219.8	221.2	229.3	227.3	220.8	220.1
12-Oct	218.2	220.9	219.8	221.2	228.8	226.3	220.7	220.1
13-Oct	218.9	221.4	220.3	221.6	229.7	227.8	221.2	220.6
14-Oct	218.5	220.5	219.4	220.8	228.8	226.9	220.3	219.6
15-Oct	217.7	220.3	219.2	220.6	229.0	227.1	220.3	219.6
16-Oct	217.8	220.2	219.2	220.7	228.4	226.5	220.3	219.5
17-Oct	218.9	221.3	220.2	221.8	228.2	226.7	221.5	220.7
18-Oct	218.3	221.0	220.0	221.4	227.6	225.8	221.0	220.4
19-Oct	219.6	222.2	221.2	222.6	227.4	225.5	222.1	221.5
20-Oct	220.0	222.6	221.6	222.9	227.8	226.1	222.5	221.9
21-Oct	220.1	222.6	221.6	223.0	228.2	226.6	222.6	222.1
22-Oct	220.0	222.6	221.6	223.0	227.8	225.9	222.5	221.9
23-Oct	220.2	222.7	221.7	223.0	227.8	226.0	222.5	222.0
24-Oct	219.7	222.2	221.3	222.7	227.1	225.0	222.2	221.7
25-Oct	219.6	222.0	221.0	222.5	227.0	225.0	221.9	221.4
26-Oct	219.5	221.9	221.0	222.4	227.1	224.9	222.0	221.4
27-Oct	219.6	221.8	220.8	222.3	230.7	224.2	222.0	221.4
28-Oct	219.8	222.0	221.1	222.4	231.3	224.9	222.0	221.4
29-Oct	220.4	222.4	221.6	223.1	230.6	224.0	222.5	221.9
30-Oct	220.9	223.1	222.2	223.5	231.4	225.0	223.0	222.5
31-Oct	221.8	224.0	223.1	224.3	232.4	226.4	224.0	223.4
Average	**218.9**	**221.4**	**220.3**	**221.8**	**229.0**	**226.3**	**221.3**	**220.7**

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 5

	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Oct	207.4	209.3	213.2	207.5	210.3	207.4	209.1	201.3
2-Oct	207.5	212.4	214.3	207.6	209.8	207.5	208.5	201.3
3-Oct	207.7	216.0	216.7	207.7	208.8	207.6	208.0	201.3
4-Oct	207.7	216.6	217.3	207.9	210.5	207.8	210.9	201.4
5-Oct	207.7	216.5	217.3	207.8	208.2	207.8	210.1	201.3
6-Oct	207.3	216.8	217.5	207.6	207.6	207.5	207.8	201.2
7-Oct	207.0	216.5	217.3	207.4	207.6	207.2	207.6	201.2
8-Oct	206.9	217.0	217.5	207.3	208.6	207.1	207.4	201.1
9-Oct	206.7	216.8	217.5	207.3	210.0	207.2	209.1	201.1
10-Oct	206.4	216.6	217.5	207.3	211.5	207.2	212.3	201.0
11-Oct	206.6	216.9	217.2	207.5	209.0	207.4	207.7	201.1
12-Oct	206.5	217.0	217.3	207.5	208.2	207.3	207.5	201.1
13-Oct	206.4	217.2	217.5	207.4	208.6	207.3	207.6	201.3
14-Oct	206.2	215.7	216.6	207.2	209.2	207.2	207.4	201.2
15-Oct	205.8	216.1	216.9	207.0	208.7	206.9	207.2	200.9
16-Oct	205.9	216.3	217.1	207.3	208.4	207.3	207.5	201.0
17-Oct	205.7	215.3	215.9	207.6	207.5	207.4	207.7	200.9
18-Oct	204.2	214.8	215.8	208.2	208.1	208.0	210.8	201.0
19-Oct	197.5	213.3	213.0	208.4	211.2	208.4	215.9	201.0
20-Oct	196.6	211.8	211.5	207.2	212.1	207.8	220.1	201.0
21-Oct	199.4	211.8	211.3	206.7	210.7	208.8	221.7	201.0
22-Oct	199.8	211.9	211.7	206.8	209.0	215.3	222.4	201.1
23-Oct	198.1	211.3	212.1	209.6	210.2	219.5	222.9	201.2
24-Oct	197.3	211.2	211.5	211.6	215.7	222.3	223.2	201.1
25-Oct	192.9	211.6	212.3	210.9	226.5	224.4	223.4	201.2
26-Oct	190.6	211.7	211.6	220.4	232.6	226.4	223.8	201.4
27-Oct	185.8	215.0	215.2	224.6	234.3	227.5	223.7	201.2
28-Oct	183.9	216.7	216.9	226.6	235.2	228.6	223.8	201.4
29-Oct	173.7	216.6	216.8	227.6	235.7	229.4	224.0	201.4
30-Oct	169.3	216.6	216.8	228.3	236.2	230.3	224.3	201.5
31-Oct	167.0	216.5	216.7	228.7	236.7	230.8	224.3	201.6
Average	**199.1**	**214.8**	**215.4**	**211.4**	**215.0**	**213.3**	**214.4**	**201.2**

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 6

	Depth from Surface				
Date	25 ft	50 ft	75 ft	100 ft	125 ft
1-Oct	207.0	205.5	213.5	206.8	206.5
2-Oct	207.4	206.9	217.1	208.1	207.8
3-Oct	207.6	206.8	211.5	208.1	207.8
4-Oct	207.6	207.3	210.0	208.3	208.0
5-Oct	207.8	207.0	209.5	208.1	207.7
6-Oct	207.6	207.0	210.7	208.1	207.5
7-Oct	207.4	207.5	211.8	208.5	208.0
8-Oct	207.4	207.4	211.3	208.5	208.0
9-Oct	207.2	208.2	212.6	209.1	208.7
10-Oct	194.3	212.2	220.2	213.3	213.8
11-Oct	180.2	212.8	220.2	216.0	215.8
12-Oct	176.5	213.9	220.5	216.7	216.6
13-Oct	174.3	214.0	220.5	216.8	216.8
14-Oct	172.8	214.2	220.4	216.8	216.8
15-Oct	170.6	213.5	219.7	216.2	216.1
16-Oct	169.6	213.1	219.3	216.1	216.0
17-Oct	169.0	213.8	220.1	216.6	216.8
18-Oct	168.2	213.8	220.4	217.0	216.9
19-Oct	167.7	213.6	220.7	217.2	217.2
20-Oct	167.1	217.3	224.1	219.9	219.6
21-Oct	175.1	218.3	221.3	219.8	218.9
22-Oct	206.6	219.7	220.3	219.9	219.9
23-Oct	207.2	219.6	218.1	219.1	219.9
24-Oct	207.3	214.4	213.8	214.3	214.8
25-Oct	207.3	212.2	211.7	212.3	212.5
26-Oct	205.9	212.4	215.3	212.6	212.7
27-Oct	180.1	212.4	219.8	215.6	215.4
28-Oct	173.8	213.5	219.7	216.3	216.4
29-Oct	170.9	214.1	220.1	216.9	217.0
30-Oct	169.2	214.7	220.6	217.5	217.6
31-Oct	168.0	213.5	220.0	216.8	216.7
Average	**188.7**	**212.3**	**217.2**	**214.1**	**214.0**

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 7

	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Oct	144.0	193.0	202.0	197.0	194.6	199.4	206.3	223.4
2-Oct	144.2	193.0	202.1	197.1	194.6	199.5	206.7	224.2
3-Oct	144.7	192.9	202.1	197.0	194.7	199.3	206.6	224.1
4-Oct	144.8	192.8	202.1	197.0	194.6	199.4	206.5	224.2
5-Oct	144.9	192.9	202.2	197.1	194.8	199.4	206.8	224.4
6-Oct	145.2	192.8	201.8	197.0	194.6	199.2	206.7	224.9
7-Oct	146.0	192.6	201.5	196.8	194.4	199.0	206.5	225.2
8-Oct	146.5	192.3	201.3	196.7	194.2	198.7	206.5	225.2
9-Oct	146.7	192.6	201.4	196.7	194.4	198.7	206.3	224.7
10-Oct	147.2	192.3	201.4	196.7	194.5	198.7	206.0	224.8
11-Oct	147.6	192.7	201.3	196.9	194.5	198.8	206.3	225.2
12-Oct	149.0	192.5	201.0	196.6	194.4	198.6	205.7	224.6
13-Oct	154.8	192.0	200.8	196.0	193.8	198.0	205.0	224.6
14-Oct	160.7	191.9	200.6	195.9	193.7	197.8	204.9	224.8
15-Oct	158.5	191.4	200.0	195.4	193.3	197.4	204.3	224.4
16-Oct	156.6	192.0	199.8	196.0	193.9	198.0	204.4	224.0
17-Oct	158.2	192.4	199.8	196.3	194.3	198.4	204.6	223.9
18-Oct	159.3	192.5	199.6	196.4	194.6	198.5	204.2	223.5
19-Oct	162.2	192.8	199.0	196.6	195.0	198.8	204.0	222.8
20-Oct	166.8	192.5	198.6	196.5	194.7	198.6	204.0	223.5
21-Oct	170.3	192.7	198.3	196.6	194.8	198.6	203.6	223.0
22-Oct	171.9	192.5	198.4	196.5	194.6	198.3	203.4	223.1
23-Oct	174.9	192.4	197.9	196.2	194.4	198.0	203.2	222.8
24-Oct	176.8	192.3	197.9	196.2	194.4	198.1	203.2	223.0
25-Oct	176.6	192.1	197.9	196.1	194.4	198.1	202.9	222.9
26-Oct	176.4	192.4	197.7	196.3	194.7	198.3	202.7	222.9
27-Oct	174.4	191.6	196.8	195.7	194.2	197.7	201.6	222.5
28-Oct	167.3	191.3	197.2	195.5	194.0	197.3	200.8	222.0
29-Oct	162.0	191.7	196.2	196.0	194.6	197.9	201.3	221.7
30-Oct	159.1	191.7	196.4	196.2	194.7	197.9	201.7	222.2
31-Oct	159.1	191.6	195.4	196.1	194.5	197.7	201.7	222.1
Average	**157.9**	**192.3**	**199.6**	**196.4**	**194.4**	**198.5**	**204.5**	**223.7**

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 8

	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Oct	189.7	194.3	194.4	196.9	198.5	197.6	190.6	174.4
2-Oct	190.0	194.5	194.7	197.2	198.7	197.9	190.8	174.6
3-Oct	190.0	194.5	194.7	197.2	198.8	197.9	190.8	174.4
4-Oct	189.9	194.5	194.6	197.2	198.7	197.8	190.7	174.4
5-Oct	189.8	194.5	194.7	197.3	198.8	197.9	190.8	174.6
6-Oct	189.8	194.4	194.6	197.2	198.7	197.9	190.7	174.4
7-Oct	189.7	194.4	194.6	197.1	198.6	197.9	190.6	174.4
8-Oct	189.8	375.1	194.4	196.9	198.5	197.8	190.5	174.2
9-Oct	189.8	318.7	194.4	196.9	198.4	197.7	190.4	174.1
10-Oct	189.8	194.5	194.4	196.9	198.5	197.7	190.4	174.0
11-Oct	190.1	194.5	194.3	196.8	198.4	197.8	190.4	174.1
12-Oct	190.2	194.8	194.3	196.8	198.4	197.9	190.5	174.1
13-Oct	190.2	195.1	194.3	196.8	198.3	198.0	190.5	174.1
14-Oct	190.3	195.1	194.3	196.7	198.3	198.0	190.5	174.1
15-Oct	190.0	195.6	193.8	196.2	197.8	197.5	190.0	173.5
16-Oct	190.1	195.8	193.8	196.3	197.9	197.5	190.1	173.6
17-Oct	190.1	196.0	194.1	196.6	198.2	197.7	190.3	173.8
18-Oct	190.3	196.3	194.3	196.8	198.5	198.0	190.4	173.9
19-Oct	190.4	196.8	194.3	196.9	198.6	198.0	190.4	174.0
20-Oct	190.4	197.3	194.3	196.8	198.6	198.1	190.5	174.1
21-Oct	190.3	197.8	194.3	196.9	198.6	198.1	190.5	174.0
22-Oct	190.5	199.7	194.3	196.8	198.5	198.2	190.5	173.8
23-Oct	190.4	201.8	194.2	196.6	198.4	198.1	190.5	173.6
24-Oct	190.5	202.6	194.2	196.6	198.4	198.2	190.5	173.4
25-Oct	190.4	210.3	194.0	196.4	198.2	198.1	190.3	173.3
26-Oct	190.7	230.6	194.3	196.8	198.5	198.3	190.6	173.7
27-Oct	190.4	217.5	194.1	196.6	198.4	198.1	190.4	173.4
28-Oct	190.4	215.9	194.3	196.8	198.6	198.3	190.5	173.6
29-Oct	190.4	215.4	194.4	196.8	198.7	198.4	190.6	173.6
30-Oct	190.6	*	194.5	197.0	198.9	198.5	190.7	173.8
31-Oct	190.4	*	194.4	196.9	198.8	198.5	190.7	173.9
Average	**190.2**	**210.3**	**194.3**	**196.8**	**198.5**	**198.0**	**190.5**	**174.0**

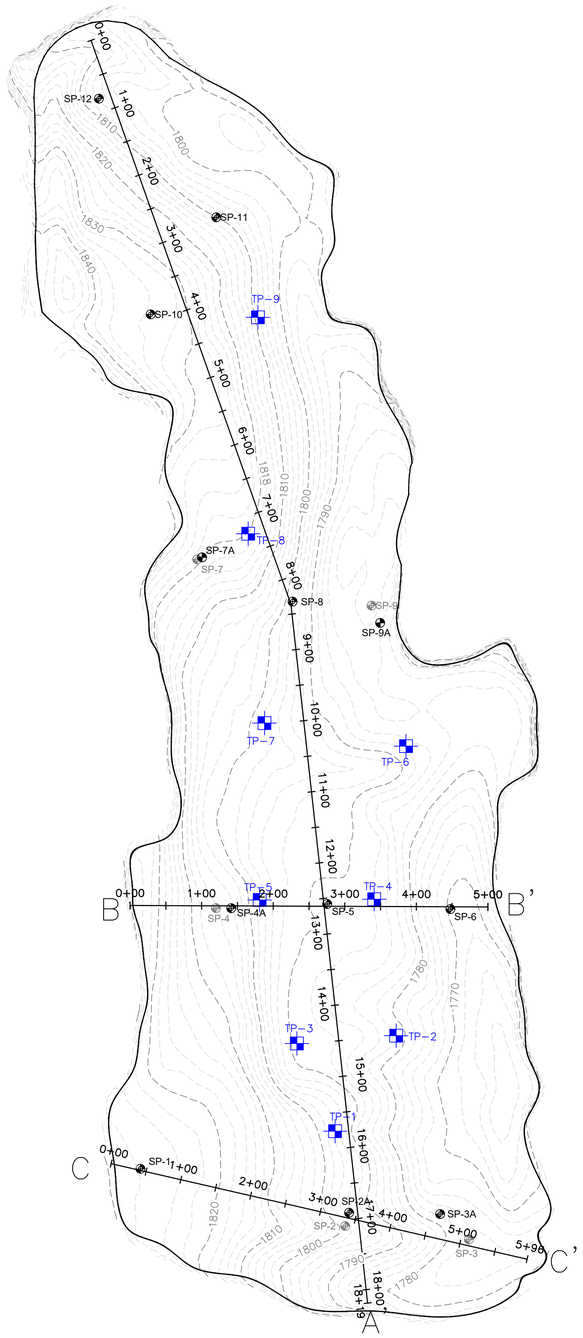
* Indicates sensor reading issues

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 9

	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Oct	109.9	148.6	147.8	150.7	146.7	134.1	111.1	105.8
2-Oct	110.9	149.2	148.5	151.0	146.9	134.3	111.6	106.2
3-Oct	111.1	149.4	148.6	151.1	146.9	134.4	111.6	106.3
4-Oct	110.3	149.2	148.4	150.9	146.7	134.1	111.9	106.2
5-Oct	109.6	149.1	148.2	151.0	146.8	134.1	113.7	106.3
6-Oct	108.8	148.2	147.2	150.7	146.8	134.2	113.9	106.3
7-Oct	109.3	147.9	146.9	150.7	146.9	134.2	114.1	106.3
8-Oct	109.0	147.2	146.2	150.3	146.6	133.8	114.0	106.0
9-Oct	109.0	147.1	146.1	150.2	146.5	133.8	114.0	105.9
10-Oct	109.1	147.4	146.4	150.2	146.5	133.8	114.0	105.9
11-Oct	109.3	147.4	146.5	150.1	146.3	133.7	114.0	105.8
12-Oct	109.6	147.5	146.6	150.1	146.3	133.7	114.2	105.9
13-Oct	109.6	147.6	146.7	150.2	146.4	133.8	114.4	106.0
14-Oct	109.7	147.6	146.6	150.2	146.4	133.8	114.4	105.9
15-Oct	109.0	147.1	146.0	149.5	145.7	133.1	113.8	105.1
16-Oct	109.7	147.5	146.6	149.6	145.7	133.2	113.9	105.2
17-Oct	110.5	147.9	147.1	149.9	145.8	133.3	114.2	105.4
18-Oct	110.7	148.2	147.5	150.1	146.0	133.3	114.4	105.6
19-Oct	111.0	148.6	147.9	150.2	146.1	133.4	114.5	105.7
20-Oct	111.0	148.5	147.9	150.2	146.1	133.4	114.7	105.7
21-Oct	111.2	148.6	147.9	150.3	146.2	133.5	114.8	105.8
22-Oct	111.1	148.6	147.9	150.3	146.2	133.5	114.8	105.8
23-Oct	111.3	148.7	148.0	150.3	146.2	133.4	114.8	105.8
24-Oct	111.3	148.8	148.2	150.3	146.2	133.4	115.0	105.8
25-Oct	111.3	148.9	148.2	150.3	146.0	133.3	114.9	105.8
26-Oct	111.8	149.3	148.6	150.5	146.2	133.5	115.1	106.0
27-Oct	111.6	149.2	148.6	150.2	145.8	133.0	114.8	105.7
28-Oct	111.7	149.3	148.8	150.4	146.0	133.1	115.1	105.8
29-Oct	111.8	149.3	148.8	150.4	146.0	133.1	115.1	105.9
30-Oct	112.3	149.7	149.1	150.6	146.2	133.3	115.4	106.1
31-Oct	112.4	149.9	149.2	150.7	146.2	133.3	115.5	106.1
Average	**110.5**	**148.4**	**147.7**	**150.4**	**146.3**	**133.6**	**114.1**	**105.9**

Appendix E

Monthly Topography Analysis



LEGEND

- MAJOR CONTOURS (EVERY 10')
- MINOR CONTOURS (EVERY 2')
- APPROXIMATE SIDEWALL LOCATION
- SP-8 SETTLEMENT PLATE
- SP-9 DECOMMISSIONED SETTLEMENT PLATE
- TP-3 TEMPERATURE MONITORING PROBE

NOTES:

1. GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON OCTOBER 12, 2023 BY SCS ENGINEERS.
2. ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FLOOD PLAIN DETERMINATION.
3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD–83 (2011).
4. THE VERTICAL DATUM IS BASED UPON NAVD–88.

100 50 0 100 200

SCALE: 1"=100'

NO.	REVISION	DATE

SHEET TITLE: OCTOBER 2023 LANDFILL TOPOGRAPHY

PROJECT TITLE: MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588

CLIENT: CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15621 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX. (804) 378-7433

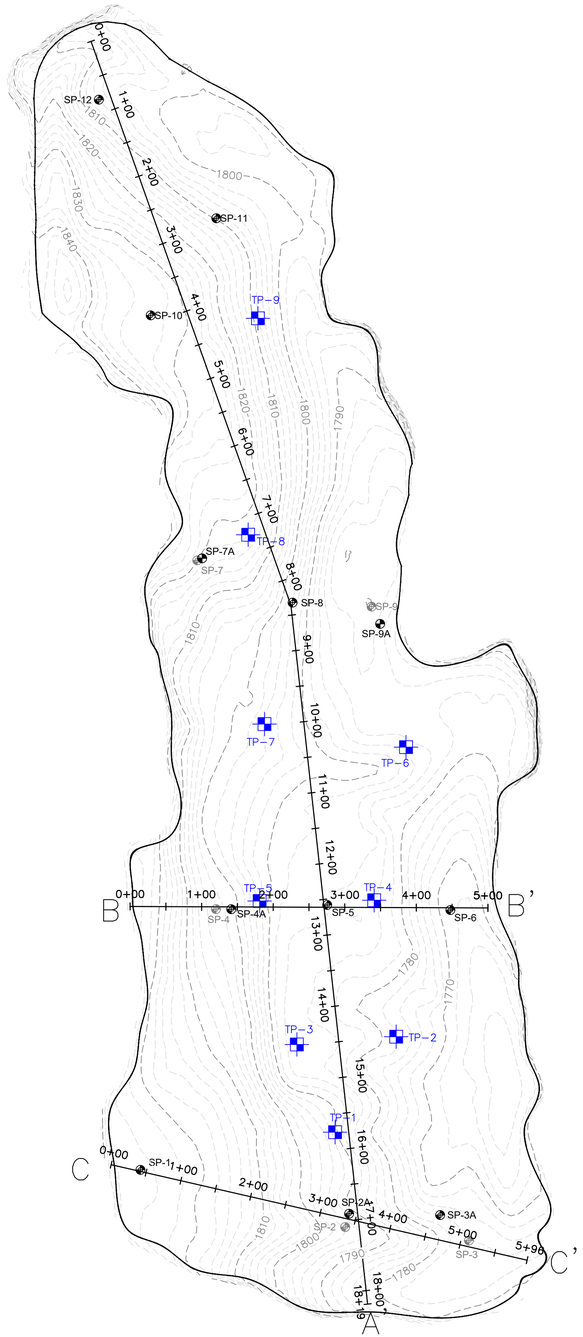
PROJ. NO.	DWN. BY:	Q/A RVW BY:
02218208.05	LLH	CJW
DSN. BY:	CHK. BY:	APP. BY:
	CJW	CJW

CADD FILE: SURF COMP

DATE: 11/1/2024

SCALE:

DRAWING NO. 1 of 8



LEGEND

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- MINOR CONTOURS (EVERY 2')
- APPROXIMATE SIDEWALL LOCATION
- SP-8 SETTLEMENT PLATE
- SP-9 DECOMMISSIONED SETTLEMENT PLATE
- TP-3 TEMPERATURE MONITORING PROBE

NOTES:

1. GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON JULY 16, 2024 BY SCS ENGINEERS.
2. ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FLOOD PLAIN DETERMINATION.
3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
4. THE VERTICAL DATUM IS BASED UPON NAVD-88.

100 50 0 100 200

SCALE: 1"=100'

NO.	REVISION	DATE

SHEET TITLE: JULY 2024 LANDFILL TOPOGRAPHY

PROJECT TITLE: MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588

CLIENT: CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX. (804) 378-7433

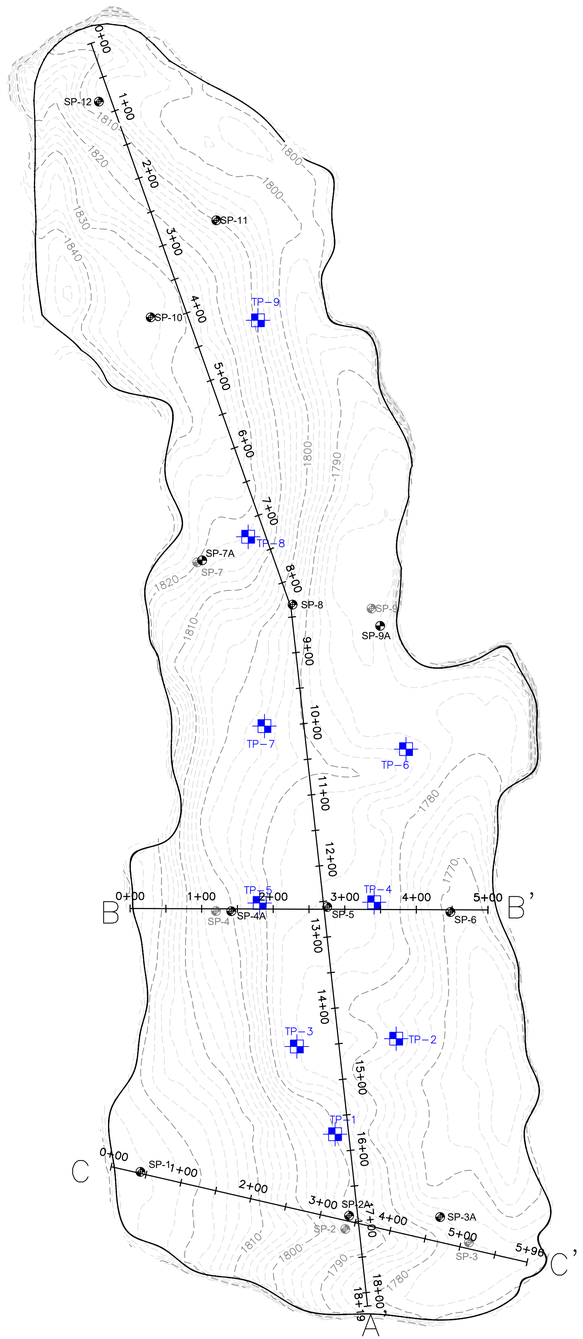
PROJ. NO. 02218208.05
DSN. BY: SRB
DWN. BY: LLH
CHK. BY: CJW
QA RVW BY: CJW
APP. BY: CJW

CADD FILE: SURF COMP

DATE: 11/1/2024

SCALE:

DRAWING NO. 2 of 8



LEGEND

- MAJOR CONTOURS (EVERY 10')
- MINOR CONTOURS (EVERY 2')
- APPROXIMATE SIDEWALL LOCATION
- SP-8 SETTLEMENT PLATE
- SP-9 DECOMMISSIONED SETTLEMENT PLATE
- TP-3 TEMPERATURE MONITORING PROBE

NOTES:

1. GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON SEPTEMBER 23, 2024 BY SCS ENGINEERS.
2. ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FLOOD PLAIN DETERMINATION.
3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD–83 (2011).
4. THE VERTICAL DATUM IS BASED UPON NAVD–88.

100 50 0 100 200

SCALE: 1"=100'

NO.	REVISION	DATE

SHEET TITLE: SEPTEMBER 2024 LANDFILL TOPOGRAPHY

PROJECT TITLE: MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588

CLIENT: CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
1521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX. (804) 378-7433

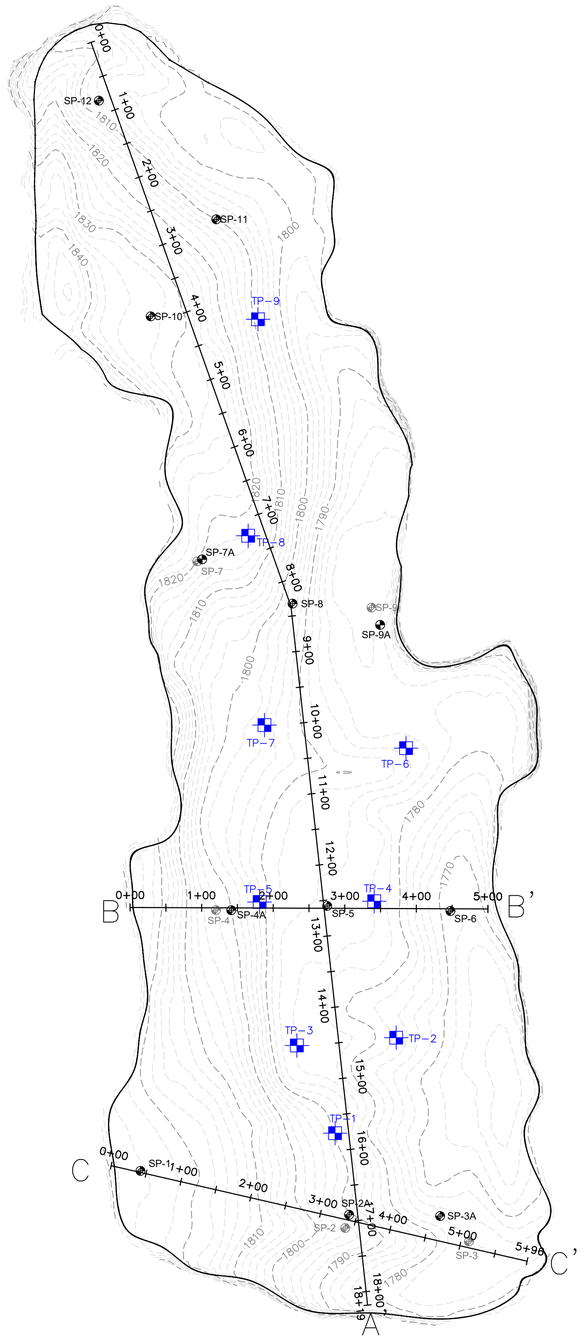
PROJ. NO. 02218208.05
DSN. BY:
DWN. BY: LLH
CHK. BY: CJW
QA/QC BY: CJW
APP. BY: CJW

CADD FILE: SURF COMP

DATE: 11/1/2024

SCALE:

DRAWING NO. 3 of 8



LEGEND

- MAJOR CONTOURS (EVERY 10')
- MINOR CONTOURS (EVERY 2')
- APPROXIMATE SIDEWALL LOCATION
- SP-8 SETTLEMENT PLATE
- SP-9 DECOMMISSIONED SETTLEMENT PLATE
- TP-3 TEMPERATURE MONITORING PROBE

NOTES:

1. GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON OCTOBER 16, 2024 BY SCS ENGINEERS.
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3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD–83 (2011).
4. THE VERTICAL DATUM IS BASED UPON NAVD–88.

100 50 0 100 200

SCALE: 1"=100'

NO.	REVISION	DATE

SHEET TITLE: OCTOBER 2024 LANDFILL TOPOGRAPHY

PROJECT TITLE: MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588

CLIENT: CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH: (804) 378-7440 FAX: (804) 378-7453

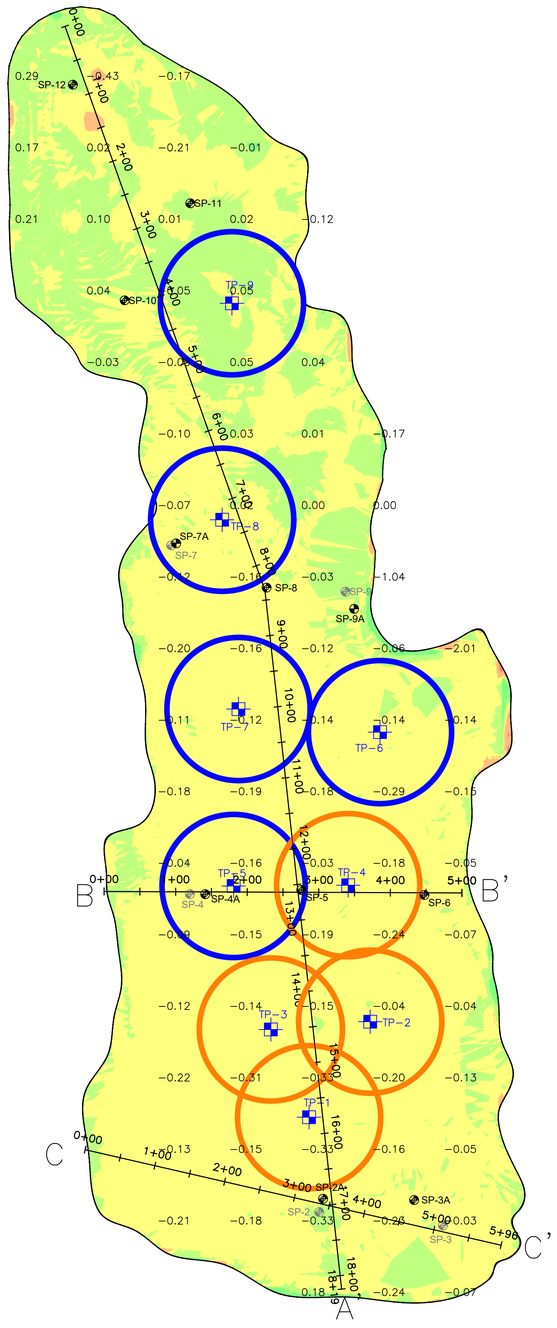
PROJ. NO. 02218208.05
DSN. BY:
DWN. BY: LLH
CHK. BY: CJW
Q/A RVW BY: CJW
APP. BY: CJW

CADD FILE: SURF COMP

DATE: 11/1/2024

SCALE:

DRAWING NO. 4 of 8



LEGEND

- MAJOR CONTOURS (EVERY 10')
- MINOR CONTOURS (EVERY 2')
- APPROXIMATE WASTE BOUNDARY
- SP-8 SETTLEMENT PLATE
- SP-9 DECOMMISSIONED SETTLEMENT PLATE
- −0.39 SPOT ELEVATION ON 100' GRID
- TP−8 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH LESS THAN 200 °F
- TP−1 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 200 °F AND 250 °F
- TP−2 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 250 °F AND 300 °F

Volume
Base Surface TOPO – SEPTEMBER 23, 2024
Comparison Surface TOPO – OCTOBER 16, 2024

Cut Volume	3,842	Cu. Yd.
Fill Volume	811	Cu. Yd.
Net Fill	3,031	Cu. Yd.

Elevations Table

Number	Minimum Elevation	Maximum Elevation	Color
1	−8.000	−5.000	
2	−5.000	−1.000	
3	−1.000	0.000	
4	0.000	1.000	
5	1.000	5.000	
6	5.000	10.000	
7	10.000	20.000	

NOTES:

1. THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON SEPTEMBER 23, 2024 AND OCTOBER 16, 2024 BY SCS ENGINEERS. POSITIVE VALUES (+) INDICATE AREAS OF FILL AND NEGATIVE VALUES (−) INDICATE AREAS OF CUT (SETTLEMENT). VALUES ARE ROUNDED TO THE NEAREST FOOT
2. ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FOR FLOOD PLAIN DETERMINATION.
3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD−83 (2011)
4. THE VERTICAL DATUM IS BASED UPON NAVD−88.

100 50 0 100 200
SCALE: 1"=100'

NO.	REVISION	DATE

SHEET TITLE
OCTOBER VOLUME CHANGE
SEPTEMBER 2024 TO OCTOBER 2024

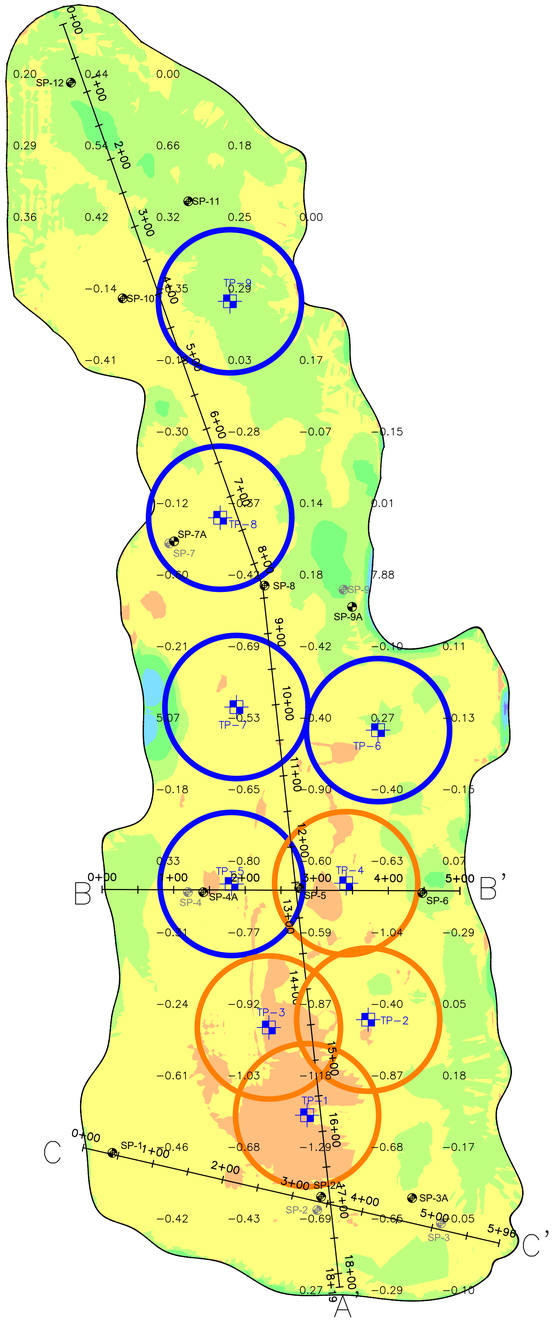
PROJECT TITLE
MONTHLY TOPOGRAPHY ANALYSIS
SOLID WASTE PERMIT #588

CLIENT
CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX: (804) 378-7433

PROJ. NO. 02218208.05
DWN. BY: LLH
CHK. BY: CJW
DSN. BY:
Q/A RVW BY: CJW
APP. BY: CJW

CADD FILE: SURF COMP
DATE: 11/1/2024
SCALE:
DRAWING NO. **5** of **8**



LEGEND

- MAJOR CONTOURS (EVERY 10')
- MINOR CONTOURS (EVERY 2')
- APPROXIMATE WASTE BOUNDARY
- SP-8 SETTLEMENT PLATE
- SP-9 DECOMMISSIONED SETTLEMENT PLATE
- −0.39 SPOT ELEVATION ON 100' GRID
- TP−8 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH LESS THAN 200 °F
- TP−1 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 200 °F AND 250 °F
- TP−2 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 250 °F AND 300 °F

Volume

Base Surface	TOPO – JULY 16, 2024	
Comparison Surface	TOPO – OCTOBER 16, 2024	
Cut Volume	9,842	Cu. Yd.
Fill Volume	3,908	Cu. Yd.
Net Cut	5,934	Cu. Yd.

Elevations Table

Number	Minimum Elevation	Maximum Elevation	Color
1	−10.000	−5.000	
2	−5.000	−1.000	
3	−1.000	0.000	
4	0.000	1.000	
5	1.000	5.000	
6	5.000	10.000	

NOTES:

1. THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON JULY 16, 2024 AND OCTOBER 16, 2024 BY SCS ENGINEERS. POSITIVE VALUES (+) INDICATE AREAS OF FILL AND NEGATIVE VALUES (−) INDICATE AREAS OF CUT (SETTLEMENT). VALUES ARE ROUNDED TO THE NEAREST FOOT.
2. ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FOR FLOOD PLAIN DETERMINATION.
3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD−83 (2011).
4. THE VERTICAL DATUM IS BASED UPON NAVD−88.

100 50 0 100 200

SCALE: 1"=100'

NO.	REVISION	DATE

SHEET TITLE: OCTOBER VOLUME CHANGE
JULY 2024 TO OCTOBER 2024

PROJECT TITLE: MONTHLY TOPOGRAPHY ANALYSIS
SOLID WASTE PERMIT #588

CLIENT
CITY OF BRISTOL INTEGRATED SOLID
WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15821 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH: (804) 378-7440 FAX: (804) 378-7433

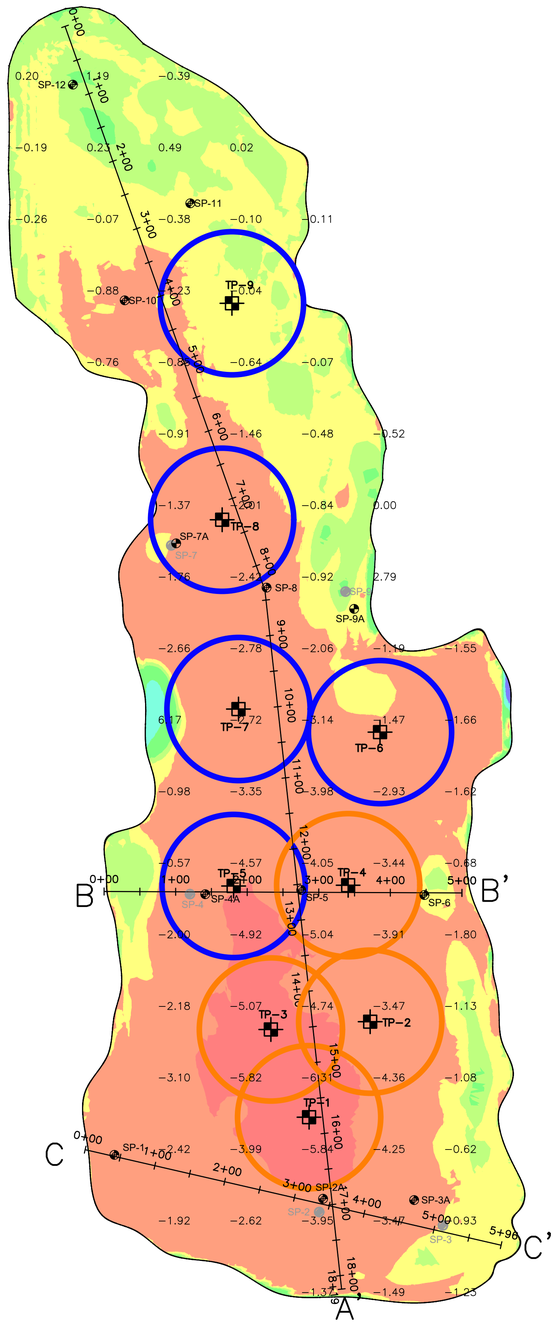
PROJ. NO. 02218208.05
DSN. BY:
DWN. BY: LLH
CHK. BY: CJW
QA RVW BY: CJW
APP. BY: CJW

CADD FILE: SURF COMP

DATE: 11/1/2024

SCALE:

DRAWING NO. 6 of 8



LEGEND

- MAJOR CONTOURS (EVERY 10')
- MINOR CONTOURS (EVERY 2')
- APPROXIMATE WASTE BOUNDARY
- SP-8 SETTLEMENT PLATE
- SP-9 DECOMMISSIONED SETTLEMENT PLATE
- -0.39 SPOT ELEVATION ON 100' GRID
- TP-8 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH LESS THAN 200 °F
- TP-1 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 200 °F AND 250 °F
- TP-2 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 250 °F AND 300 °F

Volume

Base Surface	TOPO – OCTOBER 12, 2023	
Comparison Surface	TOPO – OCTOBER 16, 2024	
Cut Volume	56,285	Cu. Yd.
Fill Volume	2,287	Cu. Yd.
Net Cut	53,998	Cu. Yd.

Elevations Table

Number	Minimum Elevation	Maximum Elevation	Color
1	-16.000	-10.000	
2	-10.000	-5.000	
3	-5.000	-1.000	
4	-1.000	0.000	
5	0.000	1.000	
6	1.000	5.000	
7	5.000	10.000	

NOTES:

1. THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON OCTOBER 12, 2023 AND OCTOBER 16, 2024 BY SCS ENGINEERS. POSITIVE VALUES (+) INDICATE AREAS OF FILL AND NEGATIVE VALUES (-) INDICATE AREAS OF CUT (SETTLEMENT). VALUES ARE ROUNDED TO THE NEAREST FOOT
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3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011)
4. THE VERTICAL DATUM(S) IS BASED UPON NAVD-88.

100 50 0 100 200

SCALE: 1"=100'

NO.	REVISION	DATE

SHEET TITLE: OCTOBER VOLUME CHANGE
OCTOBER 2023 TO OCTOBER 2024

PROJECT TITLE: MONTHLY TOPOGRAPHY ANALYSIS
SOLID WASTE PERMIT #588

CLIENT
CITY OF BRISTOL INTEGRATED SOLID
WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

SCS ENGINEERS
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15821 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX. (804) 378-7433

PROJ. NO. 02218208.05
DSN. BY:
DWN. BY: LLH
CHK. BY: CJW
O/A RVW. BY: CJW
APP. BY: CJW

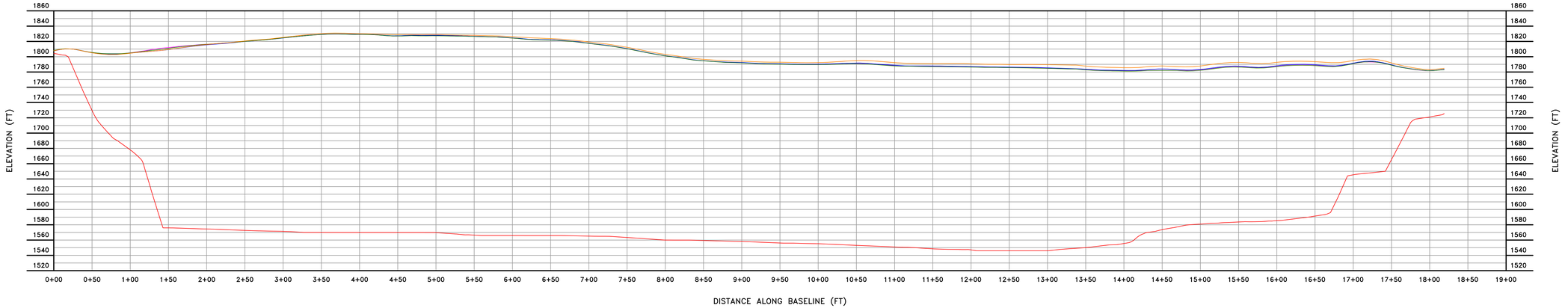
CADD FILE: SURF COMP

DATE: 11/1/2024

SCALE:

DRAWING NO. 7 of 8

LONGITUDINAL PROFILE A ALIGN



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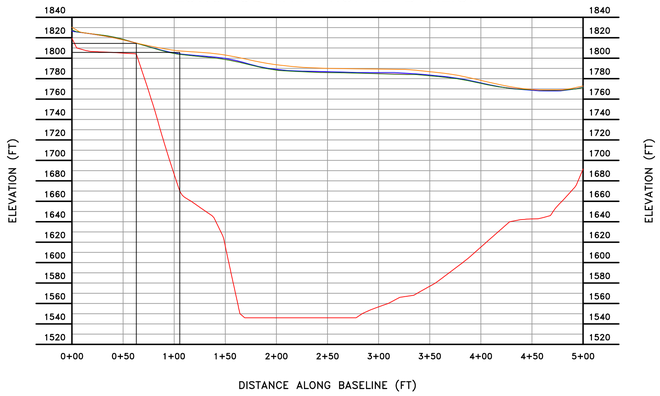

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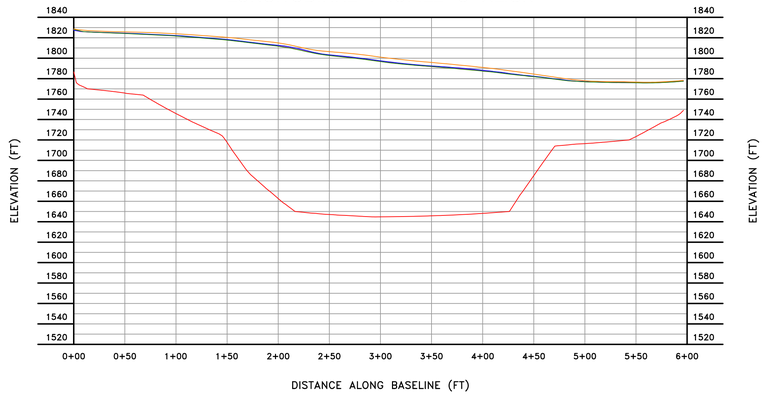

LEGEND

- BOTTOM LINER ELEVATION
- OCTOBER 2023 TOPO
- JULY 2024 TOPO
- SEPTEMBER 2024 TOPO
- OCTOBER 2024 TOPO

NO.	REVISION	DATE

SHEET TITLE: **PROFILES**

PROJECT TITLE: **MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588**

CLIENT: **CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY**
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
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15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH: (804) 378-7440 FAX: (804) 378-7453

PROJ. NO. 02218208.05 | DSN. BY: | DWN. BY: LLH | CHK. BY: CJW | Q/A RVW BY: CJW | APP. BY: CJW

CADD FILE: SURF COMP

DATE: 11/1/2024

SCALE:

DRAWING NO. **8** of **8**

Appendix F

Field Logs

Lab Report

Historical LFG-EW Leachate Monitoring Results Summary

Appendix F

Field Logs
Lab Reports
Historical LFG-EW Leachate Monitoring Results Summary
Time-Series Plots

City of Bristol SWP 588 Landfill
Dual Phase LFG-EW Liquid Level Measurement Log

Date	10/01/2024-10/03/2024													
Personnel	W. Fabrie, L. Nelson								L. Howard					
Location ID	Date	Casing Stickup (ft)	Depth to Liquid (ft)	Prior Depth to Liquid (ft)	Cycle Count	Prior Cycle Count (9/12)	Measured Well Casing Depth (ft)	Pump Depth (ft)	Liquid Column Thickness	Pump (Y/N)	Pump PSI	Sample Collected	Check/ Photo	Comments
PUMP INSTALLED														
EW-33B*	---	---	---	---	---	---	185.00	140	---	---	---	---		
EW-36A	10/3/2024	5.54	50.48	51.90	488578	473578	180.00	135	129.52	Y	Black hawk	---		pumping, but cycle counter not stroking
EW-49*	---	---	---	---	---	---	96.15	90	---	---	---	---		
EW-50	10/2/2024	4.58	38.99	43.84	1464410	1450666	77.70	83	38.71	y	88	Y		
EW-51	10/2/2024	3.92	33.02	33.15	180635	180655	92.80	95	59.78	y	---	---		
EW-52	10/2/2024	3.50	72.14	77.49	894051	863383	98.70	93	26.56	y	104	Y		
EW-53	10/2/2024	5.00	53.22	52.10	3290412	3278368	100.70	---	47.48	y	98	---		
EW-54	10/2/2024	4.42	36.54	43.70	1077260	1063017	82.70	75	46.16	y	0	---		Air off
EW-59	10/2/2024	3.75	42.51	43.22	3418361	3402356	73.40	64	30.89	y	100	---		
EW-60	10/2/2024	4.75	41.20	43.68	698147	687373	81.80	70	40.60	y	62	---		
EW-61	10/2/2024	3.08	68.96	61.72	279959	266520	87.80	66	18.84	y	0	---		
EW-62	10/3/2024	4.42	72.25	85.16	214599	214599	110.60	80	38.35	y	---	---		
EW-64*	---	---	---	---	---	---	109.00	113	---	---	---	---		
EW-65*	---	---	---	---	---	---	88.40	50	---	---	####	---		
EW-67	10/2/2024	2.67	41.38	40.28	102098	71338	107.75	62.5	66.37	y	110	---		Air off
EW-68	10/2/2024	1.83	52.45	55.79	2540476	2522274	73.57	68	21.12	y	0	---		
EW-69	10/3/2024	4.67	93.09	93.76	18	18	98.00	---	4.91	y	---	---		
EW-70	---	---	---	---	---	---	71.00	58	---	---	---	---		surrounded by water could not measure
EW-74	10/3/2024	6.58	162.54	162.50	---	---	184.15	140	21.61	n	64	---		
EW-78	10/3/2024	3.63	44.01	45.63	130591	130542	57.00	47	12.99	y	---	---		
EW-81*	---	---	---	---	---	---	151.56	125	---	---	Black hawk	---		
EW-82	10/3/2024	4.21	119.34	121.39	39311	124501	163.26	145	43.92	y	---	---		
EW-83*	---	---	---	---	---	---	167.04	145	---	---	---	---		
EW-85	10/2/2024	4.75	54.11	77.53	237195	225813	91.00	78.5	36.89	y	101	---		

City of Bristol SWP 588 Landfill
Dual Phase LFG-EW Liquid Level Measurement Log

Date	10/01/2024-10/03/2024													
Personnel	W. Fabrie, L. Nelson								L. Howard					
Location ID	Date	Casing Stickup (ft)	Depth to Liquid (ft)	Prior Depth to Liquid (ft)	Cycle Count	Prior Cycle Count (9/12)	Measured Well Casing Depth (ft)	Pump Depth (ft)	Liquid Column Thickness	Pump (Y/N)	Pump PSI	Sample Collected	Check/ Photo	Comments
EW-87	10/2/2024	5.58	57.96	59.24	276139	276121	149.57	125	91.61	y	0	---		air off
EW-88	10/2/2024	3.83	60.86	50.57	199456	171472	100.00	58	39.14	y	104	---		
EW-89	10/2/2024	3.42	42.07	43.15	---	---	84.57	70	42.50	y	---	---		air off no psi gauge
EW-90	10/2/2024	3.79	---	90.87	---	---	114.00	101	---	y	---	---		top of pump at 49.32
EW-91	10/2/2024	5.50	46.35	47.26	---	---	137.70	115	91.35	n	---	---		
EW-92	10/2/2024	7.17	50.96	51.06	---	---	112.99	95	62.03	n	---	---		
EW-96	10/2/2024	6.17	53.63	54.53	---	606458	164.35	145	110.72	y	Black hawk	---		Stroke counter too high not visible
EW-98	10/2/2024	4.33	45.12	46.30	1256797	1186505	51.00	43	5.88	y	108	---		
EW-100	10/2/2024	4.17	70.84	78.28	733311	733311	108.50	96.5	37.66	n	0	---		
NO PUMP														
EW-55	10/2/2024	3.83	39.33	---	---	---	90.40	90	51.07	n	---	---		
EW-56	10/2/2024	5.67	Dry	Dry	---	---	42.71	58	---	n	---	---		
EW-57	10/2/2024	4.92	85.64	46.23	---	97665	107.40	71	21.76	n	90	---		
EW-58	10/2/2024	3.79	26.67	29.24	---	---	84.50	82	---	n	---	---		
EW-63*	---	---	---	---	---	---	62.10	64	---	---	---	---		
EW-66	10/2/2024	5.58	36.27	37.03	---	---	---	---	---	n	---	---		
EW-71	10/3/2024	4.96	161.40	>165	---	---	185.80	---	---	n	---	---		
EW-72	10/2/2024	4.92	125.99	128.64	---	---	141.21	---	---	n	---	---		
EW-73	10/3/2024	3.63	106.52	106.15	---	---	116.00	---	---	n	---	---		
EW-77*	---	---	---	---	---	---	185.22	---	---	---	---	---		
EW-79*	---	---	---	---	---	---	185.64	---	---	---	---	---		
EW-80*	---	---	---	---	---	---	149.00	---	---	---	---	---		
EW-84*	---	---	---	---	---	---	130.56	---	---	---	---	---		
EW-86	10/2/2024	2.46	73.68	75.23	---	---	153.00	---	---	n	---	---		
EW-93	10/2/2024	4.00	32.68	32.53	---	---	111.00	---	---	n	---	---		

City of Bristol SWP 588 Landfill
Dual Phase LFG-EW Liquid Level Measurement Log

Date	10/01/2024-10/03/2024													
Personnel	W. Fabrie, L. Nelson								L. Howard					
Location ID	Date	Casing Stickup (ft)	Depth to Liquid (ft)	Prior Depth to Liquid (ft)	Cycle Count	Prior Cycle Count (9/12)	Measured Well Casing Depth (ft)	Pump Depth (ft)	Liquid Column Thickness	Pump (Y/N)	Pump PSI	Sample Collected	Check/ Photo	Comments
EW-95	10/2/2024	3.92	56.61	60.03	---	---	68.00	---	---	n	---	---		
EW-97	10/2/2024	7.50	DNM	94.66	---	---	144.50	---	---	n	---	---		Casing too tall to measure safely.
EW-99	10/2/2024	4.25	36.65	60.77	---	---	65.00	---	---	n	---	---		
MEASURE CASING STICKUP AND CYCLE COUNTER ONLY														
EW-75*	---	---	DNM	---	---	---	130.82	140	---	---	---	---		
EW-76	10/3/2024	3.50	DNM	---	41	41	127.00	108	---	y	82	n		
EW-94	10/2/2024	3.58	DNM	---	502253	475255	50.00	45	---	y	---	n		

DNM = Do not measure
* = Unable to get depth to liquid due to damage to forcemain causing wells to be not under vacuum and therefore unsafe to open.

Dual Phase LFG-EW Sample Collection Log

Location ID	Sample Date	Sample Time	Temperature (oC)	pH (s.u.)	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Observations
EW-36A	10/3/2024	10:15	34.40	7.30	4.89	1.48	-79.00	35.09	light grey, suspended particles
EW-50	10/2/2024	9:30	58.00	7.62	21.00	0.24	-126.10	22.67	Amber
EW-52	10/2/2024	11:30	71.5	5.29	43.66	0.21	-107.2	6.65	Dark brown/black
EW-82	10/3/2024	9:50	44.60	5.45	20.76	0.51	-5.90	1.16	Amber
Sampler:		L. Nelson, W. Fabrie				Samples Shipped By: Courier			
Log Checked By:		L. Howard				Laboratory: Enthalpy Analytical			

TNI Accredited
VELAP ID 460021

ENTHALPY ANALYTICAL

1941 Reymet Road ● Richmond, Virginia 23237 ● Tel: (804)-358-8295 Fax: (804)-358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 24J0187

Client Name:	SCS Engineers-Winchester 296 Victory Road Winchester, VA 22602	Date Received:	October 3, 2024 8:00
		Date Issued:	October 28, 2024 17:09
		Project Number:	02218208.15 Task 2
Submitted To:	Jennifer Robb	Purchase Order:	
Client Site I.D.:	LFG-EW Monthly Monitoring		

Enclosed are the results of analyses for samples received by the laboratory on 10/03/2024 08:00. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

Ginny Thrasher

Ginny Thrasher
Senior Project Manager

End Notes:
The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

Enthalpy Analytical
1941 Reymet Road
Richmond, VA 23237
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Analysis Detects Report

Client Name: SCS Engineers-Winchester
Client Site ID: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:09:44PM

Laboratory Sample ID: 24J0187-01 **Client Sample ID:** EW-50

Parameter	Samp ID	Reference Method	Sample Results	Qual	DL	LOQ	Dil. Factor	Units
Arsenic	01	SW6020B	260		5.0	10	10	ug/L
Barium	01	SW6020B	568		10.0	50.0	10	ug/L
Chromium	01	SW6020B	246		4.00	10.0	10	ug/L
Nickel	01	SW6020B	115.0		10.00	10.00	10	ug/L
Zinc	01	SW6020B	77.0		25.0	50.0	10	ug/L
2-Butanone (MEK)	01RE1	SW8260D	2770		60.0	200	20	ug/L
Acetone	01RE1	SW8260D	5230		140	200	20	ug/L
Benzene	01	SW8260D	429		2.00	5.00	5	ug/L
Ethylbenzene	01	SW8260D	112		2.00	5.00	5	ug/L
Tetrahydrofuran	01	SW8260D	318		50.0	50.0	5	ug/L
Toluene	01	SW8260D	173		2.50	5.00	5	ug/L
Xylenes, Total	01	SW8260D	201		5.00	15.0	5	ug/L
Ammonia as N	01	EPA350.1 R2.0	1370		146	200	2000	mg/L
BOD	01	SM5210B-2016	6680		0.2	2.0	1	mg/L
COD	01	SM5220D-2011	10700		2000	2000	200	mg/L
Cyanide	01	SW9012B	0.38	CI	0.05	0.05	5	mg/L
TKN as N	01	EPA351.2 R2.0	1360		100	250	500	mg/L
Total Recoverable Phenolics	01	SW9065	8.40		0.300	0.500	1	mg/L

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Analysis Detects Report

Client Name: SCS Engineers-Winchester
Client Site ID: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:09:44PM

Laboratory Sample ID: **24J0187-02** **Client Sample ID:** **EW-52**

Parameter	Samp ID	Reference Method	Sample Results	Qual	DL	LOQ	Dil. Factor	Units
Arsenic	02	SW6020B	240		5.0	10	10	ug/L
Barium	02	SW6020B	1170		10.0	50.0	10	ug/L
Chromium	02	SW6020B	929		4.00	10.0	10	ug/L
Lead	02	SW6020B	120		10	10	10	ug/L
Nickel	02	SW6020B	353.6		10.00	10.00	10	ug/L
Zinc	02RE1	SW6020B	20200		250	500	100	ug/L
2-Butanone (MEK)	02	SW8260D	13000		150	500	50	ug/L
Acetone	02RE1	SW8260D	49800		3500	5000	500	ug/L
Benzene	02	SW8260D	1200		20.0	50.0	50	ug/L
Ethylbenzene	02	SW8260D	62.5		20.0	50.0	50	ug/L
Tetrahydrofuran	02	SW8260D	2580		500	500	50	ug/L
Toluene	02	SW8260D	65.5		25.0	50.0	50	ug/L
Xylenes, Total	02	SW8260D	144	J	50.0	150	50	ug/L
Ammonia as N	02	EPA350.1 R2.0	2180		146	200	2000	mg/L
BOD	02	SM5210B-2016	>42353		0.2	2.0	1	mg/L
COD	02	SM5220D-2011	83300		10000	10000	1000	mg/L
Cyanide	02	SW9012B	0.10	CI	0.05	0.05	5	mg/L
TKN as N	02	EPA351.2 R2.0	2850		100	250	500	mg/L
Total Recoverable Phenolics	02	SW9065	37.6		3.00	5.00	100	mg/L

Note that this report is not the "Certificate of Analysis". This report only lists the target analytes that displayed concentrations that exceeded the detection limit specified for that analyte. For a complete listing of all analytes requested and the results of the analysis see the " Certificate of Analysis".

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Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:09:44PM
Work Order: 24J0187

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EW-50	24J0187-01	Waste Water	10/02/2024 09:30	10/03/2024 08:00
EW-52	24J0187-02	Waste Water	10/02/2024 11:30	10/03/2024 08:00
Trip Blank	24J0187-03	Waste Water	09/04/2024 11:35	10/03/2024 08:00

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Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:09:44PM
Work Order: 24J0187

Client Sample ID: **EW-50** **Laboratory Sample ID:** **24J0187-01**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analyst
Metals (Total) by EPA 6000/7000 Series Methods												
Silver	01	7440-22-4	SW6020B	10/04/2024 17:00	10/10/2024 14:02	BLOD		0.600	10.0	10	ug/L	AB
Arsenic	01	7440-38-2	SW6020B	10/04/2024 17:00	10/10/2024 14:02	260		5.0	10	10	ug/L	AB
Barium	01	7440-39-3	SW6020B	10/04/2024 17:00	10/10/2024 14:02	568		10.0	50.0	10	ug/L	AB
Cadmium	01	7440-43-9	SW6020B	10/04/2024 17:00	10/10/2024 14:02	BLOD		1.00	10.0	10	ug/L	AB
Chromium	01	7440-47-3	SW6020B	10/04/2024 17:00	10/10/2024 14:02	246		4.00	10.0	10	ug/L	AB
Copper	01	7440-50-8	SW6020B	10/04/2024 17:00	10/10/2024 14:02	BLOD		3.00	10.0	10	ug/L	AB
Mercury	01	7439-97-6	SW6020B	10/04/2024 17:00	10/10/2024 14:02	BLOD		2.00	2.00	10	ug/L	AB
Nickel	01	7440-02-0	SW6020B	10/04/2024 17:00	10/10/2024 14:02	115.0		10.00	10.00	10	ug/L	AB
Lead	01	7439-92-1	SW6020B	10/04/2024 17:00	10/10/2024 14:02	BLOD		10	10	10	ug/L	AB
Selenium	01	7782-49-2	SW6020B	10/04/2024 17:00	10/10/2024 14:02	BLOD		8.50	10.0	10	ug/L	AB
Zinc	01	7440-66-6	SW6020B	10/04/2024 17:00	10/10/2024 14:02	77.0		25.0	50.0	10	ug/L	AB
Volatile Organic Compounds by GCMS												
2-Butanone (MEK)	01RE1	78-93-3	SW8260D	10/08/2024 19:40	10/08/2024 19:40	2770		60.0	200	20	ug/L	JWR
Acetone	01RE1	67-64-1	SW8260D	10/08/2024 19:40	10/08/2024 19:40	5230		140	200	20	ug/L	JWR
Benzene	01	71-43-2	SW8260D	10/08/2024 19:16	10/08/2024 19:16	429		2.00	5.00	5	ug/L	JWR
Ethylbenzene	01	100-41-4	SW8260D	10/08/2024 19:16	10/08/2024 19:16	112		2.00	5.00	5	ug/L	JWR
Toluene	01	108-88-3	SW8260D	10/08/2024 19:16	10/08/2024 19:16	173		2.50	5.00	5	ug/L	JWR
Xylenes, Total	01	1330-20-7	SW8260D	10/08/2024 19:16	10/08/2024 19:16	201		5.00	15.0	5	ug/L	JWR
Tetrahydrofuran	01	109-99-9	SW8260D	10/08/2024 19:16	10/08/2024 19:16	318		50.0	50.0	5	ug/L	JWR
Surr: 1,2-Dichloroethane-d4 (Surr)	*01*	*79.2 %*	*70-120*	*10/08/2024 19:16*	*10/08/2024 19:16*							
Surr: 4-Bromofluorobenzene (Surr)	*01*	*96.6 %*	*75-120*	*10/08/2024 19:16*	*10/08/2024 19:16*							
Surr: Dibromofluoromethane (Surr)	*01*	*78.8 %*	*70-130*	*10/08/2024 19:16*	*10/08/2024 19:16*							
Surr: Toluene-d8 (Surr)	*01*	*94.8 %*	*70-130*	*10/08/2024 19:16*	*10/08/2024 19:16*							
Surr: 1,2-Dichloroethane-d4 (Surr)	*01RE1*	*77.4 %*	*70-120*	*10/08/2024 19:40*	*10/08/2024 19:40*							

Enthalpy Analytical
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Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:09:44PM
Work Order: 24J0187

Client Sample ID: **EW-50** **Laboratory Sample ID:** **24J0187-01**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Volatile Organic Compounds by GCMS												
Surr: 4-Bromofluorobenzene (Surr)	*01RE1*	*96.2 %*	*75-120*	*10/08/2024 19:40*	*10/08/2024 19:40*							
Surr: Dibromofluoromethane (Surr)	*01RE1*	*79.1 %*	*70-130*	*10/08/2024 19:40*	*10/08/2024 19:40*							
Surr: Toluene-d8 (Surr)	*01RE1*	*95.7 %*	*70-130*	*10/08/2024 19:40*	*10/08/2024 19:40*							
Semivolatile Organic Compounds by GCMS												
Anthracene	01	120-12-7	SW8270E	10/07/2024 08:45	10/07/2024 17:46	BLOD		50.0	100	10	ug/L	BMS
Surr: 2,4,6-Tribromophenol (Surr)	*01*	*27.8 %*	*5-136*	*10/07/2024 08:45*	*10/07/2024 17:46*							
Surr: 2-Fluorobiphenyl (Surr)	*01*	*23.2 %*	*9-117*	*10/07/2024 08:45*	*10/07/2024 17:46*							
Surr: 2-Fluorophenol (Surr)	*01*	*34.6 %*	*5-60*	*10/07/2024 08:45*	*10/07/2024 17:46*							
Surr: Nitrobenzene-d5 (Surr)	*01*	*35.2 %*	*5-151*	*10/07/2024 08:45*	*10/07/2024 17:46*							
Surr: Phenol-d5 (Surr)	*01*	*16.2 %*	*5-60*	*10/07/2024 08:45*	*10/07/2024 17:46*							
Surr: p-Terphenyl-d14 (Surr)	*01*	*14.6 %*	*5-141*	*10/07/2024 08:45*	*10/07/2024 17:46*							

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Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analyst
Wet Chemistry Analysis												
Ammonia as N	01	7664-41-7	EPA350.1 R2.0	10/15/2024 15:07	10/15/2024 15:07	1370		146	200	2000	mg/L	MKS
BOD	01	E1640606	SM5210B-2016	10/04/2024 09:25	10/04/2024 09:25	6680		0.2	2.0	1	mg/L	CET
Cyanide	01	57-12-5	SW9012B	10/10/2024 12:00	10/10/2024 15:20	0.38	CI	0.05	0.05	5	mg/L	MKS
COD	01	NA	SM5220D-2011	10/17/2024 13:45	10/17/2024 13:45	10700		2000	2000	200	mg/L	TEG
Nitrate as N	01	14797-55-8	Calc.	10/08/2024 10:00	10/08/2024 17:53	BLOD		1.00	5.00	100	mg/L	KJM
Nitrate+Nitrite as N	01	E701177	SM4500-NO3F-2016	10/08/2024 10:00	10/08/2024 17:53	BLOD		0.50	0.50	5	mg/L	BKR
Nitrite as N	01	14797-65-0	SM4500-NO2B-2011	10/03/2024 16:15	10/03/2024 16:15	BLOD		1.00	5.00	100	mg/L	KJM
Total Recoverable Phenolics	01	NA	SW9065	10/17/2024 16:56	10/17/2024 16:56	8.40		0.300	0.500	1	mg/L	SPH
TKN as N	01	E17148461	EPA351.2 R2.0	10/16/2024 12:32	10/16/2024 12:32	1360		100	250	500	mg/L	SPH

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Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:09:44PM
Work Order: 24J0187

Client Sample ID: **EW-52** **Laboratory Sample ID:** **24J0187-02**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analyst
Metals (Total) by EPA 6000/7000 Series Methods												
Silver	02	7440-22-4	SW6020B	10/04/2024 17:00	10/10/2024 14:05	BLOD		0.600	10.0	10	ug/L	AB
Arsenic	02	7440-38-2	SW6020B	10/04/2024 17:00	10/10/2024 14:05	240		5.0	10	10	ug/L	AB
Barium	02	7440-39-3	SW6020B	10/04/2024 17:00	10/10/2024 14:05	1170		10.0	50.0	10	ug/L	AB
Cadmium	02	7440-43-9	SW6020B	10/04/2024 17:00	10/10/2024 14:05	BLOD		1.00	10.0	10	ug/L	AB
Chromium	02	7440-47-3	SW6020B	10/04/2024 17:00	10/10/2024 14:05	929		4.00	10.0	10	ug/L	AB
Copper	02	7440-50-8	SW6020B	10/04/2024 17:00	10/10/2024 14:05	BLOD		3.00	10.0	10	ug/L	AB
Mercury	02	7439-97-6	SW6020B	10/04/2024 17:00	10/10/2024 14:05	BLOD		2.00	2.00	10	ug/L	AB
Nickel	02	7440-02-0	SW6020B	10/04/2024 17:00	10/10/2024 14:05	353.6		10.00	10.00	10	ug/L	AB
Lead	02	7439-92-1	SW6020B	10/04/2024 17:00	10/10/2024 14:05	120		10	10	10	ug/L	AB
Selenium	02	7782-49-2	SW6020B	10/04/2024 17:00	10/10/2024 14:05	BLOD		8.50	10.0	10	ug/L	AB
Zinc	02RE1	7440-66-6	SW6020B	10/04/2024 17:00	10/10/2024 14:27	20200		250	500	100	ug/L	AB
Volatile Organic Compounds by GCMS												
2-Butanone (MEK)	02	78-93-3	SW8260D	10/08/2024 20:51	10/08/2024 20:51	13000		150	500	50	ug/L	JWR
Acetone	02RE1	67-64-1	SW8260D	10/08/2024 21:15	10/08/2024 21:15	49800		3500	5000	500	ug/L	JWR
Benzene	02	71-43-2	SW8260D	10/08/2024 20:51	10/08/2024 20:51	1200		20.0	50.0	50	ug/L	JWR
Ethylbenzene	02	100-41-4	SW8260D	10/08/2024 20:51	10/08/2024 20:51	62.5		20.0	50.0	50	ug/L	JWR
Toluene	02	108-88-3	SW8260D	10/08/2024 20:51	10/08/2024 20:51	65.5		25.0	50.0	50	ug/L	JWR
Xylenes, Total	02	1330-20-7	SW8260D	10/08/2024 20:51	10/08/2024 20:51	144	J	50.0	150	50	ug/L	JWR
Tetrahydrofuran	02	109-99-9	SW8260D	10/08/2024 20:51	10/08/2024 20:51	2580		500	500	50	ug/L	JWR
Surr: 1,2-Dichloroethane-d4 (Surr)	*02*	*79.6 %*	*70-120*	*10/08/2024 20:51*	*10/08/2024 20:51*							
Surr: 4-Bromofluorobenzene (Surr)	*02*	*97.4 %*	*75-120*	*10/08/2024 20:51*	*10/08/2024 20:51*							
Surr: Dibromofluoromethane (Surr)	*02*	*75.7 %*	*70-130*	*10/08/2024 20:51*	*10/08/2024 20:51*							
Surr: Toluene-d8 (Surr)	*02*	*95.4 %*	*70-130*	*10/08/2024 20:51*	*10/08/2024 20:51*							
Surr: 1,2-Dichloroethane-d4 (Surr)	*02RE1*	*76.9 %*	*70-120*	*10/08/2024 21:15*	*10/08/2024 21:15*							

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Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:09:44PM
Work Order: 24J0187

Client Sample ID: **EW-52** **Laboratory Sample ID:** **24J0187-02**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Volatile Organic Compounds by GCMS												
Surr: 4-Bromofluorobenzene (Surr)	*02RE1*	*97.6 %*	*75-120*	*10/08/2024 21:15*	*10/08/2024 21:15*							
Surr: Dibromofluoromethane (Surr)	*02RE1*	*76.8 %*	*70-130*	*10/08/2024 21:15*	*10/08/2024 21:15*							
Surr: Toluene-d8 (Surr)	*02RE1*	*95.9 %*	*70-130*	*10/08/2024 21:15*	*10/08/2024 21:15*							
Semivolatile Organic Compounds by GCMS												
Anthracene	02	120-12-7	SW8270E	10/07/2024 08:45	10/07/2024 18:20	BLOD		200	400	10	ug/L	BMS
Surr: 2,4,6-Tribromophenol (Surr)	*02*	*53.2 %*	*5-136*	*10/07/2024 08:45*	*10/07/2024 18:20*							
Surr: 2-Fluorobiphenyl (Surr)	*02*	*2.80 %*	*9-117*	*10/07/2024 08:45*	*10/07/2024 18:20*							*DS*
Surr: 2-Fluorophenol (Surr)	*02*	*3.60 %*	*5-60*	*10/07/2024 08:45*	*10/07/2024 18:20*							*DS*
Surr: Nitrobenzene-d5 (Surr)	*02*	*536 %*	*5-151*	*10/07/2024 08:45*	*10/07/2024 18:20*							*DS*
Surr: Phenol-d5 (Surr)	*02*	*30.0 %*	*5-60*	*10/07/2024 08:45*	*10/07/2024 18:20*							
Surr: p-Terphenyl-d14 (Surr)	*02*	*18.8 %*	*5-141*	*10/07/2024 08:45*	*10/07/2024 18:20*							

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Client Sample ID: **EW-52** **Laboratory Sample ID:** **24J0187-02**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Wet Chemistry Analysis												
Ammonia as N	02	7664-41-7	EPA350.1 R2.0	10/15/2024 15:09	10/15/2024 15:09	2180		146	200	2000	mg/L	MKS
BOD	02	E1640606	SM5210B-2016	10/04/2024 09:40	10/04/2024 09:40	>42353		0.2	2.0	1	mg/L	CET
BOD	02	E1640606	SM5210B-2016	10/04/2024 09:40	10/04/2024 09:40	>42353		0.2	2.0	1	mg/L	CET
Cyanide	02	57-12-5	SW9012B	10/10/2024 12:00	10/10/2024 15:23	0.10	CI	0.05	0.05	5	mg/L	MKS
COD	02	NA	SM5220D-2011	10/17/2024 13:45	10/17/2024 13:45	83300		10000	10000	1000	mg/L	TEG
Nitrate as N	02	14797-55-8	Calc.	10/08/2024 10:00	10/08/2024 17:59	BLOD		10.0	50.0	1000	mg/L	KJM
Nitrate+Nitrite as N	02	E701177	SM4500-NO3F-2016	10/08/2024 10:00	10/08/2024 17:59	BLOD		0.50	0.50	5	mg/L	BKR
Nitrite as N	02	14797-65-0	SM4500-NO2B-2011	10/04/2024 09:00	10/04/2024 09:00	BLOD		10.0	50.0	1000	mg/L	KJM
Total Recoverable Phenolics	02	NA	SW9065	10/17/2024 16:56	10/17/2024 16:56	37.6		3.00	5.00	100	mg/L	SPH
TKN as N	02	E17148461	EPA351.2 R2.0	10/16/2024 12:33	10/16/2024 12:33	2850		100	250	500	mg/L	SPH

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Work Order: 24J0187

Client Sample ID: **Trip Blank** **Laboratory Sample ID:** **24J0187-03**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analyst
Volatile Organic Compounds by GCMS												
2-Butanone (MEK)	03	78-93-3	SW8260D	10/08/2024 17:18	10/08/2024 17:18	BLOD		3.00	10.0	1	ug/L	JWR
Acetone	03	67-64-1	SW8260D	10/08/2024 17:18	10/08/2024 17:18	BLOD		7.00	10.0	1	ug/L	JWR
Benzene	03	71-43-2	SW8260D	10/08/2024 17:18	10/08/2024 17:18	BLOD		0.40	1.00	1	ug/L	JWR
Ethylbenzene	03	100-41-4	SW8260D	10/08/2024 17:18	10/08/2024 17:18	BLOD		0.40	1.00	1	ug/L	JWR
Toluene	03	108-88-3	SW8260D	10/08/2024 17:18	10/08/2024 17:18	BLOD		0.50	1.00	1	ug/L	JWR
Xylenes, Total	03	1330-20-7	SW8260D	10/08/2024 17:18	10/08/2024 17:18	BLOD		1.00	3.00	1	ug/L	JWR
Tetrahydrofuran	03	109-99-9	SW8260D	10/08/2024 17:18	10/08/2024 17:18	BLOD		10.0	10.0	1	ug/L	JWR
Surr: 1,2-Dichloroethane-d4 (Surr)	*03*	*78.3 %*	*70-120*	*10/08/2024 17:18*	*10/08/2024 17:18*							
Surr: 4-Bromofluorobenzene (Surr)	*03*	*95.9 %*	*75-120*	*10/08/2024 17:18*	*10/08/2024 17:18*							
Surr: Dibromofluoromethane (Surr)	*03*	*80.3 %*	*70-130*	*10/08/2024 17:18*	*10/08/2024 17:18*							
Surr: Toluene-d8 (Surr)	*03*	*96.5 %*	*70-130*	*10/08/2024 17:18*	*10/08/2024 17:18*							

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Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0195 - EPA200.2R2.8/SW3005A-ICPMS										
Blank (BHJ0195-BLK1)				Prepared: 10/04/2024 Analyzed: 10/10/2024						
Mercury	ND	0.200	ug/L							
Arsenic	ND	1.0	ug/L							
Barium	ND	5.00	ug/L							
Cadmium	ND	1.00	ug/L							
Chromium	ND	1.00	ug/L							
Copper	ND	1.00	ug/L							
Lead	ND	1.0	ug/L							
Nickel	ND	1.000	ug/L							
Selenium	ND	1.00	ug/L							
Silver	ND	1.00	ug/L							
Zinc	ND	5.00	ug/L							
LCS (BHJ0195-BS1)				Prepared: 10/04/2024 Analyzed: 10/10/2024						
Mercury	1.07	0.200	ug/L	1.00		107	80-120			
Arsenic	51	1.0	ug/L	50.0		103	80-120			
Barium	51.5	5.00	ug/L	50.0		103	80-120			
Cadmium	52.2	1.00	ug/L	50.0		104	80-120			
Chromium	51.0	1.00	ug/L	50.0		102	80-120			
Copper	50.2	1.00	ug/L	50.0		100	80-120			
Lead	54	1.0	ug/L	50.0		109	80-120			
Nickel	50.32	1.000	ug/L	50.0		101	80-120			
Selenium	52.1	1.00	ug/L	50.0		104	80-120			
Silver	10.4	1.00	ug/L	10.0		104	80-120			
Zinc	50.8	5.00	ug/L	50.0		102	80-120			
Matrix Spike (BHJ0195-MS1)	**Source: 24J0267-04**			Prepared: 10/04/2024 Analyzed: 10/10/2024						

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Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0195 - EPA200.2R2.8/SW3005A-ICPMS										
Matrix Spike (BHJ0195-MS1)	**Source: 24J0267-04**			Prepared: 10/04/2024 Analyzed: 10/10/2024						
Mercury	1.87	0.200	ug/L	1.00	0.920	95.0	70-130			
Arsenic	50	1.0	ug/L	50.0	BLOD	99.4	75-125			
Barium	100	5.00	ug/L	50.0	54.3	91.9	75-125			
Cadmium	50.1	1.00	ug/L	50.0	0.143	99.8	75-125			
Chromium	48.5	1.00	ug/L	50.0	BLOD	97.0	75-125			
Copper	48.3	1.00	ug/L	50.0	0.603	95.3	75-125			
Lead	53	1.0	ug/L	50.0	BLOD	105	75-125			
Nickel	48.68	1.000	ug/L	50.0	BLOD	97.4	75-125			
Selenium	49.4	1.00	ug/L	50.0	BLOD	98.8	75-125			
Silver	9.93	1.00	ug/L	10.0	BLOD	99.3	75-125			
Zinc	59.9	5.00	ug/L	50.0	12.1	95.6	75-125			
Matrix Spike (BHJ0195-MS2)	**Source: 24J0288-02**			Prepared: 10/04/2024 Analyzed: 10/10/2024						
Mercury	1.04	0.200	ug/L	1.00	BLOD	104	70-130			
Arsenic	49	1.0	ug/L	50.0	BLOD	98.7	75-125			
Barium	76.9	5.00	ug/L	50.0	26.6	101	75-125			
Cadmium	49.4	1.00	ug/L	50.0	BLOD	98.9	75-125			
Chromium	47.6	1.00	ug/L	50.0	0.452	94.3	75-125			
Copper	46.1	1.00	ug/L	50.0	0.741	90.8	75-125			
Lead	52	1.0	ug/L	50.0	BLOD	103	75-125			
Nickel	45.48	1.000	ug/L	50.0	BLOD	91.0	75-125			
Selenium	48.9	1.00	ug/L	50.0	BLOD	97.8	75-125			
Silver	9.80	1.00	ug/L	10.0	BLOD	98.0	75-125			
Zinc	48.6	5.00	ug/L	50.0	9.55	78.1	75-125			
Matrix Spike Dup (BHJ0195-MSD1)	**Source: 24J0267-04**			Prepared: 10/04/2024 Analyzed: 10/10/2024						

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Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0195 - EPA200.2R2.8/SW3005A-ICPMS										
Matrix Spike Dup (BHJ0195-MSD1)	**Source: 24J0267-04**			Prepared: 10/04/2024 Analyzed: 10/10/2024						
Mercury	1.86	0.200	ug/L	1.00	0.920	94.1	70-130	0.457	20	
Arsenic	49	1.0	ug/L	50.0	BLOD	98.0	75-125	1.43	20	
Barium	101	5.00	ug/L	50.0	54.3	93.5	75-125	0.796	20	
Cadmium	49.9	1.00	ug/L	50.0	0.143	99.4	75-125	0.407	20	
Chromium	48.2	1.00	ug/L	50.0	BLOD	96.3	75-125	0.689	20	
Copper	47.9	1.00	ug/L	50.0	0.603	94.5	75-125	0.864	20	
Lead	51	1.0	ug/L	50.0	BLOD	103	75-125	2.36	20	
Nickel	48.02	1.000	ug/L	50.0	BLOD	96.0	75-125	1.36	20	
Selenium	47.9	1.00	ug/L	50.0	BLOD	95.7	75-125	3.15	20	
Silver	9.92	1.00	ug/L	10.0	BLOD	99.2	75-125	0.0915	20	
Zinc	59.4	5.00	ug/L	50.0	12.1	94.5	75-125	0.899	20	
Matrix Spike Dup (BHJ0195-MSD2)	**Source: 24J0288-02**			Prepared: 10/04/2024 Analyzed: 10/10/2024						
Mercury	0.902	0.200	ug/L	1.00	BLOD	90.2	70-130	14.3	20	
Arsenic	48	1.0	ug/L	50.0	BLOD	96.7	75-125	2.08	20	
Barium	74.5	5.00	ug/L	50.0	26.6	96.0	75-125	3.13	20	
Cadmium	48.3	1.00	ug/L	50.0	BLOD	96.7	75-125	2.21	20	
Chromium	46.1	1.00	ug/L	50.0	0.452	91.3	75-125	3.20	20	
Copper	45.1	1.00	ug/L	50.0	0.741	88.8	75-125	2.21	20	
Lead	51	1.0	ug/L	50.0	BLOD	102	75-125	1.06	20	
Nickel	44.42	1.000	ug/L	50.0	BLOD	88.8	75-125	2.35	20	
Selenium	47.7	1.00	ug/L	50.0	BLOD	95.5	75-125	2.35	20	
Silver	9.63	1.00	ug/L	10.0	BLOD	96.3	75-125	1.74	20	
Zinc	46.3	5.00	ug/L	50.0	9.55	73.5	75-125	4.85	20	*M*

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Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
Blank (BHJ0364-BLK1)				Prepared & Analyzed: 10/08/2024						
2-Butanone (MEK)	ND	10.0	ug/L							
Acetone	ND	10.0	ug/L							
Benzene	ND	1.00	ug/L							
Ethylbenzene	ND	1.00	ug/L							
Toluene	ND	1.00	ug/L							
Xylenes, Total	ND	3.00	ug/L							
Surr: 1,2-Dichloroethane-d4 (Surr)	*43.9*		ug/L	*50.0*		*87.8*	*70-120*			
Surr: 4-Bromofluorobenzene (Surr)	*48.0*		ug/L	*50.0*		*96.1*	*75-120*			
Surr: Dibromofluoromethane (Surr)	*44.8*		ug/L	*50.0*		*89.7*	*70-130*			
Surr: Toluene-d8 (Surr)	*49.2*		ug/L	*50.0*		*98.3*	*70-130*			
LCS (BHJ0364-BS1)				Prepared & Analyzed: 10/08/2024						
1,1,1,2-Tetrachloroethane	50.4	0.4	ug/L	50.0		101	80-130			
1,1,1-Trichloroethane	48.5	1	ug/L	50.0		96.9	65-130			
1,1,2,2-Tetrachloroethane	44.3	0.4	ug/L	50.0		88.6	65-130			
1,1,2-Trichloroethane	46.0	1	ug/L	50.0		92.0	75-125			
1,1-Dichloroethane	50.8	1	ug/L	50.0		102	70-135			
1,1-Dichloroethylene	49.3	1	ug/L	50.0		98.6	70-130			
1,1-Dichloropropene	51.8	1	ug/L	50.0		104	75-135			
1,2,3-Trichlorobenzene	51.6	1	ug/L	50.0		103	55-140			
1,2,3-Trichloropropane	40.0	1	ug/L	50.0		80.0	75-125			
1,2,4-Trichlorobenzene	52.2	1	ug/L	50.0		104	65-135			
1,2,4-Trimethylbenzene	53.2	1	ug/L	50.0		106	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	40.0	1	ug/L	50.0		79.9	50-130			
1,2-Dibromoethane (EDB)	46.6	1	ug/L	50.0		93.2	80-120			

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Date Issued: 10/28/2024 5:09:44PM
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Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
LCS (BHJ0364-BS1)				Prepared & Analyzed: 10/08/2024						
1,2-Dichlorobenzene	53.2	0.5	ug/L	50.0		106	70-120			
1,2-Dichloroethane	43.7	1	ug/L	50.0		87.4	70-130			
1,2-Dichloropropane	52.9	0.5	ug/L	50.0		106	75-125			
1,3,5-Trimethylbenzene	54.1	1	ug/L	50.0		108	75-125			
1,3-Dichlorobenzene	55.0	1	ug/L	50.0		110	75-125			
1,3-Dichloropropane	45.7	1	ug/L	50.0		91.4	75-125			
1,4-Dichlorobenzene	53.9	1	ug/L	50.0		108	75-125			
2,2-Dichloropropane	52.3	1	ug/L	50.0		105	70-135			
2-Butanone (MEK)	33.3	10	ug/L	50.0		66.6	30-150			
2-Chlorotoluene	51.2	1	ug/L	50.0		102	75-125			
2-Hexanone (MBK)	38.4	5	ug/L	50.0		76.9	55-130			
4-Chlorotoluene	54.8	1	ug/L	50.0		110	75-130			
4-Isopropyltoluene	57.8	1	ug/L	50.0		116	75-130			
4-Methyl-2-pentanone (MIBK)	37.9	5	ug/L	50.0		75.9	60-135			
Acetone	38.2	10	ug/L	50.0		76.5	40-140			
Benzene	51.4	1	ug/L	50.0		103	80-120			
Bromobenzene	45.8	1	ug/L	50.0		91.6	75-125			
Bromochloromethane	44.2	1	ug/L	50.0		88.4	65-130			
Bromodichloromethane	46.7	0.5	ug/L	50.0		93.5	75-120			
Bromoform	49.0	1	ug/L	50.0		98.1	70-130			
Bromomethane	49.7	1	ug/L	50.0		99.5	30-145			
Carbon disulfide	40.8	10	ug/L	50.0		81.6	35-160			
Carbon tetrachloride	52.5	1	ug/L	50.0		105	65-140			
Chlorobenzene	52.4	1	ug/L	50.0		105	80-120			
Chloroethane	43.8	1	ug/L	50.0		87.7	60-135			

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Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
LCS (BHJ0364-BS1)				Prepared & Analyzed: 10/08/2024						
Chloroform	46.8	0.5	ug/L	50.0		93.7	65-135			
Chloromethane	67.0	1	ug/L	50.0		134	40-125			*L*
cis-1,2-Dichloroethylene	47.7	1	ug/L	50.0		95.5	70-125			
cis-1,3-Dichloropropene	48.9	1	ug/L	50.0		97.9	70-130			
Dibromochloromethane	46.9	0.5	ug/L	50.0		93.8	60-135			
Dibromomethane	49.4	1	ug/L	50.0		98.8	75-125			
Dichlorodifluoromethane	84.6	1	ug/L	50.0		169	30-155			*L*
Ethylbenzene	52.2	1	ug/L	50.0		104	75-125			
Hexachlorobutadiene	57.4	0.8	ug/L	50.0		115	50-140			
Isopropylbenzene	46.3	1	ug/L	50.0		92.6	75-125			
m+p-Xylenes	104	2	ug/L	100		104	75-130			
Methylene chloride	46.0	4	ug/L	50.0		92.0	55-140			
Methyl-t-butyl ether (MTBE)	44.1	1	ug/L	50.0		88.2	65-125			
Naphthalene	51.2	1	ug/L	50.0		102	55-140			
n-Butylbenzene	56.0	1	ug/L	50.0		112	70-135			
n-Propylbenzene	52.8	1	ug/L	50.0		106	70-130			
o-Xylene	51.0	1	ug/L	50.0		102	80-120			
sec-Butylbenzene	60.3	1	ug/L	50.0		121	70-125			
Styrene	50.0	1	ug/L	50.0		100	65-135			
tert-Butylbenzene	55.2	1	ug/L	50.0		110	70-130			
Tetrachloroethylene (PCE)	56.0	1	ug/L	50.0		112	45-150			
Toluene	48.1	1	ug/L	50.0		96.2	75-120			
trans-1,2-Dichloroethylene	48.6	1	ug/L	50.0		97.2	60-140			
trans-1,3-Dichloropropene	49.5	1	ug/L	50.0		99.1	55-140			
Trichloroethylene	53.5	1	ug/L	50.0		107	70-125			

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Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
LCS (BHJ0364-BS1)				Prepared & Analyzed: 10/08/2024						
Trichlorofluoromethane	53.5	1	ug/L	50.0		107	60-145			
Vinyl chloride	51.3	0.5	ug/L	50.0		103	50-145			
Surr: 1,2-Dichloroethane-d4 (Surr)	*45.6*		ug/L	*50.0*		*91.1*	*70-120*			
Surr: 4-Bromofluorobenzene (Surr)	*47.8*		ug/L	*50.0*		*95.6*	*75-120*			
Surr: Dibromofluoromethane (Surr)	*46.0*		ug/L	*50.0*		*92.1*	*70-130*			
Surr: Toluene-d8 (Surr)	*48.2*		ug/L	*50.0*		*96.3*	*70-130*			
Matrix Spike (BHJ0364-MS1)	**Source: 24J0237-01**			Prepared & Analyzed: 10/09/2024						
1,1,1,2-Tetrachloroethane	51.6	0.4	ug/L	50.0	BLOD	103	80-130			
1,1,1-Trichloroethane	41.0	1	ug/L	50.0	BLOD	82.1	65-130			
1,1,2,2-Tetrachloroethane	47.8	0.4	ug/L	50.0	BLOD	95.6	65-130			
1,1,2-Trichloroethane	47.4	1	ug/L	50.0	BLOD	94.8	75-125			
1,1-Dichloroethane	44.6	1	ug/L	50.0	0.77	87.8	70-135			
1,1-Dichloroethylene	41.1	1	ug/L	50.0	BLOD	82.1	50-145			
1,1-Dichloropropene	44.1	1	ug/L	50.0	BLOD	88.1	75-135			
1,2,3-Trichlorobenzene	54.0	1	ug/L	50.0	BLOD	108	55-140			
1,2,3-Trichloropropane	43.0	1	ug/L	50.0	BLOD	85.9	75-125			
1,2,4-Trichlorobenzene	53.7	1	ug/L	50.0	BLOD	107	65-135			
1,2,4-Trimethylbenzene	54.7	1	ug/L	50.0	BLOD	109	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	42.1	1	ug/L	50.0	BLOD	84.2	50-130			
1,2-Dibromoethane (EDB)	50.1	1	ug/L	50.0	BLOD	100	80-120			
1,2-Dichlorobenzene	55.4	0.5	ug/L	50.0	BLOD	111	70-120			
1,2-Dichloroethane	39.6	1	ug/L	50.0	BLOD	79.2	70-130			
1,2-Dichloropropane	52.4	0.5	ug/L	50.0	BLOD	105	75-125			
1,3,5-Trimethylbenzene	54.6	1	ug/L	50.0	BLOD	109	75-124			

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Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
Matrix Spike (BHJ0364-MS1)	**Source: 24J0237-01**			Prepared & Analyzed: 10/09/2024						
1,3-Dichlorobenzene	56.8	1	ug/L	50.0	BLOD	114	75-125			
1,3-Dichloropropane	47.2	1	ug/L	50.0	BLOD	94.5	75-125			
1,4-Dichlorobenzene	55.3	1	ug/L	50.0	BLOD	111	75-125			
2,2-Dichloropropane	44.1	1	ug/L	50.0	BLOD	88.2	70-135			
2-Butanone (MEK)	28.4	10	ug/L	50.0	BLOD	56.8	30-150			
2-Chlorotoluene	51.8	1	ug/L	50.0	BLOD	104	75-125			
2-Hexanone (MBK)	40.4	5	ug/L	50.0	BLOD	80.9	55-130			
4-Chlorotoluene	56.7	1	ug/L	50.0	BLOD	113	75-130			
4-Isopropyltoluene	58.1	1	ug/L	50.0	BLOD	116	75-130			
4-Methyl-2-pentanone (MIBK)	39.6	5	ug/L	50.0	BLOD	79.1	60-135			
Acetone	28.6	10	ug/L	50.0	BLOD	49.6	40-140			
Benzene	50.5	1	ug/L	50.0	BLOD	101	80-120			
Bromobenzene	47.2	1	ug/L	50.0	BLOD	94.3	75-125			
Bromochloromethane	39.5	1	ug/L	50.0	BLOD	79.1	65-130			
Bromodichloromethane	47.1	0.5	ug/L	50.0	BLOD	94.3	75-136			
Bromoform	50.4	1	ug/L	50.0	BLOD	101	70-130			
Bromomethane	39.7	1	ug/L	50.0	BLOD	79.5	30-145			
Carbon disulfide	36.5	10	ug/L	50.0	BLOD	72.5	35-160			
Carbon tetrachloride	50.8	1	ug/L	50.0	BLOD	102	65-140			
Chlorobenzene	54.0	1	ug/L	50.0	BLOD	108	80-120			
Chloroethane	37.5	1	ug/L	50.0	BLOD	75.0	60-135			
Chloroform	41.1	0.5	ug/L	50.0	BLOD	82.2	65-135			
Chloromethane	55.5	1	ug/L	50.0	BLOD	111	40-125			
cis-1,2-Dichloroethylene	42.0	1	ug/L	50.0	2.25	79.5	70-125			
cis-1,3-Dichloropropene	49.2	1	ug/L	50.0	BLOD	98.4	47-136			

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Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
Matrix Spike (BHJ0364-MS1)	**Source: 24J0237-01**			Prepared & Analyzed: 10/09/2024						
Dibromochloromethane	46.6	0.5	ug/L	50.0	BLOD	93.3	60-135			
Dibromomethane	49.8	1	ug/L	50.0	BLOD	99.7	75-125			
Dichlorodifluoromethane	74.1	1	ug/L	50.0	BLOD	148	30-155			
Ethylbenzene	53.8	1	ug/L	50.0	BLOD	107	75-125			
Hexachlorobutadiene	56.0	0.8	ug/L	50.0	BLOD	112	50-140			
Isopropylbenzene	47.5	1	ug/L	50.0	BLOD	94.9	75-125			
m+p-Xylenes	105	2	ug/L	100	BLOD	105	75-130			
Methylene chloride	39.4	4	ug/L	50.0	BLOD	77.4	55-140			
Methyl-t-butyl ether (MTBE)	39.2	1	ug/L	50.0	BLOD	78.4	65-125			
Naphthalene	54.0	1	ug/L	50.0	BLOD	108	55-140			
n-Butylbenzene	57.3	1	ug/L	50.0	BLOD	115	70-135			
n-Propylbenzene	53.4	1	ug/L	50.0	BLOD	107	70-130			
o-Xylene	51.6	1	ug/L	50.0	BLOD	103	80-120			
sec-Butylbenzene	61.3	1	ug/L	50.0	BLOD	123	70-125			
Styrene	51.5	1	ug/L	50.0	BLOD	103	65-135			
tert-Butylbenzene	56.4	1	ug/L	50.0	BLOD	113	70-130			
Tetrachloroethylene (PCE)	55.3	1	ug/L	50.0	BLOD	111	51-231			
Toluene	47.5	1	ug/L	50.0	BLOD	94.5	75-120			
trans-1,2-Dichloroethylene	41.4	1	ug/L	50.0	BLOD	82.8	60-140			
trans-1,3-Dichloropropene	50.0	1	ug/L	50.0	BLOD	99.9	55-140			
Trichloroethylene	52.6	1	ug/L	50.0	BLOD	105	70-125			
Trichlorofluoromethane	45.6	1	ug/L	50.0	BLOD	91.3	60-145			
Vinyl chloride	43.6	0.5	ug/L	50.0	1.97	83.3	50-145			
Surr: 1,2-Dichloroethane-d4 (Surr)	*39.8*		ug/L	*50.0*		*79.5*	*70-120*			

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Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
Matrix Spike (BHJ0364-MS1)	**Source: 24J0237-01**			Prepared & Analyzed: 10/09/2024						
Surr: 4-Bromofluorobenzene (Surr)	*48.8*		ug/L	*50.0*		*97.6*	*75-120*			
Surr: Dibromofluoromethane (Surr)	*39.6*		ug/L	*50.0*		*79.2*	*70-130*			
Surr: Toluene-d8 (Surr)	*47.5*		ug/L	*50.0*		*95.0*	*70-130*			
Matrix Spike Dup (BHJ0364-MSD1)	**Source: 24J0237-01**			Prepared & Analyzed: 10/09/2024						
1,1,1,2-Tetrachloroethane	49.4	0.4	ug/L	50.0	BLOD	98.7	80-130	4.32	30	
1,1,1-Trichloroethane	40.1	1	ug/L	50.0	BLOD	80.2	65-130	2.32	30	
1,1,2,2-Tetrachloroethane	46.0	0.4	ug/L	50.0	BLOD	92.1	65-130	3.71	30	
1,1,2-Trichloroethane	47.6	1	ug/L	50.0	BLOD	95.1	75-125	0.358	30	
1,1-Dichloroethane	43.5	1	ug/L	50.0	0.77	85.5	70-135	2.56	30	
1,1-Dichloroethylene	39.6	1	ug/L	50.0	BLOD	79.1	50-145	3.75	30	
1,1-Dichloropropene	42.9	1	ug/L	50.0	BLOD	85.7	75-135	2.74	30	
1,2,3-Trichlorobenzene	51.8	1	ug/L	50.0	BLOD	104	55-140	4.10	30	
1,2,3-Trichloropropane	41.4	1	ug/L	50.0	BLOD	82.9	75-125	3.55	30	
1,2,4-Trichlorobenzene	50.5	1	ug/L	50.0	BLOD	101	65-135	6.14	30	
1,2,4-Trimethylbenzene	53.0	1	ug/L	50.0	BLOD	106	75-130	3.12	30	
1,2-Dibromo-3-chloropropane (DBCP)	41.5	1	ug/L	50.0	BLOD	83.0	50-130	1.48	30	
1,2-Dibromoethane (EDB)	48.2	1	ug/L	50.0	BLOD	96.3	80-120	3.97	30	
1,2-Dichlorobenzene	53.1	0.5	ug/L	50.0	BLOD	106	70-120	4.35	30	
1,2-Dichloroethane	38.5	1	ug/L	50.0	BLOD	77.0	70-130	2.87	30	
1,2-Dichloropropane	51.0	0.5	ug/L	50.0	BLOD	102	75-125	2.75	30	
1,3,5-Trimethylbenzene	52.4	1	ug/L	50.0	BLOD	105	75-124	4.05	30	
1,3-Dichlorobenzene	54.3	1	ug/L	50.0	BLOD	109	75-125	4.49	30	
1,3-Dichloropropane	45.7	1	ug/L	50.0	BLOD	91.4	75-125	3.29	30	
1,4-Dichlorobenzene	53.2	1	ug/L	50.0	BLOD	106	75-125	3.78	30	

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Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
Matrix Spike Dup (BHJ0364-MSD1)	**Source: 24J0237-01**			Prepared & Analyzed: 10/09/2024						
2,2-Dichloropropane	42.3	1	ug/L	50.0	BLOD	84.6	70-135	4.12	30	
2-Butanone (MEK)	29.8	10	ug/L	50.0	BLOD	59.6	30-150	4.81	30	
2-Chlorotoluene	50.1	1	ug/L	50.0	BLOD	100	75-125	3.34	30	
2-Hexanone (MBK)	39.5	5	ug/L	50.0	BLOD	78.9	55-130	2.45	30	
4-Chlorotoluene	53.6	1	ug/L	50.0	BLOD	107	75-130	5.62	30	
4-Isopropyltoluene	55.7	1	ug/L	50.0	BLOD	111	75-130	4.22	30	
4-Methyl-2-pentanone (MIBK)	38.3	5	ug/L	50.0	BLOD	76.5	60-135	3.31	30	
Acetone	28.4	10	ug/L	50.0	BLOD	49.1	40-140	0.808	30	
Benzene	48.8	1	ug/L	50.0	BLOD	97.6	80-120	3.38	30	
Bromobenzene	45.6	1	ug/L	50.0	BLOD	91.3	75-125	3.30	30	
Bromochloromethane	38.1	1	ug/L	50.0	BLOD	76.2	65-130	3.68	30	
Bromodichloromethane	45.6	0.5	ug/L	50.0	BLOD	91.2	75-136	3.34	30	
Bromoform	49.2	1	ug/L	50.0	BLOD	98.4	70-130	2.41	30	
Bromomethane	39.6	1	ug/L	50.0	BLOD	79.1	30-145	0.454	30	
Carbon disulfide	33.0	10	ug/L	50.0	BLOD	65.5	35-160	10.2	30	
Carbon tetrachloride	48.8	1	ug/L	50.0	BLOD	97.6	65-140	4.14	30	
Chlorobenzene	51.6	1	ug/L	50.0	BLOD	103	80-120	4.53	30	
Chloroethane	36.1	1	ug/L	50.0	BLOD	72.2	60-135	3.78	30	
Chloroform	40.1	0.5	ug/L	50.0	BLOD	80.3	65-135	2.44	30	
Chloromethane	53.2	1	ug/L	50.0	BLOD	106	40-125	4.34	30	
cis-1,2-Dichloroethylene	41.5	1	ug/L	50.0	2.25	78.5	70-125	1.22	30	
cis-1,3-Dichloropropene	47.2	1	ug/L	50.0	BLOD	94.4	47-136	4.21	30	
Dibromochloromethane	45.8	0.5	ug/L	50.0	BLOD	91.7	60-135	1.71	30	
Dibromomethane	48.1	1	ug/L	50.0	BLOD	96.2	75-125	3.57	30	
Dichlorodifluoromethane	69.0	1	ug/L	50.0	BLOD	137	30-155	7.10	30	

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Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:09:44PM
Work Order: 24J0187

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
Matrix Spike Dup (BHJ0364-MSD1)	**Source: 24J0237-01**			Prepared & Analyzed: 10/09/2024						
Ethylbenzene	50.8	1	ug/L	50.0	BLOD	101	75-125	5.72	30	
Hexachlorobutadiene	54.2	0.8	ug/L	50.0	BLOD	108	50-140	3.34	30	
Isopropylbenzene	44.8	1	ug/L	50.0	BLOD	89.6	75-125	5.72	30	
m+p-Xylenes	101	2	ug/L	100	BLOD	100	75-130	4.21	30	
Methylene chloride	38.4	4	ug/L	50.0	BLOD	75.5	55-140	2.42	30	
Methyl-t-butyl ether (MTBE)	38.7	1	ug/L	50.0	BLOD	77.3	65-125	1.39	30	
Naphthalene	53.7	1	ug/L	50.0	BLOD	107	55-140	0.501	30	
n-Butylbenzene	54.6	1	ug/L	50.0	BLOD	109	70-135	4.70	30	
n-Propylbenzene	51.1	1	ug/L	50.0	BLOD	102	70-130	4.37	30	
o-Xylene	49.6	1	ug/L	50.0	BLOD	98.7	80-120	4.11	30	
sec-Butylbenzene	58.7	1	ug/L	50.0	BLOD	117	70-125	4.40	30	
Styrene	49.2	1	ug/L	50.0	BLOD	98.3	65-135	4.55	30	
tert-Butylbenzene	53.8	1	ug/L	50.0	BLOD	108	70-130	4.64	30	
Tetrachloroethylene (PCE)	52.5	1	ug/L	50.0	BLOD	105	51-231	5.16	30	
Toluene	46.0	1	ug/L	50.0	BLOD	91.5	75-120	3.12	30	
trans-1,2-Dichloroethylene	39.2	1	ug/L	50.0	BLOD	78.4	60-140	5.38	30	
trans-1,3-Dichloropropene	48.5	1	ug/L	50.0	BLOD	97.0	55-140	3.03	30	
Trichloroethylene	50.2	1	ug/L	50.0	BLOD	99.8	70-125	4.57	30	
Trichlorofluoromethane	43.3	1	ug/L	50.0	BLOD	86.7	60-145	5.21	30	
Vinyl chloride	42.4	0.5	ug/L	50.0	1.97	80.8	50-145	2.93	30	
Surr: 1,2-Dichloroethane-d4 (Surr)	*41.9*		ug/L	*50.0*		*83.8*	*70-120*			
Surr: 4-Bromofluorobenzene (Surr)	*47.5*		ug/L	*50.0*		*95.1*	*75-120*			
Surr: Dibromofluoromethane (Surr)	*40.1*		ug/L	*50.0*		*80.2*	*70-130*			
Surr: Toluene-d8 (Surr)	*47.6*		ug/L	*50.0*		*95.2*	*70-130*			

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Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0275 - SW3510C/EPA600-MS										
Blank (BHJ0275-BLK1)				Prepared & Analyzed: 10/07/2024						
Anthracene	ND	10.0	ug/L							
Surr: 2,4,6-Tribromophenol (Surr)	*67.2*		ug/L	*100*		*67.2*	*5-136*			
Surr: 2-Fluorobiphenyl (Surr)	*27.9*		ug/L	*50.0*		*55.8*	*9-117*			
Surr: 2-Fluorophenol (Surr)	*33.2*		ug/L	*100*		*33.2*	*5-60*			
Surr: Nitrobenzene-d5 (Surr)	*44.9*		ug/L	*50.0*		*89.9*	*5-151*			
Surr: Phenol-d5 (Surr)	*30.8*		ug/L	*100*		*30.8*	*5-60*			
Surr: p-Terphenyl-d14 (Surr)	*43.6*		ug/L	*50.0*		*87.2*	*5-141*			
LCS (BHJ0275-BS1)				Prepared & Analyzed: 10/07/2024						
1,2,4-Trichlorobenzene	30.9	10.0	ug/L	50.0		61.8	57-130			
1,2-Dichlorobenzene	30.7	10.0	ug/L	50.0		61.4	22-115			
1,3-Dichlorobenzene	30.3	10.0	ug/L	50.0		60.7	22-112			
1,4-Dichlorobenzene	30.8	10.0	ug/L	50.0		61.7	13-112			
2,4,6-Trichlorophenol	37.9	10.0	ug/L	50.0		75.8	52-129			
2,4-Dichlorophenol	34.4	10.0	ug/L	50.0		68.8	53-122			
2,4-Dimethylphenol	36.7	5.00	ug/L	50.0		73.5	42-120			
2,4-Dinitrophenol	32.5	50.0	ug/L	50.0		64.9	48-127			
2,4-Dinitrotoluene	43.5	10.0	ug/L	50.0		87.0	10-173			
2,6-Dinitrotoluene	40.7	10.0	ug/L	50.0		81.5	68-137			
2-Chloronaphthalene	32.0	10.0	ug/L	50.0		64.1	65-120			*L*
2-Chlorophenol	32.8	10.0	ug/L	50.0		65.5	36-120			
2-Nitrophenol	37.0	10.0	ug/L	50.0		74.0	45-167			
3,3'-Dichlorobenzidine	23.9	10.0	ug/L	50.0		47.8	10-213			
4,6-Dinitro-2-methylphenol	42.2	50.0	ug/L	50.0		84.3	53-130			
4-Bromophenyl phenyl ether	31.3	10.0	ug/L	50.0		62.7	65-120			*L*

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Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0275 - SW3510C/EPA600-MS										
LCS (BHJ0275-BS1)				Prepared & Analyzed: 10/07/2024						
4-Chlorophenyl phenyl ether	33.6	10.0	ug/L	50.0		67.2	38-145			
4-Nitrophenol	17.2	50.0	ug/L	50.0		34.3	13-129			
Acenaphthene	33.4	10.0	ug/L	50.0		66.8	60-132			
Acenaphthylene	34.6	10.0	ug/L	50.0		69.1	54-126			
Acetophenone	31.5	20.0	ug/L	50.0		63.0	0-200			
Anthracene	31.4	10.0	ug/L	50.0		62.7	43-120			
Benzo (a) anthracene	37.3	10.0	ug/L	50.0		74.6	42-133			
Benzo (a) pyrene	41.2	10.0	ug/L	50.0		82.4	32-148			
Benzo (b) fluoranthene	44.3	10.0	ug/L	50.0		88.7	42-140			
Benzo (g,h,i) perylene	58.3	10.0	ug/L	50.0		117	10-195			
Benzo (k) fluoranthene	36.5	10.0	ug/L	50.0		73.1	25-146			
bis (2-Chloroethoxy) methane	32.0	10.0	ug/L	50.0		63.9	49-165			
bis (2-Chloroethyl) ether	33.6	10.0	ug/L	50.0		67.3	43-126			
2,2'-Oxybis (1-chloropropane)	34.0	10.0	ug/L	50.0		68.0	63-139			
bis (2-Ethylhexyl) phthalate	43.5	10.0	ug/L	50.0		87.0	29-137			
Butyl benzyl phthalate	41.2	10.0	ug/L	50.0		82.5	10-140			
Chrysene	37.2	10.0	ug/L	50.0		74.5	44-140			
Dibenz (a,h) anthracene	54.2	10.0	ug/L	50.0		108	10-200			
Diethyl phthalate	41.7	10.0	ug/L	50.0		83.5	10-120			
Dimethyl phthalate	38.0	10.0	ug/L	50.0		76.0	10-120			
Di-n-butyl phthalate	37.5	10.0	ug/L	50.0		75.1	10-120			
Di-n-octyl phthalate	44.1	10.0	ug/L	50.0		88.2	19-132			
Fluoranthene	35.1	10.0	ug/L	50.0		70.2	43-121			
Fluorene	35.2	10.0	ug/L	50.0		70.3	70-120			
Hexachlorobenzene	33.8	1.00	ug/L	50.0		67.7	10-142			

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Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0275 - SW3510C/EPA600-MS										
LCS (BHJ0275-BS1)				Prepared & Analyzed: 10/07/2024						
Hexachlorobutadiene	39.0	10.0	ug/L	50.0		78.1	38-120			
Hexachlorocyclopentadiene	34.0	10.0	ug/L	50.0		67.9	10-76			
Hexachloroethane	38.9	10.0	ug/L	50.0		77.7	55-120			
Indeno (1,2,3-cd) pyrene	54.6	10.0	ug/L	50.0		109	10-151			
Isophorone	22.1	10.0	ug/L	50.0		44.2	47-180			*L*
Naphthalene	30.6	5.00	ug/L	50.0		61.1	36-120			
Nitrobenzene	42.2	10.0	ug/L	50.0		84.4	54-158			
n-Nitrosodimethylamine	20.2	10.0	ug/L	50.0		40.3	10-85			
n-Nitrosodi-n-propylamine	35.2	10.0	ug/L	50.0		70.3	14-198			
n-Nitrosodiphenylamine	28.4	10.0	ug/L	50.0		56.8	12-97			
p-Chloro-m-cresol	40.0	10.0	ug/L	50.0		79.9	10-142			
Pentachloronitrobenzene (quintozene)	ND	10.0	ug/L				0-200			
Pentachlorophenol	22.5	20.0	ug/L	50.0		45.1	38-152			
Phenanthrene	39.3	10.0	ug/L	50.0		78.6	65-120			
Phenol	15.9	10.0	ug/L	50.5		31.4	17-120			
Pyrene	43.6	10.0	ug/L	50.0		87.3	70-120			
Pyridine	20.0	10.0	ug/L	50.0		40.1	10-103			
Surr: 2,4,6-Tribromophenol (Surr)	*68.4*		ug/L	*100*		*68.4*	*5-136*			
Surr: 2-Fluorobiphenyl (Surr)	*26.9*		ug/L	*50.0*		*53.9*	*9-117*			
Surr: 2-Fluorophenol (Surr)	*29.9*		ug/L	*100*		*29.9*	*5-60*			
Surr: Nitrobenzene-d5 (Surr)	*41.7*		ug/L	*50.0*		*83.5*	*5-151*			
Surr: Phenol-d5 (Surr)	*28.0*		ug/L	*100*		*28.0*	*5-60*			
Surr: p-Terphenyl-d14 (Surr)	*41.4*		ug/L	*50.0*		*82.9*	*5-141*			
Matrix Spike (BHJ0275-MS1)		**Source: 24J0267-04**		Prepared & Analyzed: 10/07/2024						

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Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0275 - SW3510C/EPA600-MS										
Matrix Spike (BHJ0275-MS1)	**Source: 24J0267-04**			Prepared & Analyzed: 10/07/2024						
1,2,4-Trichlorobenzene	23.8	10.0	ug/L	46.7	BLOD	50.9	44-142			
1,2-Dichlorobenzene	20.7	10.0	ug/L	46.7	BLOD	44.3	22-115			
1,3-Dichlorobenzene	20.4	10.0	ug/L	46.7	BLOD	43.7	22-112			
1,4-Dichlorobenzene	21.4	10.0	ug/L	46.7	BLOD	45.8	13-112			
2,4,6-Trichlorophenol	29.6	10.0	ug/L	46.7	BLOD	63.3	37-144			
2,4-Dichlorophenol	30.6	10.0	ug/L	46.7	BLOD	65.5	39-135			
2,4-Dimethylphenol	25.1	5.00	ug/L	46.7	BLOD	53.6	32-120			
2,4-Dinitrophenol	29.4	50.0	ug/L	46.7	BLOD	62.9	39-139			
2,4-Dinitrotoluene	33.7	10.0	ug/L	46.7	BLOD	72.2	10-191			
2,6-Dinitrotoluene	33.6	10.0	ug/L	46.7	BLOD	71.8	50-158			
2-Chloronaphthalene	25.6	10.0	ug/L	46.7	BLOD	54.8	60-120			*M*
2-Chlorophenol	26.7	10.0	ug/L	46.7	BLOD	57.0	23-134			
2-Nitrophenol	35.1	10.0	ug/L	46.7	BLOD	75.1	29-182			
3,3'-Dichlorobenzidine	16.5	10.0	ug/L	46.7	BLOD	35.4	10-262			
4,6-Dinitro-2-methylphenol	34.9	50.0	ug/L	46.7	BLOD	74.8	10-181			
4-Bromophenyl phenyl ether	27.1	10.0	ug/L	46.7	BLOD	58.0	53-127			
4-Chlorophenyl phenyl ether	28.7	10.0	ug/L	46.7	BLOD	61.4	25-158			
4-Nitrophenol	12.1	50.0	ug/L	46.7	BLOD	26.0	10-132			
Acenaphthene	28.1	10.0	ug/L	46.7	BLOD	60.1	47-145			
Acenaphthylene	27.7	10.0	ug/L	46.7	BLOD	59.3	33-145			
Acetophenone	28.1	20.0	ug/L	46.7	BLOD	60.2	0-200			
Anthracene	27.2	10.0	ug/L	46.7	BLOD	58.2	27-133			
Benzo (a) anthracene	31.0	10.0	ug/L	46.7	BLOD	66.3	33-143			
Benzo (a) pyrene	32.9	10.0	ug/L	46.7	BLOD	70.4	17-163			
Benzo (b) fluoranthene	36.8	10.0	ug/L	46.7	BLOD	78.7	24-159			

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Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0275 - SW3510C/EPA600-MS										
Matrix Spike (BHJ0275-MS1)	**Source: 24J0267-04**			Prepared & Analyzed: 10/07/2024						
Benzo (g,h,i) perylene	46.8	10.0	ug/L	46.7	BLOD	100	10-219			
Benzo (k) fluoranthene	29.9	10.0	ug/L	46.7	BLOD	64.0	11-162			
bis (2-Chloroethoxy) methane	29.1	10.0	ug/L	46.7	BLOD	62.2	33-184			
bis (2-Chloroethyl) ether	27.8	10.0	ug/L	46.7	BLOD	59.5	12-158			
2,2'-Oxybis (1-chloropropane)	26.0	10.0	ug/L	46.7	BLOD	55.5	36-166			
bis (2-Ethylhexyl) phthalate	35.5	10.0	ug/L	46.7	BLOD	76.0	10-158			
Butyl benzyl phthalate	36.7	10.0	ug/L	46.7	BLOD	78.6	10-152			
Chrysene	29.8	10.0	ug/L	46.7	BLOD	63.8	17-169			
Dibenz (a,h) anthracene	41.5	10.0	ug/L	46.7	BLOD	88.9	10-227			
Diethyl phthalate	34.4	10.0	ug/L	46.7	BLOD	73.7	10-120			
Dimethyl phthalate	31.1	10.0	ug/L	46.7	BLOD	66.6	10-120			
Di-n-butyl phthalate	34.4	10.0	ug/L	46.7	3.94	65.2	10-120			
Di-n-octyl phthalate	41.6	10.0	ug/L	46.7	BLOD	89.1	10-146			
Fluoranthene	32.1	10.0	ug/L	46.7	BLOD	68.7	26-137			
Fluorene	31.4	10.0	ug/L	46.7	BLOD	67.1	59-121			
Hexachlorobenzene	28.5	1.00	ug/L	46.7	BLOD	61.0	10-152			
Hexachlorobutadiene	27.3	10.0	ug/L	46.7	BLOD	58.5	24-120			
Hexachlorocyclopentadiene	31.6	10.0	ug/L	46.7	BLOD	67.5	10-90			
Hexachloroethane	29.2	10.0	ug/L	46.7	BLOD	62.4	40-120			
Indeno (1,2,3-cd) pyrene	41.3	10.0	ug/L	46.7	BLOD	88.4	10-171			
Isophorone	20.1	10.0	ug/L	46.7	BLOD	42.9	21-196			
Naphthalene	22.4	5.00	ug/L	46.7	BLOD	47.9	21-133			
Nitrobenzene	40.3	10.0	ug/L	46.7	BLOD	86.3	35-180			
n-Nitrosodimethylamine	16.6	10.0	ug/L	46.7	BLOD	35.4	10-85			
n-Nitrosodi-n-propylamine	31.7	10.0	ug/L	46.7	BLOD	67.8	10-230			

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Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0275 - SW3510C/EPA600-MS										
Matrix Spike (BHJ0275-MS1)	**Source: 24J0267-04**			Prepared & Analyzed: 10/07/2024						
n-Nitrosodiphenylamine	21.6	10.0	ug/L	46.7	BLOD	46.2	12-111			
p-Chloro-m-cresol	34.4	10.0	ug/L	46.7	BLOD	73.5	10-127			
Pentachloronitrobenzene (quintozene)	ND	10.0	ug/L		BLOD		0-200			
Pentachlorophenol	20.6	20.0	ug/L	46.7	BLOD	44.1	14-176			
Phenanthrene	37.2	10.0	ug/L	46.7	9.48	59.3	54-120			
Phenol	11.7	10.0	ug/L	47.2	BLOD	24.7	10-120			
Pyrene	36.7	10.0	ug/L	46.7	BLOD	78.6	52-120			
Pyridine	18.1	10.0	ug/L	46.7	BLOD	38.8	10-110			
Surr: 2,4,6-Tribromophenol (Surr)	*57.4*		ug/L	*93.5*		*61.4*	*5-136*			
Surr: 2-Fluorobiphenyl (Surr)	*24.2*		ug/L	*46.7*		*51.8*	*9-117*			
Surr: 2-Fluorophenol (Surr)	*24.6*		ug/L	*93.5*		*26.3*	*5-60*			
Surr: Nitrobenzene-d5 (Surr)	*40.2*		ug/L	*46.7*		*86.0*	*5-151*			
Surr: Phenol-d5 (Surr)	*20.9*		ug/L	*93.5*		*22.4*	*5-60*			
Surr: p-Terphenyl-d14 (Surr)	*28.4*		ug/L	*46.7*		*60.8*	*5-141*			
Matrix Spike Dup (BHJ0275-MSD1)	**Source: 24J0267-04**			Prepared & Analyzed: 10/07/2024						
1,2,4-Trichlorobenzene	27.1	10.0	ug/L	46.7	BLOD	58.1	44-142	13.3	20	
1,2-Dichlorobenzene	25.1	10.0	ug/L	46.7	BLOD	53.6	22-115	19.1	20	
1,3-Dichlorobenzene	24.4	10.0	ug/L	46.7	BLOD	52.1	22-112	17.6	20	
1,4-Dichlorobenzene	25.1	10.0	ug/L	46.7	BLOD	53.8	13-112	16.1	20	
2,4,6-Trichlorophenol	35.7	10.0	ug/L	46.7	BLOD	76.4	37-144	18.8	20	
2,4-Dichlorophenol	34.9	10.0	ug/L	46.7	BLOD	74.8	39-135	13.2	20	
2,4-Dimethylphenol	27.3	5.00	ug/L	46.7	BLOD	58.4	32-120	8.50	20	
2,4-Dinitrophenol	34.9	50.0	ug/L	46.7	BLOD	74.6	39-139	17.1	20	
2,4-Dinitrotoluene	37.4	10.0	ug/L	46.7	BLOD	80.0	10-191	10.3	20	

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Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0275 - SW3510C/EPA600-MS										
Matrix Spike Dup (BHJ0275-MSD1)	**Source: 24J0267-04**			Prepared & Analyzed: 10/07/2024						
2,6-Dinitrotoluene	35.6	10.0	ug/L	46.7	BLOD	76.3	50-158	6.00	20	
2-Chloronaphthalene	28.6	10.0	ug/L	46.7	BLOD	61.2	60-120	11.1	20	
2-Chlorophenol	30.6	10.0	ug/L	46.7	BLOD	65.5	23-134	13.8	20	
2-Nitrophenol	39.1	10.0	ug/L	46.7	BLOD	83.7	29-182	10.8	20	
3,3'-Dichlorobenzidine	19.9	10.0	ug/L	46.7	BLOD	42.7	10-262	18.8	20	
4,6-Dinitro-2-methylphenol	38.5	50.0	ug/L	46.7	BLOD	82.5	10-181	9.82	20	
4-Bromophenyl phenyl ether	29.1	10.0	ug/L	46.7	BLOD	62.2	53-127	7.03	20	
4-Chlorophenyl phenyl ether	30.6	10.0	ug/L	46.7	BLOD	65.4	25-158	6.37	20	
4-Nitrophenol	16.9	50.0	ug/L	46.7	BLOD	36.2	10-132	32.8	20	*P*
Acenaphthene	30.6	10.0	ug/L	46.7	BLOD	65.6	47-145	8.66	20	
Acenaphthylene	30.5	10.0	ug/L	46.7	BLOD	65.2	33-145	9.38	20	
Acetophenone	30.8	20.0	ug/L	46.7	BLOD	65.9	0-200	8.91	20	
Anthracene	30.6	10.0	ug/L	46.7	BLOD	65.5	27-133	11.8	20	
Benzo (a) anthracene	35.3	10.0	ug/L	46.7	BLOD	75.6	33-143	13.1	20	
Benzo (a) pyrene	39.0	10.0	ug/L	46.7	BLOD	83.5	17-163	17.1	20	
Benzo (b) fluoranthene	40.3	10.0	ug/L	46.7	BLOD	86.3	24-159	9.23	20	
Benzo (g,h,i) perylene	52.3	10.0	ug/L	46.7	BLOD	112	10-219	11.1	20	
Benzo (k) fluoranthene	33.7	10.0	ug/L	46.7	BLOD	72.2	11-162	12.1	20	
bis (2-Chloroethoxy) methane	34.3	10.0	ug/L	46.7	BLOD	73.3	33-184	16.4	20	
bis (2-Chloroethyl) ether	31.1	10.0	ug/L	46.7	BLOD	66.5	12-158	11.2	20	
2,2'-Oxybis (1-chloropropane)	29.7	10.0	ug/L	46.7	BLOD	63.6	36-166	13.5	20	
bis (2-Ethylhexyl) phthalate	37.9	10.0	ug/L	46.7	BLOD	81.2	10-158	6.56	20	
Butyl benzyl phthalate	38.1	10.0	ug/L	46.7	BLOD	81.6	10-152	3.77	20	
Chrysene	34.3	10.0	ug/L	46.7	BLOD	73.3	17-169	13.9	20	
Dibenz (a,h) anthracene	47.2	10.0	ug/L	46.7	BLOD	101	10-227	12.8	20	

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Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0275 - SW3510C/EPA600-MS										
Matrix Spike Dup (BHJ0275-MSD1)	**Source: 24J0267-04**			Prepared & Analyzed: 10/07/2024						
Diethyl phthalate	37.5	10.0	ug/L	46.7	BLOD	80.3	10-120	8.55	20	
Dimethyl phthalate	33.1	10.0	ug/L	46.7	BLOD	70.8	10-120	6.06	20	
Di-n-butyl phthalate	38.9	10.0	ug/L	46.7	3.94	74.7	10-120	12.2	20	
Di-n-octyl phthalate	41.8	10.0	ug/L	46.7	BLOD	89.4	10-146	0.269	20	
Fluoranthene	38.1	10.0	ug/L	46.7	BLOD	81.6	26-137	17.2	20	
Fluorene	31.9	10.0	ug/L	46.7	BLOD	68.3	59-121	1.71	20	
Hexachlorobenzene	32.3	1.00	ug/L	46.7	BLOD	69.1	10-152	12.3	20	
Hexachlorobutadiene	32.3	10.0	ug/L	46.7	BLOD	69.0	24-120	16.6	20	
Hexachlorocyclopentadiene	38.4	10.0	ug/L	46.7	BLOD	82.2	10-90	19.6	20	
Hexachloroethane	32.5	10.0	ug/L	46.7	BLOD	69.5	40-120	10.7	20	
Indeno (1,2,3-cd) pyrene	48.2	10.0	ug/L	46.7	BLOD	103	10-171	15.4	20	
Isophorone	22.2	10.0	ug/L	46.7	BLOD	47.6	21-196	10.3	20	
Naphthalene	26.0	5.00	ug/L	46.7	BLOD	55.7	21-133	15.1	20	
Nitrobenzene	42.2	10.0	ug/L	46.7	BLOD	90.3	35-180	4.51	20	
n-Nitrosodimethylamine	17.3	10.0	ug/L	46.7	BLOD	37.0	10-85	4.26	20	
n-Nitrosodi-n-propylamine	33.7	10.0	ug/L	46.7	BLOD	72.1	10-230	6.21	20	
n-Nitrosodiphenylamine	24.6	10.0	ug/L	46.7	BLOD	52.7	12-111	13.2	20	
p-Chloro-m-cresol	36.3	10.0	ug/L	46.7	BLOD	77.6	10-127	5.42	20	
Pentachloronitrobenzene (quintozene)	ND	10.0	ug/L		BLOD		0-200		20	
Pentachlorophenol	24.5	20.0	ug/L	46.7	BLOD	52.5	14-176	17.4	20	
Phenanthrene	42.6	10.0	ug/L	46.7	9.48	70.8	54-120	13.5	20	
Phenol	13.4	10.0	ug/L	47.2	BLOD	28.4	10-120	14.1	20	
Pyrene	40.7	10.0	ug/L	46.7	BLOD	87.1	52-120	10.2	20	
Pyridine	18.0	10.0	ug/L	46.7	BLOD	38.6	10-110	0.465	20	

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Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0275 - SW3510C/EPA600-MS										
Matrix Spike Dup (BHJ0275-MSD1)	**Source: 24J0267-04**			Prepared & Analyzed: 10/07/2024						
Surr: 2,4,6-Tribromophenol (Surr)	*65.6*		ug/L	*93.5*		*70.2*	*5-136*			
Surr: 2-Fluorobiphenyl (Surr)	*29.3*		ug/L	*46.7*		*62.8*	*9-117*			
Surr: 2-Fluorophenol (Surr)	*27.7*		ug/L	*93.5*		*29.7*	*5-60*			
Surr: Nitrobenzene-d5 (Surr)	*41.5*		ug/L	*46.7*		*88.7*	*5-151*			
Surr: Phenol-d5 (Surr)	*23.1*		ug/L	*93.5*		*24.7*	*5-60*			
Surr: p-Terphenyl-d14 (Surr)	*34.2*		ug/L	*46.7*		*73.1*	*5-141*			

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Wet Chemistry Analysis - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0131 - No Prep Wet Chem										
Blank (BHJ0131-BLK1)				Prepared & Analyzed: 10/03/2024						
Nitrite as N	ND	0.05	mg/L							
LCS (BHJ0131-BS1)				Prepared & Analyzed: 10/03/2024						
Nitrite as N	0.10	0.05	mg/L	0.100		102	80-120			
Matrix Spike (BHJ0131-MS1)	**Source: 24J0107-01**			Prepared & Analyzed: 10/03/2024						
Nitrite as N	0.68	0.25	mg/L	0.500	0.20	94.0	80-120			
Matrix Spike Dup (BHJ0131-MSD1)	**Source: 24J0107-01**			Prepared & Analyzed: 10/03/2024						
Nitrite as N	0.68	0.25	mg/L	0.500	0.20	95.0	80-120	0.738	20	
Batch BHJ0191 - No Prep Wet Chem										
Blank (BHJ0191-BLK1)				Prepared & Analyzed: 10/04/2024						
Nitrite as N	ND	0.05	mg/L							
LCS (BHJ0191-BS1)				Prepared & Analyzed: 10/04/2024						
Nitrite as N	0.10	0.05	mg/L	0.100		99.0	80-120			
Matrix Spike (BHJ0191-MS1)	**Source: 24J0186-04**			Prepared & Analyzed: 10/04/2024						
Nitrite as N	0.10	0.05	mg/L	0.100	BLOD	97.0	80-120			
Matrix Spike Dup (BHJ0191-MSD1)	**Source: 24J0186-04**			Prepared & Analyzed: 10/04/2024						
Nitrite as N	0.10	0.05	mg/L	0.100	BLOD	97.0	80-120	0.00	20	
Batch BHJ0214 - No Prep Wet Chem										
Blank (BHJ0214-BLK1)				Prepared & Analyzed: 10/04/2024						
BOD	ND	2.0	mg/L							

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Wet Chemistry Analysis - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0214 - No Prep Wet Chem										
LCS (BHJ0214-BS1)				Prepared & Analyzed: 10/04/2024						
BOD	219	2	mg/L	198		111	84.6-115.4			
Duplicate (BHJ0214-DUP1)		**Source: 24J0246-04**		Prepared & Analyzed: 10/04/2024						
BOD	2.4	2.0	mg/L		2.3			3.36	20	
Batch BHJ0359 - No Prep Wet Chem										
Blank (BHJ0359-BLK1)				Prepared & Analyzed: 10/08/2024						
Nitrate+Nitrite as N	ND	0.10	mg/L							
LCS (BHJ0359-BS1)				Prepared & Analyzed: 10/08/2024						
Nitrate+Nitrite as N	1.07	0.1	mg/L	1.00		107	90-110			
Matrix Spike (BHJ0359-MS1)		**Source: 24J0186-04**		Prepared & Analyzed: 10/08/2024						
Nitrate+Nitrite as N	8.00	0.50	mg/L	5.00	2.70	106	90-120			
Matrix Spike Dup (BHJ0359-MSD1)		**Source: 24J0186-04**		Prepared & Analyzed: 10/08/2024						
Nitrate+Nitrite as N	7.84	0.50	mg/L	5.00	2.70	103	90-120	1.89	20	
Batch BHJ0477 - No Prep Wet Chem										
Blank (BHJ0477-BLK1)				Prepared & Analyzed: 10/10/2024						
Cyanide	ND	0.01	mg/L							
LCS (BHJ0477-BS1)				Prepared & Analyzed: 10/10/2024						
Cyanide	0.22	0.01	mg/L	0.250		89.0	80-120			

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Wet Chemistry Analysis - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0477 - No Prep Wet Chem										
Matrix Spike (BHJ0477-MS1)		**Source: 24J0267-04**		Prepared & Analyzed: 10/10/2024						
Cyanide	0.24	0.01	mg/L	0.250	BLOD	97.7	80-120			
Matrix Spike (BHJ0477-MS2)		**Source: 24J0346-05**		Prepared & Analyzed: 10/10/2024						
Cyanide	0.23	0.01	mg/L	0.250	BLOD	93.0	80-120			
Matrix Spike Dup (BHJ0477-MSD1)		**Source: 24J0267-04**		Prepared & Analyzed: 10/10/2024						
Cyanide	0.25	0.01	mg/L	0.250	BLOD	99.1	80-120	1.46	20	
Matrix Spike Dup (BHJ0477-MSD2)		**Source: 24J0346-05**		Prepared & Analyzed: 10/10/2024						
Cyanide	0.23	0.01	mg/L	0.250	BLOD	91.1	80-120	2.04	20	
Batch BHJ0664 - No Prep Wet Chem										
Blank (BHJ0664-BLK1)				Prepared & Analyzed: 10/15/2024						
Ammonia as N	ND	0.10	mg/L							
LCS (BHJ0664-BS1)				Prepared & Analyzed: 10/15/2024						
Ammonia as N	1.08	0.1	mg/L	1.00		108	90-110			
Matrix Spike (BHJ0664-MS1)		**Source: 24J0697-10**		Prepared & Analyzed: 10/15/2024						
Ammonia as N	1.02	0.10	mg/L	1.00	BLOD	102	89.3-131			
Matrix Spike (BHJ0664-MS2)		**Source: 24J0186-04**		Prepared & Analyzed: 10/15/2024						
Ammonia as N	1.01	0.10	mg/L	1.00	BLOD	101	89.3-131			
Matrix Spike Dup (BHJ0664-MSD1)		**Source: 24J0697-10**		Prepared & Analyzed: 10/15/2024						
Ammonia as N	1.02	0.10	mg/L	1.00	BLOD	102	89.3-131	0.687	20	

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Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0664 - No Prep Wet Chem										
Matrix Spike Dup (BHJ0664-MSD2)	**Source: 24J0186-04**			Prepared & Analyzed: 10/15/2024						
Ammonia as N	1.01	0.10	mg/L	1.00	BLOD	101	89.3-131	0.396	20	
Batch BHJ0686 - No Prep Wet Chem										
Blank (BHJ0686-BLK1)				Prepared & Analyzed: 10/16/2024						
TKN as N	ND	0.50	mg/L							
LCS (BHJ0686-BS1)				Prepared & Analyzed: 10/16/2024						
TKN as N	5.37	0.5	mg/L	5.00		107	90-110			
Matrix Spike (BHJ0686-MS1)	**Source: 24J0225-01**			Prepared & Analyzed: 10/16/2024						
TKN as N	4.64	0.50	mg/L	5.00	BLOD	92.7	90-110			
Matrix Spike (BHJ0686-MS2)	**Source: 24J0251-01**			Prepared & Analyzed: 10/16/2024						
TKN as N	5.15	0.50	mg/L	5.00	BLOD	103	90-110			
Matrix Spike Dup (BHJ0686-MSD1)	**Source: 24J0225-01**			Prepared & Analyzed: 10/16/2024						
TKN as N	4.66	0.50	mg/L	5.00	BLOD	93.2	90-110	0.581	20	
Matrix Spike Dup (BHJ0686-MSD2)	**Source: 24J0251-01**			Prepared & Analyzed: 10/16/2024						
TKN as N	5.13	0.50	mg/L	5.00	BLOD	103	90-110	0.370	20	
Batch BHJ0789 - No Prep Wet Chem										
Blank (BHJ0789-BLK1)				Prepared & Analyzed: 10/17/2024						
COD	ND	10.0	mg/L							

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Wet Chemistry Analysis - Quality Control

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Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0789 - No Prep Wet Chem										
LCS (BHJ0789-BS1)				Prepared & Analyzed: 10/17/2024						
COD	48.3	10.0	mg/L	50.0		96.6	88-119			
Matrix Spike (BHJ0789-MS1)	**Source: 24J0274-01**			Prepared & Analyzed: 10/17/2024						
COD	44.4	10.0	mg/L	50.0	BLOD	88.8	72.4-130			
Matrix Spike Dup (BHJ0789-MSD1)	**Source: 24J0274-01**			Prepared & Analyzed: 10/17/2024						
COD	42.6	10.0	mg/L	50.0	BLOD	85.2	72.4-130	4.12	20	
Batch BHJ0820 - No Prep Wet Chem										
Blank (BHJ0820-BLK1)				Prepared & Analyzed: 10/17/2024						
Total Recoverable Phenolics	ND	0.050	mg/L							
LCS (BHJ0820-BS1)				Prepared & Analyzed: 10/17/2024						
Total Recoverable Phenolics	0.45	0.050	mg/L	0.510		89.0	80-120			
Matrix Spike (BHJ0820-MS1)	**Source: 24J0251-01**			Prepared & Analyzed: 10/17/2024						
Total Recoverable Phenolics	0.48	0.050	mg/L	0.500	BLOD	96.8	70-130			
Matrix Spike Dup (BHJ0820-MSD1)	**Source: 24J0251-01**			Prepared & Analyzed: 10/17/2024						
Total Recoverable Phenolics	0.48	0.050	mg/L	0.500	BLOD	95.6	70-130	1.25	20	

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Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Subcontracted Analysis			**Preparation Method:**		
24J0187-01		Subcontract			
24J0187-02		Subcontract			

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods			**Preparation Method:**	**EPA200.2R2.8/SW3005A-ICPMS**	
24J0187-01	50.0 mL / 50.0 mL	SW6020B	BHJ0195	SHJ0433	AJ40259
24J0187-02	50.0 mL / 50.0 mL	SW6020B	BHJ0195	SHJ0433	AJ40259
24J0187-02RE1	50.0 mL / 50.0 mL	SW6020B	BHJ0195	SHJ0433	AJ40259

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis			**Preparation Method:**	**No Prep Wet Chem**	
24J0187-01	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0131	SHJ0124	AD40276
24J0187-02	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0191	SHJ0173	AD40276
24J0187-01	300 mL / 300 mL	SM5210B-2016	BHJ0214	SHJ0392	
24J0187-02	300 mL / 300 mL	SM5210B-2016	BHJ0214	SHJ0392	
24J0187-01	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHJ0359	SHJ0327	AJ40240
24J0187-02	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHJ0359	SHJ0327	AJ40240
24J0187-01	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
24J0187-02	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
24J0187-01	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHJ0664	SHJ0605	AJ40291
24J0187-02	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHJ0664	SHJ0605	AJ40291
24J0187-01	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHJ0686	SHJ0659	AJ40300
24J0187-02	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHJ0686	SHJ0659	AJ40300

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Work Order: 24J0187

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis			**Preparation Method:**	**No Prep Wet Chem**	
24J0187-01	2.00 mL / 2.00 mL	SM5220D-2011	BHJ0789	SHJ0711	AJ40312
24J0187-02	2.00 mL / 2.00 mL	SM5220D-2011	BHJ0789	SHJ0711	AJ40312
24J0187-01	0.500 mL / 10.0 mL	SW9065	BHJ0820	SHJ0725	AJ40315
24J0187-02	5.00 mL / 10.0 mL	SW9065	BHJ0820	SHJ0725	AJ40315

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Semivolatile Organic Compounds by GCMS			**Preparation Method:**	**SW3510C/EPA600-MS**	
24J0187-01	500 mL / 0.500 mL	SW8270E	BHJ0275	SHJ0301	AG40237
24J0187-02	500 mL / 2.00 mL	SW8270E	BHJ0275	SHJ0301	AG40237

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Volatile Organic Compounds by GCMS			**Preparation Method:**	**SW5030B-MS**	
24J0187-01	5.00 mL / 5.00 mL	SW8260D	BHJ0364	SHJ0337	AJ40229
24J0187-01RE1	5.00 mL / 5.00 mL	SW8260D	BHJ0364	SHJ0337	AJ40229
24J0187-02	5.00 mL / 5.00 mL	SW8260D	BHJ0364	SHJ0337	AJ40229
24J0187-02RE1	5.00 mL / 5.00 mL	SW8260D	BHJ0364	SHJ0337	AJ40229
24J0187-03	5.00 mL / 5.00 mL	SW8260D	BHJ0364	SHJ0337	AJ40229

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Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:09:44PM
Work Order: 24J0187

QC Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods			**Preparation Method:**	**EPA200.2R2.8/SW3005A-ICPMS**	
BHJ0195-BLK1	50.0 mL / 50.0 mL	SW6020B	BHJ0195	SHJ0425	AJ40257
BHJ0195-BS1	50.0 mL / 50.0 mL	SW6020B	BHJ0195	SHJ0425	AJ40257
BHJ0195-MS1	50.0 mL / 50.0 mL	SW6020B	BHJ0195	SHJ0425	AJ40257
BHJ0195-MS2	50.0 mL / 50.0 mL	SW6020B	BHJ0195	SHJ0425	AJ40257
BHJ0195-MSD1	50.0 mL / 50.0 mL	SW6020B	BHJ0195	SHJ0425	AJ40257
BHJ0195-MSD2	50.0 mL / 50.0 mL	SW6020B	BHJ0195	SHJ0425	AJ40257

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis			**Preparation Method:**	**No Prep Wet Chem**	
BHJ0131-BLK1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0131	SHJ0124	AD40276
BHJ0131-BS1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0131	SHJ0124	AD40276
BHJ0131-MRL1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0131	SHJ0124	AD40276
BHJ0131-MS1	5.00 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0131	SHJ0124	AD40276
BHJ0131-MSD1	5.00 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0131	SHJ0124	AD40276
BHJ0191-BLK1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0191	SHJ0173	AD40276
BHJ0191-BS1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0191	SHJ0173	AD40276
BHJ0191-MRL1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0191	SHJ0173	AD40276
BHJ0191-MS1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0191	SHJ0173	AD40276
BHJ0191-MSD1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0191	SHJ0173	AD40276
BHJ0214-BLK1	300 mL / 300 mL	SM5210B-2016	BHJ0214	SHJ0392	
BHJ0214-BS1	300 mL / 300 mL	SM5210B-2016	BHJ0214	SHJ0392	
BHJ0214-DUP1	300 mL / 300 mL	SM5210B-2016	BHJ0214	SHJ0392	
BHJ0359-BLK1	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHJ0359	SHJ0327	AJ40240
BHJ0359-BS1	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHJ0359	SHJ0327	AJ40240
BHJ0359-MS1	2.00 mL / 10.0 mL	SM4500-NO3F-2016	BHJ0359	SHJ0327	AJ40240

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Wet Chemistry Analysis			**Preparation Method:**	**No Prep Wet Chem**	
BHJ0359-MSD1	2.00 mL / 10.0 mL	SM4500-NO3F-2016	BHJ0359	SHJ0327	AJ40240
BHJ0477-BLK1	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
BHJ0477-BS1	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
BHJ0477-MRL1	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
BHJ0477-MRL2	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
BHJ0477-MS1	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
BHJ0477-MS2	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
BHJ0477-MSD1	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
BHJ0477-MSD2	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
BHJ0664-BLK1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHJ0664	SHJ0605	AJ40291
BHJ0664-BS1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHJ0664	SHJ0605	AJ40291
BHJ0664-MS1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHJ0664	SHJ0605	AJ40291
BHJ0664-MS2	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHJ0664	SHJ0605	AJ40291
BHJ0664-MSD1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHJ0664	SHJ0605	AJ40291
BHJ0664-MSD2	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHJ0664	SHJ0605	AJ40291
BHJ0686-BLK1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHJ0686	SHJ0659	AJ40300
BHJ0686-BS1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHJ0686	SHJ0659	AJ40300
BHJ0686-MRL1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHJ0686	SHJ0659	AJ40300
BHJ0686-MRL2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHJ0686	SHJ0659	AJ40300
BHJ0686-MS1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHJ0686	SHJ0659	AJ40300
BHJ0686-MS2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHJ0686	SHJ0659	AJ40300
BHJ0686-MSD1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHJ0686	SHJ0659	AJ40300
BHJ0686-MSD2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHJ0686	SHJ0659	AJ40300
BHJ0789-BLK1	2.00 mL / 2.00 mL	SM5220D-2011	BHJ0789	SHJ0711	AJ40312
BHJ0789-BS1	2.00 mL / 2.00 mL	SM5220D-2011	BHJ0789	SHJ0711	AJ40312
BHJ0789-MRL1	2.00 mL / 2.00 mL	SM5220D-2011	BHJ0789	SHJ0711	AJ40312
BHJ0789-MS1	2.00 mL / 2.00 mL	SM5220D-2011	BHJ0789	SHJ0711	AJ40312
BHJ0789-MSD1	2.00 mL / 2.00 mL	SM5220D-2011	BHJ0789	SHJ0711	AJ40312

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Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis			**Preparation Method:**	**No Prep Wet Chem**	
BHJ0820-BLK1	5.00 mL / 10.0 mL	SW9065	BHJ0820	SHJ0725	AJ40315
BHJ0820-BS1	5.00 mL / 10.0 mL	SW9065	BHJ0820	SHJ0725	AJ40315
BHJ0820-MRL1	5.00 mL / 10.0 mL	SW9065	BHJ0820	SHJ0725	AJ40315
BHJ0820-MS1	5.00 mL / 10.0 mL	SW9065	BHJ0820	SHJ0725	AJ40315
BHJ0820-MSD1	5.00 mL / 10.0 mL	SW9065	BHJ0820	SHJ0725	AJ40315

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Semivolatile Organic Compounds by GCMS			**Preparation Method:**	**SW3510C/EPA600-MS**	
BHJ0275-BLK1	1000 mL / 1.00 mL	SW8270E	BHJ0275	SHJ0294	AH40174
BHJ0275-BS1	1000 mL / 1.00 mL	SW8270E	BHJ0275	SHJ0294	AH40174
BHJ0275-MS1	1070 mL / 1.00 mL	SW8270E	BHJ0275	SHJ0294	AH40174
BHJ0275-MSD1	1070 mL / 1.00 mL	SW8270E	BHJ0275	SHJ0294	AH40174

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Volatile Organic Compounds by GCMS			**Preparation Method:**	**SW5030B-MS**	
BHJ0364-BLK1	5.00 mL / 5.00 mL	SW8260D	BHJ0364	SHJ0337	AJ40229
BHJ0364-BS1	5.00 mL / 5.00 mL	SW8260D	BHJ0364	SHJ0337	AJ40229
BHJ0364-MS1	5.00 mL / 5.00 mL	SW8260D	BHJ0364	SHJ0381	AJ40229
BHJ0364-MSD1	5.00 mL / 5.00 mL	SW8260D	BHJ0364	SHJ0381	AJ40229

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Certified Analyses included in this Report

Analyte	Certifications
EPA350.1 R2.0 in Non-Potable Water	
Ammonia as N	VELAP,NCDEQ,PADEP,WVDEP
EPA351.2 R2.0 in Non-Potable Water	
TKN as N	VELAP,NCDEQ,WVDEP
SM4500-NO2B-2011 in Non-Potable Water	
Nitrite as N	VELAP,WVDEP,NCDEQ
SM4500-NO3F-2016 in Non-Potable Water	
Nitrate+Nitrite as N	VELAP,WVDEP,NCDEQ
SM5210B-2016 in Non-Potable Water	
BOD	VELAP,NCDEQ,WVDEP
SM5220D-2011 in Non-Potable Water	
COD	VELAP,NCDEQ,PADEP,WVDEP
SW6020B in Non-Potable Water	
Mercury	VELAP
Arsenic	VELAP,WVDEP,NCDEQ
Barium	VELAP,WVDEP,NCDEQ
Cadmium	VELAP,WVDEP,NCDEQ
Chromium	VELAP,WVDEP,NCDEQ
Copper	VELAP,WVDEP,NCDEQ
Lead	VELAP,WVDEP
Nickel	VELAP,WVDEP
Selenium	VELAP,WVDEP
Silver	VELAP,WVDEP
Zinc	VELAP,WVDEP
SW8260D in Non-Potable Water	

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Certified Analyses included in this Report

Analyte	Certifications
2-Butanone (MEK)	VELAP,NCDEQ,PADEP,WVDEP
Acetone	VELAP,NCDEQ,PADEP,WVDEP
Benzene	VELAP,NCDEQ,PADEP,WVDEP
Ethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Toluene	VELAP,NCDEQ,PADEP,WVDEP
Xylenes, Total	VELAP,NCDEQ,PADEP,WVDEP
Tetrahydrofuran	VELAP,PADEP
SW8270E in Non-Potable Water	
Anthracene	NCDEQ,WVDEP,VELAP,PADEP
SW9012B in Non-Potable Water	
Cyanide	VELAP,WVDEP,NCDEQ
SW9065 in Non-Potable Water	
Total Recoverable Phenolics	VELAP,WVDEP

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Code	Description	Laboratory ID	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2024
NCDEQ	North Carolina DEQ	495	12/31/2024
NCDOH	North Carolina Department of Health	51714	07/31/2025
NYDOH	New York DOH Drinking Water	12069	04/01/2025
PADEP	NELAP-Pennsylvania Certificate #009	68-03503	10/31/2024
TXCEQ	Texas Comm on Environmental Quality #T104704576-23-1	T104704576	05/31/2025
VELAP	NELAP-Virginia Certificate #12969	460021	06/14/2025
WVDEP	West Virginia DEP	350	11/30/2024

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Qualifiers and Definitions

Cl	Residual Chlorine or other oxidizing agent was detected in the container used to analyze this sample.
DS	Surrogate concentration reflects a dilution factor.
I	Internal Standard response is outside specifications
J	The reported result is an estimated value.
L	LCS recovery is outside of established acceptance limits
M	Matrix spike recovery is outside established acceptance limits
P	Duplicate analysis does not meet the acceptance criteria for precision

RPD	Relative Percent Difference
Qual	Qualifers
-RE	Denotes sample was re-analyzed
LOD	Limit of Detection, same as Method Detection Limit (MDL) as defined by 40 CFR 136 Appendix B
BLOD	Below Limit of Detection, same as Below Method Detection Limit (MDL) as defined by 40 CFR 136 Appendix B
LOQ	Limit of Quantitation
DF	Dilution Factor
DL	Detection Limit, same as MDL as defined by 40 CFR 136 Appendix B
TIC	Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.
PCBs, Total	Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.

ENTHALPY ANALYTICAL

1941 REYMET ROAD
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CHAIN OF CUSTODY

COMPANY NAME: SCS Engineers	INVOICE TO: City of Bristol, VA	PROJECT NAME/Quote #: City of Bristol Landfill #588
CONTACT: Jennifer Robb	INVOICE CONTACT: Jon Hayes	SITE NAME: LFG-EW Monthly Monitoring
ADDRESS: 296 Victory Road. Winchester, VA	INVOICE ADDRESS: 2655 Valley Drive, Bristol, VA, 24201	PROJECT NUMBER: 02218208.15 Task 2
PHONE #: 703-471-6150	INVOICE PHONE #: 276-645-3788	P.O. #:
EMAIL: jrobb@scsengineers.com	EMAIL: jon.hayes@bristolva.org	Pretreatment Program:

Is sample for compliance reporting? YES NO | Regulatory State: V A | Is sample from a chlorinated supply? YES NO | PWS I.D. #:

SAMPLER NAME (PRINT): Logan Nelson / Will Fabic | SAMPLER SIGNATURE: [signature] / [signature] | Turn Around Time: 10 Day(s)

Matrix Codes: WW=Waste Water/Storm Water GW=Ground Water DW=Drinking Water S=Soil/Solids OR=Organic A=Air WP=Wipe OT=Other _____

CLIENT SAMPLE I.D.	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Time Preserved	Matrix (See Codes)	Number of Containers	ANALYSIS / (PRESERVATIVE) Ammonia - EPA 350.1	BOD - SM22 5210B-2021	COD - SM22 5220D-2011	Cyanide - SW9012	Nitrate SM22 450-NO3F-2011 (report seperatly from Nitrite)	Nitrite SM22 450-NO3F-2011	SVOC (Anthracene) 8270	Total Metals (As, Ba, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn) 6020	TKN - EPA 351.2 R2.0	Mercury - 6020	Total Recoverable Phenolics - 9065	V. Fatty Acids (See List) 8015	VOCs (See List) 8260
1) EW-50						10/2/24	930		WW	13	X	X	X	X	X	X	X	X	X	X	X	X	X
2) EW-52						10/2/24	1130		WW	13	X	X	X	X	X	X	X	X	X	X	X	X	X
3)									WW														
4)									WW														
5)									WW														
6)									WW														
7)									WW														
8)									WW														
9)									WW														
10) Trip Blank						9/4/24	1135		DI	2													X

Note VOC 8260 no HCl

PLEASE NOTE PRESERVATIVE(S), INTERFERENCE CHECKS or PUMP RATE (L/min)

Preservative Codes: N=Nitric Acid C=Hydrochloric Acid S=Sulfuric Acid H=Sodium Hydroxide A=Ascorbic Acid Z=Zinc Acetate T=Sodium Thiosulfate M=Methanol

SCS-W **24J0187**
Bristol LFG-EW
Recd: 10/03/2024 **Due: 10/17/2024**
v130325002

07.10.2
CF-0.2

RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME
[signature]	10/2/24/1300	LCN	
LCN		[signature]	10/3/24 0800

QC Data Package
Level III ☐
Level IV ☐

LAB USE ONLY Therm ID: 393 COOLER TEMP 10.2°C
Custody Seals used and intact? (Y / N) Received on ice? (Y / N)
some melted ice

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Sample Preservation Log

Order ID 24J0187 Date Performed: 10/3/24 Analyst Performing Check: HG for AER

Sample ID	Container ID	Metals			Cyanide			Sulfide			Ammonia			TKN			Phos, Tot			NO3+NO2			DRO			Pesticide (8081/608/508) PCB DW only			SVOC (525/8270/625)			CrVI * **		Pest/PCB (508) / SVOC(525)			COD			phenolics		
		pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	Received Res. Cl		final + or -	Received Res. Cl		final + or -	Received pH	Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH
		<2	Other		>12	Other		>9	Other		<2	Other		<2	Other		<2	Other		<2	Other		<2	Other		+	-		+	-				<2	Other		<2	Other		<2	Other	
1	A		7	<2																																					
1	D										7	<2		7	<2					7	<2															7	<2				
1	E					10	>12																																	
1	F																																					7	<2
1	G																												—										
2	A		6	<2																																			
2	D										5	<2		5	<2					5	<2															5	<2				
2	E					6	>12																																	
2	F																																					6	<2
2	G																												—										

NaOH ID: 4A03375 HNO3 ID: 4J02370 CrVI preserved date/time: Analyst Initials:

** pH must be adjusted between 9.3 - 9.7*

H_2SO_4 ID: 4103173 $Na_2S_2O_3$ ID: Ammonia Buffer Sol'n ID:

HCL ID: Na_2SO_3 ID: 5N NaOH ID:

Metals were received with pH =6,7
HNO3 was added at 1130 on 3 October 2024 by AER in the Log-In room to bring pH= <2.

**W.Va only certifies DISS CrVI and not T CrVI as an approved analyte under 40CFR136 for waste water.

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Laboratory Order ID: 24J0187

Sample Conditions Checklist

Samples Received at:	**10.20°C**
How were samples received?	Logistics Courier
Were Custody Seals used? If so, were they received intact?	Yes
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits or received on ice, and recently taken?	No
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	Yes
Are all volatile organic and TOX containers free of headspace?	No
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	Yes
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis. In addition, field parameters are always received outside holding time and will be marked accordingly.	No

Work Order Comments

Per Jennifer Robb via phone, approved to proceed with samples outside of the 0-6'C temperature range (10.2). HEG 10/3/24 1033

Jennifer Robb notified via email that all of the VOAC40mL containers for "EW-50" and

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"EW-52" were received with headspace and the containers for Ammonia, COD, Nitrate Cd, TKN, Cyanide, and Phenolics for both samples were received outside of the pH range for analysis and have been preserved in the lab to the appropriate pH. HEG 10/3/24 1536

Jennifer Robb via email approved to proceed with analysis for all the VOAC40 mL containers for "EW-50" and "EW-52" containing headspace. HEG 10/3/24 1600

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

October 28, 2024

Virginia Thrasher
Enthalpy
1941 Reymet Road
Richmond, VA 23237

RE: Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Dear Virginia Thrasher:

Enclosed are the analytical results for sample(s) received by the laboratory on October 08, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Baton Rouge

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Devin McDougal
devin.mcdougal@pacelabs.com
(225) 769-4900
Project Manager

Enclosures

cc: Andrew Bruner, Enthalpy
Daniel Elliott, Enthalpy
Meghan Meyer, Enthalpy

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

CERTIFICATIONS

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Pace Analytical Services Baton Rouge
7979 Innovation Park Drive Ste A, Baton Rouge, LA 70820-7402
Louisiana Dept of Enviromental Quality (NELAC/LELAP): 01979
Florida Dept of Health (NELAC/FELAP): E87854
DoD ELAP (A2LA) #: 6429.01
Alabama DEM #: 41900
Alaska DEC-DW #: LA00024
Alaska DEC CS-LAP #: 21-001
Arkansas DEQ #: 88-0655
California ELAP #: 3063
Georgia DPD #: C050
Hawaii DOH State Laboratories Division
Illinois EPA #: 200048
Kansas DoHE #: E-10354
Kentucky DEP UST Branch #: 123054
Louisiana DOH #: LA036
Minnesota DOH #: 2233799
Mississippi State Dept of Health
Montana Department of Environmental Quality
Nebraska DHHS #: NE-OS-35.21
Nevada DCNR DEP #: LA00024
New York DOH #: 12149
North Carolina DEQ - WW & GW #: 618
North Dakota DEQ #: R195
Ohio EPA #: 87782
Oklahoma Dept of Environmental Quality #: 9403
Oregon ELAP #: 4168
Pennsylvania Dept of Environmental Protection #: 68-05973
South Carolina DHEC #: 73006001
Texas CEQ #: T104704178-23-15
Utah DOH #: LA00024
Virginia DCLS #: 6460215
Washington Dept of Ecology #: C929
Wisconsin DNR #: 399139510

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SAMPLE SUMMARY

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Lab ID	Sample ID	Matrix	Date Collected	Date Received
20332846001	**24J0187-01: EW-50**	Water	10/02/24 09:30	10/08/24 10:00
20332846002	**24J0187-02: EW-52**	Water	10/02/24 11:30	10/08/24 10:00
20332846003	**24J0273-01: EW-82**	Water	10/03/24 09:50	10/08/24 10:00
20332846004	**24J0273-02: EW-36A**	Water	10/03/24 10:15	10/08/24 10:00

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SAMPLE ANALYTE COUNT

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Lab ID	Sample ID	Method	Analysts	Analytes Reported
20332846001	**24J0187-01: EW-50**	Pace ENV-SOP-BTRO-0042	VAM	10
20332846002	**24J0187-02: EW-52**	Pace ENV-SOP-BTRO-0042	VAM	10
20332846003	**24J0273-01: EW-82**	Pace ENV-SOP-BTRO-0042	VAM	10
20332846004	**24J0273-02: EW-36A**	Pace ENV-SOP-BTRO-0042	VAM	10

PASI-BR = Pace Analytical Services - Baton Rouge

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PROJECT NARRATIVE

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Method: **Pace ENV-SOP-BTRO-0042**
Description: BR AM23G Low Level VFA
Client: BR-Enthalpy
Date: October 28, 2024

General Information:
4 samples were analyzed for Pace ENV-SOP-BTRO-0042 by Pace Analytical Services Baton Rouge. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 344131

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92755624002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1653722)
  - Butyric Acid
  - Propionic Acid
- MSD (Lab ID: 1653723)
  - Acetic Acid

R1: RPD value was outside control limits.

- MSD (Lab ID: 1653723)
  - Butyric Acid
  - Propionic Acid

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Method: **Pace ENV-SOP-BTRO-0042**
Description: BR AM23G Low Level VFA
Client: BR-Enthalpy
Date: October 28, 2024

Analyte Comments:

QC Batch: 344131

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- 24J0187-01: EW-50 (Lab ID: 20332846001)
  - Lactic Acid
- 24J0273-02: EW-36A (Lab ID: 20332846004)
  - Lactic Acid

D4: Sample was diluted due to the presence of high levels of target analytes.

- 24J0273-01: EW-82 (Lab ID: 20332846003)
  - Lactic Acid

N2: The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

- 24J0187-01: EW-50 (Lab ID: 20332846001)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- 24J0273-01: EW-82 (Lab ID: 20332846003)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- 24J0273-02: EW-36A (Lab ID: 20332846004)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- BLANK (Lab ID: 1653518)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- LCS (Lab ID: 1653519)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- MS (Lab ID: 1653722)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- MSD (Lab ID: 1653723)
  - Hexanoic Acid
  - i-Hexanoic Acid

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PROJECT NARRATIVE

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Method: **Pace ENV-SOP-BTRO-0042**
Description: BR AM23G Low Level VFA
Client: BR-Enthalpy
Date: October 28, 2024

Analyte Comments:

QC Batch: 344131

N2: The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

- MSD (Lab ID: 1653723)
  - i-Pentanoic Acid
  - Pentanoic Acid

QC Batch: 344317

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- 24J0187-02: EW-52 (Lab ID: 20332846002)
  - Lactic Acid

N2: The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

- 24J0187-02: EW-52 (Lab ID: 20332846002)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- BLANK (Lab ID: 1654810)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- LCS (Lab ID: 1654811)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- MS (Lab ID: 1654852)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- MSD (Lab ID: 1654853)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Sample: 24J0187-01: EW-50 **Lab ID: 20332846001** Collected: 10/02/24 09:30 Received: 10/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
BR AM23G Low Level VFA	Analytical Method: Pace ENV-SOP-BTRO-0042 Pace Analytical Services - Baton Rouge							
Pentanoic Acid	ND	mg/L	100	200		10/09/24 03:26	109-52-4	N2
Acetic Acid	**260**	mg/L	100	200		10/09/24 03:26	64-19-7	
Butyric Acid	ND	mg/L	100	200		10/09/24 03:26	107-92-6	
Formic acid	ND	mg/L	100	200		10/09/24 03:26	64-18-6	
Hexanoic Acid	ND	mg/L	100	200		10/09/24 03:26	142-62-1	N2
i-Hexanoic Acid	ND	mg/L	100	200		10/09/24 03:26	646-07-1	N2
Lactic Acid	ND	mg/L	100	200		10/09/24 03:26	50-21-5	D3
i-Pentanoic Acid	ND	mg/L	100	200		10/09/24 03:26	503-74-2	N2
Propionic Acid	**275**	mg/L	100	200		10/09/24 03:26	79-09-4	
Pyruvic Acid	ND	mg/L	100	200		10/09/24 03:26	127-17-3	

Sample: 24J0187-02: EW-52 **Lab ID: 20332846002** Collected: 10/02/24 11:30 Received: 10/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
BR AM23G Low Level VFA	Analytical Method: Pace ENV-SOP-BTRO-0042 Pace Analytical Services - Baton Rouge							
Pentanoic Acid	ND	mg/L	1250	2500		10/10/24 22:30	109-52-4	N2
Acetic Acid	**9410**	mg/L	1250	2500		10/10/24 22:30	64-19-7	
Butyric Acid	**3070**	mg/L	1250	2500		10/10/24 22:30	107-92-6	
Formic acid	**3400**	mg/L	1250	2500		10/10/24 22:30	64-18-6	
Hexanoic Acid	ND	mg/L	1250	2500		10/10/24 22:30	142-62-1	N2
i-Hexanoic Acid	ND	mg/L	1250	2500		10/10/24 22:30	646-07-1	N2
Lactic Acid	**5630**	mg/L	1250	2500		10/10/24 22:30	50-21-5	D3
i-Pentanoic Acid	ND	mg/L	1250	2500		10/10/24 22:30	503-74-2	N2
Propionic Acid	**2240**	mg/L	1250	2500		10/10/24 22:30	79-09-4	
Pyruvic Acid	ND	mg/L	1250	2500		10/10/24 22:30	127-17-3	

Sample: 24J0273-01: EW-82 **Lab ID: 20332846003** Collected: 10/03/24 09:50 Received: 10/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
BR AM23G Low Level VFA	Analytical Method: Pace ENV-SOP-BTRO-0042 Pace Analytical Services - Baton Rouge							
Pentanoic Acid	ND	mg/L	250	500		10/09/24 04:17	109-52-4	N2
Acetic Acid	**4780**	mg/L	250	500		10/09/24 04:17	64-19-7	
Butyric Acid	**1630**	mg/L	250	500		10/09/24 04:17	107-92-6	
Formic acid	**3180**	mg/L	250	500		10/09/24 04:17	64-18-6	
Hexanoic Acid	ND	mg/L	250	500		10/09/24 04:17	142-62-1	N2
i-Hexanoic Acid	ND	mg/L	250	500		10/09/24 04:17	646-07-1	N2
Lactic Acid	**2590**	mg/L	250	500		10/09/24 04:17	50-21-5	D4
i-Pentanoic Acid	ND	mg/L	250	500		10/09/24 04:17	503-74-2	N2
Propionic Acid	**1470**	mg/L	250	500		10/09/24 04:17	79-09-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Baton Rouge, LA 70820
(225) 769-4900

ANALYTICAL RESULTS

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Sample: 24J0273-01: EW-82 **Lab ID: 20332846003** Collected: 10/03/24 09:50 Received: 10/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
BR AM23G Low Level VFA	Analytical Method: Pace ENV-SOP-BTRO-0042 Pace Analytical Services - Baton Rouge							
Pyruvic Acid	ND	mg/L	250	500		10/09/24 04:17	127-17-3	

Sample: 24J0273-02: EW-36A **Lab ID: 20332846004** Collected: 10/03/24 10:15 Received: 10/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
BR AM23G Low Level VFA	Analytical Method: Pace ENV-SOP-BTRO-0042 Pace Analytical Services - Baton Rouge							
Pentanoic Acid	ND	mg/L	50.0	100		10/09/24 04:42	109-52-4	N2
Acetic Acid	ND	mg/L	50.0	100		10/09/24 04:42	64-19-7	
Butyric Acid	ND	mg/L	50.0	100		10/09/24 04:42	107-92-6	
Formic acid	ND	mg/L	50.0	100		10/09/24 04:42	64-18-6	
Hexanoic Acid	ND	mg/L	50.0	100		10/09/24 04:42	142-62-1	N2
i-Hexanoic Acid	ND	mg/L	50.0	100		10/09/24 04:42	646-07-1	N2
Lactic Acid	ND	mg/L	50.0	100		10/09/24 04:42	50-21-5	D3
i-Pentanoic Acid	ND	mg/L	50.0	100		10/09/24 04:42	503-74-2	N2
Propionic Acid	ND	mg/L	50.0	100		10/09/24 04:42	79-09-4	
Pyruvic Acid	ND	mg/L	50.0	100		10/09/24 04:42	127-17-3	

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QUALITY CONTROL DATA

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

QC Batch: 344131
QC Batch Method: Pace ENV-SOP-BTRO-0042
Analysis Method: Pace ENV-SOP-BTRO-0042
Analysis Description: BR AM23G Low Level VFA
Laboratory: Pace Analytical Services - Baton Rouge
Associated Lab Samples: 20332846001, 20332846003, 20332846004

METHOD BLANK: 1653518 Matrix: Water
Associated Lab Samples: 20332846001, 20332846003, 20332846004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetic Acid	mg/L	ND	0.50	10/08/24 17:49	
Butyric Acid	mg/L	ND	0.50	10/08/24 17:49	
Formic acid	mg/L	ND	0.50	10/08/24 17:49	
Hexanoic Acid	mg/L	ND	0.50	10/08/24 17:49	N2
i-Hexanoic Acid	mg/L	ND	0.50	10/08/24 17:49	N2
i-Pentanoic Acid	mg/L	ND	0.50	10/08/24 17:49	N2
Lactic Acid	mg/L	ND	0.50	10/08/24 17:49	
Pentanoic Acid	mg/L	ND	0.50	10/08/24 17:49	N2
Propionic Acid	mg/L	ND	0.50	10/08/24 17:49	
Pyruvic Acid	mg/L	ND	0.50	10/08/24 17:49	

LABORATORY CONTROL SAMPLE: 1653519

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetic Acid	mg/L	2	2.0	98	70-130	
Butyric Acid	mg/L	2	1.9	95	70-130	
Formic acid	mg/L	2	2.0	98	70-130	
Hexanoic Acid	mg/L	2	1.9	95	39-114	N2
i-Hexanoic Acid	mg/L	2	2.1	106	39-114	N2
i-Pentanoic Acid	mg/L	2	2.2	109	59-121	N2
Lactic Acid	mg/L	2	2.1	103	70-130	
Pentanoic Acid	mg/L	2	1.9	97	59-121	N2
Propionic Acid	mg/L	2	1.9	97	70-130	
Pyruvic Acid	mg/L	2	1.8	92	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1653722 1653723

Parameter	Units	92755624002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetic Acid	mg/L	31.9	20	20	50.8	60.7	95	144	70-130	18	30	M1
Butyric Acid	mg/L	ND	20	20	12.6	19.4	63	97	70-130	43	30	M1,R1
Formic acid	mg/L	9.0	20	20	29.3	30.9	102	109	70-130	5	30	
Hexanoic Acid	mg/L	ND	20	20	14.7	18.7	73	94	39-114	24	30	N2
i-Hexanoic Acid	mg/L	ND	20	20	14.4	18.3	72	92	39-114	24	30	N2
i-Pentanoic Acid	mg/L	ND	20	20	18.3	20.7	91	104	59-121	13	30	N2
Lactic Acid	mg/L	37.3	20	20	58.3	58.9	105	108	70-130	1	30	
Pentanoic Acid	mg/L	ND	20	20	14.9	19.8	74	99	59-121	29	30	N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1653722 1653723

Parameter	Units	92755624002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Propionic Acid	mg/L	9.4	20	20	22.6	32.6	66	116	70-130	36	30	M1,R1
Pyruvic Acid	mg/L	ND	20	20	28.6	26.0	122	109	70-130	9	30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

QC Batch: 344317
QC Batch Method: Pace ENV-SOP-BTRO-0042
Analysis Method: Pace ENV-SOP-BTRO-0042
Analysis Description: BR AM23G Low Level VFA
Laboratory: Pace Analytical Services - Baton Rouge

Associated Lab Samples: 20332846002

METHOD BLANK: 1654810 Matrix: Water
Associated Lab Samples: 20332846002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetic Acid	mg/L	ND	0.50	10/10/24 12:17	
Butyric Acid	mg/L	ND	0.50	10/10/24 12:17	
Formic acid	mg/L	ND	0.50	10/10/24 12:17	
Hexanoic Acid	mg/L	ND	0.50	10/10/24 12:17	N2
i-Hexanoic Acid	mg/L	ND	0.50	10/10/24 12:17	N2
i-Pentanoic Acid	mg/L	ND	0.50	10/10/24 12:17	N2
Lactic Acid	mg/L	ND	0.50	10/10/24 12:17	
Pentanoic Acid	mg/L	ND	0.50	10/10/24 12:17	N2
Propionic Acid	mg/L	ND	0.50	10/10/24 12:17	
Pyruvic Acid	mg/L	ND	0.50	10/10/24 12:17	

LABORATORY CONTROL SAMPLE: 1654811

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetic Acid	mg/L	2	2.0	98	70-130	
Butyric Acid	mg/L	2	1.8	92	70-130	
Formic acid	mg/L	2	2.0	100	70-130	
Hexanoic Acid	mg/L	2	1.8	90	39-114	N2
i-Hexanoic Acid	mg/L	2	2.0	100	39-114	N2
i-Pentanoic Acid	mg/L	2	2.3	115	59-121	N2
Lactic Acid	mg/L	2	2.1	104	70-130	
Pentanoic Acid	mg/L	2	1.9	96	59-121	N2
Propionic Acid	mg/L	2	1.9	96	70-130	
Pyruvic Acid	mg/L	2	1.7	85	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1654852 1654853

Parameter	Units	20333004001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetic Acid	mg/L	5.0U	20	20	20.9	20.9	99	99	70-130	0	30	
Butyric Acid	mg/L	5.0U	20	20	19.9	19.3	99	97	70-130	3	30	
Formic acid	mg/L	5.0U	20	20	20.8	20.7	103	102	70-130	0	30	
Hexanoic Acid	mg/L	5.0U	20	20	19.0	19.3	95	96	39-114	1	30	N2
i-Hexanoic Acid	mg/L	5.0U	20	20	21.2	22.1	106	110	39-114	4	30	N2
i-Pentanoic Acid	mg/L	5.0U	20	20	23.9	24.0	119	120	59-121	1	30	N2
Lactic Acid	mg/L	5.0U	20	20	21.8	21.8	109	109	70-130	0	30	
Pentanoic Acid	mg/L	5.0U	20	20	20.5	21.5	102	107	59-121	5	30	N2

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QUALITY CONTROL DATA

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1654852 1654853

Parameter	Units	20333004001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Propionic Acid	mg/L	5.0U	20	20	20.0	19.9	100	99	70-130	1	30	
Pyruvic Acid	mg/L	5.0U	20	20	18.2	17.9	91	90	70-130	2	30	

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(225) 769-4900

QUALIFIERS

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The Nelac Institute

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
D4	Sample was diluted due to the presence of high levels of target analytes.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
R1	RPD value was outside control limits.

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
20332846001	**24J0187-01: EW-50**	Pace ENV-SOP-BTRO-0042	344131		
20332846002	**24J0187-02: EW-52**	Pace ENV-SOP-BTRO-0042	344317		
20332846003	**24J0273-01: EW-82**	Pace ENV-SOP-BTRO-0042	344131		
20332846004	**24J0273-02: EW-36A**	Pace ENV-SOP-BTRO-0042	344131		

ENTHALPY ANALYTICAL
Pace - Gulf Coast
7979 Innovation Park Dr
Baton Rouge, LA 70820

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(804) 35
(80

WO# : 20332846

20332846

CHAIN OF CUSTODY

COMPANY NAME: Enthalpy	INVOICE TO: Enthalpy	PROJECT NAME/Quote #: 24J0187 & 24J0273
CONTACT: Dan Elliot	INVOICE CONTACT:	SITE NAME: 24J0187 & 24J0273
ADDRESS: 1941 Reymet Rd Richmond VA 23237	INVOICE ADDRESS: 1941 Reymet Rd Richmond VA 23237	PROJECT NUMBER: 24J0187 & 24J0273
PHONE #: (804) 358-8295	INVOICE PHONE #: (804) 358-8295	P.O. #: ~~To be emailed~~ DTE 10/1/24 PO-073377
FAX #:	EMAIL:	Pretreatment Program:
Is sample for compliance reporting? YES NO	Is sample from a chlorinated supply? YES NO	PWS I.D. #:
SAMPLER NAME (PRINT): Logan Nelson/Will Fabrie	SAMPLER SIGNATURE:	**Turn Around Time: 10**

Matrix Codes: WW=Waste Water/Storm Water GW=Ground Water DW=Drinking Water S=Soil/Solids OR=Organic A=Air WP=Wipe OT=Other_____

CLIENT SAMPLE I.D.	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Time Preserved	Matrix (See Codes)	Number of Containers	ANALYSIS / (PRESERVATIVE) Volatile Fatty Acid								COMMENTS
1) 24J0187-01: EW-50	x					10/2/24	0930		WW	3	X								1
2) 24J0187-02: EW-52	x					10/2/24	1130		WW	3	X								3
3) 24J0273-01: EW-82	x					10/3/24	0950		WW	3	X								3
4) 24J0273-02: EW-36A	x					10/3/24	1015		WW	3	X								4
5)																			
6)																			
7)																			
8)																			
9)																			
10)																			

Preservative Codes: N=Nitric Acid C=Hydrochloric Acid S=Sulfuric Acid H=Sodium Hydroxide A=Ascorbic Acid Z=Zinc Acetate T=Sodium Thiosulfate M=Methanol

PLEASE NOTE PRESERVATIVE(S), INTERFERENCE CHECKS or PUMP RATE (L/min)

RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME
	10/7/24 1600	FedEx Express	10/7/24 1600
RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME
FedEx	10/8/24 1000		10/8/24 1000
RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME

QC Data Package
Level I ☐
Level II ☐
Level III ☐
Level IV ☐

LAB USE ONLY COOLER TEMP 1.5 °C

DC#_Title: ENV-FRM-BTRO-0174 v03_Sample Condition Upon Reciept (SCUR)
Effective Date: 07/26/2024

WO#: 20332846

PM: DRM **Due Date: 10/22/24**

CLIENT: BR-Enthalpy

Pace

Sample Condition Upon Re

Workorder #: _____

7979 Innovation Park Dr. Baton Rouge, LA 70806

Cooler Inspected by/date: EASL / 10/8/24

Means of receipt: ☐ Pace ☐ Client ☐ UPS ☑ FedEx ☐ Other: _____

☐ Yes	☑ No		Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	If custody seals were present, were they intact and unbroken?

Method: ☐ Temperature Blank ☑ Against Bottles IR Gun ID: 693 IR Gun Correction Factor: 0 °C

Cooler #1	Cooler Temp °C: 1.5	(Actual/True)	Samples on ice ☑ Yes ☐ No	pH Strip Lot #
Cooler #2	Cooler Temp °C: _____	(Actual/True)		
Cooler #3	Cooler Temp °C: _____	(Actual/True)	Method of coolant:	
Cooler #4	Cooler Temp °C: _____	(Actual/True)	☑ Wet ☐ Ice Packs ☐ Dry Ice ☐ None	

Tracking #: 7790 7122 2510

☐ Yes	☑ No	☐ NA	Is a temperature blank present?	
☑ Yes	☐ No	☐ NA	Was a chain of custody (COC) recieved?	
☐ Yes	☑ No	☐ NA	Was the line and profile number listed on the COC?	
☑ Yes	☐ No	☐ NA	Were all coolers received at or below 6.0°C? If no, notify Project Manager notified via email.	
☑ Yes	☐ No		Were proper custody procedures (relinquished/received) followed?	
☐ Yes	☑ No	☐ NA	Is the sampler name and signature on the COC?	
☑ Yes	☐ No		Were sample IDs listed on the COC and all sample containers?	
☑ Yes	☐ No		Was collection date & time listed on the COC and all sample containers?	
☑ Yes	☐ No		Did all container label information (ID, date, time) agree with the COC?	
☑ Yes	☐ No		Were tests to be performed listed on the COC?	
☑ Yes	☐ No		Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?	
☑ Yes	☐ No		Was adequate sample volume available?	
☑ Yes	☐ No		Were all samples received within ½ the holding time or 48 hours, whichever comes first?	
☑ Yes	☐ No		Were all samples containers accounted for? (No missing / excess)	
☐ Yes	☐ No	☑ NA	Were VOA, 8015C (GRO/VPH), and RSK-175 samples free of bubbles > "pea size" (1/4" or 6mm in diameter) in any of the VOA vials?	
☐ Yes	☐ No	☑ NA	Trip blank present?	
☐ Yes	☐ No	☑ NA	Filtered volume received for dissolved tests? *If no, list affected sample(s) in comments below.*	
☐ Yes	☐ No	☑ NA	Were all metals/nutrient samples received at a pH of < 2?	If No, was preservative added? ☐ Yes ☐ No If added, record lots. Dispenser/pipette lot #: _____
☐ Yes	☐ No	☑ NA	Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?	HNO_3_____ H_2SO_4 _____ NaOH_____ Date: _____ Time:_____

Comments:

TNI Accredited
VELAP ID 460021

ENTHALPY ANALYTICAL

1941 Reymet Road ● Richmond, Virginia 23237 ● Tel: (804)-358-8295 Fax: (804)-358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 24J0273

Client Name:	SCS Engineers-Winchester 296 Victory Road Winchester, VA 22602	Date Received:	October 4, 2024 8:00
		Date Issued:	October 28, 2024 17:08
		Project Number:	[none]
Submitted To:	Jennifer Robb	Purchase Order:	
Client Site I.D.:	Bristol LFG-EW		

Enclosed are the results of analyses for samples received by the laboratory on 10/04/2024 08:00. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

Ginny Thrasher

Ginny Thrasher
Senior Project Manager

End Notes:
The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

Enthalpy Analytical
1941 Reymet Road
Richmond, VA 23237
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(804)-358-8297 - Fax

Analysis Detects Report

Client Name: SCS Engineers-Winchester
Client Site ID: Bristol LFG-EW
Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:08:56PM

Laboratory Sample ID: **24J0273-01** **Client Sample ID:** **EW-82**

Parameter	Samp ID	Reference Method	Sample Results	Qual	DL	LOQ	Dil. Factor	Units
Arsenic	01	SW6020B	180		5.0	10	10	ug/L
Barium	01	SW6020B	3330		10.0	50.0	10	ug/L
Chromium	01	SW6020B	349		4.00	10.0	10	ug/L
Copper	01	SW6020B	3.06	J	3.00	10.0	10	ug/L
Mercury	01	SW6020B	2.54		2.00	2.00	10	ug/L
Nickel	01	SW6020B	57.51		10.00	10.00	10	ug/L
Zinc	01	SW6020B	342		25.0	50.0	10	ug/L
2-Butanone (MEK)	01	SW8260D	10800		150	500	50	ug/L
Acetone	01RE1	SW8260D	40700		3500	5000	500	ug/L
Benzene	01	SW8260D	828		20.0	50.0	50	ug/L
Ethylbenzene	01	SW8260D	76.0		20.0	50.0	50	ug/L
Tetrahydrofuran	01	SW8260D	2730		500	500	50	ug/L
Toluene	01	SW8260D	72.0		25.0	50.0	50	ug/L
Xylenes, Total	01	SW8260D	75.5	J	50.0	150	50	ug/L
Ammonia as N	01	EPA350.1 R2.0	1490		73.1	100	1000	mg/L
BOD	01	SM5210B-2016	36100		0.2	2.0	1	mg/L
COD	01	SM5220D-2011	62000		10000	10000	1000	mg/L
Cyanide	01	SW9012B	0.08	CI	0.05	0.05	5	mg/L
TKN as N	01	EPA351.2 R2.0	1870		40.0	100	200	mg/L
Total Recoverable Phenolics	01	SW9065	45.1		1.50	2.50	1	mg/L

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Analysis Detects Report

Client Name: SCS Engineers-Winchester
Client Site ID: Bristol LFG-EW
Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:08:56PM

Laboratory Sample ID: **24J0273-02** **Client Sample ID:** **EW-36A**

Parameter	Samp ID	Reference Method	Sample Results	Qual	DL	LOQ	Dil. Factor	Units
Arsenic	02	SW6020B	100		5.0	10	10	ug/L
Barium	02	SW6020B	260		10.0	50.0	10	ug/L
Cadmium	02	SW6020B	1.17	J	1.00	10.0	10	ug/L
Chromium	02	SW6020B	87.3		4.00	10.0	10	ug/L
Copper	02	SW6020B	6.12	J	3.00	10.0	10	ug/L
Nickel	02	SW6020B	72.51		10.00	10.00	10	ug/L
Zinc	02	SW6020B	266		25.0	50.0	10	ug/L
2-Butanone (MEK)	02	SW8260D	28.2		3.00	10.0	1	ug/L
Acetone	02	SW8260D	30.1		7.00	10.0	1	ug/L
Benzene	02	SW8260D	306		0.40	1.00	1	ug/L
Ethylbenzene	02	SW8260D	59.6		0.40	1.00	1	ug/L
Tetrahydrofuran	02	SW8260D	248		10.0	10.0	1	ug/L
Toluene	02	SW8260D	55.7		0.50	1.00	1	ug/L
Xylenes, Total	02	SW8260D	54.3		1.00	3.00	1	ug/L
Ammonia as N	02	EPA350.1 R2.0	343		73.1	100	1000	mg/L
BOD	02	SM5210B-2016	180		0.2	2.0	1	mg/L
COD	02	SM5220D-2011	951		500	500	1	mg/L
Cyanide	02	SW9012B	0.20	CI	0.05	0.05	5	mg/L
TKN as N	02	EPA351.2 R2.0	351		40.0	100	200	mg/L
Total Recoverable Phenolics	02	SW9065	0.376		0.030	0.050	1	mg/L

Note that this report is not the "Certificate of Analysis". This report only lists the target analytes that displayed concentrations that exceeded the detection limit specified for that analyte. For a complete listing of all analytes requested and the results of the analysis see the " Certificate of Analysis".

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Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: Bristol LFG-EW
Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:08:56PM
Work Order: 24J0273

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EW-82	24J0273-01	Waste Water	10/03/2024 09:50	10/04/2024 08:00
EW-36A	24J0273-02	Waste Water	10/03/2024 10:15	10/04/2024 08:00
Trip Blank	24J0273-03	Waste Water	12/26/2023 10:30	10/04/2024 08:00

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Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: Bristol LFG-EW
Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:08:56PM
Work Order: 24J0273

Client Sample ID: **EW-82** **Laboratory Sample ID:** **24J0273-01**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analyst
Metals (Total) by EPA 6000/7000 Series Methods												
Silver	01	7440-22-4	SW6020B	10/07/2024 17:00	10/14/2024 12:49	BLOD		0.600	10.0	10	ug/L	MDW
Arsenic	01	7440-38-2	SW6020B	10/07/2024 17:00	10/14/2024 12:49	180		5.0	10	10	ug/L	MDW
Barium	01	7440-39-3	SW6020B	10/07/2024 17:00	10/14/2024 12:49	3330		10.0	50.0	10	ug/L	MDW
Cadmium	01	7440-43-9	SW6020B	10/07/2024 17:00	10/14/2024 12:49	BLOD		1.00	10.0	10	ug/L	MDW
Chromium	01	7440-47-3	SW6020B	10/07/2024 17:00	10/14/2024 12:49	349		4.00	10.0	10	ug/L	MDW
Copper	01	7440-50-8	SW6020B	10/07/2024 17:00	10/14/2024 12:49	3.06	J	3.00	10.0	10	ug/L	MDW
Mercury	01	7439-97-6	SW6020B	10/07/2024 17:00	10/14/2024 12:49	2.54		2.00	2.00	10	ug/L	MDW
Nickel	01	7440-02-0	SW6020B	10/07/2024 17:00	10/14/2024 12:49	57.51		10.00	10.00	10	ug/L	MDW
Lead	01	7439-92-1	SW6020B	10/07/2024 17:00	10/14/2024 12:49	BLOD		10	10	10	ug/L	MDW
Selenium	01	7782-49-2	SW6020B	10/07/2024 17:00	10/14/2024 12:49	BLOD		8.50	10.0	10	ug/L	MDW
Zinc	01	7440-66-6	SW6020B	10/07/2024 17:00	10/14/2024 12:49	342		25.0	50.0	10	ug/L	MDW
Volatile Organic Compounds by GCMS												
2-Butanone (MEK)	01	78-93-3	SW8260D	10/08/2024 20:04	10/08/2024 20:04	10800		150	500	50	ug/L	JWR
Acetone	01RE1	67-64-1	SW8260D	10/08/2024 20:27	10/08/2024 20:27	40700		3500	5000	500	ug/L	JWR
Benzene	01	71-43-2	SW8260D	10/08/2024 20:04	10/08/2024 20:04	828		20.0	50.0	50	ug/L	JWR
Ethylbenzene	01	100-41-4	SW8260D	10/08/2024 20:04	10/08/2024 20:04	76.0		20.0	50.0	50	ug/L	JWR
Toluene	01	108-88-3	SW8260D	10/08/2024 20:04	10/08/2024 20:04	72.0		25.0	50.0	50	ug/L	JWR
Xylenes, Total	01	1330-20-7	SW8260D	10/08/2024 20:04	10/08/2024 20:04	75.5	J	50.0	150	50	ug/L	JWR
Tetrahydrofuran	01	109-99-9	SW8260D	10/08/2024 20:04	10/08/2024 20:04	2730		500	500	50	ug/L	JWR
Surr: 1,2-Dichloroethane-d4 (Surr)	*01*	*76.4 %*	*70-120*	*10/08/2024 20:04*	*10/08/2024 20:04*							
Surr: 4-Bromofluorobenzene (Surr)	*01*	*96.1 %*	*75-120*	*10/08/2024 20:04*	*10/08/2024 20:04*							
Surr: Dibromofluoromethane (Surr)	*01*	*78.1 %*	*70-130*	*10/08/2024 20:04*	*10/08/2024 20:04*							
Surr: Toluene-d8 (Surr)	*01*	*95.7 %*	*70-130*	*10/08/2024 20:04*	*10/08/2024 20:04*							
Surr: 1,2-Dichloroethane-d4 (Surr)	*01RE1*	*77.5 %*	*70-120*	*10/08/2024 20:27*	*10/08/2024 20:27*							

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
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Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: Bristol LFG-EW
Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:08:56PM
Work Order: 24J0273

Client Sample ID: **EW-82** **Laboratory Sample ID:** **24J0273-01**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Volatile Organic Compounds by GCMS												
Surr: 4-Bromofluorobenzene (Surr)	*01RE1*	*97.4 %*	*75-120*	*10/08/2024 20:27*	*10/08/2024 20:27*							
Surr: Dibromofluoromethane (Surr)	*01RE1*	*78.0 %*	*70-130*	*10/08/2024 20:27*	*10/08/2024 20:27*							
Surr: Toluene-d8 (Surr)	*01RE1*	*97.7 %*	*70-130*	*10/08/2024 20:27*	*10/08/2024 20:27*							
Semivolatile Organic Compounds by GCMS												
Anthracene	01	120-12-7	SW8270E	10/08/2024 10:00	10/10/2024 15:39	BLOD		200	400	10	ug/L	BMS
Surr: 2,4,6-Tribromophenol (Surr)	*01*	*52.0 %*	*5-136*	*10/08/2024 10:00*	*10/10/2024 15:39*							
Surr: 2-Fluorobiphenyl (Surr)	*01*	*47.2 %*	*9-117*	*10/08/2024 10:00*	*10/10/2024 15:39*							
Surr: 2-Fluorophenol (Surr)	*01*	*20.4 %*	*5-60*	*10/08/2024 10:00*	*10/10/2024 15:39*							
Surr: Nitrobenzene-d5 (Surr)	*01*	*556 %*	*5-151*	*10/08/2024 10:00*	*10/10/2024 15:39*							*DS*
Surr: Phenol-d5 (Surr)	*01*	*48.6 %*	*5-60*	*10/08/2024 10:00*	*10/10/2024 15:39*							
Surr: p-Terphenyl-d14 (Surr)	*01*	*40.8 %*	*5-141*	*10/08/2024 10:00*	*10/10/2024 15:39*							

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Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: Bristol LFG-EW
Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:08:56PM
Work Order: 24J0273

Client Sample ID: **EW-82** **Laboratory Sample ID:** **24J0273-01**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Wet Chemistry Analysis												
Ammonia as N	01	7664-41-7	EPA350.1 R2.0	10/16/2024 14:11	10/16/2024 14:11	1490		73.1	100	1000	mg/L	MKS
BOD	01	E1640606	SM5210B-2016	10/04/2024 13:40	10/04/2024 13:40	36100		0.2	2.0	1	mg/L	CET
Cyanide	01	57-12-5	SW9012B	10/10/2024 12:00	10/10/2024 15:56	0.08	CI	0.05	0.05	5	mg/L	MKS
COD	01	NA	SM5220D-2011	10/17/2024 13:45	10/17/2024 13:45	62000		10000	10000	1000	mg/L	TEG
Nitrate as N	01	14797-55-8	Calc.	10/15/2024 14:28	10/15/2024 14:28	BLOD		1.00	5.00	100	mg/L	AAH
Nitrate+Nitrite as N	01RE1	E701177	SM4500-NO3F-2016	10/15/2024 14:28	10/15/2024 14:28	BLOD		0.10	0.10	1	mg/L	AAH
Nitrite as N	01	14797-65-0	SM4500-NO2B-2011	10/04/2024 09:00	10/04/2024 09:00	BLOD		1.00	5.00	100	mg/L	KJM
Total Recoverable Phenolics	01	NA	SW9065	10/17/2024 16:56	10/17/2024 16:56	45.1		1.50	2.50	1	mg/L	SPH
TKN as N	01	E17148461	EPA351.2 R2.0	10/16/2024 13:08	10/16/2024 13:08	1870		40.0	100	200	mg/L	SPH

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Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: Bristol LFG-EW
Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:08:56PM
Work Order: 24J0273

Client Sample ID: **EW-36A** **Laboratory Sample ID:** **24J0273-02**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analyst
Metals (Total) by EPA 6000/7000 Series Methods												
Silver	02	7440-22-4	SW6020B	10/07/2024 17:00	10/14/2024 12:52	BLOD		0.600	10.0	10	ug/L	MDW
Arsenic	02	7440-38-2	SW6020B	10/07/2024 17:00	10/14/2024 12:52	100		5.0	10	10	ug/L	MDW
Barium	02	7440-39-3	SW6020B	10/07/2024 17:00	10/14/2024 12:52	260		10.0	50.0	10	ug/L	MDW
Cadmium	02	7440-43-9	SW6020B	10/07/2024 17:00	10/14/2024 12:52	1.17	J	1.00	10.0	10	ug/L	MDW
Chromium	02	7440-47-3	SW6020B	10/07/2024 17:00	10/14/2024 12:52	87.3		4.00	10.0	10	ug/L	MDW
Copper	02	7440-50-8	SW6020B	10/07/2024 17:00	10/14/2024 12:52	6.12	J	3.00	10.0	10	ug/L	MDW
Mercury	02	7439-97-6	SW6020B	10/07/2024 17:00	10/14/2024 12:52	BLOD		2.00	2.00	10	ug/L	MDW
Nickel	02	7440-02-0	SW6020B	10/07/2024 17:00	10/14/2024 12:52	72.51		10.00	10.00	10	ug/L	MDW
Lead	02	7439-92-1	SW6020B	10/07/2024 17:00	10/14/2024 12:52	BLOD		10	10	10	ug/L	MDW
Selenium	02	7782-49-2	SW6020B	10/07/2024 17:00	10/14/2024 12:52	BLOD		8.50	10.0	10	ug/L	MDW
Zinc	02	7440-66-6	SW6020B	10/07/2024 17:00	10/14/2024 12:52	266		25.0	50.0	10	ug/L	MDW

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Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analyst
Volatile Organic Compounds by GCMS												
2-Butanone (MEK)	02	78-93-3	SW8260D	10/08/2024 18:53	10/08/2024 18:53	28.2		3.00	10.0	1	ug/L	JWR
Acetone	02	67-64-1	SW8260D	10/08/2024 18:53	10/08/2024 18:53	30.1		7.00	10.0	1	ug/L	JWR
Benzene	02	71-43-2	SW8260D	10/08/2024 18:53	10/08/2024 18:53	306		0.40	1.00	1	ug/L	JWR
Ethylbenzene	02	100-41-4	SW8260D	10/08/2024 18:53	10/08/2024 18:53	59.6		0.40	1.00	1	ug/L	JWR
Toluene	02	108-88-3	SW8260D	10/08/2024 18:53	10/08/2024 18:53	55.7		0.50	1.00	1	ug/L	JWR
Xylenes, Total	02	1330-20-7	SW8260D	10/08/2024 18:53	10/08/2024 18:53	54.3		1.00	3.00	1	ug/L	JWR
Tetrahydrofuran	02	109-99-9	SW8260D	10/08/2024 18:53	10/08/2024 18:53	248		10.0	10.0	1	ug/L	JWR
Surr: 1,2-Dichloroethane-d4 (Surr)	*02*		*80.0 %*	*70-120*	*10/08/2024 18:53*	*10/08/2024 18:53*						
Surr: 4-Bromofluorobenzene (Surr)	*02*		*95.6 %*	*75-120*	*10/08/2024 18:53*	*10/08/2024 18:53*						
Surr: Dibromofluoromethane (Surr)	*02*		*80.4 %*	*70-130*	*10/08/2024 18:53*	*10/08/2024 18:53*						
Surr: Toluene-d8 (Surr)	*02*		*95.1 %*	*70-130*	*10/08/2024 18:53*	*10/08/2024 18:53*						

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Client Sample ID: **EW-36A** **Laboratory Sample ID:** **24J0273-02**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Semivolatile Organic Compounds by GCMS												
Anthracene	02	120-12-7	SW8270E	10/08/2024 10:00	10/10/2024 15:06	BLOD		50.0	100	10	ug/L	BMS
Surr: 2,4,6-Tribromophenol (Surr)	*02*		*54.7 % 5-136*	*10/08/2024 10:00*	*10/10/2024 15:06*							
Surr: 2-Fluorobiphenyl (Surr)	*02*		*48.1 % 9-117*	*10/08/2024 10:00*	*10/10/2024 15:06*							
Surr: 2-Fluorophenol (Surr)	*02*		*25.6 % 5-60*	*10/08/2024 10:00*	*10/10/2024 15:06*							
Surr: Nitrobenzene-d5 (Surr)	*02*		*84.1 % 5-151*	*10/08/2024 10:00*	*10/10/2024 15:06*							
Surr: Phenol-d5 (Surr)	*02*		*24.4 % 5-60*	*10/08/2024 10:00*	*10/10/2024 15:06*							
Surr: p-Terphenyl-d14 (Surr)	*02*		*57.1 % 5-141*	*10/08/2024 10:00*	*10/10/2024 15:06*							

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Client Sample ID: **EW-36A** **Laboratory Sample ID:** **24J0273-02**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analyst
Wet Chemistry Analysis												
Ammonia as N	02	7664-41-7	EPA350.1 R2.0	10/16/2024 14:12	10/16/2024 14:12	343		73.1	100	1000	mg/L	MKS
BOD	02	E1640606	SM5210B-2016	10/04/2024 13:57	10/04/2024 13:57	180		0.2	2.0	1	mg/L	CET
Cyanide	02	57-12-5	SW9012B	10/10/2024 12:00	10/10/2024 16:00	0.20	CI	0.05	0.05	5	mg/L	MKS
COD	02	NA	SM5220D-2011	10/17/2024 13:45	10/17/2024 13:45	951		500	500	1	mg/L	TEG
Nitrate as N	02	14797-55-8	Calc.	10/15/2024 12:51	10/15/2024 12:51	BLOD		0.100	0.500	1	mg/L	KJM
Nitrate+Nitrite as N	02	E701177	SM4500-NO3F-2016	10/15/2024 12:51	10/15/2024 12:51	BLOD		0.10	0.10	1	mg/L	AAH
Nitrite as N	02	14797-65-0	SM4500-NO2B-2011	10/04/2024 09:00	10/04/2024 09:00	BLOD		0.10	0.50	1	mg/L	KJM
Total Recoverable Phenolics	02	NA	SW9065	10/17/2024 16:56	10/17/2024 16:56	0.376		0.030	0.050	1	mg/L	SPH
TKN as N	02	E17148461	EPA351.2 R2.0	10/16/2024 13:09	10/16/2024 13:09	351		40.0	100	200	mg/L	SPH

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Client Sample ID: **Trip Blank** **Laboratory Sample ID:** **24J0273-03**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analyst
Volatile Organic Compounds by GCMS												
2-Butanone (MEK)	03	78-93-3	SW8260D	10/08/2024 18:05	10/08/2024 18:05	BLOD		3.00	10.0	1	ug/L	JWR
Acetone	03	67-64-1	SW8260D	10/08/2024 18:05	10/08/2024 18:05	BLOD		7.00	10.0	1	ug/L	JWR
Benzene	03	71-43-2	SW8260D	10/08/2024 18:05	10/08/2024 18:05	BLOD		0.40	1.00	1	ug/L	JWR
Ethylbenzene	03	100-41-4	SW8260D	10/08/2024 18:05	10/08/2024 18:05	BLOD		0.40	1.00	1	ug/L	JWR
Toluene	03	108-88-3	SW8260D	10/08/2024 18:05	10/08/2024 18:05	BLOD		0.50	1.00	1	ug/L	JWR
Xylenes, Total	03	1330-20-7	SW8260D	10/08/2024 18:05	10/08/2024 18:05	BLOD		1.00	3.00	1	ug/L	JWR
Tetrahydrofuran	03	109-99-9	SW8260D	10/08/2024 18:05	10/08/2024 18:05	BLOD		10.0	10.0	1	ug/L	JWR
Surr: 1,2-Dichloroethane-d4 (Surr)	*03*	*75.3 %*	*70-120*	*10/08/2024 18:05*	*10/08/2024 18:05*							
Surr: 4-Bromofluorobenzene (Surr)	*03*	*95.7 %*	*75-120*	*10/08/2024 18:05*	*10/08/2024 18:05*							
Surr: Dibromofluoromethane (Surr)	*03*	*76.6 %*	*70-130*	*10/08/2024 18:05*	*10/08/2024 18:05*							
Surr: Toluene-d8 (Surr)	*03*	*97.2 %*	*70-130*	*10/08/2024 18:05*	*10/08/2024 18:05*							

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Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0312 - EPA200.2R2.8/SW3005A-ICPMS										
Blank (BHJ0312-BLK1)				Prepared: 10/07/2024 Analyzed: 10/08/2024						
Mercury	ND	0.200	ug/L							
Arsenic	ND	1.0	ug/L							
Barium	ND	5.00	ug/L							
Cadmium	ND	1.00	ug/L							
Chromium	ND	1.00	ug/L							
Copper	ND	1.00	ug/L							
Lead	ND	1.0	ug/L							
Nickel	ND	1.000	ug/L							
Selenium	ND	1.00	ug/L							
Silver	ND	1.00	ug/L							
Zinc	ND	5.00	ug/L							
LCS (BHJ0312-BS1)				Prepared: 10/07/2024 Analyzed: 10/08/2024						
Mercury	0.907	0.200	ug/L	1.00		90.7	80-120			
Arsenic	51	1.0	ug/L	50.0		102	80-120			
Barium	51.2	5.00	ug/L	50.0		102	80-120			
Cadmium	52.6	1.00	ug/L	50.0		105	80-120			
Chromium	49.9	1.00	ug/L	50.0		99.9	80-120			
Copper	50.1	1.00	ug/L	50.0		100	80-120			
Lead	53	1.0	ug/L	50.0		105	80-120			
Nickel	50.80	1.000	ug/L	50.0		102	80-120			
Selenium	51.6	1.00	ug/L	50.0		103	80-120			
Silver	10.5	1.00	ug/L	10.0		105	80-120			
Zinc	48.4	5.00	ug/L	50.0		96.9	80-120			
Matrix Spike (BHJ0312-MS1)	**Source: 24J0387-05**			Prepared: 10/07/2024 Analyzed: 10/14/2024						

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Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0312 - EPA200.2R2.8/SW3005A-ICPMS										
Matrix Spike (BHJ0312-MS1)	**Source: 24J0387-05**			Prepared: 10/07/2024 Analyzed: 10/14/2024						
Mercury	1.05	0.200	ug/L	1.00	BLOD	105	70-130			
Arsenic	53	1.0	ug/L	50.0	BLOD	106	75-125			
Barium	97.5	5.00	ug/L	50.0	45.7	104	75-125			
Cadmium	52.1	1.00	ug/L	50.0	BLOD	104	75-125			
Chromium	52.9	1.00	ug/L	50.0	BLOD	106	75-125			
Copper	52.6	1.00	ug/L	50.0	0.428	104	75-125			
Lead	55	1.0	ug/L	50.0	BLOD	110	75-125			
Nickel	52.46	1.000	ug/L	50.0	BLOD	105	75-125			
Selenium	52.0	1.00	ug/L	50.0	BLOD	104	75-125			
Silver	10.6	1.00	ug/L	10.0	BLOD	106	75-125			
Zinc	52.6	5.00	ug/L	50.0	BLOD	105	75-125			
Matrix Spike (BHJ0312-MS2)	**Source: 24J0414-01**			Prepared: 10/07/2024 Analyzed: 10/08/2024						
Mercury	1.00	0.200	ug/L	1.00	BLOD	100	70-130			
Arsenic	51	1.0	ug/L	50.0	0.78	101	75-125			
Barium	83.6	5.00	ug/L	50.0	26.7	114	75-125			
Cadmium	46.7	1.00	ug/L	50.0	0.928	91.5	75-125			
Chromium	63.8	1.00	ug/L	50.0	24.3	79.0	75-125			
Copper	46.2	1.00	ug/L	50.0	0.911	90.5	75-125			
Lead	48	1.0	ug/L	50.0	BLOD	96.5	75-125			
Nickel	56.44	1.000	ug/L	50.0	7.726	97.4	75-125			
Selenium	258	1.00	ug/L	50.0	223	70.4	75-125			*M, E*
Silver	9.56	1.00	ug/L	10.0	BLOD	95.6	75-125			
Zinc	54.1	5.00	ug/L	50.0	17.1	73.9	75-125			*M*
Matrix Spike Dup (BHJ0312-MSD1)	**Source: 24J0387-05**			Prepared: 10/07/2024 Analyzed: 10/14/2024						

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Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0312 - EPA200.2R2.8/SW3005A-ICPMS										
Matrix Spike Dup (BHJ0312-MSD1)	**Source: 24J0387-05**			Prepared: 10/07/2024 Analyzed: 10/14/2024						
Mercury	1.07	0.200	ug/L	1.00	BLOD	107	70-130	1.22	20	
Arsenic	53	1.0	ug/L	50.0	BLOD	106	75-125	0.0402	20	
Barium	97.4	5.00	ug/L	50.0	45.7	104	75-125	0.105	20	
Cadmium	52.2	1.00	ug/L	50.0	BLOD	104	75-125	0.237	20	
Chromium	53.0	1.00	ug/L	50.0	BLOD	106	75-125	0.0278	20	
Copper	52.6	1.00	ug/L	50.0	0.428	104	75-125	0.0444	20	
Lead	55	1.0	ug/L	50.0	BLOD	109	75-125	0.525	20	
Nickel	52.47	1.000	ug/L	50.0	BLOD	105	75-125	0.0163	20	
Selenium	53.1	1.00	ug/L	50.0	BLOD	106	75-125	2.05	20	
Silver	10.5	1.00	ug/L	10.0	BLOD	105	75-125	0.151	20	
Zinc	52.8	5.00	ug/L	50.0	BLOD	106	75-125	0.388	20	
Matrix Spike Dup (BHJ0312-MSD2)	**Source: 24J0414-01**			Prepared: 10/07/2024 Analyzed: 10/08/2024						
Mercury	1.03	0.200	ug/L	1.00	BLOD	103	70-130	2.53	20	
Arsenic	51	1.0	ug/L	50.0	0.78	101	75-125	0.0283	20	
Barium	83.7	5.00	ug/L	50.0	26.7	114	75-125	0.163	20	
Cadmium	47.1	1.00	ug/L	50.0	0.928	92.3	75-125	0.899	20	
Chromium	62.0	1.00	ug/L	50.0	24.3	75.3	75-125	2.91	20	
Copper	46.5	1.00	ug/L	50.0	0.911	91.1	75-125	0.589	20	
Lead	49	1.0	ug/L	50.0	BLOD	97.9	75-125	1.46	20	
Nickel	56.70	1.000	ug/L	50.0	7.726	97.9	75-125	0.457	20	
Selenium	255	1.00	ug/L	50.0	223	62.9	75-125	1.48	20	*M, E*
Silver	9.70	1.00	ug/L	10.0	BLOD	97.0	75-125	1.43	20	
Zinc	54.1	5.00	ug/L	50.0	17.1	73.9	75-125	0.0131	20	*M*

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Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
Blank (BHJ0364-BLK1)				Prepared & Analyzed: 10/08/2024						
2-Butanone (MEK)	ND	10.0	ug/L							
Acetone	ND	10.0	ug/L							
Benzene	ND	1.00	ug/L							
Ethylbenzene	ND	1.00	ug/L							
Toluene	ND	1.00	ug/L							
Xylenes, Total	ND	3.00	ug/L							
Surr: 1,2-Dichloroethane-d4 (Surr)	*43.9*		ug/L	*50.0*		*87.8*	*70-120*			
Surr: 4-Bromofluorobenzene (Surr)	*48.0*		ug/L	*50.0*		*96.1*	*75-120*			
Surr: Dibromofluoromethane (Surr)	*44.8*		ug/L	*50.0*		*89.7*	*70-130*			
Surr: Toluene-d8 (Surr)	*49.2*		ug/L	*50.0*		*98.3*	*70-130*			
LCS (BHJ0364-BS1)				Prepared & Analyzed: 10/08/2024						
1,1,1,2-Tetrachloroethane	50.4	0.4	ug/L	50.0		101	80-130			
1,1,1-Trichloroethane	48.5	1	ug/L	50.0		96.9	65-130			
1,1,2,2-Tetrachloroethane	44.3	0.4	ug/L	50.0		88.6	65-130			
1,1,2-Trichloroethane	46.0	1	ug/L	50.0		92.0	75-125			
1,1-Dichloroethane	50.8	1	ug/L	50.0		102	70-135			
1,1-Dichloroethylene	49.3	1	ug/L	50.0		98.6	70-130			
1,1-Dichloropropene	51.8	1	ug/L	50.0		104	75-135			
1,2,3-Trichlorobenzene	51.6	1	ug/L	50.0		103	55-140			
1,2,3-Trichloropropane	40.0	1	ug/L	50.0		80.0	75-125			
1,2,4-Trichlorobenzene	52.2	1	ug/L	50.0		104	65-135			
1,2,4-Trimethylbenzene	53.2	1	ug/L	50.0		106	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	40.0	1	ug/L	50.0		79.9	50-130			
1,2-Dibromoethane (EDB)	46.6	1	ug/L	50.0		93.2	80-120			

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Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
LCS (BHJ0364-BS1)				Prepared & Analyzed: 10/08/2024						
1,2-Dichlorobenzene	53.2	0.5	ug/L	50.0		106	70-120			
1,2-Dichloroethane	43.7	1	ug/L	50.0		87.4	70-130			
1,2-Dichloropropane	52.9	0.5	ug/L	50.0		106	75-125			
1,3,5-Trimethylbenzene	54.1	1	ug/L	50.0		108	75-125			
1,3-Dichlorobenzene	55.0	1	ug/L	50.0		110	75-125			
1,3-Dichloropropane	45.7	1	ug/L	50.0		91.4	75-125			
1,4-Dichlorobenzene	53.9	1	ug/L	50.0		108	75-125			
2,2-Dichloropropane	52.3	1	ug/L	50.0		105	70-135			
2-Butanone (MEK)	33.3	10	ug/L	50.0		66.6	30-150			
2-Chlorotoluene	51.2	1	ug/L	50.0		102	75-125			
2-Hexanone (MBK)	38.4	5	ug/L	50.0		76.9	55-130			
4-Chlorotoluene	54.8	1	ug/L	50.0		110	75-130			
4-Isopropyltoluene	57.8	1	ug/L	50.0		116	75-130			
4-Methyl-2-pentanone (MIBK)	37.9	5	ug/L	50.0		75.9	60-135			
Acetone	38.2	10	ug/L	50.0		76.5	40-140			
Benzene	51.4	1	ug/L	50.0		103	80-120			
Bromobenzene	45.8	1	ug/L	50.0		91.6	75-125			
Bromochloromethane	44.2	1	ug/L	50.0		88.4	65-130			
Bromodichloromethane	46.7	0.5	ug/L	50.0		93.5	75-120			
Bromoform	49.0	1	ug/L	50.0		98.1	70-130			
Bromomethane	49.7	1	ug/L	50.0		99.5	30-145			
Carbon disulfide	40.8	10	ug/L	50.0		81.6	35-160			
Carbon tetrachloride	52.5	1	ug/L	50.0		105	65-140			
Chlorobenzene	52.4	1	ug/L	50.0		105	80-120			
Chloroethane	43.8	1	ug/L	50.0		87.7	60-135			

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Date Issued: 10/28/2024 5:08:56PM
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Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
LCS (BHJ0364-BS1)				Prepared & Analyzed: 10/08/2024						
Chloroform	46.8	0.5	ug/L	50.0		93.7	65-135			
Chloromethane	67.0	1	ug/L	50.0		134	40-125			*L*
cis-1,2-Dichloroethylene	47.7	1	ug/L	50.0		95.5	70-125			
cis-1,3-Dichloropropene	48.9	1	ug/L	50.0		97.9	70-130			
Dibromochloromethane	46.9	0.5	ug/L	50.0		93.8	60-135			
Dibromomethane	49.4	1	ug/L	50.0		98.8	75-125			
Dichlorodifluoromethane	84.6	1	ug/L	50.0		169	30-155			*L*
Ethylbenzene	52.2	1	ug/L	50.0		104	75-125			
Hexachlorobutadiene	57.4	0.8	ug/L	50.0		115	50-140			
Isopropylbenzene	46.3	1	ug/L	50.0		92.6	75-125			
m+p-Xylenes	104	2	ug/L	100		104	75-130			
Methylene chloride	46.0	4	ug/L	50.0		92.0	55-140			
Methyl-t-butyl ether (MTBE)	44.1	1	ug/L	50.0		88.2	65-125			
Naphthalene	51.2	1	ug/L	50.0		102	55-140			
n-Butylbenzene	56.0	1	ug/L	50.0		112	70-135			
n-Propylbenzene	52.8	1	ug/L	50.0		106	70-130			
o-Xylene	51.0	1	ug/L	50.0		102	80-120			
sec-Butylbenzene	60.3	1	ug/L	50.0		121	70-125			
Styrene	50.0	1	ug/L	50.0		100	65-135			
tert-Butylbenzene	55.2	1	ug/L	50.0		110	70-130			
Tetrachloroethylene (PCE)	56.0	1	ug/L	50.0		112	45-150			
Toluene	48.1	1	ug/L	50.0		96.2	75-120			
trans-1,2-Dichloroethylene	48.6	1	ug/L	50.0		97.2	60-140			
trans-1,3-Dichloropropene	49.5	1	ug/L	50.0		99.1	55-140			
Trichloroethylene	53.5	1	ug/L	50.0		107	70-125			

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Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
LCS (BHJ0364-BS1)				Prepared & Analyzed: 10/08/2024						
Trichlorofluoromethane	53.5	1	ug/L	50.0		107	60-145			
Vinyl chloride	51.3	0.5	ug/L	50.0		103	50-145			
Surr: 1,2-Dichloroethane-d4 (Surr)	*45.6*		ug/L	*50.0*		*91.1*	*70-120*			
Surr: 4-Bromofluorobenzene (Surr)	*47.8*		ug/L	*50.0*		*95.6*	*75-120*			
Surr: Dibromofluoromethane (Surr)	*46.0*		ug/L	*50.0*		*92.1*	*70-130*			
Surr: Toluene-d8 (Surr)	*48.2*		ug/L	*50.0*		*96.3*	*70-130*			
Matrix Spike (BHJ0364-MS1)	**Source: 24J0237-01**			Prepared & Analyzed: 10/09/2024						
1,1,1,2-Tetrachloroethane	51.6	0.4	ug/L	50.0	BLOD	103	80-130			
1,1,1-Trichloroethane	41.0	1	ug/L	50.0	BLOD	82.1	65-130			
1,1,2,2-Tetrachloroethane	47.8	0.4	ug/L	50.0	BLOD	95.6	65-130			
1,1,2-Trichloroethane	47.4	1	ug/L	50.0	BLOD	94.8	75-125			
1,1-Dichloroethane	44.6	1	ug/L	50.0	0.77	87.8	70-135			
1,1-Dichloroethylene	41.1	1	ug/L	50.0	BLOD	82.1	50-145			
1,1-Dichloropropene	44.1	1	ug/L	50.0	BLOD	88.1	75-135			
1,2,3-Trichlorobenzene	54.0	1	ug/L	50.0	BLOD	108	55-140			
1,2,3-Trichloropropane	43.0	1	ug/L	50.0	BLOD	85.9	75-125			
1,2,4-Trichlorobenzene	53.7	1	ug/L	50.0	BLOD	107	65-135			
1,2,4-Trimethylbenzene	54.7	1	ug/L	50.0	BLOD	109	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	42.1	1	ug/L	50.0	BLOD	84.2	50-130			
1,2-Dibromoethane (EDB)	50.1	1	ug/L	50.0	BLOD	100	80-120			
1,2-Dichlorobenzene	55.4	0.5	ug/L	50.0	BLOD	111	70-120			
1,2-Dichloroethane	39.6	1	ug/L	50.0	BLOD	79.2	70-130			
1,2-Dichloropropane	52.4	0.5	ug/L	50.0	BLOD	105	75-125			
1,3,5-Trimethylbenzene	54.6	1	ug/L	50.0	BLOD	109	75-124			

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Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
Matrix Spike (BHJ0364-MS1)	**Source: 24J0237-01**			Prepared & Analyzed: 10/09/2024						
1,3-Dichlorobenzene	56.8	1	ug/L	50.0	BLOD	114	75-125			
1,3-Dichloropropane	47.2	1	ug/L	50.0	BLOD	94.5	75-125			
1,4-Dichlorobenzene	55.3	1	ug/L	50.0	BLOD	111	75-125			
2,2-Dichloropropane	44.1	1	ug/L	50.0	BLOD	88.2	70-135			
2-Butanone (MEK)	28.4	10	ug/L	50.0	BLOD	56.8	30-150			
2-Chlorotoluene	51.8	1	ug/L	50.0	BLOD	104	75-125			
2-Hexanone (MBK)	40.4	5	ug/L	50.0	BLOD	80.9	55-130			
4-Chlorotoluene	56.7	1	ug/L	50.0	BLOD	113	75-130			
4-Isopropyltoluene	58.1	1	ug/L	50.0	BLOD	116	75-130			
4-Methyl-2-pentanone (MIBK)	39.6	5	ug/L	50.0	BLOD	79.1	60-135			
Acetone	28.6	10	ug/L	50.0	BLOD	49.6	40-140			
Benzene	50.5	1	ug/L	50.0	BLOD	101	80-120			
Bromobenzene	47.2	1	ug/L	50.0	BLOD	94.3	75-125			
Bromochloromethane	39.5	1	ug/L	50.0	BLOD	79.1	65-130			
Bromodichloromethane	47.1	0.5	ug/L	50.0	BLOD	94.3	75-136			
Bromoform	50.4	1	ug/L	50.0	BLOD	101	70-130			
Bromomethane	39.7	1	ug/L	50.0	BLOD	79.5	30-145			
Carbon disulfide	36.5	10	ug/L	50.0	BLOD	72.5	35-160			
Carbon tetrachloride	50.8	1	ug/L	50.0	BLOD	102	65-140			
Chlorobenzene	54.0	1	ug/L	50.0	BLOD	108	80-120			
Chloroethane	37.5	1	ug/L	50.0	BLOD	75.0	60-135			
Chloroform	41.1	0.5	ug/L	50.0	BLOD	82.2	65-135			
Chloromethane	55.5	1	ug/L	50.0	BLOD	111	40-125			
cis-1,2-Dichloroethylene	42.0	1	ug/L	50.0	2.25	79.5	70-125			
cis-1,3-Dichloropropene	49.2	1	ug/L	50.0	BLOD	98.4	47-136			

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Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
Matrix Spike (BHJ0364-MS1)	**Source: 24J0237-01**			Prepared & Analyzed: 10/09/2024						
Dibromochloromethane	46.6	0.5	ug/L	50.0	BLOD	93.3	60-135			
Dibromomethane	49.8	1	ug/L	50.0	BLOD	99.7	75-125			
Dichlorodifluoromethane	74.1	1	ug/L	50.0	BLOD	148	30-155			
Ethylbenzene	53.8	1	ug/L	50.0	BLOD	107	75-125			
Hexachlorobutadiene	56.0	0.8	ug/L	50.0	BLOD	112	50-140			
Isopropylbenzene	47.5	1	ug/L	50.0	BLOD	94.9	75-125			
m+p-Xylenes	105	2	ug/L	100	BLOD	105	75-130			
Methylene chloride	39.4	4	ug/L	50.0	BLOD	77.4	55-140			
Methyl-t-butyl ether (MTBE)	39.2	1	ug/L	50.0	BLOD	78.4	65-125			
Naphthalene	54.0	1	ug/L	50.0	BLOD	108	55-140			
n-Butylbenzene	57.3	1	ug/L	50.0	BLOD	115	70-135			
n-Propylbenzene	53.4	1	ug/L	50.0	BLOD	107	70-130			
o-Xylene	51.6	1	ug/L	50.0	BLOD	103	80-120			
sec-Butylbenzene	61.3	1	ug/L	50.0	BLOD	123	70-125			
Styrene	51.5	1	ug/L	50.0	BLOD	103	65-135			
tert-Butylbenzene	56.4	1	ug/L	50.0	BLOD	113	70-130			
Tetrachloroethylene (PCE)	55.3	1	ug/L	50.0	BLOD	111	51-231			
Toluene	47.5	1	ug/L	50.0	BLOD	94.5	75-120			
trans-1,2-Dichloroethylene	41.4	1	ug/L	50.0	BLOD	82.8	60-140			
trans-1,3-Dichloropropene	50.0	1	ug/L	50.0	BLOD	99.9	55-140			
Trichloroethylene	52.6	1	ug/L	50.0	BLOD	105	70-125			
Trichlorofluoromethane	45.6	1	ug/L	50.0	BLOD	91.3	60-145			
Vinyl chloride	43.6	0.5	ug/L	50.0	1.97	83.3	50-145			
Surr: 1,2-Dichloroethane-d4 (Surr)	*39.8*		ug/L	*50.0*		*79.5*	*70-120*			

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Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
Matrix Spike (BHJ0364-MS1)	**Source: 24J0237-01**			Prepared & Analyzed: 10/09/2024						
Surr: 4-Bromofluorobenzene (Surr)	*48.8*		ug/L	*50.0*		*97.6*	*75-120*			
Surr: Dibromofluoromethane (Surr)	*39.6*		ug/L	*50.0*		*79.2*	*70-130*			
Surr: Toluene-d8 (Surr)	*47.5*		ug/L	*50.0*		*95.0*	*70-130*			
Matrix Spike Dup (BHJ0364-MSD1)	**Source: 24J0237-01**			Prepared & Analyzed: 10/09/2024						
1,1,1,2-Tetrachloroethane	49.4	0.4	ug/L	50.0	BLOD	98.7	80-130	4.32	30	
1,1,1-Trichloroethane	40.1	1	ug/L	50.0	BLOD	80.2	65-130	2.32	30	
1,1,2,2-Tetrachloroethane	46.0	0.4	ug/L	50.0	BLOD	92.1	65-130	3.71	30	
1,1,2-Trichloroethane	47.6	1	ug/L	50.0	BLOD	95.1	75-125	0.358	30	
1,1-Dichloroethane	43.5	1	ug/L	50.0	0.77	85.5	70-135	2.56	30	
1,1-Dichloroethylene	39.6	1	ug/L	50.0	BLOD	79.1	50-145	3.75	30	
1,1-Dichloropropene	42.9	1	ug/L	50.0	BLOD	85.7	75-135	2.74	30	
1,2,3-Trichlorobenzene	51.8	1	ug/L	50.0	BLOD	104	55-140	4.10	30	
1,2,3-Trichloropropane	41.4	1	ug/L	50.0	BLOD	82.9	75-125	3.55	30	
1,2,4-Trichlorobenzene	50.5	1	ug/L	50.0	BLOD	101	65-135	6.14	30	
1,2,4-Trimethylbenzene	53.0	1	ug/L	50.0	BLOD	106	75-130	3.12	30	
1,2-Dibromo-3-chloropropane (DBCP)	41.5	1	ug/L	50.0	BLOD	83.0	50-130	1.48	30	
1,2-Dibromoethane (EDB)	48.2	1	ug/L	50.0	BLOD	96.3	80-120	3.97	30	
1,2-Dichlorobenzene	53.1	0.5	ug/L	50.0	BLOD	106	70-120	4.35	30	
1,2-Dichloroethane	38.5	1	ug/L	50.0	BLOD	77.0	70-130	2.87	30	
1,2-Dichloropropane	51.0	0.5	ug/L	50.0	BLOD	102	75-125	2.75	30	
1,3,5-Trimethylbenzene	52.4	1	ug/L	50.0	BLOD	105	75-124	4.05	30	
1,3-Dichlorobenzene	54.3	1	ug/L	50.0	BLOD	109	75-125	4.49	30	
1,3-Dichloropropane	45.7	1	ug/L	50.0	BLOD	91.4	75-125	3.29	30	
1,4-Dichlorobenzene	53.2	1	ug/L	50.0	BLOD	106	75-125	3.78	30	

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Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
Matrix Spike Dup (BHJ0364-MSD1)	**Source: 24J0237-01**			Prepared & Analyzed: 10/09/2024						
2,2-Dichloropropane	42.3	1	ug/L	50.0	BLOD	84.6	70-135	4.12	30	
2-Butanone (MEK)	29.8	10	ug/L	50.0	BLOD	59.6	30-150	4.81	30	
2-Chlorotoluene	50.1	1	ug/L	50.0	BLOD	100	75-125	3.34	30	
2-Hexanone (MBK)	39.5	5	ug/L	50.0	BLOD	78.9	55-130	2.45	30	
4-Chlorotoluene	53.6	1	ug/L	50.0	BLOD	107	75-130	5.62	30	
4-Isopropyltoluene	55.7	1	ug/L	50.0	BLOD	111	75-130	4.22	30	
4-Methyl-2-pentanone (MIBK)	38.3	5	ug/L	50.0	BLOD	76.5	60-135	3.31	30	
Acetone	28.4	10	ug/L	50.0	BLOD	49.1	40-140	0.808	30	
Benzene	48.8	1	ug/L	50.0	BLOD	97.6	80-120	3.38	30	
Bromobenzene	45.6	1	ug/L	50.0	BLOD	91.3	75-125	3.30	30	
Bromochloromethane	38.1	1	ug/L	50.0	BLOD	76.2	65-130	3.68	30	
Bromodichloromethane	45.6	0.5	ug/L	50.0	BLOD	91.2	75-136	3.34	30	
Bromoform	49.2	1	ug/L	50.0	BLOD	98.4	70-130	2.41	30	
Bromomethane	39.6	1	ug/L	50.0	BLOD	79.1	30-145	0.454	30	
Carbon disulfide	33.0	10	ug/L	50.0	BLOD	65.5	35-160	10.2	30	
Carbon tetrachloride	48.8	1	ug/L	50.0	BLOD	97.6	65-140	4.14	30	
Chlorobenzene	51.6	1	ug/L	50.0	BLOD	103	80-120	4.53	30	
Chloroethane	36.1	1	ug/L	50.0	BLOD	72.2	60-135	3.78	30	
Chloroform	40.1	0.5	ug/L	50.0	BLOD	80.3	65-135	2.44	30	
Chloromethane	53.2	1	ug/L	50.0	BLOD	106	40-125	4.34	30	
cis-1,2-Dichloroethylene	41.5	1	ug/L	50.0	2.25	78.5	70-125	1.22	30	
cis-1,3-Dichloropropene	47.2	1	ug/L	50.0	BLOD	94.4	47-136	4.21	30	
Dibromochloromethane	45.8	0.5	ug/L	50.0	BLOD	91.7	60-135	1.71	30	
Dibromomethane	48.1	1	ug/L	50.0	BLOD	96.2	75-125	3.57	30	
Dichlorodifluoromethane	69.0	1	ug/L	50.0	BLOD	137	30-155	7.10	30	

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Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0364 - SW5030B-MS										
Matrix Spike Dup (BHJ0364-MSD1)	**Source: 24J0237-01**			Prepared & Analyzed: 10/09/2024						
Ethylbenzene	50.8	1	ug/L	50.0	BLOD	101	75-125	5.72	30	
Hexachlorobutadiene	54.2	0.8	ug/L	50.0	BLOD	108	50-140	3.34	30	
Isopropylbenzene	44.8	1	ug/L	50.0	BLOD	89.6	75-125	5.72	30	
m+p-Xylenes	101	2	ug/L	100	BLOD	100	75-130	4.21	30	
Methylene chloride	38.4	4	ug/L	50.0	BLOD	75.5	55-140	2.42	30	
Methyl-t-butyl ether (MTBE)	38.7	1	ug/L	50.0	BLOD	77.3	65-125	1.39	30	
Naphthalene	53.7	1	ug/L	50.0	BLOD	107	55-140	0.501	30	
n-Butylbenzene	54.6	1	ug/L	50.0	BLOD	109	70-135	4.70	30	
n-Propylbenzene	51.1	1	ug/L	50.0	BLOD	102	70-130	4.37	30	
o-Xylene	49.6	1	ug/L	50.0	BLOD	98.7	80-120	4.11	30	
sec-Butylbenzene	58.7	1	ug/L	50.0	BLOD	117	70-125	4.40	30	
Styrene	49.2	1	ug/L	50.0	BLOD	98.3	65-135	4.55	30	
tert-Butylbenzene	53.8	1	ug/L	50.0	BLOD	108	70-130	4.64	30	
Tetrachloroethylene (PCE)	52.5	1	ug/L	50.0	BLOD	105	51-231	5.16	30	
Toluene	46.0	1	ug/L	50.0	BLOD	91.5	75-120	3.12	30	
trans-1,2-Dichloroethylene	39.2	1	ug/L	50.0	BLOD	78.4	60-140	5.38	30	
trans-1,3-Dichloropropene	48.5	1	ug/L	50.0	BLOD	97.0	55-140	3.03	30	
Trichloroethylene	50.2	1	ug/L	50.0	BLOD	99.8	70-125	4.57	30	
Trichlorofluoromethane	43.3	1	ug/L	50.0	BLOD	86.7	60-145	5.21	30	
Vinyl chloride	42.4	0.5	ug/L	50.0	1.97	80.8	50-145	2.93	30	
Surr: 1,2-Dichloroethane-d4 (Surr)	*41.9*		ug/L	*50.0*		*83.8*	*70-120*			
Surr: 4-Bromofluorobenzene (Surr)	*47.5*		ug/L	*50.0*		*95.1*	*75-120*			
Surr: Dibromofluoromethane (Surr)	*40.1*		ug/L	*50.0*		*80.2*	*70-130*			
Surr: Toluene-d8 (Surr)	*47.6*		ug/L	*50.0*		*95.2*	*70-130*			

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Certificate of Analysis

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Client Site I.D.: Bristol LFG-EW
Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:08:56PM
Work Order: 24J0273

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0336 - SW3510C/EPA600-MS										
Blank (BHJ0336-BLK1)				Prepared & Analyzed: 10/08/2024						
Anthracene	ND	10.0	ug/L							
Surr: 2,4,6-Tribromophenol (Surr)	*60.4*		ug/L	*100*		*60.4*	*5-136*			
Surr: 2-Fluorobiphenyl (Surr)	*29.2*		ug/L	*50.0*		*58.5*	*9-117*			
Surr: 2-Fluorophenol (Surr)	*28.2*		ug/L	*100*		*28.2*	*5-60*			
Surr: Nitrobenzene-d5 (Surr)	*40.4*		ug/L	*50.0*		*80.7*	*5-151*			
Surr: Phenol-d5 (Surr)	*26.2*		ug/L	*100*		*26.2*	*5-60*			
Surr: p-Terphenyl-d14 (Surr)	*39.5*		ug/L	*50.0*		*79.1*	*5-141*			
LCS (BHJ0336-BS1)				Prepared & Analyzed: 10/08/2024						
1,2,4-Trichlorobenzene	32.9	10.0	ug/L	50.0		65.8	57-130			
1,2-Dichlorobenzene	33.2	10.0	ug/L	50.0		66.4	22-115			
1,3-Dichlorobenzene	31.4	10.0	ug/L	50.0		62.9	22-112			
1,4-Dichlorobenzene	33.5	10.0	ug/L	50.0		67.0	13-112			
2,4,6-Trichlorophenol	36.9	10.0	ug/L	50.0		73.8	52-129			
2,4-Dichlorophenol	35.6	10.0	ug/L	50.0		71.1	53-122			
2,4-Dimethylphenol	37.4	5.00	ug/L	50.0		74.8	42-120			
2,4-Dinitrophenol	33.6	50.0	ug/L	50.0		67.3	48-127			
2,4-Dinitrotoluene	40.3	10.0	ug/L	50.0		80.6	10-173			
2,6-Dinitrotoluene	37.5	10.0	ug/L	50.0		74.9	68-137			
2-Chloronaphthalene	30.5	10.0	ug/L	50.0		61.0	65-120			*L*
2-Chlorophenol	32.6	10.0	ug/L	50.0		65.1	36-120			
2-Nitrophenol	37.2	10.0	ug/L	50.0		74.4	45-167			
3,3'-Dichlorobenzidine	24.6	10.0	ug/L	50.0		49.3	10-213			
4,6-Dinitro-2-methylphenol	39.8	50.0	ug/L	50.0		79.7	53-130			
4-Bromophenyl phenyl ether	30.4	10.0	ug/L	50.0		60.7	65-120			*L*

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Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0336 - SW3510C/EPA600-MS										
LCS (BHJ0336-BS1)				Prepared & Analyzed: 10/08/2024						
4-Chlorophenyl phenyl ether	32.0	10.0	ug/L	50.0		64.0	38-145			
4-Nitrophenol	16.4	50.0	ug/L	50.0		32.9	13-129			
Acenaphthene	34.0	10.0	ug/L	50.0		68.0	60-132			
Acenaphthylene	34.4	10.0	ug/L	50.0		68.9	54-126			
Acetophenone	33.2	20.0	ug/L	50.0		66.4	0-200			
Anthracene	32.2	10.0	ug/L	50.0		64.4	43-120			
Benzo (a) anthracene	36.2	10.0	ug/L	50.0		72.4	42-133			
Benzo (a) pyrene	39.3	10.0	ug/L	50.0		78.6	32-148			
Benzo (b) fluoranthene	40.6	10.0	ug/L	50.0		81.3	42-140			
Benzo (g,h,i) perylene	51.8	10.0	ug/L	50.0		104	10-195			
Benzo (k) fluoranthene	33.6	10.0	ug/L	50.0		67.1	25-146			
bis (2-Chloroethoxy) methane	31.5	10.0	ug/L	50.0		62.9	49-165			
bis (2-Chloroethyl) ether	33.4	10.0	ug/L	50.0		66.8	43-126			
2,2'-Oxybis (1-chloropropane)	35.1	10.0	ug/L	50.0		70.3	63-139			
bis (2-Ethylhexyl) phthalate	40.7	10.0	ug/L	50.0		81.3	29-137			
Butyl benzyl phthalate	39.0	10.0	ug/L	50.0		78.1	10-140			
Chrysene	33.8	10.0	ug/L	50.0		67.6	44-140			
Dibenz (a,h) anthracene	48.5	10.0	ug/L	50.0		97.0	10-200			
Diethyl phthalate	41.0	10.0	ug/L	50.0		82.1	10-120			
Dimethyl phthalate	34.7	10.0	ug/L	50.0		69.5	10-120			
Di-n-butyl phthalate	37.4	10.0	ug/L	50.0		74.9	10-120			
Di-n-octyl phthalate	43.9	10.0	ug/L	50.0		87.7	19-132			
Fluoranthene	35.5	10.0	ug/L	50.0		70.9	43-121			
Fluorene	36.2	10.0	ug/L	50.0		72.5	70-120			
Hexachlorobenzene	31.6	1.00	ug/L	50.0		63.3	10-142			

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Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0336 - SW3510C/EPA600-MS										
LCS (BHJ0336-BS1)				Prepared & Analyzed: 10/08/2024						
Hexachlorobutadiene	41.6	10.0	ug/L	50.0		83.2	38-120			
Hexachlorocyclopentadiene	39.2	10.0	ug/L	50.0		78.3	10-76			*L*
Hexachloroethane	44.0	10.0	ug/L	50.0		88.0	55-120			
Indeno (1,2,3-cd) pyrene	47.8	10.0	ug/L	50.0		95.6	10-151			
Isophorone	22.7	10.0	ug/L	50.0		45.4	47-180			*L*
Naphthalene	31.8	5.00	ug/L	50.0		63.5	36-120			
Nitrobenzene	45.6	10.0	ug/L	50.0		91.3	54-158			
n-Nitrosodimethylamine	20.8	10.0	ug/L	50.0		41.5	10-85			
n-Nitrosodi-n-propylamine	38.6	10.0	ug/L	50.0		77.2	14-198			
n-Nitrosodiphenylamine	27.2	10.0	ug/L	50.0		54.4	12-97			
p-Chloro-m-cresol	39.1	10.0	ug/L	50.0		78.2	10-142			
Pentachloronitrobenzene (quintozene)	ND	10.0	ug/L				0-200			
Pentachlorophenol	23.0	20.0	ug/L	50.0		46.1	38-152			
Phenanthrene	37.7	10.0	ug/L	50.0		75.4	65-120			
Phenol	15.8	10.0	ug/L	50.5		31.4	17-120			
Pyrene	38.6	10.0	ug/L	50.0		77.1	70-120			
Pyridine	23.1	10.0	ug/L	50.0		46.1	10-103			
Surr: 2,4,6-Tribromophenol (Surr)	*63.6*		ug/L	*100*		*63.6*	*5-136*			
Surr: 2-Fluorobiphenyl (Surr)	*27.6*		ug/L	*50.0*		*55.3*	*9-117*			
Surr: 2-Fluorophenol (Surr)	*32.6*		ug/L	*100*		*32.6*	*5-60*			
Surr: Nitrobenzene-d5 (Surr)	*46.0*		ug/L	*50.0*		*92.1*	*5-151*			
Surr: Phenol-d5 (Surr)	*28.0*		ug/L	*100*		*28.0*	*5-60*			
Surr: p-Terphenyl-d14 (Surr)	*36.7*		ug/L	*50.0*		*73.5*	*5-141*			
Matrix Spike (BHJ0336-MS1)	**Source: 24J0346-05**			Prepared & Analyzed: 10/08/2024						

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Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0336 - SW3510C/EPA600-MS										
Matrix Spike (BHJ0336-MS1)	**Source: 24J0346-05**			Prepared & Analyzed: 10/08/2024						
1,2,4-Trichlorobenzene	25.4	10.0	ug/L	96.2	BLOD	26.4	44-142			*M*
1,2-Dichlorobenzene	25.3	10.0	ug/L	96.2	BLOD	26.3	22-115			
1,3-Dichlorobenzene	23.9	10.0	ug/L	96.2	BLOD	24.9	22-112			
1,4-Dichlorobenzene	25.2	10.0	ug/L	96.2	BLOD	26.2	13-112			
2,4,6-Trichlorophenol	30.9	10.0	ug/L	96.2	BLOD	32.1	37-144			*M*
2,4-Dichlorophenol	29.5	10.0	ug/L	96.2	BLOD	30.7	39-135			*M*
2,4-Dimethylphenol	32.2	5.00	ug/L	96.2	BLOD	33.5	32-120			
2,4-Dinitrophenol	26.7	50.0	ug/L	96.2	BLOD	27.8	39-139			*M*
2,4-Dinitrotoluene	35.3	10.0	ug/L	96.2	BLOD	36.7	10-191			
2,6-Dinitrotoluene	35.0	10.0	ug/L	96.2	BLOD	36.4	50-158			*M*
2-Chloronaphthalene	27.7	10.0	ug/L	96.2	BLOD	28.8	60-120			*M*
2-Chlorophenol	28.2	10.0	ug/L	96.2	BLOD	29.4	23-134			
2-Nitrophenol	34.6	10.0	ug/L	96.2	BLOD	36.0	29-182			
3,3'-Dichlorobenzidine	21.0	10.0	ug/L	96.2	BLOD	21.8	10-262			
4,6-Dinitro-2-methylphenol	33.6	50.0	ug/L	96.2	BLOD	34.9	10-181			
4-Bromophenyl phenyl ether	26.7	10.0	ug/L	96.2	BLOD	27.7	53-127			*M*
4-Chlorophenyl phenyl ether	27.9	10.0	ug/L	96.2	BLOD	29.0	25-158			
4-Nitrophenol	12.5	50.0	ug/L	96.2	BLOD	13.0	10-132			
Acenaphthene	27.8	10.0	ug/L	96.2	BLOD	28.9	47-145			*M*
Acenaphthylene	29.1	10.0	ug/L	96.2	BLOD	30.2	33-145			*M*
Acetophenone	26.4	20.0	ug/L	96.2	BLOD	27.4	0-200			
Anthracene	26.4	10.0	ug/L	96.2	BLOD	27.4	27-133			
Benzo (a) anthracene	31.3	10.0	ug/L	96.2	BLOD	32.6	33-143			*M*
Benzo (a) pyrene	34.9	10.0	ug/L	96.2	BLOD	36.3	17-163			
Benzo (b) fluoranthene	38.7	10.0	ug/L	96.2	BLOD	40.2	24-159			

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Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0336 - SW3510C/EPA600-MS										
Matrix Spike (BHJ0336-MS1)	**Source: 24J0346-05**			Prepared & Analyzed: 10/08/2024						
Benzo (g,h,i) perylene	44.9	10.0	ug/L	96.2	BLOD	46.7	10-219			
Benzo (k) fluoranthene	29.4	10.0	ug/L	96.2	BLOD	30.6	11-162			
bis (2-Chloroethoxy) methane	28.7	10.0	ug/L	96.2	BLOD	29.9	33-184			*M*
bis (2-Chloroethyl) ether	28.6	10.0	ug/L	96.2	BLOD	29.8	12-158			
2,2'-Oxybis (1-chloropropane)	28.4	10.0	ug/L	96.2	BLOD	29.6	36-166			*M*
bis (2-Ethylhexyl) phthalate	40.2	10.0	ug/L	96.2	BLOD	41.8	10-158			
Butyl benzyl phthalate	38.1	10.0	ug/L	96.2	BLOD	39.6	10-152			
Chrysene	29.1	10.0	ug/L	96.2	BLOD	30.3	17-169			
Dibenz (a,h) anthracene	40.8	10.0	ug/L	96.2	BLOD	42.4	10-227			
Diethyl phthalate	33.2	10.0	ug/L	96.2	BLOD	34.5	10-120			
Dimethyl phthalate	32.1	10.0	ug/L	96.2	BLOD	33.4	10-120			
Di-n-butyl phthalate	32.1	10.0	ug/L	96.2	BLOD	33.4	10-120			
Di-n-octyl phthalate	40.0	10.0	ug/L	96.2	BLOD	41.6	10-146			
Fluoranthene	29.2	10.0	ug/L	96.2	BLOD	30.4	26-137			
Fluorene	29.0	10.0	ug/L	96.2	BLOD	30.2	59-121			*M*
Hexachlorobenzene	28.8	1.00	ug/L	96.2	BLOD	30.0	10-152			
Hexachlorobutadiene	31.5	10.0	ug/L	96.2	BLOD	32.8	24-120			
Hexachlorocyclopentadiene	32.2	10.0	ug/L	96.2	BLOD	33.5	10-90			
Hexachloroethane	32.4	10.0	ug/L	96.2	BLOD	33.7	40-120			*M*
Indeno (1,2,3-cd) pyrene	40.1	10.0	ug/L	96.2	BLOD	41.7	10-171			
Isophorone	19.5	10.0	ug/L	96.2	BLOD	20.3	21-196			*M*
Naphthalene	24.6	5.00	ug/L	96.2	BLOD	25.6	21-133			
Nitrobenzene	40.6	10.0	ug/L	96.2	BLOD	42.2	35-180			
n-Nitrosodimethylamine	18.1	10.0	ug/L	96.2	BLOD	18.8	10-85			
n-Nitrosodi-n-propylamine	31.2	10.0	ug/L	96.2	BLOD	32.5	10-230			

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Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0336 - SW3510C/EPA600-MS										
Matrix Spike (BHJ0336-MS1)	**Source: 24J0346-05**			Prepared & Analyzed: 10/08/2024						
n-Nitrosodiphenylamine	23.2	10.0	ug/L	96.2	BLOD	24.2	12-111			
p-Chloro-m-cresol	34.1	10.0	ug/L	96.2	BLOD	35.5	10-127			
Pentachloronitrobenzene (quintozene)	ND	10.0	ug/L		BLOD		0-200			
Pentachlorophenol	18.8	20.0	ug/L	96.2	BLOD	19.6	14-176			
Phenanthrene	31.6	10.0	ug/L	96.2	BLOD	32.8	54-120			*M*
Phenol	13.3	10.0	ug/L	97.1	BLOD	13.7	10-120			
Pyrene	36.2	10.0	ug/L	96.2	BLOD	37.6	52-120			*M*
Pyridine	18.1	10.0	ug/L	96.2	BLOD	18.8	10-110			
Surr: 2,4,6-Tribromophenol (Surr)	*56.8*		ug/L	*96.2*		*59.0*	*5-136*			
Surr: 2-Fluorobiphenyl (Surr)	*26.0*		ug/L	*48.1*		*54.0*	*9-117*			
Surr: 2-Fluorophenol (Surr)	*26.4*		ug/L	*96.2*		*27.4*	*5-60*			
Surr: Nitrobenzene-d5 (Surr)	*39.5*		ug/L	*48.1*		*82.2*	*5-151*			
Surr: Phenol-d5 (Surr)	*23.4*		ug/L	*96.2*		*24.4*	*5-60*			
Surr: p-Terphenyl-d14 (Surr)	*31.2*		ug/L	*48.1*		*64.9*	*5-141*			
Matrix Spike Dup (BHJ0336-MSD1)	**Source: 24J0346-05**			Prepared & Analyzed: 10/08/2024						
1,2,4-Trichlorobenzene	30.7	10.0	ug/L	97.1	BLOD	31.6	44-142	18.7	20	*M*
1,2-Dichlorobenzene	30.0	10.0	ug/L	97.1	BLOD	30.9	22-115	17.1	20	
1,3-Dichlorobenzene	28.9	10.0	ug/L	97.1	BLOD	29.8	22-112	19.0	20	
1,4-Dichlorobenzene	31.2	10.0	ug/L	97.1	BLOD	32.2	13-112	21.5	20	*P*
2,4,6-Trichlorophenol	35.6	10.0	ug/L	97.1	BLOD	36.7	37-144	14.2	20	*M*
2,4-Dichlorophenol	34.1	10.0	ug/L	97.1	BLOD	35.2	39-135	14.6	20	*M*
2,4-Dimethylphenol	34.7	5.00	ug/L	97.1	BLOD	35.8	32-120	7.64	20	
2,4-Dinitrophenol	33.3	50.0	ug/L	97.1	BLOD	34.3	39-139	22.1	20	*M, P*
2,4-Dinitrotoluene	42.3	10.0	ug/L	97.1	BLOD	43.5	10-191	17.9	20	

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Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0336 - SW3510C/EPA600-MS										
Matrix Spike Dup (BHJ0336-MSD1)	**Source: 24J0346-05**			Prepared & Analyzed: 10/08/2024						
2,6-Dinitrotoluene	38.6	10.0	ug/L	97.1	BLOD	39.7	50-158	9.79	20	*M*
2-Chloronaphthalene	30.9	10.0	ug/L	97.1	BLOD	31.9	60-120	11.2	20	*M*
2-Chlorophenol	31.3	10.0	ug/L	97.1	BLOD	32.2	23-134	10.2	20	
2-Nitrophenol	38.8	10.0	ug/L	97.1	BLOD	39.9	29-182	11.5	20	
3,3'-Dichlorobenzidine	22.9	10.0	ug/L	97.1	BLOD	23.6	10-262	8.72	20	
4,6-Dinitro-2-methylphenol	41.6	50.0	ug/L	97.1	BLOD	42.9	10-181	21.3	20	*P*
4-Bromophenyl phenyl ether	32.3	10.0	ug/L	97.1	BLOD	33.2	53-127	19.0	20	*M*
4-Chlorophenyl phenyl ether	33.2	10.0	ug/L	97.1	BLOD	34.2	25-158	17.3	20	
4-Nitrophenol	15.9	50.0	ug/L	97.1	BLOD	16.4	10-132	24.4	20	*P*
Acenaphthene	33.3	10.0	ug/L	97.1	BLOD	34.3	47-145	17.9	20	*M*
Acenaphthylene	33.5	10.0	ug/L	97.1	BLOD	34.5	33-145	14.1	20	
Acetophenone	31.7	20.0	ug/L	97.1	BLOD	32.7	0-200	18.5	20	
Anthracene	32.2	10.0	ug/L	97.1	BLOD	33.1	27-133	19.7	20	
Benzo (a) anthracene	36.4	10.0	ug/L	97.1	BLOD	37.5	33-143	15.0	20	
Benzo (a) pyrene	37.2	10.0	ug/L	97.1	BLOD	38.4	17-163	6.54	20	
Benzo (b) fluoranthene	40.8	10.0	ug/L	97.1	BLOD	42.1	24-159	5.39	20	
Benzo (g,h,i) perylene	54.9	10.0	ug/L	97.1	BLOD	56.6	10-219	20.0	20	*P*
Benzo (k) fluoranthene	33.3	10.0	ug/L	97.1	BLOD	34.2	11-162	12.3	20	
bis (2-Chloroethoxy) methane	31.7	10.0	ug/L	97.1	BLOD	32.7	33-184	9.85	20	*M*
bis (2-Chloroethyl) ether	32.9	10.0	ug/L	97.1	BLOD	33.9	12-158	14.0	20	
2,2'-Oxybis (1-chloropropane)	36.3	10.0	ug/L	97.1	BLOD	37.4	36-166	24.2	20	*P*
bis (2-Ethylhexyl) phthalate	39.6	10.0	ug/L	97.1	BLOD	40.8	10-158	1.46	20	
Butyl benzyl phthalate	40.5	10.0	ug/L	97.1	BLOD	41.7	10-152	6.11	20	
Chrysene	33.9	10.0	ug/L	97.1	BLOD	35.0	17-169	15.3	20	
Dibenz (a,h) anthracene	47.2	10.0	ug/L	97.1	BLOD	48.6	10-227	14.5	20	

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Date Issued: 10/28/2024 5:08:56PM
Work Order: 24J0273

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0336 - SW3510C/EPA600-MS										
Matrix Spike Dup (BHJ0336-MSD1)	**Source: 24J0346-05**			Prepared & Analyzed: 10/08/2024						
Diethyl phthalate	38.2	10.0	ug/L	97.1	BLOD	39.4	10-120	14.1	20	
Dimethyl phthalate	35.8	10.0	ug/L	97.1	BLOD	36.9	10-120	10.9	20	
Di-n-butyl phthalate	35.3	10.0	ug/L	97.1	BLOD	36.3	10-120	9.43	20	
Di-n-octyl phthalate	41.8	10.0	ug/L	97.1	BLOD	43.0	10-146	4.27	20	
Fluoranthene	35.0	10.0	ug/L	97.1	BLOD	36.0	26-137	17.8	20	
Fluorene	34.4	10.0	ug/L	97.1	BLOD	35.4	59-121	17.0	20	*M*
Hexachlorobenzene	35.2	1.00	ug/L	97.1	BLOD	36.3	10-152	19.9	20	
Hexachlorobutadiene	38.0	10.0	ug/L	97.1	BLOD	39.1	24-120	18.5	20	
Hexachlorocyclopentadiene	35.8	10.0	ug/L	97.1	BLOD	36.9	10-90	10.7	20	
Hexachloroethane	41.2	10.0	ug/L	97.1	BLOD	42.4	40-120	23.9	20	*P*
Indeno (1,2,3-cd) pyrene	47.1	10.0	ug/L	97.1	BLOD	48.5	10-171	16.1	20	
Isophorone	21.8	10.0	ug/L	97.1	BLOD	22.4	21-196	10.9	20	
Naphthalene	29.9	5.00	ug/L	97.1	BLOD	30.8	21-133	19.2	20	
Nitrobenzene	48.9	10.0	ug/L	97.1	BLOD	50.3	35-180	18.4	20	
n-Nitrosodimethylamine	20.7	10.0	ug/L	97.1	BLOD	21.3	10-85	13.4	20	
n-Nitrosodi-n-propylamine	35.8	10.0	ug/L	97.1	BLOD	36.9	10-230	13.7	20	
n-Nitrosodiphenylamine	26.8	10.0	ug/L	97.1	BLOD	27.6	12-111	14.2	20	
p-Chloro-m-cresol	37.4	10.0	ug/L	97.1	BLOD	38.5	10-127	9.12	20	
Pentachloronitrobenzene (quintozene)	ND	10.0	ug/L		BLOD		0-200		20	
Pentachlorophenol	23.3	20.0	ug/L	97.1	BLOD	24.0	14-176	21.0	20	*P*
Phenanthrene	37.1	10.0	ug/L	97.1	BLOD	38.2	54-120	16.0	20	*M*
Phenol	15.2	10.0	ug/L	98.1	BLOD	15.5	10-120	13.0	20	
Pyrene	43.2	10.0	ug/L	97.1	BLOD	44.4	52-120	17.6	20	*M*
Pyridine	18.6	10.0	ug/L	97.1	BLOD	19.2	10-110	2.91	20	

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Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0336 - SW3510C/EPA600-MS										
Matrix Spike Dup (BHJ0336-MSD1)	**Source: 24J0346-05**			Prepared & Analyzed: 10/08/2024						
Surr: 2,4,6-Tribromophenol (Surr)	*71.7*		ug/L	*97.1*		*73.8*	*5-136*			
Surr: 2-Fluorobiphenyl (Surr)	*28.7*		ug/L	*48.5*		*59.2*	*9-117*			
Surr: 2-Fluorophenol (Surr)	*28.6*		ug/L	*97.1*		*29.5*	*5-60*			
Surr: Nitrobenzene-d5 (Surr)	*46.4*		ug/L	*48.5*		*95.6*	*5-151*			
Surr: Phenol-d5 (Surr)	*27.3*		ug/L	*97.1*		*28.1*	*5-60*			
Surr: p-Terphenyl-d14 (Surr)	*37.7*		ug/L	*48.5*		*77.6*	*5-141*			

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Wet Chemistry Analysis - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0191 - No Prep Wet Chem										
Blank (BHJ0191-BLK1)				Prepared & Analyzed: 10/04/2024						
Nitrite as N	ND	0.05	mg/L							
LCS (BHJ0191-BS1)				Prepared & Analyzed: 10/04/2024						
Nitrite as N	0.10	0.05	mg/L	0.100		99.0	80-120			
Matrix Spike (BHJ0191-MS1)		**Source: 24J0186-04**		Prepared & Analyzed: 10/04/2024						
Nitrite as N	0.10	0.05	mg/L	0.100	BLOD	97.0	80-120			
Matrix Spike Dup (BHJ0191-MSD1)		**Source: 24J0186-04**		Prepared & Analyzed: 10/04/2024						
Nitrite as N	0.10	0.05	mg/L	0.100	BLOD	97.0	80-120	0.00	20	
Batch BHJ0215 - No Prep Wet Chem										
Blank (BHJ0215-BLK1)				Prepared & Analyzed: 10/04/2024						
BOD	ND	2.0	mg/L							
LCS (BHJ0215-BS1)				Prepared & Analyzed: 10/04/2024						
BOD	220	2	mg/L	198		111	84.6-115.4			
Duplicate (BHJ0215-DUP1)		**Source: 24J0251-01**		Prepared & Analyzed: 10/04/2024						
BOD	ND	2.0	mg/L		BLOD			NA	20	
Batch BHJ0477 - No Prep Wet Chem										
Blank (BHJ0477-BLK1)				Prepared & Analyzed: 10/10/2024						
Cyanide	ND	0.01	mg/L							

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Wet Chemistry Analysis - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0477 - No Prep Wet Chem										
LCS (BHJ0477-BS1)				Prepared & Analyzed: 10/10/2024						
Cyanide	0.22	0.01	mg/L	0.250		89.0	80-120			
Matrix Spike (BHJ0477-MS1)		**Source: 24J0267-04**		Prepared & Analyzed: 10/10/2024						
Cyanide	0.24	0.01	mg/L	0.250	BLOD	97.7	80-120			
Matrix Spike (BHJ0477-MS2)		**Source: 24J0346-05**		Prepared & Analyzed: 10/10/2024						
Cyanide	0.23	0.01	mg/L	0.250	BLOD	93.0	80-120			
Matrix Spike Dup (BHJ0477-MSD1)		**Source: 24J0267-04**		Prepared & Analyzed: 10/10/2024						
Cyanide	0.25	0.01	mg/L	0.250	BLOD	99.1	80-120	1.46	20	
Matrix Spike Dup (BHJ0477-MSD2)		**Source: 24J0346-05**		Prepared & Analyzed: 10/10/2024						
Cyanide	0.23	0.01	mg/L	0.250	BLOD	91.1	80-120	2.04	20	
Batch BHJ0666 - No Prep Wet Chem										
Blank (BHJ0666-BLK1)				Prepared & Analyzed: 10/15/2024						
Nitrate+Nitrite as N	ND	0.10	mg/L							
LCS (BHJ0666-BS1)				Prepared & Analyzed: 10/15/2024						
Nitrate+Nitrite as N	1.06	0.1	mg/L	1.00		106	90-110			
Matrix Spike (BHJ0666-MS1)		**Source: 24J0315-01RE2**		Prepared & Analyzed: 10/15/2024						
Nitrate+Nitrite as N	0.95	0.10	mg/L	1.00	BLOD	95.0	90-120			
Matrix Spike Dup (BHJ0666-MSD1)		**Source: 24J0315-01RE2**		Prepared & Analyzed: 10/15/2024						
Nitrate+Nitrite as N	1.12	0.10	mg/L	1.00	BLOD	112	90-120	16.1	20	

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Wet Chemistry Analysis - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0687 - No Prep Wet Chem										
Blank (BHJ0687-BLK1)				Prepared & Analyzed: 10/16/2024						
TKN as N	ND	0.50	mg/L							
LCS (BHJ0687-BS1)				Prepared & Analyzed: 10/16/2024						
TKN as N	5.21	0.5	mg/L	5.00		104	90-110			
Matrix Spike (BHJ0687-MS1)	**Source: 24J0702-05**			Prepared & Analyzed: 10/16/2024						
TKN as N	7.85	0.50	mg/L	5.00	3.97	77.8	90-110			*M*
Matrix Spike Dup (BHJ0687-MSD1)	**Source: 24J0702-05**			Prepared & Analyzed: 10/16/2024						
TKN as N	9.58	0.50	mg/L	5.00	3.97	112	90-110	19.8	20	*M*
Batch BHJ0754 - No Prep Wet Chem										
Blank (BHJ0754-BLK1)				Prepared & Analyzed: 10/16/2024						
Ammonia as N	ND	0.10	mg/L							
LCS (BHJ0754-BS1)				Prepared & Analyzed: 10/16/2024						
Ammonia as N	1.07	0.1	mg/L	1.00		107	90-110			
Matrix Spike (BHJ0754-MS1)	**Source: 24J0695-03**			Prepared & Analyzed: 10/16/2024						
Ammonia as N	1.03	0.10	mg/L	1.00	BLOD	103	89.3-131			
Matrix Spike (BHJ0754-MS2)	**Source: 24J0274-01**			Prepared & Analyzed: 10/16/2024						
Ammonia as N	1.02	0.10	mg/L	1.00	BLOD	102	89.3-131			
Matrix Spike Dup (BHJ0754-MSD1)	**Source: 24J0695-03**			Prepared & Analyzed: 10/16/2024						
Ammonia as N	1.05	0.10	mg/L	1.00	BLOD	105	89.3-131	1.93	20	

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Wet Chemistry Analysis - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0754 - No Prep Wet Chem										
Matrix Spike Dup (BHJ0754-MSD2)	**Source: 24J0274-01**			Prepared & Analyzed: 10/16/2024						
Ammonia as N	1.00	0.10	mg/L	1.00	BLOD	100	89.3-131	1.88	20	
Batch BHJ0789 - No Prep Wet Chem										
Blank (BHJ0789-BLK1)				Prepared & Analyzed: 10/17/2024						
COD	ND	10.0	mg/L							
LCS (BHJ0789-BS1)				Prepared & Analyzed: 10/17/2024						
COD	48.3	10.0	mg/L	50.0		96.6	88-119			
Matrix Spike (BHJ0789-MS1)	**Source: 24J0274-01**			Prepared & Analyzed: 10/17/2024						
COD	44.4	10.0	mg/L	50.0	BLOD	88.8	72.4-130			
Matrix Spike Dup (BHJ0789-MSD1)	**Source: 24J0274-01**			Prepared & Analyzed: 10/17/2024						
COD	42.6	10.0	mg/L	50.0	BLOD	85.2	72.4-130	4.12	20	
Batch BHJ0820 - No Prep Wet Chem										
Blank (BHJ0820-BLK1)				Prepared & Analyzed: 10/17/2024						
Total Recoverable Phenolics	ND	0.050	mg/L							
LCS (BHJ0820-BS1)				Prepared & Analyzed: 10/17/2024						
Total Recoverable Phenolics	0.45	0.050	mg/L	0.510		89.0	80-120			
Matrix Spike (BHJ0820-MS1)	**Source: 24J0251-01**			Prepared & Analyzed: 10/17/2024						
Total Recoverable Phenolics	0.48	0.050	mg/L	0.500	BLOD	96.8	70-130			

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Wet Chemistry Analysis - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHJ0820 - No Prep Wet Chem										
Matrix Spike Dup (BHJ0820-MSD1)		**Source: 24J0251-01**		Prepared & Analyzed: 10/17/2024						
Total Recoverable Phenolics	0.48	0.050	mg/L	0.500	BLOD	95.6	70-130	1.25	20	

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Analytical Summary

24J0273-01	Subcontract
24J0273-02	Subcontract

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods			**Preparation Method:**	**EPA200.2R2.8/SW3005A-ICPMS**	
24J0273-01	50.0 mL / 50.0 mL	SW6020B	BHJ0312	SHJ0555	AJ40281
24J0273-02	50.0 mL / 50.0 mL	SW6020B	BHJ0312	SHJ0555	AJ40281

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis			**Preparation Method:**	**No Prep Wet Chem**	
24J0273-01	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0191	SHJ0173	AD40276
24J0273-02	2.50 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0191	SHJ0173	AD40276
24J0273-01	300 mL / 300 mL	SM5210B-2016	BHJ0215	SHJ0392	
24J0273-02	300 mL / 300 mL	SM5210B-2016	BHJ0215	SHJ0392	
24J0273-01	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
24J0273-02	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
24J0273-01	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHJ0666	SHJ0609	AJ40293
24J0273-01RE1	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHJ0666	SHJ0609	AJ40293
24J0273-02	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHJ0666	SHJ0609	AJ40293
24J0273-01	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHJ0687	SHJ0659	AJ40300
24J0273-02	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHJ0687	SHJ0659	AJ40300
24J0273-01	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHJ0754	SHJ0676	AJ40302
24J0273-02	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHJ0754	SHJ0676	AJ40302
24J0273-01	2.00 mL / 2.00 mL	SM5220D-2011	BHJ0789	SHJ0711	AJ40312
24J0273-02	0.0400 mL / 2.00 mL	SM5220D-2011	BHJ0789	SHJ0711	AJ40312
24J0273-01	0.100 mL / 10.0 mL	SW9065	BHJ0820	SHJ0725	AJ40315
24J0273-02	5.00 mL / 10.0 mL	SW9065	BHJ0820	SHJ0725	AJ40315

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Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis			**Preparation Method:**	**No Prep Wet Chem**	

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Semivolatile Organic Compounds by GCMS			**Preparation Method:**	**SW3510C/EPA600-MS**	
24J0273-01	500 mL / 2.00 mL	SW8270E	BHJ0336	SHJ0446	AH40174
24J0273-02	500 mL / 0.500 mL	SW8270E	BHJ0336	SHJ0446	AH40174

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Volatile Organic Compounds by GCMS			**Preparation Method:**	**SW5030B-MS**	
24J0273-01	5.00 mL / 5.00 mL	SW8260D	BHJ0364	SHJ0337	AJ40229
24J0273-01RE1	5.00 mL / 5.00 mL	SW8260D	BHJ0364	SHJ0337	AJ40229
24J0273-02	5.00 mL / 5.00 mL	SW8260D	BHJ0364	SHJ0337	AJ40229
24J0273-03	5.00 mL / 5.00 mL	SW8260D	BHJ0364	SHJ0337	AJ40229

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QC Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods			**Preparation Method:**	**EPA200.2R2.8/SW3005A-ICPMS**	
BHJ0312-BLK1	50.0 mL / 50.0 mL	SW6020B	BHJ0312	SHJ0310	AJ40237
BHJ0312-BS1	50.0 mL / 50.0 mL	SW6020B	BHJ0312	SHJ0310	AJ40237
BHJ0312-MS1	50.0 mL / 50.0 mL	SW6020B	BHJ0312	SHJ0555	AJ40281
BHJ0312-MS2	50.0 mL / 50.0 mL	SW6020B	BHJ0312	SHJ0310	AJ40237
BHJ0312-MSD1	50.0 mL / 50.0 mL	SW6020B	BHJ0312	SHJ0555	AJ40281
BHJ0312-MSD2	50.0 mL / 50.0 mL	SW6020B	BHJ0312	SHJ0310	AJ40237

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis			**Preparation Method:**	**No Prep Wet Chem**	
BHJ0191-BLK1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0191	SHJ0173	AD40276
BHJ0191-BS1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0191	SHJ0173	AD40276
BHJ0191-MRL1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0191	SHJ0173	AD40276
BHJ0191-MS1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0191	SHJ0173	AD40276
BHJ0191-MSD1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHJ0191	SHJ0173	AD40276
BHJ0215-BLK1	300 mL / 300 mL	SM5210B-2016	BHJ0215	SHJ0392	
BHJ0215-BS1	300 mL / 300 mL	SM5210B-2016	BHJ0215	SHJ0392	
BHJ0215-DUP1	300 mL / 300 mL	SM5210B-2016	BHJ0215	SHJ0392	
BHJ0477-BLK1	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
BHJ0477-BS1	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
BHJ0477-MRL1	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
BHJ0477-MRL2	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
BHJ0477-MS1	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
BHJ0477-MS2	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
BHJ0477-MSD1	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263
BHJ0477-MSD2	6.00 mL / 6.00 mL	SW9012B	BHJ0477	SHJ0454	AJ40263

Enthalpy Analytical
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Richmond, Virginia 23237
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(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: Bristol LFG-EW
Submitted To: Jennifer Robb

Date Issued: 10/28/2024 5:08:56PM
Work Order: 24J0273

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis			**Preparation Method:**	**No Prep Wet Chem**	
BHJ0666-BLK1	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHJ0666	SHJ0609	AJ40293
BHJ0666-BS1	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHJ0666	SHJ0609	AJ40293
BHJ0666-MRL1	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHJ0666	SHJ0609	AJ40293
BHJ0666-MRL2	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHJ0666	SHJ0609	AJ40293
BHJ0666-MS1	10.0 mL / 10.0 mL	SM4500-NO3F-2016	BHJ0666	SHJ0609	AJ40293
BHJ0666-MSD1	10.0 mL / 10.0 mL	SM4500-NO3F-2016	BHJ0666	SHJ0609	AJ40293
BHJ0687-BLK1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHJ0687	SHJ0659	AJ40300
BHJ0687-BS1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHJ0687	SHJ0659	AJ40300
BHJ0687-MS1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHJ0687	SHJ0659	AJ40300
BHJ0687-MSD1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHJ0687	SHJ0659	AJ40300
BHJ0754-BLK1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHJ0754	SHJ0676	AJ40302
BHJ0754-BS1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHJ0754	SHJ0676	AJ40302
BHJ0754-MS1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHJ0754	SHJ0676	AJ40302
BHJ0754-MS2	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHJ0754	SHJ0676	AJ40302
BHJ0754-MSD1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHJ0754	SHJ0676	AJ40302
BHJ0754-MSD2	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHJ0754	SHJ0676	AJ40302
BHJ0789-BLK1	2.00 mL / 2.00 mL	SM5220D-2011	BHJ0789	SHJ0711	AJ40312
BHJ0789-BS1	2.00 mL / 2.00 mL	SM5220D-2011	BHJ0789	SHJ0711	AJ40312
BHJ0789-MRL1	2.00 mL / 2.00 mL	SM5220D-2011	BHJ0789	SHJ0711	AJ40312
BHJ0789-MS1	2.00 mL / 2.00 mL	SM5220D-2011	BHJ0789	SHJ0711	AJ40312
BHJ0789-MSD1	2.00 mL / 2.00 mL	SM5220D-2011	BHJ0789	SHJ0711	AJ40312
BHJ0820-BLK1	5.00 mL / 10.0 mL	SW9065	BHJ0820	SHJ0725	AJ40315
BHJ0820-BS1	5.00 mL / 10.0 mL	SW9065	BHJ0820	SHJ0725	AJ40315
BHJ0820-MRL1	5.00 mL / 10.0 mL	SW9065	BHJ0820	SHJ0725	AJ40315
BHJ0820-MS1	5.00 mL / 10.0 mL	SW9065	BHJ0820	SHJ0725	AJ40315
BHJ0820-MSD1	5.00 mL / 10.0 mL	SW9065	BHJ0820	SHJ0725	AJ40315

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID

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Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Semivolatile Organic Compounds by GCMS			**Preparation Method:**	**SW3510C/EPA600-MS**	
BHJ0336-BLK1	1000 mL / 1.00 mL	SW8270E	BHJ0336	SHJ0354	AH40174
BHJ0336-BLK2		SW8270E	BHJ0336	SHJ0396	AJ40188
BHJ0336-BS1	1000 mL / 1.00 mL	SW8270E	BHJ0336	SHJ0354	AH40174
BHJ0336-MS1	1040 mL / 1.00 mL	SW8270E	BHJ0336	SHJ0354	AH40174
BHJ0336-MSD1	1030 mL / 1.00 mL	SW8270E	BHJ0336	SHJ0354	AH40174

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Volatile Organic Compounds by GCMS			**Preparation Method:**	**SW5030B-MS**	
BHJ0364-BLK1	5.00 mL / 5.00 mL	SW8260D	BHJ0364	SHJ0337	AJ40229
BHJ0364-BS1	5.00 mL / 5.00 mL	SW8260D	BHJ0364	SHJ0337	AJ40229
BHJ0364-MS1	5.00 mL / 5.00 mL	SW8260D	BHJ0364	SHJ0381	AJ40229
BHJ0364-MSD1	5.00 mL / 5.00 mL	SW8260D	BHJ0364	SHJ0381	AJ40229

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Certified Analyses included in this Report

Analyte	Certifications
EPA350.1 R2.0 in Non-Potable Water	
Ammonia as N	VELAP,NCDEQ,PADEP,WVDEP
EPA351.2 R2.0 in Non-Potable Water	
TKN as N	VELAP,NCDEQ,WVDEP
SM4500-NO2B-2011 in Non-Potable Water	
Nitrite as N	VELAP,WVDEP,NCDEQ
SM4500-NO3F-2016 in Non-Potable Water	
Nitrate+Nitrite as N	VELAP,WVDEP,NCDEQ
SM5210B-2016 in Non-Potable Water	
BOD	VELAP,NCDEQ,WVDEP
SM5220D-2011 in Non-Potable Water	
COD	VELAP,NCDEQ,PADEP,WVDEP
SW6020B in Non-Potable Water	
Mercury	VELAP
Arsenic	VELAP,WVDEP,NCDEQ
Barium	VELAP,WVDEP,NCDEQ
Cadmium	VELAP,WVDEP,NCDEQ
Chromium	VELAP,WVDEP,NCDEQ
Copper	VELAP,WVDEP,NCDEQ
Lead	VELAP,WVDEP
Nickel	VELAP,WVDEP
Selenium	VELAP,WVDEP
Silver	VELAP,WVDEP
Zinc	VELAP,WVDEP
SW8260D in Non-Potable Water	

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Certified Analyses included in this Report

Analyte	Certifications
2-Butanone (MEK)	VELAP,NCDEQ,PADEP,WVDEP
Acetone	VELAP,NCDEQ,PADEP,WVDEP
Benzene	VELAP,NCDEQ,PADEP,WVDEP
Ethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Toluene	VELAP,NCDEQ,PADEP,WVDEP
Xylenes, Total	VELAP,NCDEQ,PADEP,WVDEP
Tetrahydrofuran	VELAP,PADEP
SW8270E in Non-Potable Water	
Anthracene	NCDEQ,WVDEP,VELAP,PADEP
SW9012B in Non-Potable Water	
Cyanide	VELAP,WVDEP,NCDEQ
SW9065 in Non-Potable Water	
Total Recoverable Phenolics	VELAP,WVDEP

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Code	Description	Laboratory ID	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2024
NCDEQ	North Carolina DEQ	495	12/31/2024
NCDOH	North Carolina Department of Health	51714	07/31/2025
NYDOH	New York DOH Drinking Water	12069	04/01/2025
PADEP	NELAP-Pennsylvania Certificate #009	68-03503	10/31/2024
TXCEQ	Texas Comm on Environmental Quality #T104704576-23-1	T104704576	05/31/2025
VELAP	NELAP-Virginia Certificate #12969	460021	06/14/2025
WVDEP	West Virginia DEP	350	11/30/2024

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Qualifiers and Definitions

CI	Residual Chlorine or other oxidizing agent was detected in the container used to analyze this sample.
DS	Surrogate concentration reflects a dilution factor.
E	Estimated concentration, outside calibration range
J	The reported result is an estimated value.
L	LCS recovery is outside of established acceptance limits
M	Matrix spike recovery is outside established acceptance limits
P	Duplicate analysis does not meet the acceptance criteria for precision

RPD	Relative Percent Difference
Qual	Qualifers
-RE	Denotes sample was re-analyzed
LOD	Limit of Detection, same as Method Detection Limit (MDL) as defined by 40 CFR 136 Appendix B
BLOD	Below Limit of Detection, same as Below Method Detection Limit (MDL) as defined by 40 CFR 136 Appendix B
LOQ	Limit of Quantitation
DF	Dilution Factor
DL	Detection Limit, same as MDL as defined by 40 CFR 136 Appendix B
TIC	Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.
PCBs, Total	Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.

ENTHALPY ANALYTICAL

1941 Reymet Rd
Richmond, VA 23237
(804) 358-8295 PHONE
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CHAIN OF CUSTODY

COMPANY NAME: SCS Engineers	INVOICE TO: SCS	Project Name: 24-09 Bristol LFG - EW
CONTACT: Jennifer Robb	INVOICE CONTACT: Jennifer Robb	Site Name:
ADDRESS: 296 Victory Road, Winchester, VA 22602	INVOICE ADDRESS:	PROJECT NUMBER:
PHONE #: (703) 471-6150	INVOICE PHONE #:	P.O. #:
FAX #: (703) 471-6676	EMAIL: Jrobb@scsengineers.com	Pretreatment Program:
Is sample for compliance reporting? (YES) Va	Is sample from a chlorinated supply? YES (NO)	PWS I.D. #:
SAMPLER NAME (PRINT): Logan Nilles / Will Fabrie	SAMPLER SIGNATURE:	Turn Around Time: 10 Day(s)

Matrix Codes: WW=Waste Water GW=Ground Water DW=Drinking Water S=Soil/Solids OR=Organic A=Air WP=Wipe OT=Other

CLIENT SAMPLE I.D.	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Time Preserved	Matrix (See Codes)	Number of Containers	ANALYSIS / (PRESERVATIVE) VOCs (Acetone, Benzene, EB, MEK, THF, Toluene, Xylene) Custom list	VFAs	Phenolics	Metals 6020 (Ag, As, Ba, Cd, Cr, Cu, Ni, Pb, Se, Zn, Hg)	TKN, Nitrate (Cd), Nitrite,	COD, Ammonia	SVOC (Anthracene only)	Cyanide	BOD	COMMENTS
1) EW-82	X					10/3/24	950		WW	13	X	X	X	X	X	X	X	X	X
2) EW-36A	X					10/3/24	1015		WW	14	X	X	X	X	X	X	X	X	X
3)																			
4)																			
5)																			
6)																			
7)																			
8)																			Sealed
9)																		ICE	OT: 2.8
10) Trip Blank						12/26/23	1030		DT	2	X							393	CF: 0.0

BOD has 48hr hold time

PLEASE NOTE PRESERVATIVE(S), INTERFERENCE CHECKS or PUMP RATE (L/min)

RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME
	10/3/24 1300	LCN	
RELINQUISHED: LCN	DATE / TIME	RECEIVED:	DATE / TIME 10/4/24 0800
RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME

QC Data Package
Level I ☐
Level II X
Level III ☐
Level IV ☐

LAB USE ONLY COOLER TEMP 2.8 °C

SCS-W 24J0273
Bristol LFG-EW
Recd: 10/04/2024 Due: 10/18/2024
v130325002 LFG - EW

ENTHALPY ANALYTICAL

Sample Preservation Log

Order ID 24J0273 Date Performed: 10/4/24 Analyst Performing Check: MJ

Sample ID	Container ID	Metals			Cyanide			Sulfide			Ammonia			TKN			Phos, Tot			NO3+NO2			DRO			Pesticide (8081/608/508) PCB DW only			SVOC (525/8270/625)			CrVI * **		Pest/PCB (508) / SVOC(525)			COD			Phenolics		
		pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	Received Res. Cl		final + or -	Received Res. Cl		final + or -	Received pH	Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH
		<2	Other		>12	Other		>9	Other		<2	Other		<2	Other		<2	Other		<2	Other		<2	Other		+	-		+	-				<2	Other		<2	Other		<2	Other	
01	A		4	4.2																																					
01	D										5	4.2		5	4.2					5	4.2															5	4.2				
01	E					8	>12																																	
01	F																																					4	4.2	
01	G																												X											
02	A		7	4.2																																				
02	D										7	4.2		7	4.2					7	4.2															7	4.2				
02	E					10	>12																																	
02	F																																					7	4.2	
02	G																												X											
02	N										7	4.2		7	4.2					7	4.2															7	4.2				

NaOH ID: 4A03375 HNO3 ID: 4J02370 CrVI preserved date/time: Analyst Initials:

*pH must be adjusted between 9.3 - 9.7

H2SO4 ID: 4J02496 Na2S2O3 ID: Ammonia Buffer Sol'n ID:

HCL ID: Na2SO3 ID: 5N NaOH ID:

Metals were received with pH = 4,7 HNO3 was added at 1159 on 4th of October, 2024, by DLJ in the Log-In room to bring pH= <2.

**W.Va only certifies DISS CrVI and not T CrVI as an approved analyte under 40CFR136 for waste water.

Enthalpy Analytical
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Certificate of Analysis

Client Name: SCS Engineers-Winchester
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Laboratory Order ID: 24J0273

Sample Conditions Checklist

Samples Received at:	**2.80°C**
How were samples received?	Logistics Courier
Were Custody Seals used? If so, were they received intact?	Yes
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits or received on ice, and recently taken?	Yes
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	Yes
Are all volatile organic and TOX containers free of headspace?	No
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	Yes
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis. In addition, field parameters are always received outside holding time and will be marked accordingly.	No

Work Order Comments

Jennifer Robb notified via email for all the VOAC40mLHCl containers for "EW-36A" were received with headspace and the containers for Ammonia, COD, Nitrate Cd, TKN, Cyanide, and Phenolics for both samples were received outside of the pH range for analysis and have been preserved in the lab to the appropriate pH. HEG

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Work Order: 24J0273

10/4/24 1356

Jennifer Robb approved via email to proceed with analysis of all the VOAC40mLHCl containers for "EW-36A" were received with headspace. HEG 10/4/24 1425

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

October 28, 2024

Virginia Thrasher
Enthalpy
1941 Reymet Road
Richmond, VA 23237

RE: Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Dear Virginia Thrasher:

Enclosed are the analytical results for sample(s) received by the laboratory on October 08, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Baton Rouge

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Devin McDougal
devin.mcdougal@pacelabs.com
(225) 769-4900
Project Manager

Enclosures

cc: Andrew Bruner, Enthalpy
Daniel Elliott, Enthalpy
Meghan Meyer, Enthalpy

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

CERTIFICATIONS

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Pace Analytical Services Baton Rouge
7979 Innovation Park Drive Ste A, Baton Rouge, LA 70820-7402
Louisiana Dept of Enviromental Quality (NELAC/LELAP): 01979
Florida Dept of Health (NELAC/FELAP): E87854
DoD ELAP (A2LA) #: 6429.01
Alabama DEM #: 41900
Alaska DEC-DW #: LA00024
Alaska DEC CS-LAP #: 21-001
Arkansas DEQ #: 88-0655
California ELAP #: 3063
Georgia DPD #: C050
Hawaii DOH State Laboratories Division
Illinois EPA #: 200048
Kansas DoHE #: E-10354
Kentucky DEP UST Branch #: 123054
Louisiana DOH #: LA036
Minnesota DOH #: 2233799
Mississippi State Dept of Health
Montana Department of Environmental Quality
Nebraska DHHS #: NE-OS-35.21
Nevada DCNR DEP #: LA00024
New York DOH #: 12149
North Carolina DEQ - WW & GW #: 618
North Dakota DEQ #: R195
Ohio EPA #: 87782
Oklahoma Dept of Environmental Quality #: 9403
Oregon ELAP #: 4168
Pennsylvania Dept of Environmental Protection #: 68-05973
South Carolina DHEC #: 73006001
Texas CEQ #: T104704178-23-15
Utah DOH #: LA00024
Virginia DCLS #: 6460215
Washington Dept of Ecology #: C929
Wisconsin DNR #: 399139510

Pace Analytical Services, LLC
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Baton Rouge, LA 70820
(225) 769-4900

SAMPLE SUMMARY

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Lab ID	Sample ID	Matrix	Date Collected	Date Received
20332846001	**24J0187-01: EW-50**	Water	10/02/24 09:30	10/08/24 10:00
20332846002	**24J0187-02: EW-52**	Water	10/02/24 11:30	10/08/24 10:00
20332846003	**24J0273-01: EW-82**	Water	10/03/24 09:50	10/08/24 10:00
20332846004	**24J0273-02: EW-36A**	Water	10/03/24 10:15	10/08/24 10:00

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

SAMPLE ANALYTE COUNT

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Lab ID	Sample ID	Method	Analysts	Analytes Reported
20332846001	**24J0187-01: EW-50**	Pace ENV-SOP-BTRO-0042	VAM	10
20332846002	**24J0187-02: EW-52**	Pace ENV-SOP-BTRO-0042	VAM	10
20332846003	**24J0273-01: EW-82**	Pace ENV-SOP-BTRO-0042	VAM	10
20332846004	**24J0273-02: EW-36A**	Pace ENV-SOP-BTRO-0042	VAM	10

PASI-BR = Pace Analytical Services - Baton Rouge

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

PROJECT NARRATIVE

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Method: **Pace ENV-SOP-BTRO-0042**
Description: BR AM23G Low Level VFA
Client: BR-Enthalpy
Date: October 28, 2024

General Information:
4 samples were analyzed for Pace ENV-SOP-BTRO-0042 by Pace Analytical Services Baton Rouge. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 344131

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92755624002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1653722)
  - Butyric Acid
  - Propionic Acid
- MSD (Lab ID: 1653723)
  - Acetic Acid

R1: RPD value was outside control limits.

- MSD (Lab ID: 1653723)
  - Butyric Acid
  - Propionic Acid

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

PROJECT NARRATIVE

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Method: **Pace ENV-SOP-BTRO-0042**
Description: BR AM23G Low Level VFA
Client: BR-Enthalpy
Date: October 28, 2024

Analyte Comments:

QC Batch: 344131

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- 24J0187-01: EW-50 (Lab ID: 20332846001)
  - Lactic Acid
- 24J0273-02: EW-36A (Lab ID: 20332846004)
  - Lactic Acid

D4: Sample was diluted due to the presence of high levels of target analytes.

- 24J0273-01: EW-82 (Lab ID: 20332846003)
  - Lactic Acid

N2: The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

- 24J0187-01: EW-50 (Lab ID: 20332846001)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- 24J0273-01: EW-82 (Lab ID: 20332846003)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- 24J0273-02: EW-36A (Lab ID: 20332846004)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- BLANK (Lab ID: 1653518)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- LCS (Lab ID: 1653519)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- MS (Lab ID: 1653722)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- MSD (Lab ID: 1653723)
  - Hexanoic Acid
  - i-Hexanoic Acid

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PROJECT NARRATIVE

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Method: **Pace ENV-SOP-BTRO-0042**
Description: BR AM23G Low Level VFA
Client: BR-Enthalpy
Date: October 28, 2024

Analyte Comments:

QC Batch: 344131

N2: The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

- MSD (Lab ID: 1653723)
  - i-Pentanoic Acid
  - Pentanoic Acid

QC Batch: 344317

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- 24J0187-02: EW-52 (Lab ID: 20332846002)
  - Lactic Acid

N2: The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

- 24J0187-02: EW-52 (Lab ID: 20332846002)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- BLANK (Lab ID: 1654810)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- LCS (Lab ID: 1654811)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- MS (Lab ID: 1654852)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- MSD (Lab ID: 1654853)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

ANALYTICAL RESULTS

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Sample: 24J0187-01: EW-50 **Lab ID: 20332846001** Collected: 10/02/24 09:30 Received: 10/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
BR AM23G Low Level VFA	Analytical Method: Pace ENV-SOP-BTRO-0042 Pace Analytical Services - Baton Rouge							
Pentanoic Acid	ND	mg/L	100	200		10/09/24 03:26	109-52-4	N2
Acetic Acid	**260**	mg/L	100	200		10/09/24 03:26	64-19-7	
Butyric Acid	ND	mg/L	100	200		10/09/24 03:26	107-92-6	
Formic acid	ND	mg/L	100	200		10/09/24 03:26	64-18-6	
Hexanoic Acid	ND	mg/L	100	200		10/09/24 03:26	142-62-1	N2
i-Hexanoic Acid	ND	mg/L	100	200		10/09/24 03:26	646-07-1	N2
Lactic Acid	ND	mg/L	100	200		10/09/24 03:26	50-21-5	D3
i-Pentanoic Acid	ND	mg/L	100	200		10/09/24 03:26	503-74-2	N2
Propionic Acid	**275**	mg/L	100	200		10/09/24 03:26	79-09-4	
Pyruvic Acid	ND	mg/L	100	200		10/09/24 03:26	127-17-3	

Sample: 24J0187-02: EW-52 **Lab ID: 20332846002** Collected: 10/02/24 11:30 Received: 10/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
BR AM23G Low Level VFA	Analytical Method: Pace ENV-SOP-BTRO-0042 Pace Analytical Services - Baton Rouge							
Pentanoic Acid	ND	mg/L	1250	2500		10/10/24 22:30	109-52-4	N2
Acetic Acid	**9410**	mg/L	1250	2500		10/10/24 22:30	64-19-7	
Butyric Acid	**3070**	mg/L	1250	2500		10/10/24 22:30	107-92-6	
Formic acid	**3400**	mg/L	1250	2500		10/10/24 22:30	64-18-6	
Hexanoic Acid	ND	mg/L	1250	2500		10/10/24 22:30	142-62-1	N2
i-Hexanoic Acid	ND	mg/L	1250	2500		10/10/24 22:30	646-07-1	N2
Lactic Acid	**5630**	mg/L	1250	2500		10/10/24 22:30	50-21-5	D3
i-Pentanoic Acid	ND	mg/L	1250	2500		10/10/24 22:30	503-74-2	N2
Propionic Acid	**2240**	mg/L	1250	2500		10/10/24 22:30	79-09-4	
Pyruvic Acid	ND	mg/L	1250	2500		10/10/24 22:30	127-17-3	

Sample: 24J0273-01: EW-82 **Lab ID: 20332846003** Collected: 10/03/24 09:50 Received: 10/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
BR AM23G Low Level VFA	Analytical Method: Pace ENV-SOP-BTRO-0042 Pace Analytical Services - Baton Rouge							
Pentanoic Acid	ND	mg/L	250	500		10/09/24 04:17	109-52-4	N2
Acetic Acid	**4780**	mg/L	250	500		10/09/24 04:17	64-19-7	
Butyric Acid	**1630**	mg/L	250	500		10/09/24 04:17	107-92-6	
Formic acid	**3180**	mg/L	250	500		10/09/24 04:17	64-18-6	
Hexanoic Acid	ND	mg/L	250	500		10/09/24 04:17	142-62-1	N2
i-Hexanoic Acid	ND	mg/L	250	500		10/09/24 04:17	646-07-1	N2
Lactic Acid	**2590**	mg/L	250	500		10/09/24 04:17	50-21-5	D4
i-Pentanoic Acid	ND	mg/L	250	500		10/09/24 04:17	503-74-2	N2
Propionic Acid	**1470**	mg/L	250	500		10/09/24 04:17	79-09-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(225) 769-4900

ANALYTICAL RESULTS

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Sample: 24J0273-01: EW-82 **Lab ID: 20332846003** Collected: 10/03/24 09:50 Received: 10/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
BR AM23G Low Level VFA	Analytical Method: Pace ENV-SOP-BTRO-0042 Pace Analytical Services - Baton Rouge							
Pyruvic Acid	ND	mg/L	250	500		10/09/24 04:17	127-17-3	

Sample: 24J0273-02: EW-36A **Lab ID: 20332846004** Collected: 10/03/24 10:15 Received: 10/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
BR AM23G Low Level VFA	Analytical Method: Pace ENV-SOP-BTRO-0042 Pace Analytical Services - Baton Rouge							
Pentanoic Acid	ND	mg/L	50.0	100		10/09/24 04:42	109-52-4	N2
Acetic Acid	ND	mg/L	50.0	100		10/09/24 04:42	64-19-7	
Butyric Acid	ND	mg/L	50.0	100		10/09/24 04:42	107-92-6	
Formic acid	ND	mg/L	50.0	100		10/09/24 04:42	64-18-6	
Hexanoic Acid	ND	mg/L	50.0	100		10/09/24 04:42	142-62-1	N2
i-Hexanoic Acid	ND	mg/L	50.0	100		10/09/24 04:42	646-07-1	N2
Lactic Acid	ND	mg/L	50.0	100		10/09/24 04:42	50-21-5	D3
i-Pentanoic Acid	ND	mg/L	50.0	100		10/09/24 04:42	503-74-2	N2
Propionic Acid	ND	mg/L	50.0	100		10/09/24 04:42	79-09-4	
Pyruvic Acid	ND	mg/L	50.0	100		10/09/24 04:42	127-17-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
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QUALITY CONTROL DATA

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

QC Batch: 344131
QC Batch Method: Pace ENV-SOP-BTRO-0042
Analysis Method: Pace ENV-SOP-BTRO-0042
Analysis Description: BR AM23G Low Level VFA
Laboratory: Pace Analytical Services - Baton Rouge
Associated Lab Samples: 20332846001, 20332846003, 20332846004

METHOD BLANK: 1653518 Matrix: Water
Associated Lab Samples: 20332846001, 20332846003, 20332846004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetic Acid	mg/L	ND	0.50	10/08/24 17:49	
Butyric Acid	mg/L	ND	0.50	10/08/24 17:49	
Formic acid	mg/L	ND	0.50	10/08/24 17:49	
Hexanoic Acid	mg/L	ND	0.50	10/08/24 17:49	N2
i-Hexanoic Acid	mg/L	ND	0.50	10/08/24 17:49	N2
i-Pentanoic Acid	mg/L	ND	0.50	10/08/24 17:49	N2
Lactic Acid	mg/L	ND	0.50	10/08/24 17:49	
Pentanoic Acid	mg/L	ND	0.50	10/08/24 17:49	N2
Propionic Acid	mg/L	ND	0.50	10/08/24 17:49	
Pyruvic Acid	mg/L	ND	0.50	10/08/24 17:49	

LABORATORY CONTROL SAMPLE: 1653519

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetic Acid	mg/L	2	2.0	98	70-130	
Butyric Acid	mg/L	2	1.9	95	70-130	
Formic acid	mg/L	2	2.0	98	70-130	
Hexanoic Acid	mg/L	2	1.9	95	39-114	N2
i-Hexanoic Acid	mg/L	2	2.1	106	39-114	N2
i-Pentanoic Acid	mg/L	2	2.2	109	59-121	N2
Lactic Acid	mg/L	2	2.1	103	70-130	
Pentanoic Acid	mg/L	2	1.9	97	59-121	N2
Propionic Acid	mg/L	2	1.9	97	70-130	
Pyruvic Acid	mg/L	2	1.8	92	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1653722 1653723

Parameter	Units	92755624002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetic Acid	mg/L	31.9	20	20	50.8	60.7	95	144	70-130	18	30	M1
Butyric Acid	mg/L	ND	20	20	12.6	19.4	63	97	70-130	43	30	M1,R1
Formic acid	mg/L	9.0	20	20	29.3	30.9	102	109	70-130	5	30	
Hexanoic Acid	mg/L	ND	20	20	14.7	18.7	73	94	39-114	24	30	N2
i-Hexanoic Acid	mg/L	ND	20	20	14.4	18.3	72	92	39-114	24	30	N2
i-Pentanoic Acid	mg/L	ND	20	20	18.3	20.7	91	104	59-121	13	30	N2
Lactic Acid	mg/L	37.3	20	20	58.3	58.9	105	108	70-130	1	30	
Pentanoic Acid	mg/L	ND	20	20	14.9	19.8	74	99	59-121	29	30	N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Baton Rouge, LA 70820
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QUALITY CONTROL DATA

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1653722 1653723

Parameter	Units	92755624002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Propionic Acid	mg/L	9.4	20	20	22.6	32.6	66	116	70-130	36	30	M1,R1
Pyruvic Acid	mg/L	ND	20	20	28.6	26.0	122	109	70-130	9	30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Baton Rouge, LA 70820
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QUALITY CONTROL DATA

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

QC Batch: 344317
QC Batch Method: Pace ENV-SOP-BTRO-0042
Analysis Method: Pace ENV-SOP-BTRO-0042
Analysis Description: BR AM23G Low Level VFA
Laboratory: Pace Analytical Services - Baton Rouge

Associated Lab Samples: 20332846002

METHOD BLANK: 1654810 Matrix: Water
Associated Lab Samples: 20332846002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetic Acid	mg/L	ND	0.50	10/10/24 12:17	
Butyric Acid	mg/L	ND	0.50	10/10/24 12:17	
Formic acid	mg/L	ND	0.50	10/10/24 12:17	
Hexanoic Acid	mg/L	ND	0.50	10/10/24 12:17	N2
i-Hexanoic Acid	mg/L	ND	0.50	10/10/24 12:17	N2
i-Pentanoic Acid	mg/L	ND	0.50	10/10/24 12:17	N2
Lactic Acid	mg/L	ND	0.50	10/10/24 12:17	
Pentanoic Acid	mg/L	ND	0.50	10/10/24 12:17	N2
Propionic Acid	mg/L	ND	0.50	10/10/24 12:17	
Pyruvic Acid	mg/L	ND	0.50	10/10/24 12:17	

LABORATORY CONTROL SAMPLE: 1654811

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetic Acid	mg/L	2	2.0	98	70-130	
Butyric Acid	mg/L	2	1.8	92	70-130	
Formic acid	mg/L	2	2.0	100	70-130	
Hexanoic Acid	mg/L	2	1.8	90	39-114	N2
i-Hexanoic Acid	mg/L	2	2.0	100	39-114	N2
i-Pentanoic Acid	mg/L	2	2.3	115	59-121	N2
Lactic Acid	mg/L	2	2.1	104	70-130	
Pentanoic Acid	mg/L	2	1.9	96	59-121	N2
Propionic Acid	mg/L	2	1.9	96	70-130	
Pyruvic Acid	mg/L	2	1.7	85	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1654852 1654853

Parameter	Units	20333004001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetic Acid	mg/L	5.0U	20	20	20.9	20.9	99	99	70-130	0	30	
Butyric Acid	mg/L	5.0U	20	20	19.9	19.3	99	97	70-130	3	30	
Formic acid	mg/L	5.0U	20	20	20.8	20.7	103	102	70-130	0	30	
Hexanoic Acid	mg/L	5.0U	20	20	19.0	19.3	95	96	39-114	1	30	N2
i-Hexanoic Acid	mg/L	5.0U	20	20	21.2	22.1	106	110	39-114	4	30	N2
i-Pentanoic Acid	mg/L	5.0U	20	20	23.9	24.0	119	120	59-121	1	30	N2
Lactic Acid	mg/L	5.0U	20	20	21.8	21.8	109	109	70-130	0	30	
Pentanoic Acid	mg/L	5.0U	20	20	20.5	21.5	102	107	59-121	5	30	N2

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REPORT OF LABORATORY ANALYSIS

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Baton Rouge, LA 70820
(225) 769-4900

QUALITY CONTROL DATA

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1654852 1654853

Parameter	Units	20333004001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Propionic Acid	mg/L	5.0U	20	20	20.0	19.9	100	99	70-130	1	30	
Pyruvic Acid	mg/L	5.0U	20	20	18.2	17.9	91	90	70-130	2	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

QUALIFIERS

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The Nelac Institute

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
D4	Sample was diluted due to the presence of high levels of target analytes.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
R1	RPD value was outside control limits.

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 24J0187 & 24J0273
Pace Project No.: 20332846

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
20332846001	**24J0187-01: EW-50**	Pace ENV-SOP-BTRO-0042	344131		
20332846002	**24J0187-02: EW-52**	Pace ENV-SOP-BTRO-0042	344317		
20332846003	**24J0273-01: EW-82**	Pace ENV-SOP-BTRO-0042	344131		
20332846004	**24J0273-02: EW-36A**	Pace ENV-SOP-BTRO-0042	344131		

ENTHALPY ANALYTICAL

Pace - Gulf Coast
7979 Innovation Park Dr
Baton Rouge, LA 70820

1941 F
RICHMOND, \
(804) 35
(80

WO# : 20332846

20332846

CHAIN OF CUSTODY

COMPANY NAME: Enthalpy	INVOICE TO: Enthalpy	PROJECT NAME/Quote #: 24J0187 & 24J0273
CONTACT: Dan Elliot	INVOICE CONTACT:	SITE NAME: 24J0187 & 24J0273
ADDRESS: 1941 Reymet Rd Richmond VA 23237	INVOICE ADDRESS: 1941 Reymet Rd Richmond VA 23237	PROJECT NUMBER: 24J0187 & 24J0273
PHONE #: (804) 358-8295	INVOICE PHONE #: (804) 358-8295	P.O. #: ~~To be emailed~~ DTE 10/1/24 PO-073377
FAX #:	EMAIL:	Pretreatment Program:
Is sample for compliance reporting? YES NO	Is sample from a chlorinated supply? YES NO	PWS I.D. #:
SAMPLER NAME (PRINT): Logan Nelson/Will Fabrie	SAMPLER SIGNATURE:	**Turn Around Time: 10**

Matrix Codes: WW=Waste Water/Storm Water GW=Ground Water DW=Drinking Water S=Soil/Solids OR=Organic A=Air WP=Wipe OT=Other_____

CLIENT SAMPLE I.D.	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Time Preserved	Matrix (See Codes)	Number of Containers	ANALYSIS / (PRESERVATIVE) Volatile Fatty Acid								COMMENTS
1) 24J0187-01: EW-50	x					10/2/24	0930		WW	3	X								1
2) 24J0187-02: EW-52	x					10/2/24	1130		WW	3	X								3
3) 24J0273-01: EW-82	x					10/3/24	0950		WW	3	X								3
4) 24J0273-02: EW-36A	x					10/3/24	1015		WW	3	X								4
5)																			
6)																			
7)																			
8)																			
9)																			
10)																			

Preservative Codes: N=Nitric Acid C=Hydrochloric Acid S=Sulfuric Acid H=Sodium Hydroxide A=Ascorbic Acid Z=Zinc Acetate T=Sodium Thiosulfate M=Methanol

PLEASE NOTE PRESERVATIVE(S), INTERFERENCE CHECKS or PUMP RATE (L/min)

RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME
	10/7/24 1600	FedEx Express	10/7/24 1600
RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME
Fedex	10/8/24 1000		10/8/24 1000
RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME

QC Data Package
Level I ☐
Level II ☐
Level III ☐
Level IV ☐

LAB USE ONLY COOLER TEMP 1.5 °C

DC#_Title: ENV-FRM-BTRO-0174 v03_Sample Condition Upon Reciept (SCUR)
Effective Date: 07/26/2024

WO#: 20332846

PM: DRM **Due Date: 10/22/24**

CLIENT: BR-Enthalpy

Pace

Sample Condition Upon Re

Workorder #: _____

7979 Innovation Park Dr. Baton Rouge, LA 70806

Cooler Inspected by/date: EASL / 10/8/24

Means of receipt: ☐ Pace ☐ Client ☐ UPS ☑ FedEx ☐ Other: _____				
☐ Yes	☑ No		Were custody seals present on the cooler?	
☐ Yes	☐ No	☑ NA	If custody seals were present, were they intact and unbroken?	
Method: ☐ Temperature Blank ☑ Against Bottles IR Gun ID: 693 IR Gun Correction Factor: 0 °C				
Cooler #1	Cooler Temp °C: 1.5	(Actual/True)	Samples on ice ☑ Yes ☐ No	pH Strip Lot #
Cooler #2	Cooler Temp °C: _____	(Actual/True)		
Cooler #3	Cooler Temp °C: _____	(Actual/True)	Method of coolant:	
Cooler #4	Cooler Temp °C: _____	(Actual/True)	☑ Wet ☐ Ice Packs ☐ Dry Ice ☐ None	
Tracking #: 7790 7122 2510				
☐ Yes	☑ No	☐ NA	Is a temperature blank present?	
☑ Yes	☐ No	☐ NA	Was a chain of custody (COC) recieved?	
☐ Yes	☑ No	☐ NA	Was the line and profile number listed on the COC?	
☑ Yes	☐ No	☐ NA	Were all coolers received at or below 6.0°C? If no, notify Project Manager notified via email.	
☑ Yes	☐ No		Were proper custody procedures (relinquished/received) followed?	
☐ Yes	☑ No	☐ NA	Is the sampler name and signature on the COC?	
☑ Yes	☐ No		Were sample IDs listed on the COC and all sample containers?	
☑ Yes	☐ No		Was collection date & time listed on the COC and all sample containers?	
☑ Yes	☐ No		Did all container label information (ID, date, time) agree with the COC?	
☑ Yes	☐ No		Were tests to be performed listed on the COC?	
☑ Yes	☐ No		Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?	
☑ Yes	☐ No		Was adequate sample volume available?	
☑ Yes	☐ No		Were all samples received within ½ the holding time or 48 hours, whichever comes first?	
☑ Yes	☐ No		Were all samples containers accounted for? (No missing / excess)	
☐ Yes	☐ No	☑ NA	Were VOA, 8015C (GRO/VPH), and RSK-175 samples free of bubbles > "pea size" (1/4" or 6mm in diameter) in any of the VOA vials?	
☐ Yes	☐ No	☑ NA	Trip blank present?	
☐ Yes	☐ No	☑ NA	Filtered volume received for dissolved tests? *If no, list affected sample(s) in comments below.*	
☐ Yes	☐ No	☑ NA	Were all metals/nutrient samples received at a pH of < 2?	If No, was preservative added? ☐ Yes ☐ No If added, record lots. Dispenser/pipette lot #: _____
☐ Yes	☐ No	☑ NA	Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?	HNO_3_____ H_2SO_4 _____ NaOH_____ Date: _____ Time:_____

Comments:

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Ammonia as N (mg/L)	November-2022	---	---	---	---	---	---	---	---	---	1560	---	1400	---	---	1380	---	---	---	---	---	---	---	---	---	50	50
	December-2022	---	1700	---	2280	---	---	---	2110	---	1410	1310	---	---	---	---	1150	1780	---	---	---	---	---	---	---	100	100
	January-2023	---	1520	---	---	---	---	---	---	936	---	---	---	---	---	1330	---	---	---	---	---	---	---	---	---	50	50
		---	---	---	---	---	---	---	---	---	2440	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	100
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1490	---	---	---	---	---	---	---	100	100
	March-2023	---	---	---	---	---	---	---	---	667	1480	---	---	---	---	---	---	---	---	---	---	---	---	---	---	73.1	100
	April-2023	---	---	---	---	---	---	---	---	1410	---	1220	---	---	---	---	---	---	---	---	---	---	---	---	---	73.1	100
	May-2023	---	1390	---	---	---	---	---	---	1860	2380	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146	200
	June-2023	---	---	---	---	---	---	---	---	---	2740	---	2370	---	2170	---	---	---	---	---	---	---	---	---	---	146	200
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1180	---	---	---	---	---	---	73.1	100
		---	1570	---	---	---	---	---	2260	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2350	310	146	200
	August-2023	---	---	---	---	---	1600	---	1890	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2140	222	146	200
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1720	---	---	---	---	---	---	73.1	100
		---	---	---	1250	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146	200
	October-2023	---	---	---	---	---	---	1980	---	---	---	---	---	---	---	---	---	---	1730	---	---	2890	---	---	---	146	200
	November-2023	---	1260	---	2490	1830	---	2070	---	---	---	---	---	---	---	---	---	---	1800	---	---	2590	---	---	---	146	200
		---	---	---	---	---	---	---	---	---	---	---	---	1170	---	---	---	---	---	---	---	---	---	---	2080	183	250
		---	---	---	---	---	---	---	---	---	2440	---	---	---	---	---	---	---	---	---	---	---	---	---	---	366	500
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1540	---	---	---	---	---	---	73.1	100
		---	---	---	2900	---	---	---	---	---	---	---	---	---	---	---	---	2200	---	---	---	---	---	---	---	146	200
	January-2024	---	---	2160	---	---	---	---	---	---	2400	---	---	---	---	---	---	---	---	---	---	---	---	---	1610	146	200
	February-2024	---	---	1900	---	2600	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1780	---	2380	---	---	146	200
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2280	---	968	146	200
	April-2024	---	---	---	2290	---	---	---	---	---	---	---	---	928	---	---	---	2140	1800	---	---	---	---	---	---	146	200
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	898	73.1	100
		---	---	---	---	---	---	---	---	---	2550	---	---	---	---	---	---	---	1620	---	1950	2660	---	---	---	146	200
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1990	---	2170	---	---	---	1850	146	200
	July-2024	---	---	---	---	---	---	---	---	---	1860	---	---	---	---	---	---	---	---	---	---	---	---	---	---	73.1	100
		---	---	---	---	---	---	---	---	---	---	1950	---	---	---	---	---	---	---	---	---	---	---	---	---	146	200
	August-2024	---	---	---	---	---	1110	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	73.1	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2130	---	---	2550	---	146	200
	September-2024	---	---	---	---	---	1440	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	73.1	100
		---	---	---	2210	---	---	---	---	---	---	---	---	---	---	---	---	2290	---	---	---	---	---	---	---	146	200
	October-2024	343	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1490	---	---	---	---	---	73.1	100
		---	1370	---	2180	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146	200
Biological Oxygen Demand (mg/L)	November-2022	---	---	---	---	---	---	---	---	---	15700	---	5860	---	---	5140	---	---	---	---	---	---	---	---	---	0.2	2
	December-2022	---	6440	---	12500	---	---	---	11400	---	9240	3330	---	---	---	---	8360	6770	---	---	---	---	---	---	---	0.2	2
	January-2023	---	9920	---	---	---	---	---	---	999	28100	---	---	---	---	7060	---	---	---	---	---	---	---	---	---	0.2	2
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7230	---	---	---	---	---	---	---	0.2	2
	March-2023	---	---	---	---	---	---	---	---	1570	9190	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	2
	April-2023	---	---	---	---	---	---	---	---	8430	---	2860	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	2
	May-2023	---	7350	---	---	---	---	---	---	11900	35300	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	2
	June-2023	---	---	---	---	---	---	---	---	---	20000	---	27400	---	23100	---	---	---	---	---	---	---	---	---	---	0.2	2
	July-2023	---	6820	---	---	---	---	---	32900	---	---	---	---	---	---	---	---	---	330	---	---	---	---	31800	937	0.2	2
	August-2023	---	---	---	---	---	>33045	---	>33225	---	---	---	---	---	---	---	---	---	---	---	---	---	---	>32805	506	0.2	2
	September-2023	---	---	---	40185.5	---	---	---	---	---	---	---	---	---	---	---	---	---	659	---	---	---	---	---	---	0.2	2
	October-2023	---	---	---	---	---	---	34600	---	---	---	---	---	---	---	---	---	---	690	---	---	37000	---	---	---	0.2	2
	November-2023	---	1910	---	30400	27500	---	32015	---	---	29600	---	---	3640	---	---	---	---	480	---	---	32135	---	---	21500	0.2	2
	December-2023	---	---	---	>44105	---	---	---	---	---	---	---	---	---	---	---	---	13700	681	---	---	---	---	---	---	0.2	2
	January-2024	---	---	26000	---	---	---	---	---	---	17100	---	---	---	---	---	---	---	---	---	---	---	---	---	14000	0.2	2
	February-2024	---	---	23200	---	26200	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21400	---	34300	---	---	0.2	2
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	40600	---	7680	0.2	2
	April-2024	---	---	---	41142	---	---	---	---	---	---	---	---	1210	---	---	---	19600	386	---	---	---	---	---	---	0.2	2
	May-2024	---	---	---	---	---	---	---	---	---	25600	---	---	---	---	---	---	---	448	---	22200	33400	---	---	7750	0.2	2
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	421	---	24400	---	---	---	16200	0.2	2
	July-2024	---	---	---	---	---	---	---	---	---	25800	4750	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	2
	August-2024	---	---	---	---	---	31000	---	---	---	---	---	---	---	---	---	---	---	---	---	20800	---	---	33400	---	0.2	2
	September-2024	---	---	---	ND	---	36100	---	---	---	---	---	---	---	---	---	---	27400	---	---	---	---	---	---	---	0.2	2
	October-2024	180	6680	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	36100	---	---	---	---	---	0.2	2

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Chemical Oxygen Demand (mg/L)	November-2022	---	---	---	---	---	---	---	---	---	---	---	**9790**	---	---	**10800**	---	---	---	---	---	---	---	---	---	1000	1000
		---	---	---	---	---	---	---	---	---	**23500**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2000	2000
	December-2022	---	**7440**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000	1000
		---	---	---	---	---	---	---	---	---	**13200**	**8000**	---	---	---	---	**20300**	**14100**	---	---	---	---	---	---	---	2000	2000
		---	---	---	---	---	---	---	**22400**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5000	5000
		---	---	---	**86800**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10000	10000
	January-2023	---	---	---	---	---	---	---	---	**3630**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	500
		---	**14900**	---	---	---	---	---	---	---	---	---	---	---	---	**8430**	---	---	---	---	---	---	---	---	---	2000	2000
		---	---	---	---	---	---	---	---	---	**47600**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5000	5000
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**9210**	---	---	---	---	---	---	---	1000	1000
	March-2023	---	---	---	---	---	---	---	---	**1690**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	500
		---	---	---	---	---	---	---	---	---	**10600**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2000	2000
	April-2023	---	---	---	---	---	---	---	---	---	---	**7370**	---	---	---	---	---	---	---	---	---	---	---	---	---	1000	1000
		---	---	---	---	---	---	---	---	**16800**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2000	2000
	May-2023	---	**7590**	---	---	---	---	---	---	**18700**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2000	2000
		---	---	---	---	---	---	---	---	---	**44700**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4000	4000
	June-2023	---	---	---	---	---	---	---	---	---	---	---	**44800**	---	---	---	---	---	---	---	---	---	---	---	---	5000	5000
		---	---	---	---	---	---	---	---	---	**41300**	---	---	---	**55000**	---	---	---	---	---	---	---	---	---	---	10000	10000
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2180**	500	500
		---	**6480**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2460**	---	---	---	---	---	---	1000	1000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**41000**	---	5000	5000
		---	---	---	---	---	---	---	**50100**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10000	10000
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1750**	500	500
		---	---	---	---	---	**59000**	---	**58600**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**60600**	---	5000	5000
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**6260**	---	---	---	---	---	---	1000	1000
		---	---	---	**87400**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10000	10000
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**5320**	---	---	---	---	---	---	500	500
		---	---	---	---	---	---	**51000**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5000	5000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**63600**	---	---	---	10000	10000
	November-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**4710**	---	---	---	---	---	---	1000	1000
		---	**6200**	---	---	---	---	---	---	---	---	---	---	**5620**	---	---	---	---	---	---	---	---	---	---	---	2000	2000
		---	---	---	---	**48100**	---	**57900**	---	---	**43700**	---	---	---	---	---	---	---	---	---	---	---	---	---	**37600**	5000	5000
		---	---	---	**77100**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**63900**	---	---	---	10000	10000
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**4870**	---	---	---	---	---	---	1000	1000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**19900**	---	---	---	---	---	---	---	5000	5000
		---	---	---	**94200**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10000	10000
	January-2024	---	---	**48600**	---	---	---	---	---	---	**59800**	---	---	---	---	---	---	---	---	---	---	---	---	---	**38200**	5000	5000
	February-2024	---	---	**42700**	---	**51200**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**48900**	---	---	---	---	5000	5000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**68400**	---	---	10000	10000
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**14400**	2000	2000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**75500**	---	---	10000	10000
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	**3110**	---	---	---	---	**4200**	---	---	---	---	---	---	1000	1000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**32400**	---	---	---	---	---	---	---	5000	5000
		---	---	---	**79700**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10000	10000
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**4930**	---	---	---	---	---	---	1000	1000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**17700**	5000	5000
		---	---	---	---	---	---	---	---	---	**48500**	---	---	---	---	---	---	---	---	---	**43100**	**70700**	---	---	---	10000	10000
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**4520**	---	---	---	---	---	---	1000	1000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**51400**	---	---	---	**31300**	5000	5000
	July-2024	---	---	---	---	---	---	---	---	---	**42400**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5000	5000
		---	---	---	---	---	---	---	---	---	---	**98500**	---	---	---	---	---	---	---	---	---	---	---	---	---	10000	10000
	August-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**48100**	---	---	**59500**	---	5000	5000
		---	---	---	---	---	**56600**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10000	10000
	September-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**26800**	---	---	---	---	---	---	---	4000	4000
		---	---	---	---	---	**55900**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5000	5000
		---	---	---	**78300**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10000	10000
	October-2024	**951**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	500
		---	**10700**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2000	2000
		---	---	---	**83300**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**62000**	---	---	---	---	---	10000	10000
Nitrate+Nitrite as N (mg/L)	November-2022	---	---	---	---	---	---	---	---	---	**2.91**	---	**0.16**	---	---	**0.33**	---	---	---	---	---	---	---	---	---	0.1	0.1

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Nitrate as N (mg/L)	December-2022	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	0.2	0.2
		---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	0.6
		---	ND	---	ND	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.1	5.1
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	1.5	5.5
	January-2023	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.35	1.35
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	1.1	1.1
		---	**3.9**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.1	2.1
		---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.2	2.2
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.35	1.35
	March-2023	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.04	5.1
	April-2023	---	---	---	---	---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.6	2.6
	May-2023	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.1	5.1
		---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.2	5.2
	June-2023	---	---	---	---	---	---	---	---	---	ND	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	1.1	5.1
		---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	1.2	5.2
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.355**	---	---	---	---	---	---	0.15	0.35
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.55	0.75
		---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	3
		---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	1.5	5.5
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.15	0.35
		---	---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	1.5	3.5
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.3	1.1
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.7	1.5
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.35	1.35
		---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	3
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	1.5	3.5
	November-2023	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.15	0.35
		---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	0.35	1.35
		---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.75	1.75
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.1	5.1
		---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	1.5	5.5
	December-2023	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	1.1	5.1
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	1.5	5.5
	January-2024	---	---	**2.01**	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	1.5	5.5
	February-2024	---	---	**9.1**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	1.5	5.5
		---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.5	7.5
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	0.75	1.75
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	0.35	0.35
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.5	5.5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	2.5	10.5
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.15	0.35
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.35	1.35
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	0.6	2.6
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.9**	---	---	---	1	3
		---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.1	5.1
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.692**	---	---	---	---	---	---	0.6	2.6
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	ND	1.5	3.5
	July-2024	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.5	2.5
		---	---	---	---	---	---	---	---	---	**6.66**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5	25
	August-2024	---	---	---	---	---	**1.57**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	---	0.25	1.25
	September-2024	---	---	---	ND	---	**2.42**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	1.25
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	5	25
	October-2024	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	0.5
		---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	1	5
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	50

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Nitrite as N (mg/L)	December-2022	---	---	---	---	---	---	---	---	---	---	**0.12 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	0.5
		---	ND	---	ND	---	---	---	ND	---	ND	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	1	5
	January-2023	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	1.25
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	1	1
		---	ND	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2	2
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.48 J**	---	---	---	---	---	---	---	0.25	1.25
	March-2023	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	5
	April-2023	---	---	---	---	---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.5	2.5
	May-2023	---	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	5
	June-2023	---	---	---	---	---	---	---	---	---	**2 J**	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	1	5
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	ND	0.05	0.25
		---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.5	2.5
		---	---	---	---	---	---	---	**1.2 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	1	5
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.05	0.25
		---	---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.5	2.5
	September-2023	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.2	1
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.25	1.25
		---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	0.5	2.5
	November-2023	---	**0.06 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.05	0.25
		---	---	---	---	---	---	ND	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	0.25	1.25
		---	---	---	ND	ND	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	1	5
	December-2023	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	1	5
	January-2024	---	---	**1.7 J**	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	1	5
	February-2024	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	1	5
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	**0.25 J**	0.25	1.25
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	0.25	0.25
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	2	10
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.05	0.25
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.25	1.25
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	---	---	---	0.5	2.5
		---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	5
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	---	ND	0.5	2.5
	July-2024	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.5	2.5
		---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5	25
	August-2024	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	---	0.25	1.25
	September-2024	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	1.25
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	5	25
	October-2024	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	0.5
		---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	1	5
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Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Total Kjeldahl Nitrogen (mg/L)	November-2022	---	---	---	---	---	---	---	---	---	---	---	1290	---	---	1470	---	---	---	---	---	---	---	---	---	20	50
		---	---	---	---	---	---	---	---	---	2110	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50	125
	December-2022	---	1510	---	3570	---	---	---	1790	---	1830	1490	---	---	---	---	1340	1940	---	---	---	---	---	---	---	200	500
	January-2023	---	1840	---	---	---	---	---	---	881	---	---	---	---	---	1410	---	---	---	---	---	---	---	---	---	20	50
		---	---	---	---	---	---	---	---	---	2970	---	---	---	---	---	---	---	---	---	---	---	---	---	---	40	100
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1870	---	---	---	---	---	---	---	16.8	50
	March-2023	---	---	---	---	---	---	---	---	879	1920	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33.6	100
	April-2023	---	---	---	---	---	---	---	---	1820	---	1510	---	---	---	---	---	---	---	---	---	---	---	---	---	16.8	50
	May-2023	---	1590	---	---	---	---	---	---	1950	2910	---	---	---	---	---	---	---	---	---	---	---	---	---	---	40	100
	June-2023	---	---	---	---	---	---	---	---	---	3080	---	---	---	2750	---	---	---	---	---	---	---	---	---	---	100	250
		---	---	---	---	---	---	---	---	---	---	---	2650	---	---	---	---	---	---	---	---	---	---	---	---	200	500
	July-2023	---	1670	---	---	---	---	---	2960	---	---	---	---	---	---	---	---	---	1670	---	---	---	---	2720	285	40	100
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	279	10	25
		---	---	---	---	---	2240	---	2820	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2850	---	100	250
	September-2023	---	---	---	3340	---	---	---	---	---	---	---	---	---	---	---	---	---	2680	---	---	---	---	---	---	100	250
	October-2023	---	---	---	---	---	---	1050	---	---	---	---	---	---	---	---	---	---	---	---	---	1320	---	---	---	40	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4630	---	---	---	---	---	---	100	250
	November-2023	---	---	---	---	---	---	2240	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2120	80	200
		---	1440	---	3290	2630	---	---	---	---	2530	---	---	1120	---	---	---	---	2270	---	---	3170	---	---	---	100	250
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1880	---	---	---	---	---	---	---	80	200
		---	---	---	3130	---	---	---	---	---	---	---	---	---	---	---	---	---	1890	---	---	---	---	---	---	100	250
	January-2024	---	---	2450	---	---	---	---	---	---	3020	---	---	---	---	---	---	---	---	---	---	---	---	1810	---	100	250
	February-2024	---	---	2540	---	2890	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2470	---	2970	---	---	100	250
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1030	50	125
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2980	---	---	100	250
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	1030	---	---	---	---	1730	---	---	---	---	---	---	40	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2320	---	---	---	---	---	---	---	50	125
		---	---	---	3260	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1140	40	100
		---	---	---	---	---	---	---	---	---	3120	---	---	---	---	---	---	---	1780	---	2470	3280	---	---	---	100	250
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1870	---	---	---	---	---	4750	100	250
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2680	---	---	---	---	200	500
	July-2024	---	---	---	---	---	---	---	---	---	2840	2680	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250
	August-2024	---	---	---	---	---	1980	---	---	---	---	---	---	---	---	---	---	---	---	---	1460	---	---	3150	---	100	250
		---	---	---	---	---	2090	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50	125
	September-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2650	---	---	---	---	---	---	---	80	200
	October-2024	---	---	---	3320	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250
		351	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1870	---	---	---	---	---	40	100
		---	1360	---	2850	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Total Recoverable Phenolics (mg/L)	November-2022	---	---	---	---	---	---	---	---	---	---	---	**5.68**	---	---	**3**	---	---	---	---	---	---	---	---	---	0.3	0.5
		---	---	---	---	---	---	---	---	---	**28.8**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.75	1.25
	December-2022	---	---	---	---	---	---	---	---	---	---	**8.94**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.3	0.5
		---	**24.9**	---	**54.6**	---	---	---	**28.3**	---	**32**	---	---	---	---	---	**20.2**	**36**	---	---	---	---	---	---	---	1.5	2.5
	January-2023	---	**27.2**	---	---	---	---	---	---	**1.3**	---	---	---	---	---	**20.2**	---	---	---	---	---	---	---	---	---	0.75	1.25
		---	---	---	---	---	---	---	---	---	**56.5**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.5	2.5
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**22.4**	---	---	---	---	---	---	---	1.5	2.5
	March-2023	---	---	---	---	---	---	---	---	**0.4**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.03	0.05
		---	---	---	---	---	---	---	---	---	**13.9**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.3	0.5
	April-2023	---	---	---	---	---	---	---	---	**18.7**	---	**5.1**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.3	0.5
	May-2023	---	**18.6**	---	---	---	---	---	---	**20**	**50**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.5	2.5
	June-2023	---	---	---	---	---	---	---	---	---	**39.1**	---	**45.6**	---	**80.6**	---	---	---	---	---	---	---	---	---	---	1.5	2.5
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.7**	---	---	---	---	---	---	0.15	0.25
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2.92**	0.3	0.5
		---	**11.6**	---	---	---	---	---	**47.9**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**37.3**	---	1.5	2.5
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.46**	0.15	0.25
		---	---	---	---	---	**28.6**	---	**31.4**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**40.4**	---	1.5	2.5
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**4.58**	---	---	---	---	---	---	0.3	0.5
		---	---	---	**38.2**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3	5
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**4.13**	---	---	---	---	---	---	0.15	0.25
		---	---	---	---	---	---	**37**	---	---	---	---	---	---	---	---	---	---	---	---	---	**38.7**	---	---	---	0.6	1
	November-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**3.65**	---	---	---	---	---	---	0.15	0.25
		---	**7.88**	---	---	**36.4**	---	---	---	---	---	---	---	**4.76**	---	---	---	---	---	---	---	---	---	---	---	0.6	1
		---	---	---	**38.8**	---	---	**47.4**	---	---	---	---	---	---	---	---	---	---	---	---	---	**47.1**	---	---	---	0.75	1.25
		---	---	---	---	---	---	---	---	---	**46.9**	---	---	---	---	---	---	---	---	---	---	---	---	---	**29.1**	1.5	2.5
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**3.72**	---	---	---	---	---	---	0.06	0.1
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**23**	---	---	---	---	---	---	---	0.75	1.25
		---	---	---	**34.2**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.5	2.5
	January-2024	---	---	**38**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**22.7**	1.5	2.5
		---	---	---	---	---	---	---	---	---	**39.2**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3	5
	February-2024	---	---	**37.3**	---	**42.9**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**50.2**	---	**43.1**	---	---	1.5	2.5
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**46.6**	---	**12.8**	3	5
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	**1.68**	---	---	---	---	**1.16**	---	---	---	---	---	---	0.3	0.5
		---	---	---	**38.4**	---	---	---	---	---	---	---	---	---	---	---	---	**28.6**	---	---	---	---	---	---	---	1.5	2.5
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.06**	---	---	---	---	---	---	0.3	0.5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**13.6**	1.5	2.5
		---	---	---	---	---	---	---	---	---	**36.6**	---	---	---	---	---	---	---	---	---	**33.6**	**51**	---	---	---	3	5
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.82**	---	---	---	---	---	---	0.3	0.5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**23.2**	1.5	2.5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**44.8**	---	---	---	---	3	5
	July-2024	---	---	---	---	---	---	---	---	---	---	**28.8**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.75	1.25
		---	---	---	---	---	---	---	---	---	**37.8**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3	5
	August-2024	---	---	---	---	---	**29.2**	---	---	---	---	---	---	---	---	---	---	---	---	---	**44.2**	---	---	**39.2**	---	3	5
	September-2024	---	---	---	**39.6**	---	**31.6**	---	---	---	---	---	---	---	---	---	---	**31.6**	---	---	---	---	---	---	---	3	5
	October-2024	**0.376**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.03	0.05
		---	**8.4**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.3	0.5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**45.1**	---	---	---	---	---	1.5	2.5
		---	---	---	**37.6**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3	5

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
SEMI-VOLATILE ORGANIC COMPOUND (ug/L)																											
Anthracene	November-2022	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	---	---	---	---	---	---	---	---	---	46.7	93.5
		---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	93.5	187
	December-2022	---	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	ND	---	---	---	---	---	---	---	9.35	9.35
		---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	11.7	11.7
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23.4	23.4
		---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	485	971
	January-2023	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	243	485
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	253	505
		---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	490	980
		---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	1000
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	187	374
	March-2023	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	51	102
		---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	117	234
	April-2023	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.4	74.8
		---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	38.8	77.7
	May-2023	---	ND	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	93.5	187
		---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	467	935
	June-2023	---	---	---	---	---	---	---	---	---	ND	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	485	971
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	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	46.7	93.5
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	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	19.6	39.2
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	September-2023	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	40	80
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	40	80
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	November-2023	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	20	40
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	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	50	100
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	January-2024	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	200
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		---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000	2000
	February-2024	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	200	400
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	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	20	40
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	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	5	10
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	May-2024	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	---	ND	---	---	---	ND	10	10
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	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	20	40
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	July-2024	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	40	80
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	August-2024	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	400	800
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	September-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	100	200
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	October-2024	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50	100
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	200	400

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
TOTAL METALS (mg/L)																											
Arsenic	November-2022	---	---	---	---	---	---	---	---	---	**0.863**	---	**0.464**	---	---	**1.3**	---	---	---	---	---	---	---	---	---	0.02	0.04
	December-2022	---	**1.02**	---	**0.406**	---	---	---	**0.174**	---	**1.69**	**0.49**	---	---	---	---	**0.159**	**0.574**	---	---	---	---	---	---	---	0.02	0.04
	January-2023	---	**0.285**	---	---	---	---	---	---	**0.596**	**0.225**	---	---	---	---	**0.846**	---	---	---	---	---	---	---	---	---	0.01	0.02
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.29**	---	---	---	---	---	---	---	0.005	0.01
	March-2023	---	---	---	---	---	---	---	---	**1.07**	**1**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.02
	April-2023	---	---	---	---	---	---	---	---	---	---	**0.11**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0005	0.001
		---	---	---	---	---	---	---	---	**0.36**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.01
	May-2023	---	**0.26**	---	---	---	---	---	---	**0.3**	**0.27**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0025	0.005
	June-2023	---	---	---	---	---	---	---	---	---	**0.26**	---	**0.5**	---	**0.14**	---	---	---	---	---	---	---	---	---	---	0.0025	0.005
	July-2023	---	**0.23**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.24**	---	---	---	---	**0.19**	**0.06**	0.0005	0.001
		---	---	---	---	---	---	---	**0.7**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0025	0.005
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.15**	0.0025	0.005
		---	---	---	---	---	**0.32**	---	**0.43**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.29**	---	0.005	0.01
	September-2023	---	---	---	**0.42**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.25**	---	---	---	---	---	---	0.005	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.24**	---	---	**0.31**	---	---	---	0.0005	0.001
		---	---	---	---	---	---	**0.36**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.001	0.002
	November-2023	---	**0.23**	---	**0.33**	**0.53**	---	**0.43**	---	---	**0.35**	---	---	**0.78**	---	---	---	---	**0.34**	---	---	**0.27**	---	---	**0.2**	0.003	0.003
	December-2023	---	---	---	**0.4**	---	---	---	---	---	---	---	---	---	---	---	---	**0.26**	---	---	---	---	---	---	---	0.0025	0.005
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.24**	---	---	---	---	---	---	0.001	0.002
	January-2024	---	---	**0.47**	---	---	---	---	---	---	**0.23**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.18**	0.0025	0.005
	February-2024	---	---	**0.68**	---	**0.42**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.33**	---	**0.23**	---	---	0.002	0.002
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.12**	0.001	0.002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.23**	---	---	0.0025	0.005
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	**0.49**	---	---	---	---	**0.18**	---	---	---	---	---	---	0.0005	0.001
		---	---	---	**0.31**	---	---	---	---	---	---	---	---	---	---	---	---	**0.33**	---	---	---	---	---	---	---	0.004	0.004
	May-2024	---	---	---	---	---	---	---	---	---	**0.33**	---	---	---	---	---	---	---	**0.2**	---	**0.73**	**0.22**	---	---	**0.22**	0.005	0.01
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.19**	---	**0.49**	---	---	---	**0.14**	0.005	0.01
	July-2024	---	---	---	---	---	---	---	---	---	**300**	**0.095**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0025	0.005
	August-2024	---	---	---	---	---	**0.18**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.49**	---	---	**0.13**	---	0.005	0.01
	September-2024	---	---	---	**0.27**	---	**0.15**	---	---	---	---	---	---	---	---	---	---	**0.19**	---	---	---	---	---	---	---	0.005	0.01
	October-2024	**0.1**	**0.26**	---	**0.24**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.18**	---	---	---	---	---	0.005	0.01

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Barium	November-2022	---	---	---	---	---	---	---	---	---	**0.871**	---	**0.485**	---	---	**0.36**	---	---	---	---	---	---	---	---	---	0.01	0.02
	December-2022	---	**0.566**	---	**0.803**	---	---	---	**0.978**	---	**0.438**	**0.214**	---	---	---	---	**0.856**	**0.793**	---	---	---	---	---	---	---	0.01	0.02
	January-2023	---	**0.643**	---	---	---	---	---	---	**0.683**	**1.92**	---	---	---	---	**0.554**	---	---	---	---	---	---	---	---	---	0.005	0.01
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.04**	---	---	---	---	---	---	---	0.01	0.05
	March-2023	---	---	---	---	---	---	---	---	**0.406**	**0.683**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.01
	April-2023	---	---	---	---	---	---	---	---	**1.21**	---	**0.326**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.05
	May-2023	---	**0.636**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.025
		---	---	---	---	---	---	---	---	**1.2**	**1.83**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.05
	June-2023	---	---	---	---	---	---	---	---	---	**1.69**	---	---	---	**1.65**	---	---	---	---	---	---	---	---	---	---	0.005	0.025
		---	---	---	---	---	---	---	---	---	---	---	**3.01**	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.05
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.217**	0.001	0.005
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.558**	---	---	---	---	---	---	0.002	0.01
		---	**0.542**	---	---	---	---	---	**2.28**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.02**	---	0.005	0.025
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.218**	0.005	0.025
		---	---	---	---	---	**1.61**	---	**1.58**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.48**	---	0.01	0.05
	September-2023	---	---	---	**0.72**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.649**	---	---	---	---	---	---	0.01	0.05
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.664**	---	---	---	---	---	---	0.002	0.01
		---	---	---	---	---	---	**2.56**	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.93**	---	---	---	0.005	0.025
	November-2023	---	**0.572**	---	**0.81**	**2.28**	---	**2.51**	---	---	**1.96**	---	---	**0.418**	---	---	---	---	**0.67**	---	---	**2.06**	---	---	**2.84**	0.01	0.05
	December-2023	---	---	---	**0.68**	---	---	---	---	---	---	---	---	---	---	---	---	**1.36**	---	---	---	---	---	---	---	0.005	0.025
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.672**	---	---	---	---	---	---	0.002	0.01
	January-2024	---	---	---	---	---	---	---	---	---	**1.92**	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.91**	0.005	0.025
		---	---	**3.27**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.05
	February-2024	---	---	**3.03**	---	**4.41**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2.65**	---	**0.925**	---	---	0.005	0.025
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.03**	0.002	0.01
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.54**	---	---	0.005	0.025
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	**0.4**	---	---	---	---	**0.634**	---	---	---	---	---	---	0.001	0.005
		---	---	---	**1.02**	---	---	---	---	---	---	---	---	---	---	---	---	**2.15**	---	---	---	---	---	---	---	0.01	0.05
	May-2024	---	---	---	---	---	---	---	---	---	**1.79**	---	---	---	---	---	---	---	**0.619**	---	**2.8**	**2.06**	---	---	**0.872**	0.01	0.05
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.6**	---	**3.44**	---	---	---	**1.51**	0.01	0.05
	July-2024	---	---	---	---	---	---	---	---	---	**1.28**	**2.75**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.025
	August-2024	---	---	---	---	---	**1.27**	---	---	---	---	---	---	---	---	---	---	---	---	---	**2.39**	---	---	**0.862**	---	0.01	0.05
	September-2024	---	---	---	**1.34**	---	**1.33**	---	---	---	---	---	---	---	---	---	---	**3.65**	---	---	---	---	---	---	---	0.01	0.05
	October-2024	**0.26**	**0.568**	---	**1.17**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**3.33**	---	---	---	---	---	0.01	0.05

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Cadmium	November-2022	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	ND	---	---	---	---	---	---	---	---	---	0.004	0.008
	December-2022	---	ND	---	**0.0104**	---	---	---	ND	---	ND	ND	---	---	---	---	ND	ND	---	---	---	---	---	---	---	0.004	0.008
	January-2023	---	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	0.002	0.004
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.000297 J**	---	---	---	---	---	---	---	0.0001	0.001
	March-2023	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.002	0.004
	April-2023	---	---	---	---	---	---	---	---	**0.000158 J**	---	**0.000333 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0001	0.001
	May-2023	---	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0005	0.005
	June-2023	---	---	---	---	---	---	---	---	---	ND	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	0.0005	0.005
	July-2023	---	**0.000219 J**	---	---	---	---	---	**0.000156 J**	---	---	---	---	---	---	---	---	---	**0.000186 J**	---	---	---	---	ND	ND	0.0001	0.001
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.0005	0.005
		---	---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.001	0.01
	September-2023	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.001	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.000171 J**	---	---	ND	---	---	---	0.0001	0.001
		---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0002	0.002
	November-2023	---	ND	---	ND	ND	---	ND	---	---	ND	---	---	ND	---	---	---	---	ND	---	---	ND	---	---	ND	0.001	0.003
	December-2023	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	**0.000604 J**	---	---	---	---	---	---	---	0.0005	0.0015
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.0002	0.002
	January-2024	---	---	ND	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.0005	0.005
	February-2024	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0175**	---	ND	---	---	0.0005	0.005
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.0002	0.002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	0.0005	0.005
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	**0.000204 J**	---	---	---	---	**0.000195 J**	---	---	---	---	---	---	0.0001	0.001
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.001	0.004
	May-2024	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	---	**0.0483**	ND	---	---	ND	0.001	0.01
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	**0.0175**	---	---	---	ND	0.001	0.01
	July-2024	---	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0005	0.005
	August-2024	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00508 J**	---	---	**0.00247 J**	---	0.001	0.01
	September-2024	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.001	0.01
	October-2024	**0.00117 J**	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.001	0.01
Chromium	November-2022	---	---	---	---	---	---	---	---	---	**0.208**	---	**0.112**	---	---	**0.354**	---	---	---	---	---	---	---	---	---	0.016	0.02
	December-2022	---	**0.503**	---	**1.08**	---	---	---	**1.76**	---	**0.274**	**0.319**	---	---	---	---	**0.499**	**0.822**	---	---	---	---	---	---	---	0.016	0.02
	January-2023	---	**0.31**	---	---	---	---	---	---	**0.488**	**0.178**	---	---	---	---	**0.155**	---	---	---	---	---	---	---	---	---	0.008	0.01
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.277**	---	---	---	---	---	---	---	0.004	0.01
	March-2023	---	---	---	---	---	---	---	---	**0.213**	**0.188**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.008	0.01
	April-2023	---	---	---	---	---	---	---	---	---	---	**0.142**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0004	0.001
		---	---	---	---	---	---	---	---	**0.306**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.004	0.01
	May-2023	---	**0.422**	---	---	---	---	---	---	**0.281**	**0.237**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.002	0.005
	June-2023	---	---	---	---	---	---	---	---	---	**0.251**	---	**0.191**	---	**0.272**	---	---	---	---	---	---	---	---	---	---	0.002	0.005
	July-2023	---	**0.308**	---	---	---	---	---	**0.535**	---	---	---	---	---	---	---	---	---	**0.231**	---	---	---	---	**0.215**	**0.0265**	0.0004	0.001
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0276**	0.002	0.005
		---	---	---	---	---	**0.606**	---	**0.449**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.259**	---	0.004	0.01
	September-2023	---	---	---	**1.17**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.234**	---	---	---	---	---	---	0.004	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.144**	---	---	**0.194**	---	---	---	0.0004	0.001
		---	---	---	---	---	---	**0.273**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0008	0.002
	November-2023	---	**0.391**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0	0.003
		---	---	---	---	**0.51**	---	---	---	---	---	---	---	---	---	---	---	---	**0.251**	---	---	**0.403**	---	---	---	0.003	0.003
	December-2023	---	---	---	**1.04**	---	---	**0.402**	---	---	**0.246**	---	---	**0.343**	---	---	---	---	---	---	---	---	---	---	**0.222**	0.004	0.01
		---	---	---	**1.34**	---	---	---	---	---	---	---	---	---	---	---	---	**0.259**	---	---	---	---	---	---	---	0.002	0.005
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.219**	---	---	---	---	---	---	0.0008	0.002
	January-2024	---	---	**0.17**	---	---	---	---	---	---	**0.193**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.128**	0.002	0.005
	February-2024	---	---	**0.23**	---	**0.272**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.203**	---	**0.336**	---	---	0.002	0.005
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0759**	0.0008	0.002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.414**	---	---	0.002	0.005
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	**0.36**	---	---	---	---	**0.245**	---	---	---	---	---	---	0.0004	0.001
		---	---	---	**0.836**	---	---	---	---	---	---	---	---	---	---	---	---	**0.228**	---	---	---	---	---	---	---	0.004	0.01
	May-2024	---	---	---	---	---	---	---	---	---	**0.268**	---	---	---	---	---	---	---	**0.226**	---	**0.183**	**0.352**	---	---	**0.11**	0.004	0.01
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.226**	---	**0.188**	---	---	---	**0.16**	0.004	0.01
	July-2024	---	---	---	---	---	---	---	---	---	**0.252**	**0.246**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.002	0.005
	August-2024	---	---	---	---	---	**0.549**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.185**	---	---	**0.233**	---	0.004	0.01
	September-2024	---	---	---	**0.948**	---	**0.541**	---	---	---	---	---	---	---	---	---	---	**0.228**	---	---	---	---	---	---	---	0.004	0.01
	October-2024	**0.0873**	**0.246**	---	**0.929**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.349**	---	---	---	---	---	0.004	0.01

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Copper	November-2022	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	ND	---	---	---	---	---	---	---	---	---	0.016	0.02
	December-2022	---	ND	---	ND	---	---	---	ND	---	ND	ND	---	---	---	---	ND	ND	---	---	---	---	---	---	---	0.016	0.02
	January-2023	---	ND	---	---	---	---	---	---	**0.0127**	**0.0256**	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	0.008	0.01
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00365**	---	---	---	---	---	---	---	0.0003	0.001
	March-2023	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.008	0.01
	April-2023	---	---	---	---	---	---	---	---	**0.00664**	---	**0.00767**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0003	0.001
	May-2023	---	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0015	0.005
	June-2023	---	---	---	---	---	---	---	---	---	**0.00154 J**	---	**0.00362 J**	---	**0.00269 J**	---	---	---	---	---	---	---	---	---	---	0.0015	0.005
	July-2023	---	**0.00124**	---	---	---	---	---	**0.00163**	---	---	---	---	---	---	---	---	---	**0.00811**	---	---	---	---	ND	**0.0027**	0.0003	0.001
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.0015	0.005
		---	---	---	---	---	**0.00343 J**	---	**0.0176**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.003	0.01
	September-2023	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00407 J**	---	---	---	---	---	---	0.003	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00361**	---	---	**0.000609 J**	---	---	---	0.0003	0.001
		---	---	---	---	---	---	**0.00806**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0006	0.002
	November-2023	---	**0.00607**	---	**0.00352**	**0.0212**	---	**0.00756**	---	---	ND	---	---	**0.00341**	---	---	---	---	**0.00387**	---	---	ND	---	---	ND	0.003	0.003
	December-2023	---	---	---	**0.00184**	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.0015	0.0015
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0034**	---	---	---	---	---	---	0.0006	0.002
	January-2024	---	---	ND	---	---	---	---	---	---	**0.019**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.0015	0.005
	February-2024	---	---	ND	---	**0.00201**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	0.0015	0.002
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00115 J**	0.0006	0.002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00184 J**	---	---	0.0015	0.005
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	**0.00443**	---	---	---	---	**0.004**	---	---	---	---	---	---	0.0003	0.001
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.003	0.004
	May-2024	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	**0.00486 J**	---	**0.00688 J**	ND	---	---	ND	0.003	0.01
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00409 J**	---	ND	---	---	---	ND	0.003	0.01
	July-2024	---	---	---	---	---	---	---	---	---	**0.398**	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0015	0.005
	August-2024	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	---	0.003	0.01
	September-2024	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.003	0.01
	October-2024	**0.00612 J**	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00306 J**	---	---	---	---	---	0.003	0.01
Lead	November-2022	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	**0.017 J**	---	---	---	---	---	---	---	---	---	0.012	0.02
	December-2022	---	ND	---	**0.0381**	---	---	---	ND	---	ND	ND	---	---	---	---	ND	ND	---	---	---	---	---	---	---	0.012	0.02
	January-2023	---	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	0.006	0.01
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.006**	---	---	---	---	---	---	---	0.001	0.001
	March-2023	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.006	0.01
	April-2023	---	---	---	---	---	---	---	---	**0.0022**	---	**0.0067**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.001	0.001
	May-2023	---	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.005
	June-2023	---	---	---	---	---	---	---	---	---	ND	---	ND	---	**0.0069**	---	---	---	---	---	---	---	---	---	---	0.005	0.005
	July-2023	---	**0.0014**	---	---	---	---	---	**0.019**	---	---	---	---	---	---	---	---	---	**0.0092**	---	---	---	---	ND	**0.0017**	0.001	0.001
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.005	0.005
		---	---	---	---	---	**0.014**	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.013**	---	0.01	0.01
	September-2023	---	---	---	**0.12**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.01	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0036**	---	---	**0.0034**	---	---	---	0.001	0.001
		---	---	---	---	---	---	**0.0077**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.002	0.002
	November-2023	---	ND	---	**0.13**	**0.0046**	---	**0.014**	---	---	ND	---	---	ND	---	---	---	---	**0.0032**	---	---	**0.0043**	---	---	ND	0.003	0.003
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0043**	---	---	---	---	---	---	0.002	0.002
		---	---	---	**0.16**	---	---	---	---	---	---	---	---	---	---	---	---	**0.002**	---	---	---	---	---	---	---	0.0015	0.0015
	January-2024	---	---	ND	---	---	---	---	---	---	**0.0081**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.005	0.005
	February-2024	---	---	**0.0065**	---	**0.01**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.051**	---	**0.012**	---	---	0.001	0.002
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.002	0.002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.02**	---	---	0.005	0.005
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	**0.0013**	---	---	---	---	**0.0025**	---	---	---	---	---	---	0.001	0.001
		---	---	---	**0.13**	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.004	0.004
	May-2024	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	---	**0.11**	ND	---	---	ND	0.01	0.01
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	**0.024**	---	---	---	ND	0.01	0.01
	July-2024	---	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.005
	August-2024	---	---	---	---	---	**0.031**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.027**	---	---	ND	---	0.01	0.01
	September-2024	---	---	---	**0.098**	---	**0.057**	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.01	0.01
	October-2024	ND	ND	---	**0.12**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.01	0.01

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Mercury	November-2022	---	---	---	---	---	---	---	---	---	---	---	**0.00169**	---	---	**0.00053**	---	---	---	---	---	---	---	---	---	0.0004	0.0004
		---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0008	0.0008
	December-2022	---	**0.00051**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0004	0.0004
		---	---	---	---	---	---	---	**0.00118**	---	ND	**0.00588**	---	---	---	---	**0.0048**	ND	---	---	---	---	---	---	---	0.0008	0.0008
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.004	0.004
	January-2023	---	ND	---	---	---	---	---	---	ND	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	0.0004	0.0004
		---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.004	0.004
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.0004	0.0004
	March-2023	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0002	0.0002
		---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0004	0.0004
	April-2023	---	---	---	---	---	---	---	---	---	---	**0.00128**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0002	0.0002
		---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0004	0.0004
	May-2023	---	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0002	0.0002
	June-2023	---	---	---	---	---	---	---	---	---	ND	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	0.004	0.004
	July-2023	---	**0.000306**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	ND	0.0002	0.0002
		---	---	---	---	---	---	---	**0.0107**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.001	0.001
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.001	0.001
		---	---	---	---	---	**0.00312**	---	**0.00397**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.002	0.002
	September-2023	---	---	---	**0.00503**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.002	0.002
	October-2023	---	---	---	---	---	---	**0.00165**	---	---	---	---	---	---	---	---	---	---	ND	---	---	**0.00055**	---	---	---	0.0004	0.0004
	November-2023	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	0.0000002	0.0000002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.0000004	0.0000004
		---	---	---	**0.00576**	**0.00606**	---	**0.00578**	---	---	ND	---	---	---	---	---	---	---	---	---	---	**0.00954**	---	---	ND	0.000004	0.000004
	December-2023	---	---	---	**0.00484**	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.001	0.001
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.0004	0.0004
	January-2024	---	---	ND	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.001	0.001
	February-2024	---	---	**0.00376**	---	**0.0115**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00238**	---	**0.00284**	---	---	0.001	0.001
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00124**	0.0004	0.0004
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	0.001	0.001
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	**0.000201**	---	---	---	---	ND	---	---	---	---	---	---	0.0002	0.0002
		---	---	---	**0.00382**	---	---	---	---	---	---	---	---	---	---	---	---	**0.00151**	---	---	---	---	---	---	---	0.0008	0.0008
	May-2024	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	---	ND	ND	---	---	ND	0.002	0.002
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	**0.0119**	---	---	---	ND	0.002	0.002
	July-2024	---	---	---	---	---	---	---	---	---	ND	**0.00104**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.001	0.001
	August-2024	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00671**	---	---	ND	---	0.002	0.002
	September-2024	---	---	---	**0.00244**	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.002	0.002
	October-2024	ND	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00254**	---	---	---	---	---	0.002	0.002

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Nickel	November-2022	---	---	---	---	---	---	---	---	---	**0.0866**	---	**0.1344**	---	---	**0.173**	---	---	---	---	---	---	---	---	---	0.014	0.02
	December-2022	---	**0.1722**	---	**0.5025**	---	---	---	**0.2989**	---	**0.1299**	**0.287**	---	---	---	---	**0.1853**	**0.346**	---	---	---	---	---	---	---	0.014	0.02
	January-2023	---	**0.1074**	---	---	---	---	---	---	**0.1442**	**0.0407**	---	---	---	---	**0.0769**	---	---	---	---	---	---	---	---	---	0.007	0.01
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.1726**	---	---	---	---	---	---	---	0.001	0.001
	March-2023	---	---	---	---	---	---	---	---	**0.1254**	**0.1033**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.007	0.01
	April-2023	---	---	---	---	---	---	---	---	**0.1143**	---	**0.1732**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.001	0.001
	May-2023	---	**0.113**	---	---	---	---	---	---	**0.09726**	**0.05657**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.005
	June-2023	---	---	---	---	---	---	---	---	---	**0.05978**	---	**0.05892**	---	**0.07161**	---	---	---	---	---	---	---	---	---	---	0.005	0.005
	July-2023	---	**0.09872**	---	---	---	---	---	**0.08332**	---	---	---	---	---	---	---	---	---	**0.1576**	---	---	---	---	**0.03074**	**0.01403**	0.001	0.001
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.02029**	0.005	0.005
		---	---	---	---	---	**0.1457**	---	**0.09673**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0513**	---	0.01	0.01
	September-2023	---	---	---	**0.5152**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.2387**	---	---	---	---	---	---	0.01	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.2019**	---	---	**0.09206**	---	---	---	0.001	0.001
		---	---	---	---	---	---	**0.104**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.002	0.002
	November-2023	---	**0.1178**	---	**0.4227**	**0.1242**	---	**0.07791**	---	---	**0.05944**	---	---	**0.1493**	---	---	---	---	**0.2492**	---	---	**0.1332**	---	---	**0.05277**	0.01	0.01
	December-2023	---	---	---	**0.6091**	---	---	---	---	---	---	---	---	---	---	---	---	**0.1447**	---	---	---	---	---	---	---	0.005	0.005
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.2127**	---	---	---	---	---	---	0.002	0.002
	January-2024	---	---	**0.06308**	---	---	---	---	---	---	**0.04911**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0326**	0.005	0.005
	February-2024	---	---	**0.07945**	---	**0.07013**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.09174**	---	**0.06183**	---	---	0.005	0.005
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.02232**	0.002	0.002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.08678**	---	---	0.005	0.005
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	**0.1319**	---	---	---	---	**0.196**	---	---	---	---	---	---	0.001	0.001
		---	---	---	**0.3136**	---	---	---	---	---	---	---	---	---	---	---	---	**0.1139**	---	---	---	---	---	---	---	0.01	0.01
	May-2024	---	---	---	---	---	---	---	---	---	**0.0538**	---	---	---	---	---	---	---	**0.2065**	---	**0.07835**	**0.09235**	---	---	**0.02884**	0.01	0.01
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.211**	---	**0.07664**	---	---	---	**0.03166**	0.01	0.01
	July-2024	---	---	---	---	---	---	---	---	---	**0.1917**	**0.03634**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.005
	August-2024	---	---	---	---	---	**0.1008**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0822**	---	---	**0.02104**	---	0.01	0.01
	September-2024	---	---	---	**0.396**	---	**0.1138**	---	---	---	---	---	---	---	---	---	---	**0.08772**	---	---	---	---	---	---	---	0.01	0.01
	October-2024	**0.07251**	**0.115**	---	**0.3536**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.05751**	---	---	---	---	---	0.01	0.01

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Selenium	November-2022	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	ND	---	---	---	---	---	---	---	---	---	0.08	0.1
	December-2022	---	ND	---	ND	---	---	---	ND	---	ND	ND	---	---	---	---	ND	ND	---	---	---	---	---	---	---	0.08	0.1
	January-2023	---	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	0.04	0.05
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00199**	---	---	---	---	---	---	---	0.00085	0.001
	March-2023	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.04	0.05
	April-2023	---	---	---	---	---	---	---	---	**0.00189**	---	**0.00185**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00085	0.001
	May-2023	---	ND	---	---	---	---	---	---	ND	**0.00569**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00425	0.005
	June-2023	---	---	---	---	---	---	---	---	---	ND	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	0.00425	0.005
	July-2023	---	**0.00101**	---	---	---	---	---	**0.00331**	---	---	---	---	---	---	---	---	---	**0.00116**	---	---	---	---	**0.00251**	ND	0.00085	0.001
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.00425	0.005
		---	---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.0085	0.01
	September-2023	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.0085	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00186**	---	---	**0.0044**	---	---	---	0.00085	0.001
		---	---	---	---	---	---	**0.00332**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0017	0.002
	November-2023	---	ND	---	**0.00425**	**0.00314**	---	**0.00315**	---	---	ND	---	---	ND	---	---	---	---	ND	---	---	**0.0032**	---	---	ND	0.003	0.003
	December-2023	---	---	---	**0.00785**	---	---	---	---	---	---	---	---	---	---	---	---	**0.00253**	---	---	---	---	---	---	---	0.0015	0.0015
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00215**	---	---	---	---	---	---	0.0017	0.002
	January-2024	---	---	ND	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.00425	0.005
	February-2024	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00571**	---	**0.00651**	---	---	0.00425	0.005
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.0017	0.002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00627**	---	---	0.00425	0.005
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	**0.000929 J**	---	---	---	---	---	---	0.00085	0.001
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.0085	0.01
	May-2024	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	---	ND	ND	---	---	ND	0.0085	0.01
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	---	ND	0.0085	0.01
	July-2024	---	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00425	0.005
	August-2024	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	---	0.0085	0.01
	September-2024	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.0085	0.01
	October-2024	ND	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.0085	0.01
Silver	November-2022	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	ND	---	---	---	---	---	---	---	---	---	0.01	0.02
	December-2022	---	ND	---	**0.0187 J**	---	---	---	ND	---	ND	ND	---	---	---	---	ND	ND	---	---	---	---	---	---	---	0.01	0.02
	January-2023	---	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	0.005	0.01
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.00006	0.001
	March-2023	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.01
	April-2023	---	---	---	---	---	---	---	---	ND	---	**0.00011 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00006	0.001
	May-2023	---	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0003	0.005
	June-2023	---	---	---	---	---	---	---	---	---	ND	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	0.0003	0.005
	July-2023	---	ND	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	ND	0.00006	0.001
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.0003	0.005
		---	---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.0006	0.01
	September-2023	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.0006	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	---	---	---	0.00006	0.001
		---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00012	0.002
	November-2023	---	ND	---	ND	ND	---	ND	---	---	ND	---	---	ND	---	---	---	---	ND	---	---	ND	---	---	ND	0.0006	0.01
	December-2023	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.00025	0.001
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.00012	0.002
	January-2024	---	---	ND	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.0003	0.005
	February-2024	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	0.0003	0.005
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.00012	0.002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	0.0003	0.005
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	0.00006	0.001
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.0004	0.001
	May-2024	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	---	ND	ND	---	---	ND	0.0006	0.01
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	---	ND	0.0006	0.01
	July-2024	---	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0003	0.0005
	August-2024	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	---	0.0006	0.01
	September-2024	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.0006	0.01
	October-2024	ND	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.0006	0.01

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Zinc	November-2022	---	---	---	---	---	---	---	---	---	ND	---	**0.032**	---	---	**0.694**	---	---	---	---	---	---	---	---	---	0.02	0.02
	December-2022	---	**0.208**	---	**29.7**	---	---	---	**0.162**	---	**0.0686**	**0.75**	---	---	---	---	**0.364**	**0.286**	---	---	---	---	---	---	---	0.02	0.02
	January-2023	---	**0.133**	---	---	---	---	---	---	**0.15**	**0.074**	---	---	---	---	**0.0752**	---	---	---	---	---	---	---	---	---	0.01	0.01
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0851**	---	---	---	---	---	---	---	0.0025	0.005
	March-2023	---	---	---	---	---	---	---	---	**0.0689**	**0.0538**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.01
	April-2023	---	---	---	---	---	---	---	---	**0.0539**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0025	0.005
		---	---	---	---	---	---	---	---	---	---	**0.414**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.025	0.05
	May-2023	---	**0.079**	---	---	---	---	---	---	**0.0635**	**0.0519**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0125	0.025
	June-2023	---	---	---	---	---	---	---	---	---	**0.0538**	---	**0.0253**	---	**0.945**	---	---	---	---	---	---	---	---	---	---	0.0125	0.025
	July-2023	---	**0.0488**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0714**	---	---	---	---	**0.354**	**0.0782**	0.0025	0.005
		---	---	---	---	---	---	---	**2.03**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0125	0.025
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.112**	0.0125	0.025
		---	---	---	---	---	---	---	**1.71**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.914**	---	0.025	0.05
		---	---	---	---	---	**5.92**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.05	0.1
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0788**	---	---	---	---	---	---	0.025	0.05
		---	---	---	**45**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	0.5
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0622**	---	---	---	---	---	---	0.0025	0.005
		---	---	---	---	---	---	**0.203**	---	---	---	---	---	---	---	---	---	---	---	---	---	**633**	---	---	---	0.005	0.01
	November-2023	---	**0.0471 J**	---	---	**0.0534**	---	**0.74**	---	---	**0.053**	---	---	**0.0618**	---	---	---	---	**0.0722**	---	---	**0.845**	---	---	**0.0313 J**	0.025	0.05
		---	---	---	**30.4**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	0.5
	December-2023	---	---	---	**52.7**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	0.5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.061**	---	---	---	---	---	---	0.005	0.01
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0462**	---	---	---	---	---	---	---	0.025	0.025
	January-2024	---	---	**0.117**	---	---	---	---	---	---	**0.0974**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0261**	0.0125	0.025
	February-2024	---	---	**0.0879**	---	**0.0554**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.475**	---	**0.809**	---	---	0.0125	0.025
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0342**	0.005	0.01
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2.09**	---	---	0.0125	0.025
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	**0.0565**	---	---	---	---	**0.0539**	---	---	---	---	---	---	0.0025	0.005
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0394**	---	---	---	---	---	---	---	0.02	0.02
		---	---	---	**24.7**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	0.5
	May-2024	---	---	---	---	---	---	---	---	---	**0.165**	---	---	---	---	---	---	---	**0.0568**	---	**1.3**	**1.43**	---	---	**0.0812**	0.025	0.05
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0505**	---	**0.498**	---	---	---	ND	0.025	0.05
	July-2024	---	---	---	---	---	---	---	---	---	**0.104**	**0.0451**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0125	0.025
	August-2024	---	---	---	---	---	**3.49**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.512**	---	---	**0.417**	---	0.025	0.05
	September-2024	---	---	---	**0.212**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0025	0.005
		---	---	---	---	---	**3.68**	---	---	---	---	---	---	---	---	---	---	**0.111**	---	---	---	---	---	---	---	0.025	0.05
	October-2024	**0.266**	**0.077**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.342**	---	---	---	---	---	0.025	0.05
		---	---	---	**20.2**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	0.5

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
VOLATILE FATTY ACIDS (mg/L)																											
Acetic Acid	November-2022	---	---	---	---	---	---	---	---	---	---	---	**1600**	---	---	---	---	---	---	---	---	---	---	---	---	25	100
		---	---	---	---	---	---	---	---	---	**3500**	---	---	---	---	**150 J**	---	---	---	---	---	---	---	---	---	62	250
	December-2022	---	**1800**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	62	250
	January-2023	---	ND	---	---	---	---	---	---	ND	**4400**	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	500
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	500
	March-2023	---	---	---	---	---	---	---	---	ND	**640**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500
	April-2023	---	---	---	---	---	---	---	---	**1200**	---	**520**	---	---	---	---	---	---	---	---	---	---	---	---	---	370	500
	May-2023	---	**990**	---	---	---	---	---	---	**1800**	**3000**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	370	500
	June-2023	---	---	---	---	---	---	---	---	---	**5900**	---	**4100**	---	**5000**	---	---	---	---	---	---	---	---	---	---	750	1000
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	150	200
		---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	370	500
		---	---	---	---	---	---	---	**6100**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**750**	---	750	1000
	August-2023	---	---	---	---	---	**3300**	---	**5300**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**4200**	ND	---	500
	September-2023	---	---	---	**7400**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	370	500
	October-2023	---	---	---	---	---	---	**3200**	---	---	---	---	---	---	---	---	---	---	**720**	---	---	**4100**	---	---	---	370	500
	November-2023	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	**4160**	250	500
		---	---	---	---	**4950**	---	**6650**	---	---	**5350**	---	---	---	---	---	---	---	---	---	---	**7300**	---	---	---	500	1000
		---	---	---	**9900**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000	2000
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**660**	---	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	250
		---	---	---	**11200**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000
	January-2024	---	---	**4410**	---	---	---	---	---	---	**5290**	---	---	---	---	---	---	---	---	---	---	---	---	---	**3080**	---	250
	February-2024	---	---	**3130**	---	**3530**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**3530**	---	**6770**	---	---	---	500
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2700**	---	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**46000**	---	---	---	1000
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1670**	---	---	---	---	---	---	---	---	250
		---	---	---	**9170**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1250
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	**4370**	---	---	---	**221**	---	250
		---	---	---	---	---	---	---	---	---	**4950**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**6530**	---	---	---	---	1250
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**3890**	---	---	---	**4450**	---	500
	July-2024	---	---	---	---	---	---	---	---	---	**6280**	**6180**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1250
	August-2024	---	---	---	---	---	**5210**	---	---	---	---	---	---	---	---	---	---	---	---	---	**3500**	---	---	**5540**	---	---	500
	September-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2950**	---	---	---	---	---	---	---	---	250
		---	---	---	---	---	**5970**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500
		---	---	---	**10400**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1250
	October-2024	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50
		---	260	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**4780**	---	---	---	---	---	---	250
		---	---	---	**9410**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1250

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Butyric Acid	November-2022	---	---	---	---	---	---	---	---	---	---	---	**430**	---	---	---	---	---	---	---	---	---	---	---	---	12	100
		---	---	---	---	---	---	---	---	---	**830**	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	29	250
	December-2022	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	29	250
	January-2023	---	ND	---	---	---	---	---	---	ND	**1800**	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	500
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	500
	March-2023	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500
	April-2023	---	---	---	---	---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	330	500
	May-2023	---	ND	---	---	---	---	---	---	ND	**1200**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	330	500
	June-2023	---	---	---	---	---	---	---	---	---	**2500**	---	**1500**	---	**2900**	---	---	---	---	---	---	---	---	---	---	650	1000
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	130	200
		---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	330	500
		---	---	---	---	---	---	---	**2800**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**650**	---	650	1000
	August-2023	---	---	---	---	---	**1400**	---	**1700**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1600**	ND	---	500
	September-2023	---	---	---	**3100**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	330	500
	October-2023	---	---	---	---	---	---	**1200**	---	---	---	---	---	---	---	---	---	---	ND	---	---	**2000**	---	---	---	330	500
	November-2023	---	ND	---	---	**1670**	---	**1760**	---	---	**1370**	---	---	ND	---	---	---	---	ND	---	---	**2730**	---	---	**740**	250	500
		---	---	---	**3420**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	1000
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**336**	---	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	250
		---	---	---	**3390**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000
	January-2024	---	---	**813**	---	---	---	---	---	---	**1230**	---	---	---	---	---	---	---	---	---	---	---	---	---	**594**	---	250
	February-2024	---	---	**583**	---	**1170**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1180**	---	**2980**	---	---	---	500
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**500**	---	20
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2100**	---	---	---	200
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	---	100
		---	---	---	**3120**	---	---	---	---	---	---	---	---	---	---	---	---	**444**	---	---	---	---	---	---	---	---	250
	May-2024	---	---	---	---	---	---	---	---	---	**1190**	---	---	---	---	---	---	---	ND	---	**984**	**2370**	---	---	**448**	---	250
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	**1190**	---	---	---	**1030**	---	100
	July-2024	---	---	---	---	---	---	---	---	---	**2400**	**2360**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250
	August-2024	---	---	---	---	---	**1630**	---	---	---	---	---	---	---	---	---	---	---	---	---	**1180**	---	---	**1930**	---	---	500
	September-2024	---	---	---	**3550**	---	**2060**	---	---	---	---	---	---	---	---	---	---	**670**	---	---	---	---	---	---	---	---	250
	October-2024	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50
		---	**ND**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1630**	---	---	---	---	---	---	250
		---	---	---	**3070**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1250
Lactic Acid	November-2022	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	11	100
		---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	27	250
	December-2022	---	**90 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27	250
	November-2023	---	ND	---	---	**968**	---	**1800**	---	---	**969**	---	---	ND	---	---	---	---	ND	---	---	**1170**	---	---	**324**	250	500
		---	---	---	**6030**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	1000
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	250
		---	---	---	**9050**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000
	January-2024	---	---	**629**	---	---	---	---	---	---	**979**	---	---	---	---	---	---	---	---	---	---	---	---	---	**256**	---	250
	February-2024	---	---	**334**	---	**180**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**756**	---	**1650**	---	---	---	500
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	20
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	200
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	250
		---	---	---	**5120**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1250
	May-2024	---	---	---	---	---	---	---	---	---	**1160**	---	---	---	---	---	---	---	ND	---	**1170**	**1730**	---	---	ND	---	250
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	**706**	---	---	---	**246**	---	100
	July-2024	---	---	---	---	---	---	---	---	---	**1220**	**1210**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250
	August-2024	---	---	---	---	---	**2270**	---	---	---	---	---	---	---	---	---	---	---	---	---	**593**	---	---	**959**	---	---	500
	September-2024	---	---	---	---	---	**2550**	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	250
		---	---	---	**5510**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1250
	October-2024	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50
		---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2590	---	---	---	---	---	---	250
		---	---	---	5630	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1250

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Propionic Acid	November-2022	---	---	---	---	---	---	---	---	---	---	---	**620**	---	---	---	---	---	---	---	---	---	---	---	---	11	100
		---	---	---	---	---	---	---	---	---	**1600**	---	---	---	---	**73 J**	---	---	---	---	---	---	---	---	---	27	250
	December-2022	---	**640**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27	250
	January-2023	---	ND	---	---	---	---	---	---	ND	**2000**	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	500
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	500
	March-2023	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500
	April-2023	---	---	---	---	---	---	---	---	**600**	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	340	500
	May-2023	---	**520**	---	---	---	---	---	---	**800**	**1400**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	340	500
	June-2023	---	---	---	---	---	---	---	---	---	**2900**	---	**2000**	---	**2900**	---	---	---	---	---	---	---	---	---	---	680	1000
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	140	200
		---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	340	500
		---	---	---	---	---	---	---	**3100**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**680**	---	680	1000
	August-2023	---	---	---	---	---	**1200**	---	**2000**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1900**	ND	---	500
	September-2023	---	---	---	**1800**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	340	500
	October-2023	---	---	---	---	---	---	**1300**	---	---	---	---	---	---	---	---	---	---	ND	---	---	**2000**	---	---	---	340	500
	November-2023	---	ND	---	---	**2170**	---	**2310**	---	---	**2080**	---	---	**387**	---	---	---	---	ND	---	---	**3350**	---	---	**1420**	250	500
		---	---	---	**2580**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	1000
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**996**	---	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	250
		---	---	---	**2280**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000
	January-2024	---	---	**1680**	---	---	---	---	---	---	**1970**	---	---	---	---	---	---	---	---	---	---	---	---	---	**1030**	---	250
	February-2024	---	---	**1210**	---	**1510**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1980**	---	**2900**	---	---	---	500
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**570**	---	20
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2100**	---	---	---	200
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	---	100
		---	---	---	**2300**	---	---	---	---	---	---	---	---	---	---	---	---	**1150**	---	---	---	---	---	---	---	---	250
	May-2024	---	---	---	---	---	---	---	---	---	**1730**	---	---	---	---	---	---	---	ND	---	**1640**	**2770**	---	---	**647**	---	250
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	**1870**	---	---	---	**1400**	---	100
	July-2024	---	---	---	---	---	---	---	---	---	**2500**	**2470**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250
	August-2024	---	---	---	---	---	**1320**	---	---	---	---	---	---	---	---	---	---	---	---	---	**1920**	---	---	**2040**	---	---	500
	September-2024	---	---	---	**2640**	---	**1690**	---	---	---	---	---	---	---	---	---	---	**1300**	---	---	---	---	---	---	---	---	250
	October-2024	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50
		---	**275**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1470**	---	---	---	---	---	---	250
		---	---	---	**2240**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1250
Pyruvic Acid	November-2022	---	---	---	---	---	---	---	---	---	---	---	**46 J**	---	---	---	---	---	---	---	---	---	---	---	---	12	100
		---	---	---	---	---	---	---	---	---	**98 J**	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	30	250
	December-2022	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30	250
	November-2023	---	ND	---	---	ND	---	ND	---	---	ND	---	---	ND	---	---	---	---	ND	---	---	ND	---	---	ND	250	500
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	1000
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	250
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000
	January-2024	---	---	ND	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	250
	February-2024	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	---	500
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**130**	---	20
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**460**	---	---	---	200
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	---	100
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	250
	May-2024	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	---	ND	ND	---	---	ND	---	250
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	**113**	---	---	---	ND	---	100
	July-2024	---	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250
	August-2024	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	---	---	500
	September-2024	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	250
	October-2024	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50
		---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	250
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1250

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
VOLATILE ORGANIC COMPOUNDS (ug/L)																											
2-Butanone (MEK)	November-2022	---	---	---	---	---	---	---	---	---	**3510**	---	---	---	---	**1140**	---	---	---	---	---	---	---	---	---	30	100
		---	---	---	---	---	---	---	---	---	---	---	**15600**	---	---	---	---	---	---	---	---	---	---	---	---	300	1000
	December-2022	---	**3140**	---	---	---	---	---	---	---	---	**3390**	---	---	---	---	---	---	---	---	---	---	---	---	---	30	100
		---	---	---	**26800**	---	---	---	**27700**	---	**5670**	---	---	---	---	---	**21700**	**7150**	---	---	---	---	---	---	---	300	1000
	January-2023	---	**3480**	---	---	---	---	---	---	**632**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30	100
		---	---	---	---	---	---	---	---	---	**7840**	---	---	---	---	**5470**	---	---	---	---	---	---	---	---	---	300	1000
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**14400**	---	---	---	---	---	---	---	600	2000
	March-2023	---	---	---	---	---	---	---	---	**257**	**2770**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30	100
	April-2023	---	---	---	---	---	---	---	---	**3420**	---	**5530**	---	---	---	---	---	---	---	---	---	---	---	---	---	750	2500
	May-2023	---	**5360**	---	---	---	---	---	---	**5970**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500
		---	---	---	---	---	---	---	---	---	**13600**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	750	2500
	June-2023	---	---	---	---	---	---	---	---	---	**13800**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	750	2500
		---	---	---	---	---	---	---	---	---	---	---	**20100**	---	**22600**	---	---	---	---	---	---	---	---	---	---	1500	5000
	July-2023	---	**5860**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	60	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**13500**	750	2500
		---	---	---	---	---	---	---	**38400**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**31600**	---	3000	10000
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**5950**	60	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**7350**	---	150	500
		---	---	---	---	---	---	---	**3000**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	750	2500
		---	---	---	---	---	**25600**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1500	5000
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**439**	---	---	---	---	---	---	60	200
		---	---	---	**17500**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	750	2500
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**211**	---	---	---	---	---	---	15	50
		---	---	---	---	---	---	**17800**	---	---	---	---	---	---	---	---	---	---	---	---	---	**33400**	---	---	---	1500	5000
	November-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**78.8 J**	---	---	---	---	---	---	30	100
		---	---	---	---	---	---	**17700**	---	---	**10600**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500
		---	**3990**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	300	1000
		---	---	---	**25700**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	750	2500
		---	---	---	---	**22300**	---	---	---	---	---	---	---	**17600**	---	---	---	---	---	---	---	**26700**	---	---	**31200**	1500	5000
	December-2023	---	---	---	**13700**	---	---	---	---	---	---	---	---	---	---	---	---	**7060**	ND	---	---	---	---	---	---	150	500
	January-2024	---	---	---	---	---	---	---	---	---	**10800**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500
		---	---	**34700**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**28900**	1500	5000
	February-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**12700**	---	---	---	---	150	500
		---	---	**30500**	---	**28900**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**17400**	---	---	1500	5000
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**11700**	---	---	150	500
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**25200**	1500	5000
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	30	100
		---	---	---	---	---	---	---	---	---	---	---	---	**14600**	---	---	---	---	---	---	---	---	---	---	---	750	2500
		---	---	---	**37200**	---	---	---	---	---	---	---	---	---	---	---	---	**28700**	---	---	---	---	---	---	---	1500	5000
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	60	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**7340**	---	---	---	**18600**	150	500
		---	---	---	---	---	---	---	---	---	**25700**	---	---	---	---	---	---	---	---	---	---	**32700**	---	---	---	1500	5000
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	60	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**13800**	---	---	---	---	150	500
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**33200**	15000	25000
	July-2024	---	---	---	---	---	---	---	---	---	**15600**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500
		---	---	---	---	---	---	---	---	---	---	**25400**	---	---	---	---	---	---	---	---	---	---	---	---	---	1500	5000
	August-2024	---	---	---	---	---	**17700**	---	---	---	---	---	---	---	---	---	---	---	---	---	**7260**	---	---	**17900**	---	150	500
	September-2024	---	---	---	**19000**	---	**16600**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**32200**	---	---	---	---	---	---	---	1500	5000
	October-2024	**28.2**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3	10
		---	**2770**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	60	200
		---	---	---	**13000**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**10800**	---	---	---	---	---	150	500

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Acetone	November-2022	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**4420**	---	---	---	---	---	---	---	---	---	70	100
		---	---	---	---	---	---	---	---	---	**16100**	---	**38300**	---	---	---	---	---	---	---	---	---	---	---	---	700	1000
	December-2022	---	---	---	---	---	---	---	---	---	**15600**	**5170**	---	---	---	---	---	**9800**	---	---	---	---	---	---	---	700	1000
		---	**8500**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
		---	---	---	**53100**	---	---	---	**49900**	---	---	---	---	---	---	---	**45600**	---	---	---	---	---	---	---	---	3500	5000
	January-2023	---	---	---	---	---	---	---	---	**1530**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70	100
		---	---	---	---	---	---	---	---	---	**22200**	---	---	---	---	**14000**	---	---	---	---	---	---	---	---	---	700	1000
		---	**8130**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**23900**	---	---	---	---	---	---	---	1400	2000
	March-2023	---	---	---	---	---	---	---	---	**375**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70	100
		---	---	---	---	---	---	---	---	---	**6810**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	700	1000
	April-2023	---	---	---	---	---	---	---	---	**8290**	---	**7560**	---	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
	May-2023	---	**10700**	---	---	---	---	---	---	**11700**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	350	500
		---	---	---	---	---	---	---	---	---	**29600**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
	June-2023	---	---	---	---	---	---	---	---	---	**29600**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
		---	---	---	---	---	---	---	---	---	---	---	**61800**	---	**50800**	---	---	---	---	---	---	---	---	---	---	3500	5000
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1180**	---	---	---	---	---	---	140	200
		---	**9780**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	700	1000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**11600**	1750	2500
		---	---	---	---	---	---	---	**77200**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**69700**	---	7000	10000
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**20900**	700	1000
		---	---	---	---	---	---	---	**18700**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
		---	---	---	---	---	**72500**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**87700**	---	3500	5000
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**188 J**	---	---	---	---	---	---	140	200
		---	---	---	**40100**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**79**	---	---	---	---	---	---	35	50
		---	---	---	---	---	---	**66900**	---	---	---	---	---	---	---	---	---	---	---	---	---	**92900**	---	---	---	3500	5000
	November-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**104**	---	---	---	---	---	---	70	100
		---	**5560**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	700	1000
		---	---	---	**64700**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
		---	---	---	---	**43100**	---	**61100**	---	---	**36800**	---	---	**32800**	---	---	---	---	---	---	---	**53900**	---	---	**67800**	3500	5000
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	140	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	350	500
		---	---	---	**44300**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
	January-2024	---	---	**96600**	---	---	---	---	---	---	**22800**	---	---	---	---	---	---	---	---	---	---	---	---	---	**47300**	3500	5000
	February-2024	---	---	**81600**	---	**70200**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**45600**	---	**63100**	---	---	3500	5000
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**50800**	---	**57600**	3500	5000
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	70	100
		---	---	---	---	---	---	---	---	---	---	---	---	**24300**	---	---	---	---	---	---	---	---	---	---	---	1750	2500
		---	---	---	**95300**	---	---	---	---	---	---	---	---	---	---	---	---	**55200**	---	---	---	---	---	---	---	3500	5000
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	140	200
		---	---	---	---	---	---	---	---	---	**63200**	---	---	---	---	---	---	---	---	---	**39000**	**91300**	---	---	**33300**	3500	5000
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	140	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**94400**	---	---	---	**84400**	35000	50000
	July-2024	---	---	---	---	---	---	---	---	---	**32200**	**52600**	---	---	---	---	---	---	---	---	---	---	---	---	---	3500	5000
	August-2024	---	---	---	---	---	**57700**	---	---	---	---	---	---	---	---	---	---	---	---	---	**36000**	---	---	**81500**	---	3500	5000
	September-2024	---	---	---	**59800**	---	**44500**	---	---	---	---	---	---	---	---	---	---	**69300**	---	---	---	---	---	---	---	3500	5000
	October-2024	**30.1**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7	10
		---	**5230**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	140	200
		---	---	---	**49800**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**40700**	---	---	---	---	---	3500	5000

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Benzene	November-2022	---	---	---	---	---	---	---	---	---	**7.4 J**	---	**2860**	---	---	**50.4**	---	---	---	---	---	---	---	---	---	4	10
	December-2022	---	**301**	---	**2960**	---	---	---	---	---	**6.3 J**	**622**	---	---	---	---	**1750**	**179**	---	---	---	---	---	---	---	4	10
		---	---	---	---	---	---	---	**6550**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	40	100
	January-2023	---	**240**	---	---	---	---	---	---	**28.7**	**1620**	---	---	---	---	**167**	---	---	---	---	---	---	---	---	---	4	10
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1370**	---	---	---	---	---	---	---	4	10
	March-2023	---	---	---	---	---	---	---	---	**1540**	**727**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4	10
	April-2023	---	---	---	---	---	---	---	---	**3740**	---	**320**	---	---	---	---	---	---	---	---	---	---	---	---	---	4	10
	May-2023	---	**814**	---	---	---	---	---	---	**4890**	**3370**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	50
	June-2023	---	---	---	---	---	---	---	---	---	**2630**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8	20
		---	---	---	---	---	---	---	---	---	---	---	**1400**	---	**1590**	---	---	---	---	---	---	---	---	---	---	20	50
	July-2023	---	**824**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**80.8**	---	---	---	---	---	---	8	20
		---	---	---	---	---	---	---	**4050**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1420**	---	20	50
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**11800**	100	250
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**379**	8	20
		---	---	---	---	---	**2320**	---	**168**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	20	50
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**193**	---	---	---	---	---	---	8	20
		---	---	---	**468**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**399**	---	---	---	---	---	---	2	5
		---	---	---	---	---	---	**576**	---	---	---	---	---	---	---	---	---	---	---	---	---	**3100**	---	---	---	20	50
	November-2023	---	**80.8**	---	---	---	---	---	---	---	---	---	---	**31.3**	---	---	---	---	---	---	---	---	---	---	---	2	5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**323**	---	---	---	---	---	---	4	10
		---	---	---	---	**1070**	---	**654**	---	---	**982**	---	---	---	---	---	---	---	---	---	---	**1960**	---	---	**1190**	20	50
		---	---	---	**870**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**932**	---	---	---	---	---	---	---	8	20
		---	---	---	**1330**	---	---	---	---	---	---	---	---	---	---	---	---	---	**463**	---	---	---	---	---	---	20	50
	January-2024	---	---	**1410**	---	---	---	---	---	---	**662**	---	---	---	---	---	---	---	---	---	---	---	---	---	**2900**	20	50
	February-2024	---	---	**906**	---	**884**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**346**	---	**484**	---	---	20	50
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**226**	---	**8910**	20	50
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	**52.1**	---	---	---	---	**13.8**	---	---	---	---	---	---	4	10
		---	---	---	**2040**	---	---	---	---	---	---	---	---	---	---	---	---	**3420**	---	---	---	---	---	---	---	20	50
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**276**	---	---	---	---	---	---	8	20
		---	---	---	---	---	---	---	---	---	**3080**	---	---	---	---	---	---	---	---	---	**144**	**818**	---	---	**2990**	20	50
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**173**	---	---	---	---	---	---	8	20
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**210**	---	---	---	**2740**	20	50
	July-2024	---	---	---	---	---	---	---	---	---	**1410**	**1820**	---	---	---	---	---	---	---	---	---	---	---	---	---	20	50
	August-2024	---	---	---	---	---	**828**	---	---	---	---	---	---	---	---	---	---	---	---	---	**162**	---	---	**384**	---	20	50
	September-2024	---	---	---	**960**	---	**727**	---	---	---	---	---	---	---	---	---	---	**2710**	---	---	---	---	---	---	---	20	50
		306	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.4	1
	October-2024	---	**429**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2	5
		---	---	---	**1200**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**828**	---	---	---	---	---	20	50

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Ethylbenzene	December-2022	---	**67.3**	---	**172**	---	---	---	**287**	---	ND	**48.5**	---	---	---	---	**108**	**27.4**	---	---	---	---	---	---	---	4	10
	November-2022	---	---	---	---	---	---	---	---	---	ND	---	**194**	---	---	**16.2**	---	---	---	---	---	---	---	---	---	4	10
	January-2023	---	**65.1**	---	---	---	---	---	---	ND	**93.9**	---	---	---	---	**20.8**	---	---	---	---	---	---	---	---	---	4	10
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**151**	---	---	---	---	---	---	---	4	10
	March-2023	---	---	---	---	---	---	---	---	**131**	**71.5**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4	10
	April-2023	---	---	---	---	---	---	---	---	**186**	---	**43.4**	---	---	---	---	---	---	---	---	---	---	---	---	---	4	10
	May-2023	---	**124**	---	---	---	---	---	---	**276**	**144**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	50
	June-2023	---	---	---	---	---	---	---	---	---	**104**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8	20
		---	---	---	---	---	---	---	---	---	---	---	**98**	---	**116**	---	---	---	---	---	---	---	---	---	---	20	50
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**666**	4	10
		---	**128**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**82**	---	---	---	---	---	---	8	20
		---	---	---	---	---	---	---	**224**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**87.5**	---	20	50
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**16.8 J**	8	20
		---	---	---	---	---	**80**	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	20	50
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**22.8**	---	---	---	---	---	---	8	20
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**34.8**	---	---	---	---	---	---	2	5
		---	---	---	---	---	---	**42.5 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	**247**	---	---	---	20	50
	November-2023	---	**26.3**	---	---	---	---	---	---	---	---	---	---	**45.4**	---	---	---	---	---	---	---	---	---	---	---	2	5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**26.9**	---	---	---	---	---	---	4	10
		---	---	---	---	**62**	---	**54**	---	---	**76.5**	---	---	---	---	---	---	---	---	---	---	**224**	---	---	**60.5**	20	50
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**46**	---	---	---	---	---	---	---	8	20
		---	---	---	**69.5**	---	---	---	---	---	---	---	---	---	---	---	---	---	**44 J**	---	---	---	---	---	---	20	50
	January-2024	---	---	**99**	---	---	---	---	---	---	**28 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	**248**	20	50
	February-2024	---	---	**51**	---	**43 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**31 J**	---	**41 J**	---	---	20	50
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**25 J**	---	**710**	20	50
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	**106**	---	---	---	---	ND	---	---	---	---	---	---	4	10
		---	---	---	**91.5**	---	---	---	---	---	---	---	---	---	---	---	---	**186**	---	---	---	---	---	---	---	20	50
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**35.4**	---	---	---	---	---	---	8	20
		---	---	---	---	---	---	---	---	---	**146**	---	---	---	---	---	---	---	---	---	ND	**59**	---	---	**225**	20	50
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**23.6**	---	---	---	---	---	---	8	20
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	**142**	20	50
	July-2024	---	---	---	---	---	---	---	---	---	**76**	**118**	---	---	---	---	---	---	---	---	---	---	---	---	---	20	50
	August-2024	---	---	---	---	---	**27.5 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	**27 J**	---	20	50
	September-2024	---	---	---	**46.5 J**	---	**44 J**	---	---	---	---	---	---	---	---	---	---	**192**	---	---	---	---	---	---	---	20	50
	October-2024	**59.6**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.4	1
		---	**112**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2	5
		---	---	---	**62.5**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**76**	---	---	---	---	---	20	50

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Tetrahydrofuran	November-2022	---	---	---	---	---	---	---	---	---	309	---	---	---	---	176	---	---	---	---	---	---	---	---	---	100	100
		---	---	---	---	---	---	---	---	---	---	---	8530	---	---	---	---	---	---	---	---	---	---	---	---	1000	1000
	December-2022	---	151	---	---	---	---	---	---	---	170	1120	---	---	---	---	---	663	---	---	---	---	---	---	---	100	100
		---	---	---	5210	---	---	---	19800	---	---	---	---	---	---	---	6130	---	---	---	---	---	---	---	---	1000	1000
	January-2023	---	183	---	---	---	---	---	---	566	1810	---	---	---	---	352	---	---	---	---	---	---	---	---	---	100	100
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3760	---	---	---	---	---	---	---	2000	2000
	March-2023	---	---	---	---	---	---	---	---	353	464	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	100
	April-2023	---	---	---	---	---	---	---	---	2410	---	4790	---	---	---	---	---	---	---	---	---	---	---	---	---	100	100
	May-2023	---	ND	---	---	---	---	---	---	2740	2380	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	500
	June-2023	---	---	---	---	---	---	---	---	---	2100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	200	200
		---	---	---	---	---	---	---	---	---	---	---	7320	---	6670	---	---	---	---	---	---	---	---	---	---	500	500
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2960	100	100
		---	411	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	616	---	---	---	---	---	---	200	200
		---	---	---	---	---	---	---	8380	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5310	---	500	500
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2880	200	200
		---	---	---	---	---	7370	---	3210	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1200	---	500	500
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	343	---	---	---	---	---	---	200	200
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2500	2500
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	606	---	---	---	---	---	---	50	50
		---	---	---	---	---	---	4870	---	---	---	---	---	---	---	---	---	---	---	---	---	9140	---	---	---	500	500
	November-2023	---	199	---	---	---	---	---	---	---	---	---	---	325	---	---	---	---	---	---	---	---	---	---	---	50	50
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	358	---	---	---	---	---	---	100	100
		---	---	---	---	4780	---	3320	---	---	785	---	---	---	---	---	---	---	---	---	---	5370	---	---	4600	500	500
		---	---	---	4620	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2500	2500
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4240	---	---	---	---	---	---	---	200	200
		---	---	---	2620	---	---	---	---	---	---	---	---	---	---	---	---	---	502	---	---	---	---	---	---	500	500
	January-2024	---	---	5160	---	---	---	---	---	---	1040	---	---	---	---	---	---	---	---	---	---	---	---	---	10900	500	500
	February-2024	---	---	3500	---	4580	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3520	---	4910	---	---	500	500
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3320	---	8710	500	500
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	697	---	---	---	---	ND	---	---	---	---	---	---	100	100
		---	---	---	7290	---	---	---	---	---	---	---	---	---	---	---	---	7680	---	---	---	---	---	---	---	500	500
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	555	---	---	---	---	---	---	200	200
		---	---	---	---	---	---	---	---	---	2660	---	---	---	---	---	---	---	---	---	1880	5860	---	---	7640	500	500
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	568	---	---	---	---	---	---	200	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3830	---	---	---	13000	500	500
	July-2024	---	---	---	---	---	---	---	---	---	1900	4020	---	---	---	---	---	---	---	---	---	---	---	---	---	500	500
	August-2024	---	---	---	---	---	3220	---	---	---	---	---	---	---	---	---	---	---	---	---	2020	---	---	4610	---	500	500
	September-2024	---	---	---	2950	---	2730	---	---	---	---	---	---	---	---	---	---	6640	---	---	---	---	---	---	---	500	500
	October-2024	248	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	10
		---	318	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50	50
		---	---	---	2580	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2730	---	---	---	---	---	500	500

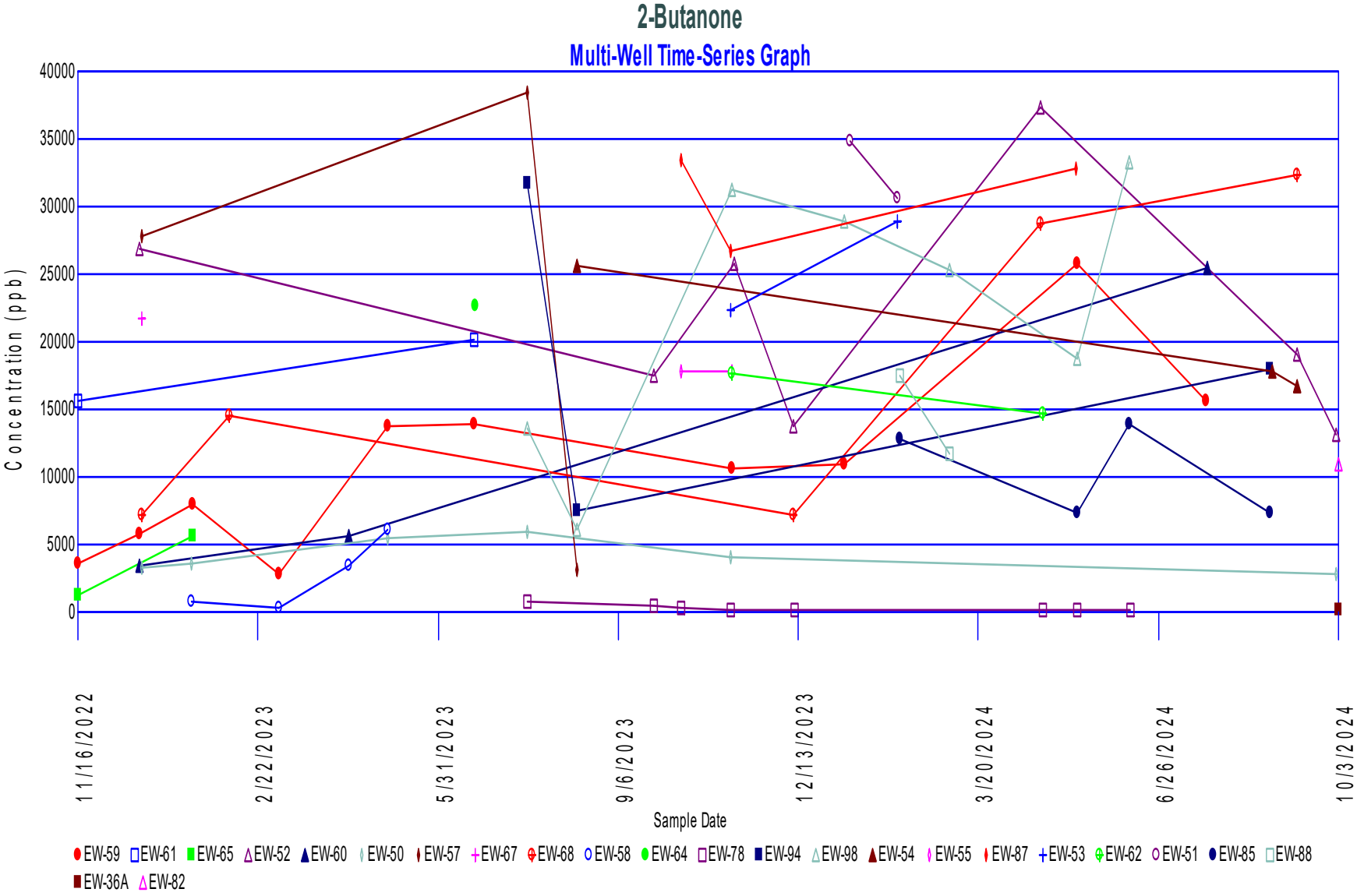
Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Toluene	November-2022	---	---	---	---	---	---	---	---	---	ND	---	**214**	---	---	**32.8**	---	---	---	---	---	---	---	---	---	5	10
	December-2022	---	**122**	---	**175**	---	---	---	**195**	---	ND	**113**	---	---	---	---	**113**	**48.3**	---	---	---	---	---	---	---	5	10
	January-2023	---	**122**	---	---	---	---	---	---	**8 J**	**139**	---	---	---	---	**35.3**	---	---	---	---	---	---	---	---	---	5	10
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**224**	---	---	---	---	---	---	---	5	10
	March-2023	---	---	---	---	---	---	---	---	**182**	**98.1**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5	10
	April-2023	---	---	---	---	---	---	---	---	**303**	---	**94.4**	---	---	---	---	---	---	---	---	---	---	---	---	---	5	10
	May-2023	---	**258**	---	---	---	---	---	---	**371**	**239**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25	50
	June-2023	---	---	---	---	---	---	---	---	---	**165**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	20
		---	---	---	---	---	---	---	---	---	---	---	**67**	---	**212**	---	---	---	---	---	---	---	---	---	---	25	50
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**965**	5	10
		---	**248**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**107**	---	---	---	---	---	---	10	20
		---	---	---	---	---	---	---	**218**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**118**	---	25	50
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**36.6**	10	20
		---	---	---	---	---	**105**	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	25	50
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**40.6**	---	---	---	---	---	---	10	20
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	125	250
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**59.2**	---	---	---	---	---	---	2.5	5
		---	---	---	---	---	---	**37 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	**235**	---	---	---	25	50
	November-2023	---	**47.3**	---	---	---	---	---	---	---	---	---	---	**50.4**	---	---	---	---	---	---	---	---	---	---	---	2.5	5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**48.7**	---	---	---	---	---	---	5	10
		---	---	---	---	**62.5**	---	**51.5**	---	---	**114**	---	---	---	---	---	---	---	---	---	---	**167**	---	---	**114**	25	50
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	125	250
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**73.2**	---	---	---	---	---	---	---	10	20
		---	---	---	**83.5**	---	---	---	---	---	---	---	---	---	---	---	---	---	**74.5**	---	---	---	---	---	---	25	50
	January-2024	---	---	**95.5**	---	---	---	---	---	---	**60**	---	---	---	---	---	---	---	---	---	---	---	---	---	**310**	25	50
	February-2024	---	---	**49 J**	---	**37 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	**30.5 J**	---	---	25	50
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**73**	---	**916**	25	50
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	**90.1**	---	---	---	---	ND	---	---	---	---	---	---	5	10
		---	---	---	**104**	---	---	---	---	---	---	---	---	---	---	---	---	**263**	---	---	---	---	---	---	---	25	50
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**53.8**	---	---	---	---	---	---	10	20
		---	---	---	---	---	---	---	---	---	**180**	---	---	---	---	---	---	---	---	---	ND	**62.5**	---	---	**284**	25	50
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**34.6**	---	---	---	---	---	---	10	20
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	**228**	25	50
	July-2024	---	---	---	---	---	---	---	---	---	**97**	**125**	---	---	---	---	---	---	---	---	---	---	---	---	---	25	50
	August-2024	---	---	---	---	---	**35 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	**25 J**	---	25	50
	September-2024	---	---	---	**80**	---	**63.5**	---	---	---	---	---	---	---	---	---	---	**226**	---	---	---	---	---	---	---	25	50
	October-2024	**55.7**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.5	1
		---	**173**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.5	5
		---	---	---	**65.5**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**72**	---	---	---	---	---	25	50

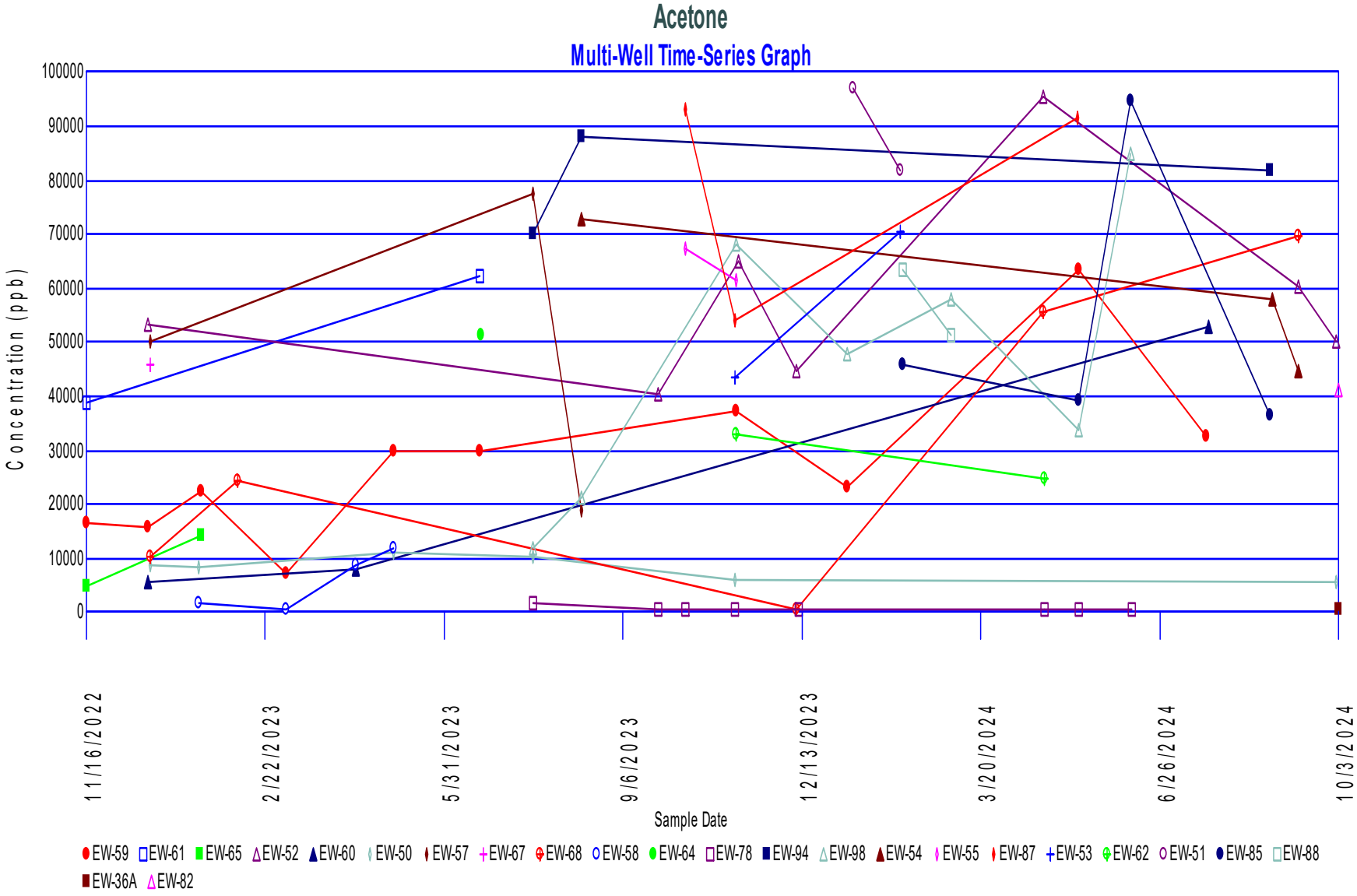
Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																									
Xylenes, Total	November-2022	---	---	---	---	---	---	---	---	---	ND	---	**185**	---	---	**37.8**	---	---	---	---	---	---	---	---	---	10	30
	December-2022	---	**161**	---	**222**	---	---	---	**186**	---	ND	**112**	---	---	---	---	**197**	**59.9**	---	---	---	---	---	---	---	10	30
	January-2023	---	**138**	---	---	---	---	---	---	ND	**134**	---	---	---	---	**38.1**	---	---	---	---	---	---	---	---	---	10	30
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**240**	---	---	---	---	---	---	---	10	30
	March-2023	---	---	---	---	---	---	---	---	**240**	**111**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	30
	April-2023	---	---	---	---	---	---	---	---	**329**	---	**97.4**	---	---	---	---	---	---	---	---	---	---	---	---	---	10	30
	May-2023	---	**274**	---	---	---	---	---	---	**441**	**230**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50	150
	June-2023	---	---	---	---	---	---	---	---	---	**177**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	60
		---	---	---	---	---	---	---	---	---	---	---	**92 J**	---	**136 J**	---	---	---	---	---	---	---	---	---	---	50	150
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1130**	10	30
		---	**257**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**74.4**	---	---	---	---	---	---	20	60
		---	---	---	---	---	---	---	**230**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**174**	---	50	150
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**48.4 J**	20	60
		---	---	---	---	---	**180**	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	50	150
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	20	60
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250	750
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**30.6**	---	---	---	---	---	---	5	15
		---	---	---	---	---	---	**134 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	**328**	---	---	---	50	150
	November-2023	---	**56**	---	---	---	---	---	---	---	---	---	---	**48**	---	---	---	---	---	---	---	---	---	---	---	5	15
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**25.3 J**	---	---	---	---	---	---	10	30
		---	---	---	---	**116 J**	---	**104 J**	---	---	**132 J**	---	---	---	---	---	---	---	---	---	---	**306**	---	---	**138 J**	50	150
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250	750
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**167**	---	---	---	---	---	---	---	20	60
		---	---	---	**224**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	50	150
	January-2024	---	---	**142 J**	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	**534**	50	150
	February-2024	---	---	**63 J**	---	**59 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	50	150
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	**1360**	50	150
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	**110**	---	---	---	---	ND	---	---	---	---	---	---	10	30
		---	---	---	**140 J**	---	---	---	---	---	---	---	---	---	---	---	---	**352**	---	---	---	---	---	---	---	50	150
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**31.6 J**	---	---	---	---	---	---	20	60
		---	---	---	---	---	---	---	---	---	**223**	---	---	---	---	---	---	---	---	---	ND	**105 J**	---	---	**400**	50	150
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	20	60
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	**261**	50	150
	July-2024	---	---	---	---	---	---	---	---	---	**125 J**	**157**	---	---	---	---	---	---	---	---	---	---	---	---	---	50	150
	August-2024	---	---	---	---	---	**72.5 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	**55.5 J**	50	150
	September-2024	---	---	---	**90.5 J**	---	**120 J**	---	---	---	---	---	---	---	---	---	---	**368**	---	---	---	---	---	---	---	50	150
	October-2024	**54.3**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	3
		---	**201**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5	15
		---	---	---	**144 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**75.5 J**	---	---	---	---	---	50	150

--- = not applicable/available
J = Parameter was detected at a concentration greater than the laboratory's LOD, but less than the laboratory's LOQ. Concentration is considered estimated.
LOD = laboratory's Limit of Detection
LOQ = laboratory's Limit of Quantitation

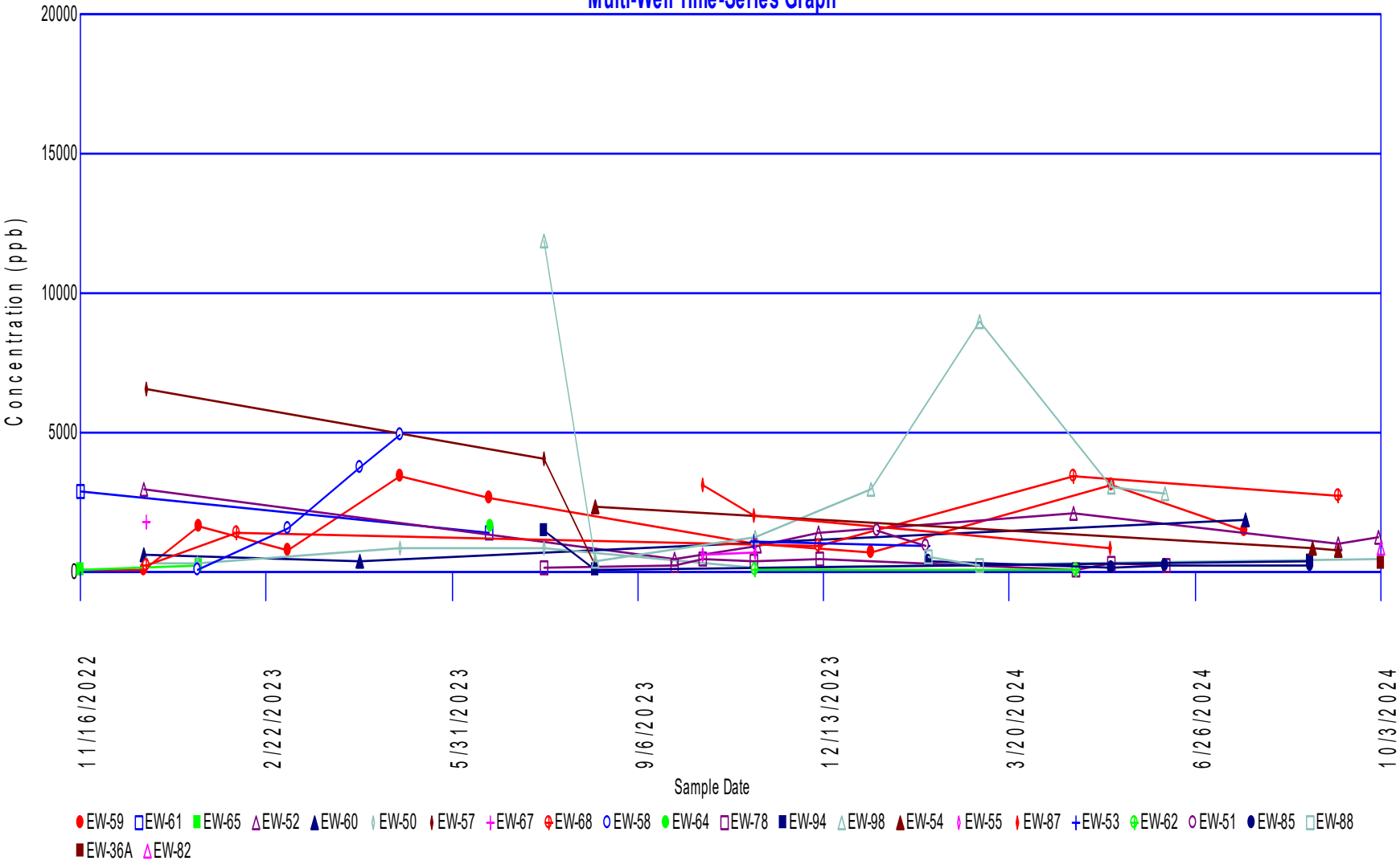
mg/L = milligrams per liter
ND = Not Detected
ug/L = micrograms per liter

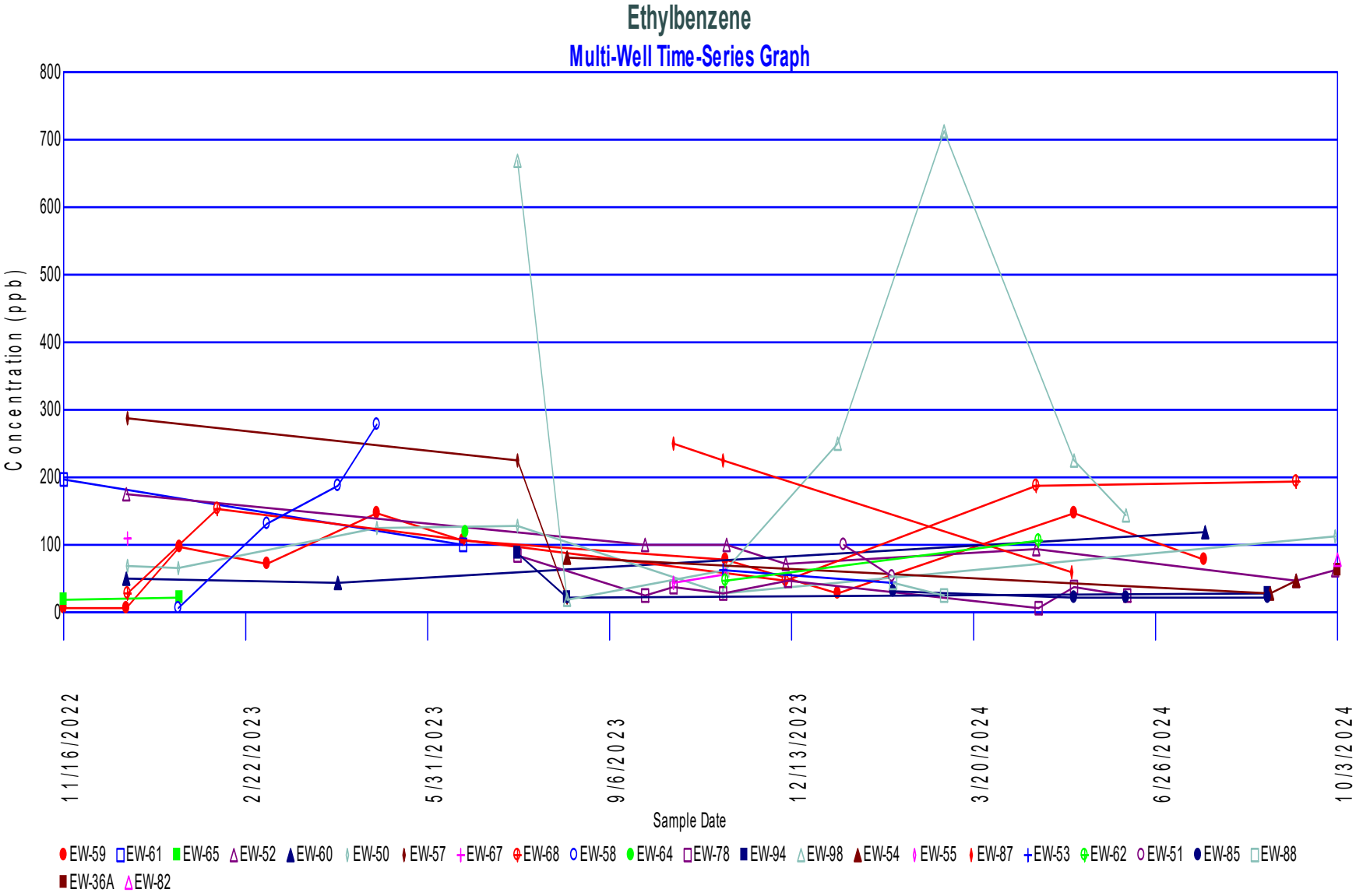

2-Butanone
Multi-Well Time-Series Graph
Concentration (ppb)
40000
35000
30000
25000
20000
15000
10000
5000
0
11/16/2022
2/22/2023
5/31/2023
9/6/2023
12/13/2023
3/20/2024
6/26/2024
10/3/2024
Sample Date
EW-59 EW-61 EW-65 EW-52 EW-60 EW-50 EW-57 EW-67 EW-68 EW-58 EW-64 EW-78 EW-94 EW-98 EW-54 EW-55 EW-87 EW-53 EW-62 EW-51 EW-85 EW-88
EW-36A EW-82

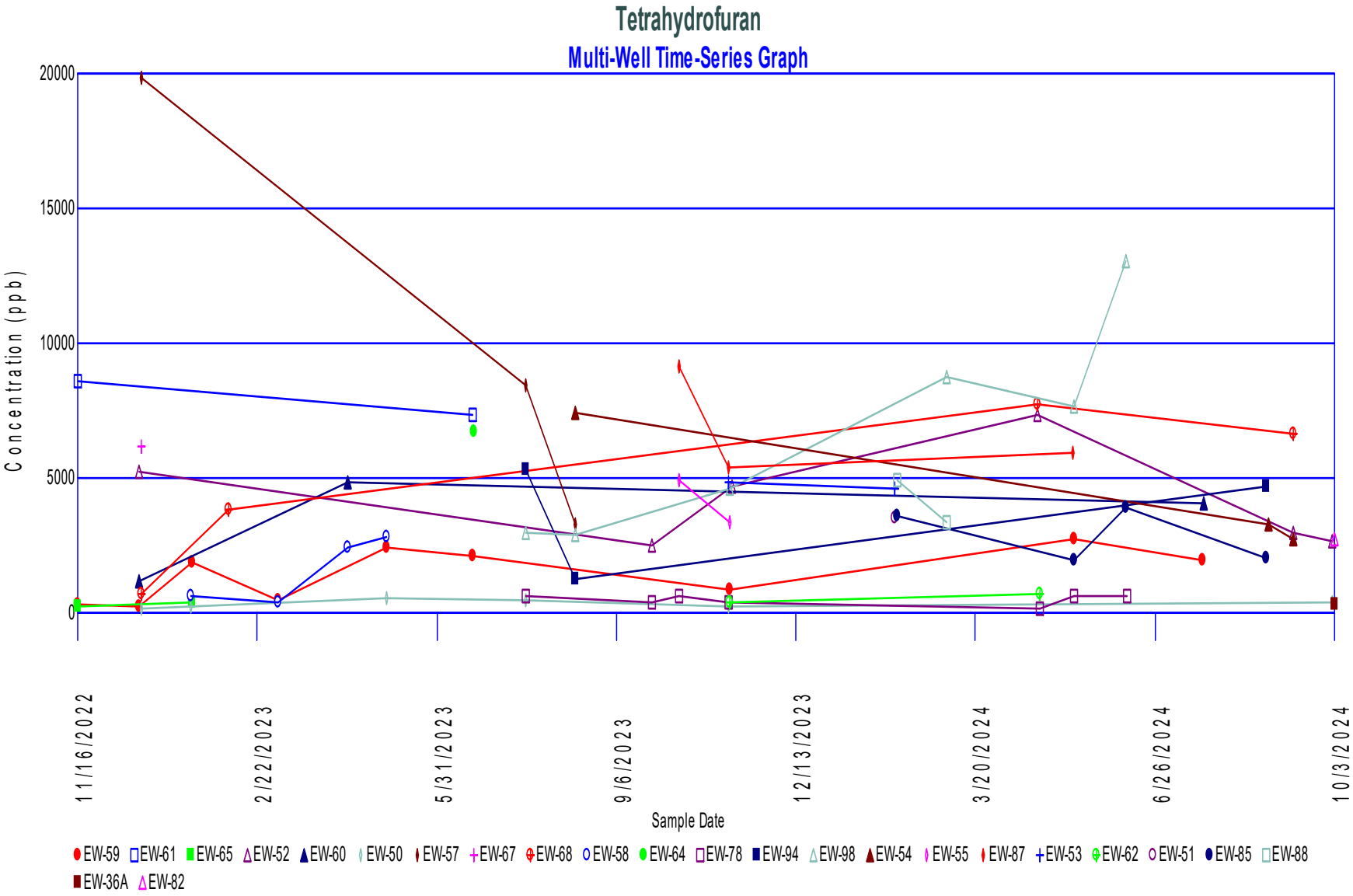

Acetone
Multi-Well Time-Series Graph
Concentration (ppb)
100000
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
11/16/2022
2/22/2023
5/31/2023
9/6/2023
12/13/2023
3/20/2024
6/26/2024
10/3/2024
Sample Date
EW-59 EW-61 EW-65 EW-52 EW-60 EW-50 EW-57 EW-67 EW-68 EW-58 EW-64 EW-78 EW-94 EW-98 EW-54 EW-55 EW-87 EW-53 EW-62 EW-51 EW-85 EW-88 EW-36A EW-82

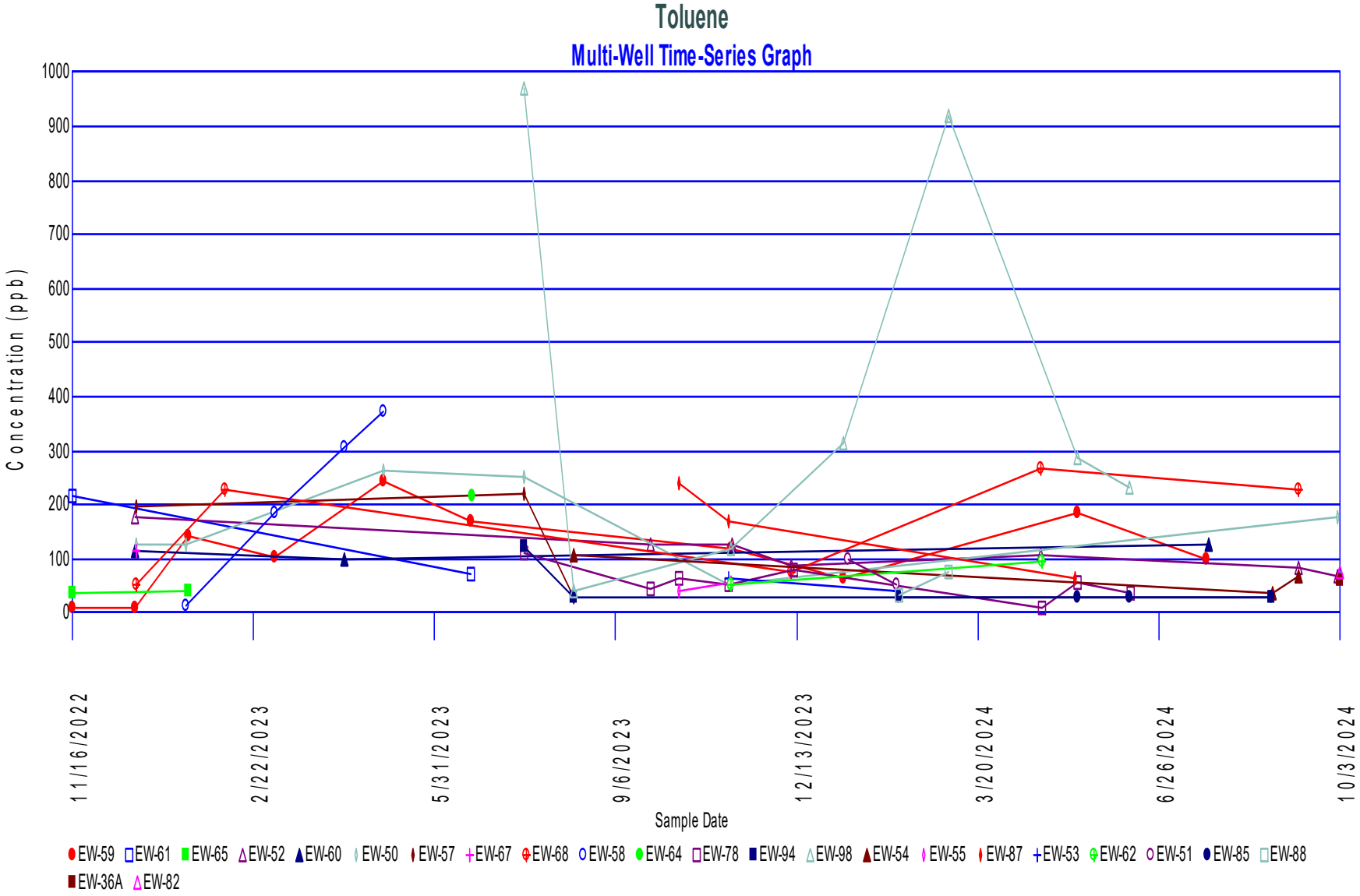
Benzene

Multi-Well Time-Series Graph




Ethylbenzene
Multi-Well Time-Series Graph
Concentration (ppb)
800
700
600
500
400
300
200
100
0
11/16/2022
2/22/2023
5/31/2023
9/6/2023
12/13/2023
3/20/2024
6/26/2024
10/3/2024
Sample Date
EW-59 EW-61 EW-65 EW-52 EW-60 EW-50 EW-57 EW-67 EW-68 EW-58 EW-64 EW-78 EW-94 EW-98 EW-54 EW-55 EW-87 EW-53 EW-62 EW-51 EW-85 EW-88 EW-36A EW-82


Tetrahydrofuran
Multi-Well Time-Series Graph
Concentration (ppb)
20000
15000
10000
5000
0
11/16/2022
2/22/2023
5/31/2023
9/6/2023
12/13/2023
3/20/2024
6/26/2024
10/3/2024
Sample Date
EW-59 EW-61 EW-65 EW-52 EW-60 EW-50 EW-57 EW-67 EW-68 EW-58 EW-64 EW-78 EW-94 EW-98 EW-54 EW-55 EW-87 EW-53 EW-62 EW-51 EW-85 EW-88 EW-36A EW-82


Toluene
Multi-Well Time-Series Graph
Concentration (ppb)
1000
900
800
700
600
500
400
300
200
100
0
11/16/2022
2/22/2023
5/31/2023
9/6/2023
12/13/2023
3/20/2024
6/26/2024
10/3/2024
Sample Date
EW-59 EW-61 EW-65 EW-52 EW-60 EW-50 EW-57 EW-67 EW-68 EW-58 EW-64 EW-78 EW-94 EW-98 EW-54 EW-55 EW-87 EW-53 EW-62 EW-51 EW-85 EW-88 EW-36A EW-82

Xylenes

Multi-Well Time-Series Graph