



August 2025 Monthly Compliance Report

Solid Waste Permit No. 588
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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 August 2025 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

SCS performed surface emissions monitoring on August 7, 2025; August 11, 2025; August 19, 2025; and August 28, 2025. 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. SCS also performs quarterly SEM at the landfill in accordance with regulatory requirements.

The details and results of the SEM are included in Appendix A. A summary of the outcomes is provided in Table 1.

Table 1. Summary of August Surface Emissions Monitoring

Description	August 7, 2025	August 11, 2025	August 19, 2025	August 28, 2025
Number of Points Sampled	166	166	165	166
Number of Points in Serpentine Route	100	100	99	100
Number of Points at Surface Cover Penetrations	66	66	66	66
Number of Exceedances	4	3	2	2
Number of Serpentine Exceedances	0	0	0	0
Number of Pipe Penetration Exceedances	4	3	2	2

In response to the SEM results, the City and the City's operations, monitoring, and maintenance contractor, SCS Field Services O&M (SCS-FS or SCS-FS) took the following actions:

- In response to a pipe penetration exceedance at Temperature Probe 6, SCS-FS increased the vacuum at nearby well EW-61. Monitoring of this location during a follow-up event did not result in an exceedance.
- In response to a pipe penetration exceedance at EW-60, SCS-FS increased the vacuum at EW-60. Monitoring of this well during a follow-up event did not result in an exceedance.
- In response to a pipe penetration exceedance at EW-67, SCS-FS increased the vacuum at EW-67. Monitoring of this well during a follow-up event did not result in an exceedance.
- In response to a pipe penetration exceedance at EW-90, SCS-FS increased the vacuum at EW-90. Monitoring of this well during a follow-up event did not result in an exceedance.
- In response to a pipe penetration exceedance at EW-49, SCS-FS performed field investigations and identified low available vacuum at EW-49. SCS-FS plans to conduct further field investigations on the low available vacuum during the week of September 8, 2025.

1.1.2 Monitoring of Leachate Collection Components

SCS Field Services (SCS-FS) visited the Bristol Landfill on August 4, 2025, 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. 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	8/4/2025 4:06:18 PM	24.7	30.3	1.5	43.4	70.5	68.4	-13.14	-11.30	-12.90
Southern Cleanouts Gradient East	LC02	8/4/2025 4:10:02 PM	16.9	27.3	0.0	55.8	69.5	69.6	-11.02	-11.04	-12.00
Southern Cleanouts Leachate Center	LC03	8/4/2025 4:15:05 PM	6.9	7.8	15.4	69.9	78.5	79.0	-12.68	-12.82	-12.04
Southern Cleanouts Witness East	LC04	8/4/2025 4:18:33 PM	1.0	0.7	20.5	77.8	78.6	78.7	-7.07	-7.12	-12.92
Southern Cleanouts Leachate West	LC05	8/4/2025 4:37:13 PM	17.4	26.7	0.0	56.0	70.5	70.5	-11.60	-10.95	-13.33
Southern Cleanouts Gradient Center West	LC06	8/4/2025 4:34:56 PM	31.6	13.6	10.8	44.1	80.4	80.4	-0.29	-0.29	-12.89
Southern Cleanouts Leachate East	LC08	8/4/2025 4:21:12 PM	17.2	27.5	0.0	55.3	67.2	67.2	-11.44	-10.91	-13.78
Southern Cleanouts Gradient Center East	LC09	8/4/2025 4:26:35 PM	27.9	28.5	1.3	42.3	80.6	80.6	-13.13	-13.29	-13.45
Southern Cleanouts Leachate West	LC10	8/4/2025 4:23:42 PM	5.3	3.5	18.9	72.2	78.9	79.8	-10.48	-10.91	-12.19

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)
Northern Cleanouts Leachate East	NC01	8/4/2025 3:38:07 PM	0.1	0.0	21.3	78.6	91.3	91.3	-5.07	-5.13	0.00
Northern Cleanouts Leachate Center	NC02	8/4/2025 3:39:02 PM	0.1	0.0	21.3	78.6	91.5	91.5	-5.13	-5.13	0.00
Northern Cleanouts Leachate West	NC03	8/4/2025 3:40:06 PM	0.1	0.0	21.3	78.6	90.8	90.8	-5.19	-5.20	0.00
Northern Cleanouts Witness East	NC04	8/4/2025 3:41:37 PM	0.1	0.0	21.2	78.7	91.4	91.4	-5.08	-5.36	0.00
Northern Cleanouts Witness Center	NC05	8/4/2025 3:43:32 PM	0.0	0.0	21.3	78.7	91.6	91.6	-5.05	-5.13	0.00
Northern Cleanouts Witness West	NC06	8/4/2025 3:47:14 PM	0.1	0.0	21.2	78.8	91.3	91.4	-5.05	-5.26	0.00
Northern Cleanouts Gradient East	NC07	8/4/2025 3:48:55 PM	0.1	0.0	21.1	78.9	91.5	91.6	-6.06	-6.06	0.00
Northern Cleanouts Gradient Center East	NC08	8/4/2025 3:50:12 PM	0.1	0.0	21.1	78.9	91.7	91.7	-6.06	-6.06	0.00
Northern Cleanouts Gradient Center West	NC09	8/4/2025 3:51:52 PM	0.1	0.0	21.0	78.9	91.8	91.8	-6.06	-6.06	0.00
Northern Cleanouts Gradient West	NC10	8/4/2025 3:53:23 PM	0.1	0.0	21.1	78.9	91.8	91.8	-5.72	-5.72	0.00

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
- Replacement of a section of blocked forcemain
- Temporary relocation of header pipes to facilitate placement of additional soil.

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 wellhead gas temperatures via cellular connection to a database managed by SCS-RMC. Since the initial installation, some sensors have been relocated and additional sensors have been added to the network. There are currently 59 wellhead temperature sensors operating within the wellfield.

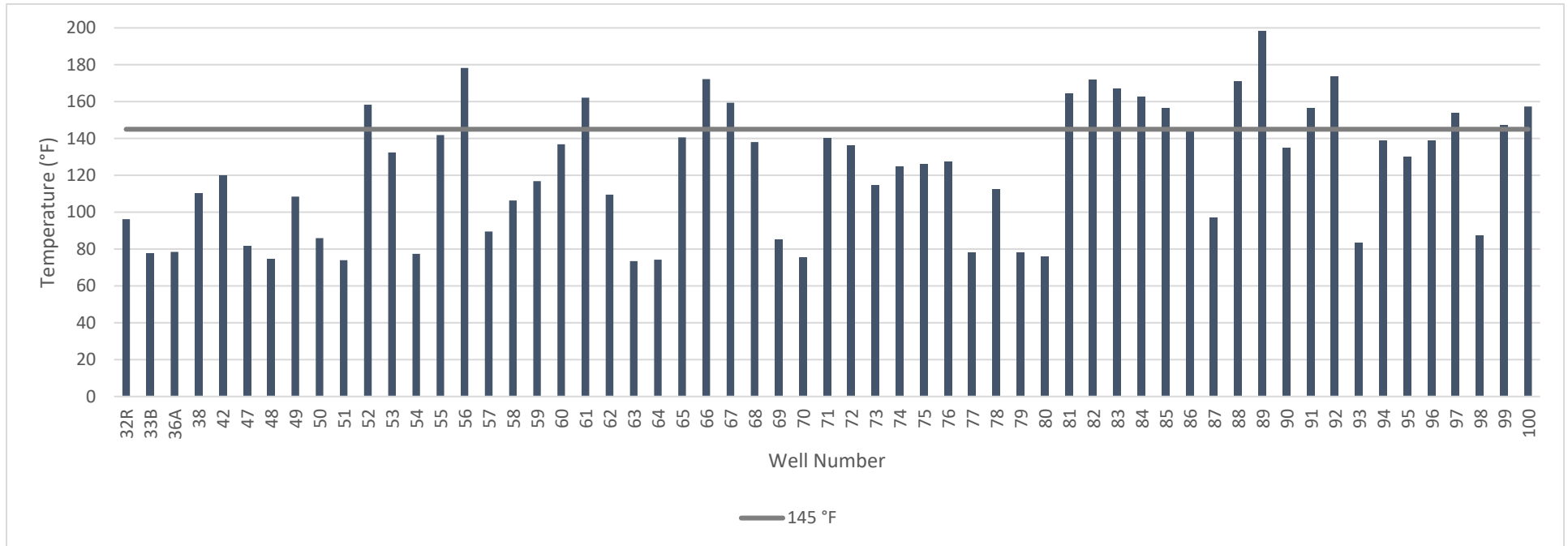
The City is providing the minimum, maximum, and average daily temperature recorded by each sensor to VDEQ on a daily basis via email. Minimum, maximum, and average daily temperatures recorded by the remote monitoring system during the month of August are included in Appendix C. In addition, SCS previously 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. Accordingly, this section is a summary of temperature monitoring activities during the monthly monitoring period of August 2025.

1.3.1 Automated Wellhead Temperature Measurements

SCS reviewed the automated hourly temperature measurements from August 2025, and observed the following:

- The average temperature in August was above the regulatory threshold of 145°F at 17 wells (see Figure 1).
- The highest average temperature was 198.3°F at EW-89. Hourly temperature measurements at this well were consistent throughout the month (standard deviation of 1.6°F). High temperatures at EW-89 have been monitored closely since May 2025, and SCS-FS has prioritized pump maintenance at this well to remove liquids (and associated heat) at this well. Per the stroke counter data documented in Table G-1, the pump in EW-89 was the second most productive in the wellfield in August 2025.

Figure 1. Monthly Average Automated Wellhead Temperatures¹



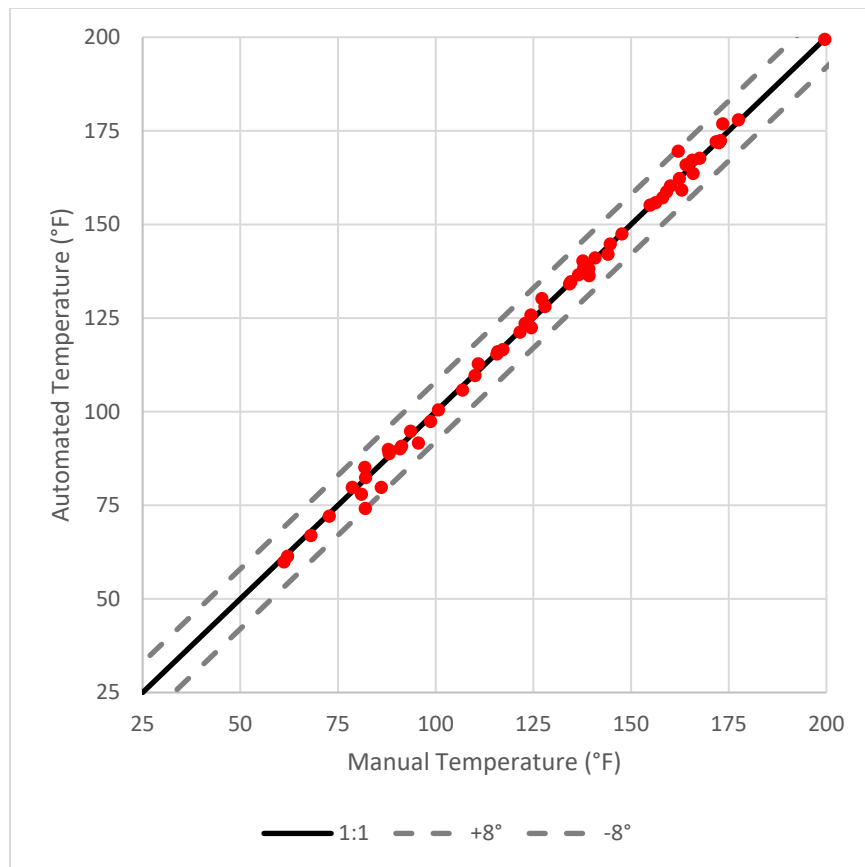
¹ 145°F is the NESHA AAAA compliance threshold for well temperature, included here for reference.

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 compares instantaneous hourly automated temperature measurements with temperatures measured at each wellhead using a handheld sensor during monthly compliance monitoring. These comparisons are shown in Figure 2, with the $\pm 8^{\circ}\text{F}$ deviation thresholds as prescribed in the VDEQ approval.

Each well demonstrated compliant readings within the $\pm 8^{\circ}\text{F}$ deviation thresholds during this reporting period.

Figure 2. Automated vs. Manual Temperature Measurements



1.3.3 Monthly Regulatory Wellhead Temperature Measurements

Routine monthly temperature monitoring was conducted on August 11 and August 27, 2025 to comply with 40 CFR 60.36f(a)(5). Table 3 provides the status of exceedances recorded during this monitoring period.

Table 3. August Temperature Exceedance Summary

Well ID	Initial Exceedance Date	Compliant Reading	Most Recent Reading	Duration of Exceedance	Status as of 9/1/2025
EW-49	8/11/25	N/A	8/27/25 171.8 °F	22 days	Ongoing, within 60-day timeline
EW-56	5/29/25	N/A	8/27/25 177.5 °F	96 days	Ongoing, within 120-day timeline
EW-66	7/28/25	N/A	8/27/25 174.0 °F	36 days	Ongoing, within 60-day timeline
EW-92	6/3/25	N/A	8/27/25 164.3 °F	91 days	Ongoing, within 120-day timeline

1.3.4 LFG Sampling

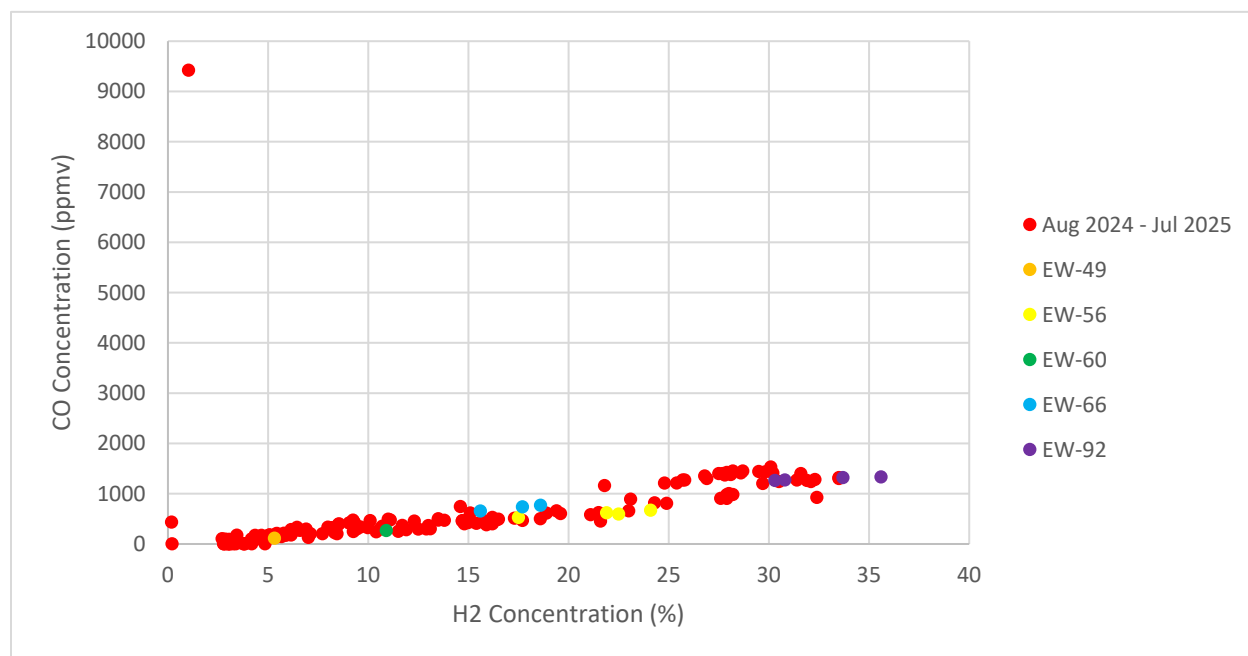
SCS collected weekly LFG samples from wells with temperature exceedances lasting more than seven days using 1.5-L Summa canisters. The samples were sent to Enthalpy Analytical for laboratory analysis of carbon monoxide (CO) and hydrogen (H₂) content. As of August 1, 2025, the City has received lab results for sampling on July 24, 2025, July 31, 2025, August 8, and August 14, 2025 to fulfill the requirement in 40 CFR 63.1961(a)(5). The lab data are summarized in Table 4.

Table 4. LFG Wellhead Sampling Summary

Sample Date		7/24/25	7/31/25	8/8/25	8/14/25
EW-49	CO (ppmv)				114
	H2 (Vol. %)				5.32
EW-56	CO (ppmv)	525	594	669	619
	H2 (Vol. %)	17.5	22.5	24.1	21.9
EW-60	CO (ppmv)	265			
	H2 (Vol. %)	10.9			
EW-66	CO (ppmv)		653	769	737
	H2 (Vol. %)		15.6	18.6	17.7
EW-92	CO (ppmv)	1320	1260	1330	1270
	H2 (Vol. %)	33.7	30.3	35.6	30.8

As shown in Figure 3, the carbon monoxide and hydrogen data collected during this period appear to be generally consistent with the data collected previously in 2024 and 2025.

Figure 3. CO vs H₂ Concentration from gas wells in August 2025 with historical trend



2.0 SIDEWALL ODOR MITIGATION

On the City's behalf, SCS designed and constructed a system to control fugitive emissions emanating from the quarry sidewalls.

2.1 PERIMETER GAS COLLECTION SYSTEM

Refer to the April 2023 Monthly Compliance Report for the SWP No. 588 Landfill, for information about the perimeter gas extraction wells.

2.2 SIDEWALL ODOR MITIGATION SYSTEM

Refer to the October 2022 Monthly Compliance Report for the SWP No. 588 Landfill, for information about the design of the sidewall odor mitigation system.

2.3 PILOT SYSTEM CONSTRUCTION

Refer to the February 2023 Monthly Compliance Report for the SWP No. 588 Landfill, for information about the design of the construction of the pilot sidewall odor mitigation system.

2.4 FULL SYSTEM CONSTRUCTION

Operation of the sidewall odor mitigation system is monitored on a monthly basis. SCS-FS collected monitoring data at each wellhead under vacuum in August. A summary of system averages during the month is shown in Table 5.

Table 5. Average SOMS Gas Composition

Record Dates	Average CH ₄ [%]	Average CO ₂ [%]	Average O ₂ [%]	Average Bal Gas [%]
8/4/2025	4.0	7.9	17.0	71.0
8/18/2025	4.9	7.7	16.4	71.0

The sidewall system average gas composition indicates lower methane content than other components in the LFGCCS. These gas composition measurements indicate that the SOMS is collecting a mixture of LFG escaping the sidewall and ambient air. Adjustments to vacuum at each wellhead are made on a regular basis to address changes in sidewall emissions and facilitate placement of additional soil.

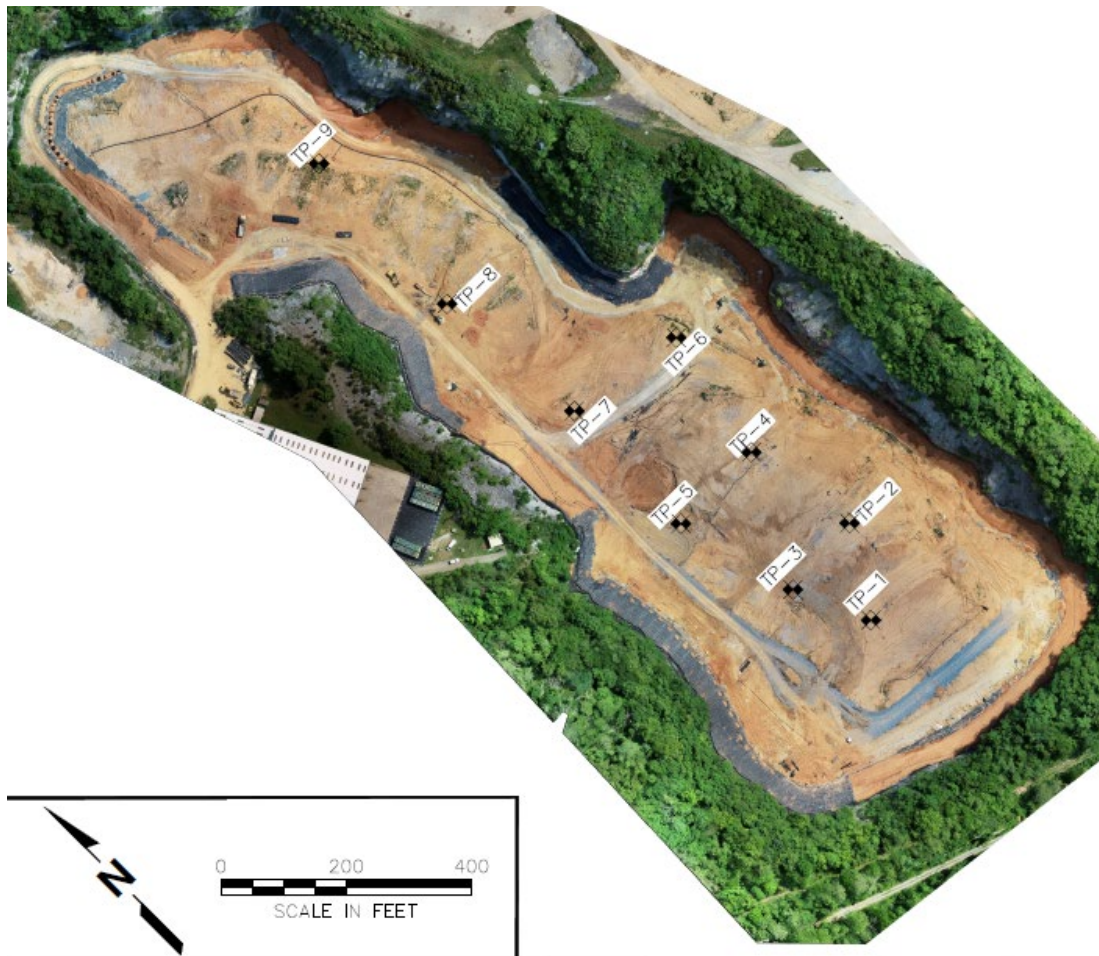
3.0 WASTE TEMPERATURE MONITORING

SCS designed a 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 SUMMARY OF WASTE TEMPERATURE MONITORING

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.

Average daily temperatures recorded by the sensors for the month of August 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 August are shown in Appendix B. The average temperatures recorded for March 2023, March 2024, March 2025, July 2025, and August 2025 are shown in Figures 5 through 11 on the following pages.

Overall, these data indicate that temperatures within the landfill are generally stable and are typical of those observed at elevated temperature landfills (ETLFs). The temperatures recorded are substantially lower than those associated with landfill fires or other combustion processes, which can exceed 1000 °F, which is further evidence that the elevated temperatures are due to sources other than combustion.

3.1.1 Operational Challenges

Multiple sensors in TP-2 and TP-3 started to fault in late 2024/early 2025. SCS coordinated with the City in March to pull the string of thermocouples from TP-2 and TP-3 but were unable to remove the strings in either probe due to suspected pinching of the casings. TP-2 and TP-3 have been abandoned and a replacement plan is being developed.

EW-91 and EW-92 were jetted to remove solids that would impede the installation of temperature probes. However, the casing in both wells could not be cleared past 140 feet below surface. Because VDEQ has asked that the replacement probes achieve at least 150 feet in depth, the City is considering other options for replacement.

3.1.2 Temperature Profiles

During the month of June, SCS observed variations in the temperature measurements reported by TP-6. Troubleshooting by field staff indicated that the sensor at the 75-foot level is malfunctioning. Given that the majority of the sensors within this casing are still be functioning properly, the sensor at 75 ft will not be retrieved to avoid damaging the other sensors within the casing. Data from the 75-foot level of TP-6 has been excluded from this report.

Figure 5. TP-1 Average Temperatures for the Months of March 2023, March 2024, March 2025, July 2025, and August 2025

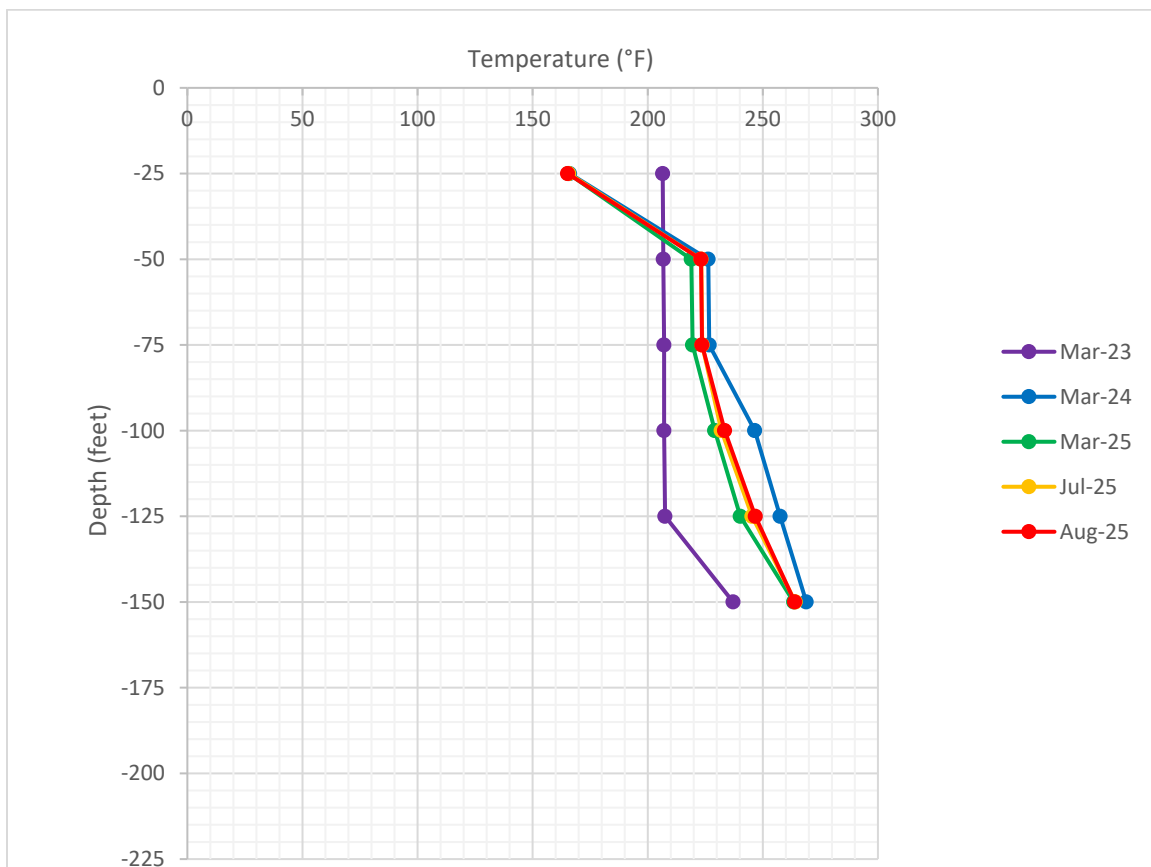


Figure 6. TP-5 Average Temperatures for the Months of March 2023, April 2024, March 2025, July 2025, and August 2025

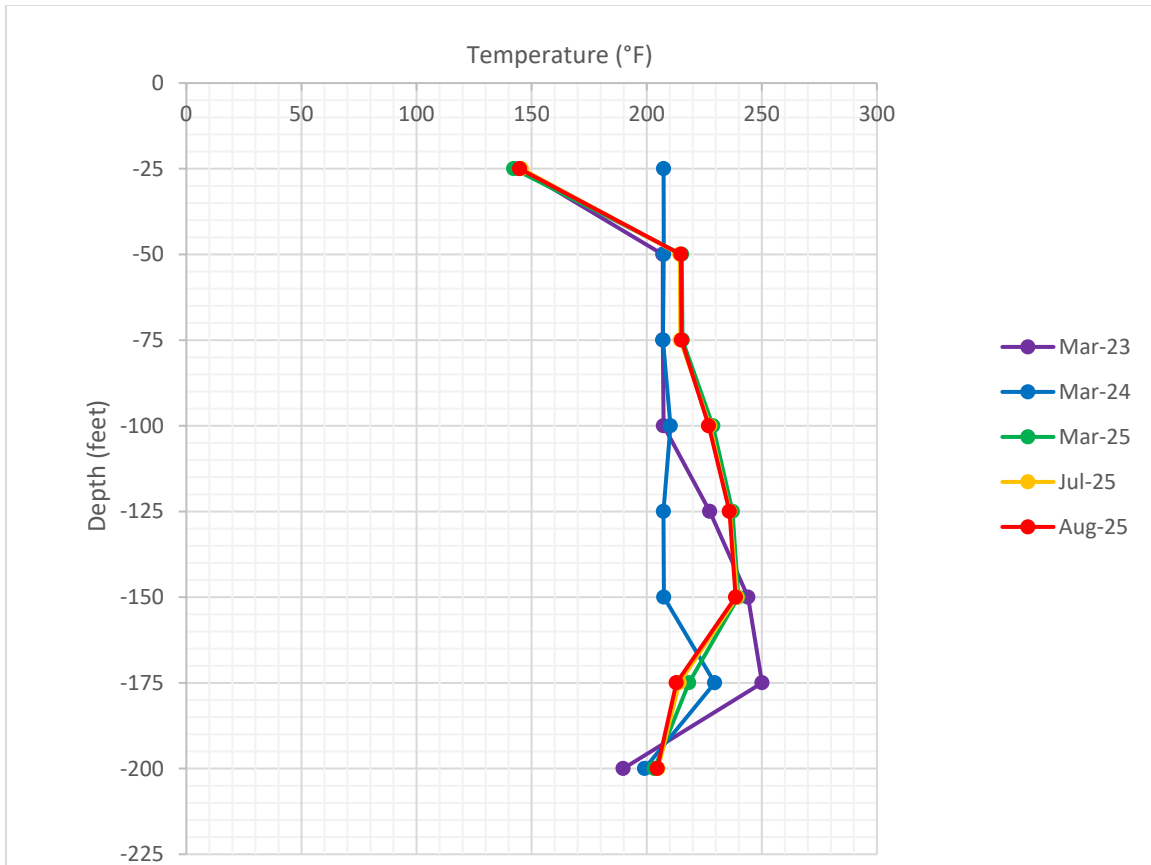


Figure 7. TP-6 Average Temperatures for the Months of March 2023, March 2024, March 2025, July 2025, and August 2025

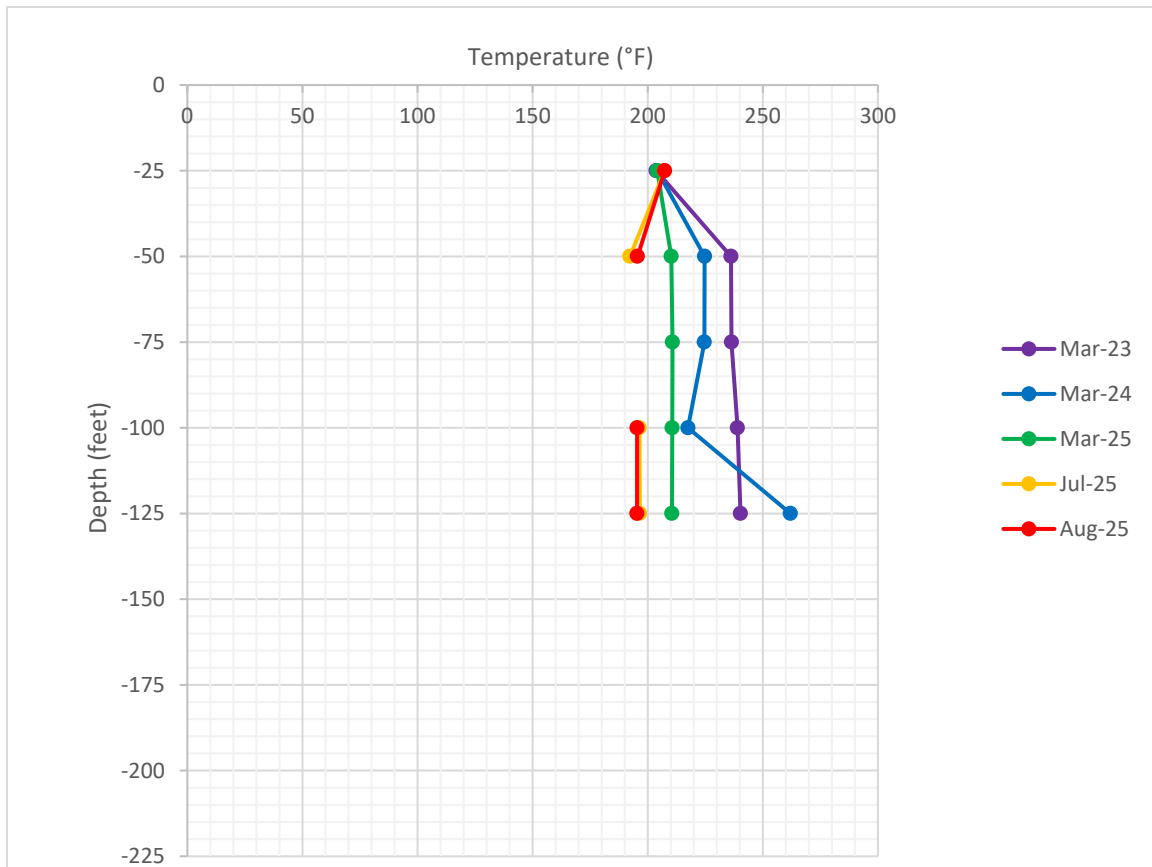


Figure 8. TP-7 Average Temperatures for the Months of March 2023, March 2024, March 2025, July 2025, and August 2025

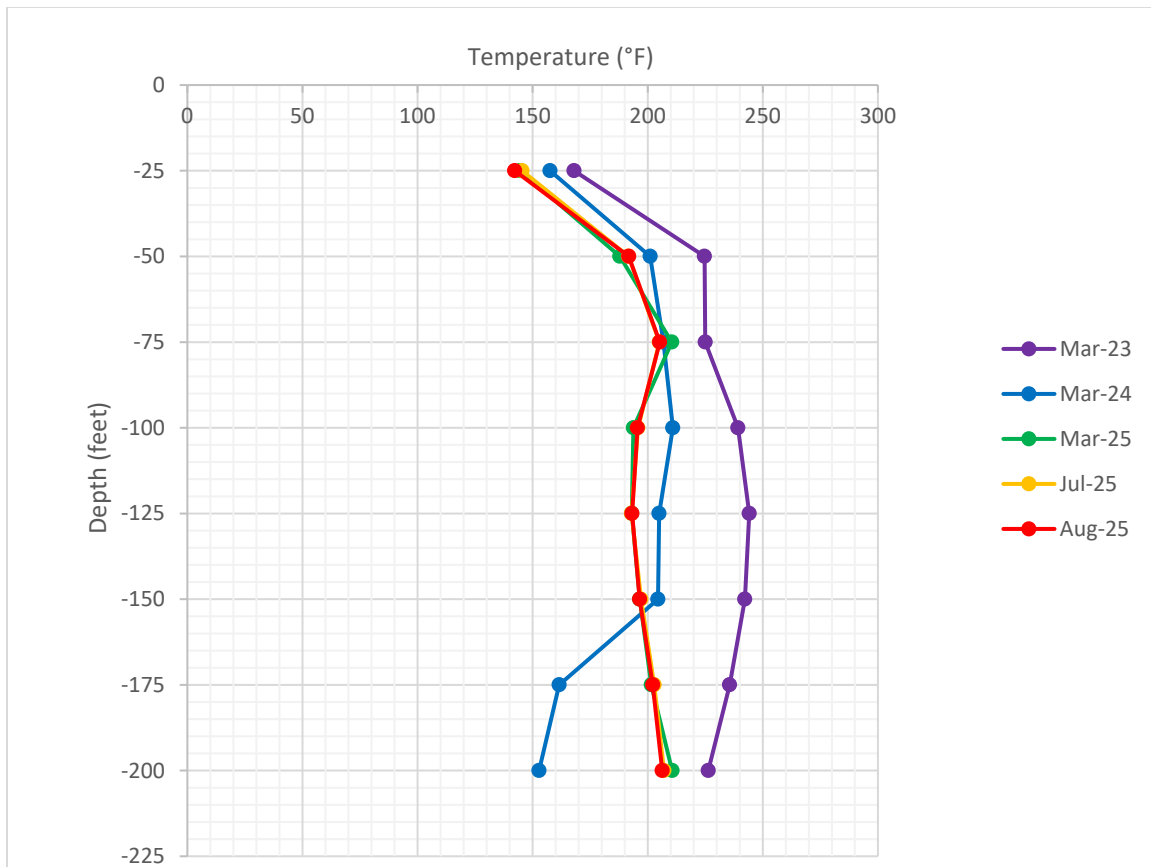


Figure 9. TP-8 Average Temperatures for the Months of March 2023, March 2024, March 2025, July 2025, and August 2025

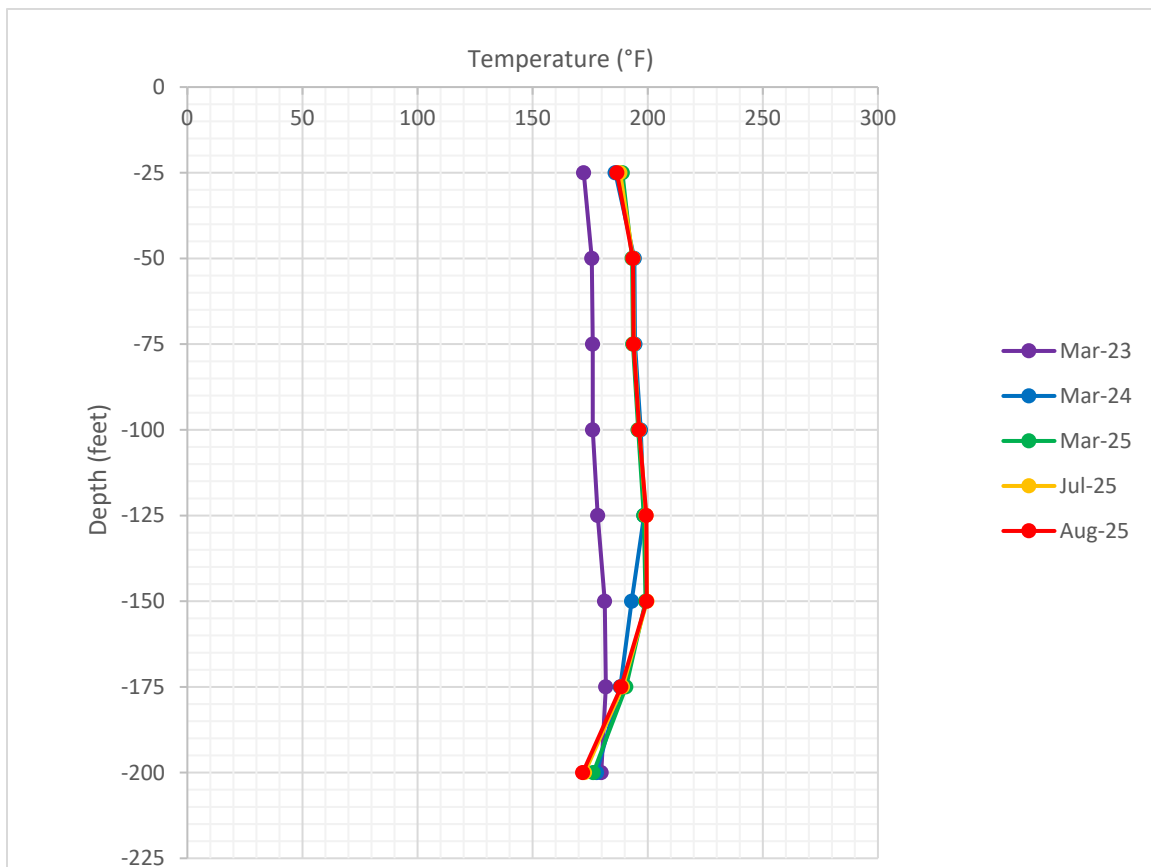
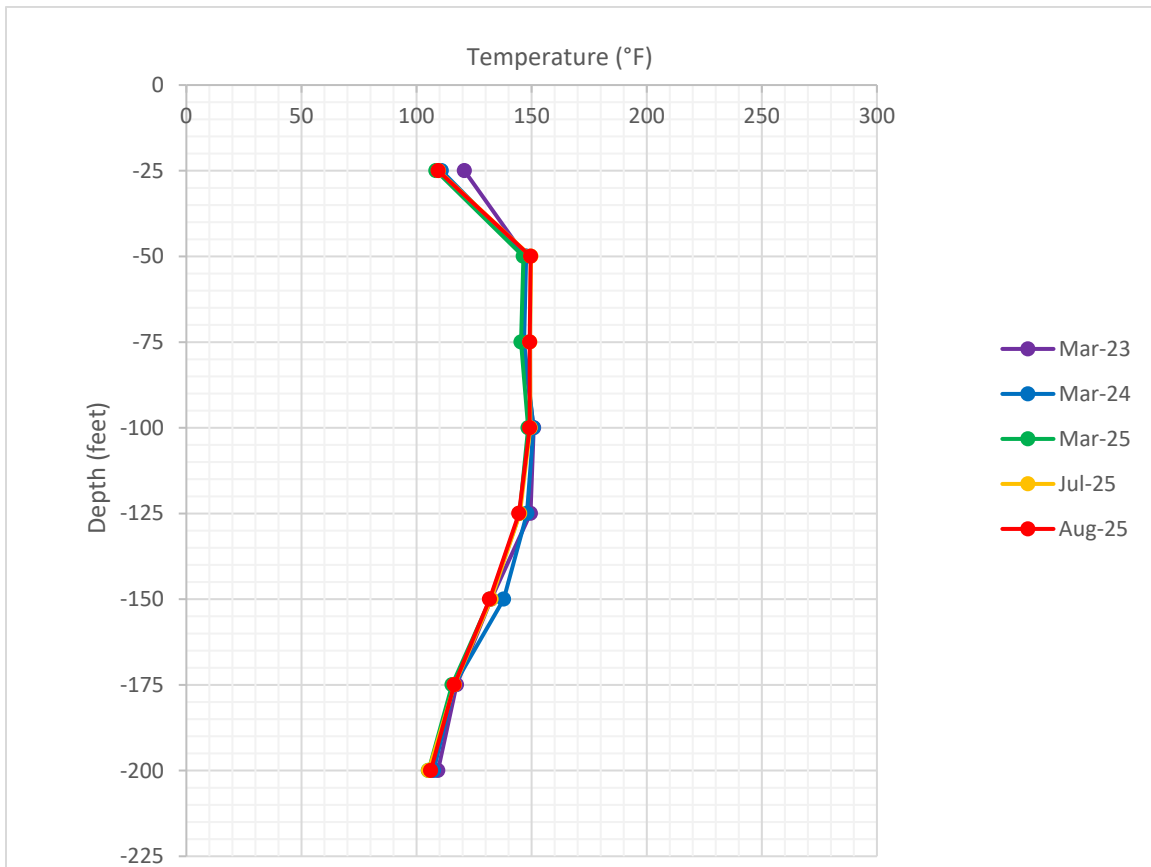


Figure 10. TP-9 Average Temperatures for the Months of March 2023, March 2024, March 2025, July 2025, and August 2025



4.0 LEACHATE EXTRACTION AND MONITORING

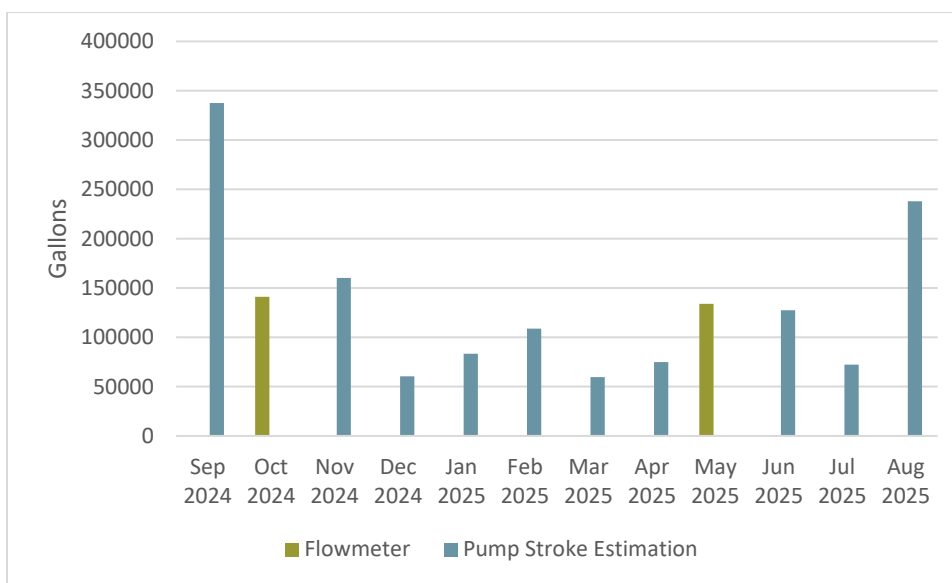
The City is continuously taking steps to maintain and improve the extraction of leachate from the waste mass and collect analytical data on leachate characteristics. The following sections detail steps taken to achieve these goals. Refer to Appendix G for narrative sections without updates.

4.1 DEWATERING PUMP OPERATIONS AND MAINTENANCE

4.1.1 Total LFG Liquids Removal

Figure 11 illustrates monthly landfill gas liquids removal over the past year. The volume was estimated from stroke counter data for September 2024, November 2024 through April 2025, and June 2025 through August 2025 (blue bars in Figure 11). A flow meter was used to record the volume in the other months. Over the past 6 months, the estimated monthly leachate pumped has ranged from 59,600 to 237,800 gallons per month, and has averaged 117,700 gallons per month.

Figure 11. Total Dewatering Liquid Removal



4.1.2 LFG Liquids Pump Operations and Maintenance

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. Daily pump checks and maintenance of spare pumps will continue indefinitely, along with pump replacements as needed.

Estimated volumes of liquids removed at each pump are presented in **Table G-1, Appendix G**. SCS has prepared the summary below regarding operating conditions and specific challenges associated with each pump in August 2025.

Pump Maintenance Activities

- The pumps in EW-88, EW-89, EW-94 and EW-98 were swapped.

- The pump in TP-4 and was swapped and the tri-tubing was replaced.
- The wellhead and flex hose were replaced at EW-89.
- The pump in EW-93 was removed for cleaning.

Wells with Inactive Pumps

- The pumps in EW-33B and EW-76 are stuck in the well casing and have been disconnected. SCS-FS is coordinating with the City to attempt to pull the pumps with a piece of heavy equipment.
- The casings of EW-36A, EW-49, EW-81, EW-83, EW-91, and EW-96 extend too high above the existing ground level for a pump to be safely accessed. These are stainless steel wells that cannot be lowered through conventional means. SCS-FS and the City are coordinating placement of additional soil around the wells to provide safe access. Soil was added around EW-36A in April, and SCS-FS intends to replace the Blackhawk pump with a QED.
- The pumps in EW-52, EW-53, EW-55, EW-66, and EW-68 are inactive due to excessive pressure buildup in the forcemain line. The LFG construction project currently underway includes modifications to the piping system to alleviate these issues.
- The pump in EW-62 is offline due to a damaged air line. SCS-FS will evaluate the extent of damage and will coordinate with the City to procure materials needed for the repair.
- All pump types deployed in EW-74 and EW-75 have experienced buildup on the intake screens preventing effective pump operation.
- The pumps in EW-51, EW-57, EW-90, and EW-100 are permanently stuck in their wells even after attempts to remove them with heavy equipment. Therefore, they cannot be cleaned and/or repaired.

In addition to the challenges associated with the individual pumps, SCS-FS has generally observed high forcemain pressures and significant build-up of solids within the forcemain. This results in SCS-FS dedicating substantial amounts of time to relieving air pressure on the system. Installation of additional cleanouts and air release valves in the wellfield to address the issue will be undertaken by The Harnden Group beginning in September 2025.

4.2 SAMPLING AND ANALYSIS PLAN

4.2.1 Sample Collection

On August 28, 2025, SCS collected a leachate sample from Dual Phase LFG extraction wells (EW-89 and EW-98). Field measurements for dissolved oxygen, oxidation-reduction potential, pH, specific conductance, temperature, and turbidity were taken and recorded at the time of sample collection. The associated field logs are included in **Appendix F**. In August 2025, SCS field staff could not collect samples from the wells listed in **Table 6**. Additional details about the condition of these wells and planned maintenance activities are included in Section 4.1.2.

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-59, EW-60, EW-61, EW-62, EW-65, EW-68, EW-81, EW-82, EW-83, EW-87, EW-88, and EW-89. • Pump was disconnected or off at the time of monitoring for EW-36A, EW-52, EW-53, EW-55, EW-66, EW-78, EW-85, EW-93, EW-94, EW-96, and EW-98. • Operational status of pump was unknown at time of monitoring event for EW-49 and EW-50 as wells had the vacuum shut down and were unable to be approached during the time of the monitoring event. • Additional information: – EW-96 was too tall to safely measure the liquid level for. – The liquid depth was not measured at the time of monitoring for EW-88. The technician's five gas meter alarmed during monitoring activities; thus, monitoring activities were discontinued to protect the health and safety of the technician. – Liquid depth was not measured at the time of monitoring for EW-36A and EW-94 as gauging equipment has historically become stuck in the well. • The liquid depth was not measured at the time of monitoring for EW-52, EW-66, and EW-93 as the pump is slotted for maintenance or replacement.	• There was no pump at the time of the monitoring for the following wells: EW-33B, EW-54, EW-56, EW-63, EW-64, EW-67, EW-69, EW-70, EW-73, EW-76, EW-77, EW-79, EW-80, EW-84, EW-86, EW-91, EW-92, EW-95, EW-97, and EW-99. Without a pump, a leachate sample is not collected. • Additional information: – EW-56 appeared dry at the time of monitoring. – Pump was pulled for maintenance or replacement in EW-76. – EW-33B, EW-63, EW-64, EW-77, and EW-79 had the vacuum shut down and were unable to be approached during the time of monitoring. – The liquid depth was not measured at the time of monitoring for EW-86 due to an obstruction. – The well was too tall to safely measure the liquid level for EW-92 and EW-97.

The samples were delivered to Enthalpy Analytical (Enthalpy) in Richmond, Virginia for analysis. The samples were analyzed for the parameters utilizing the analytical methods described in the Dual Phase Landfill Gas Extraction Well Leachate Monitoring Plan, December 1, 2022, prepared by SCS Engineers. At the time of preparation of this report, laboratory analytical results were not available for the August 2025 monitoring event. The August 2025 analytical results will be provided in the September 2025 Monthly Compliance Report.

4.2.2 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 analysis. 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.

This report provides the July 2025 analytical results, which became available in August 2025. The August 2025 analytical results will be reported in September. No QC blank detects were identified for the July 2025 monitoring event. The laboratory analysis report for the July 2025 monitoring event trip blank is included in **Appendix F**. The laboratory QA/QC report for the July 2025 monitoring event, including the method blank results, is included in the certificate of analysis (COA) in **Appendix F**.

4.2.3 Data Validation

Data from the monitoring events were validated by the Laboratory and SCS in accordance with United States Environmental Protection Agency (EPA) guidance². 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 concentrations less than five times that of the trip blank, field blank, and/or method blank concentration, but greater than the laboratory’s LOD are flagged with a “B” qualifier. Samples with common laboratory concentrations less than 10 times that of the trip blank, field blank, and/or 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 valid 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 July 2025 monitoring event as there were no QC blank detections. The July 2025 detections flagged with a “J” qualifier are shown on Table 7.

4.2.4 Laboratory Analytical Results

The analytical results for the July 2025 leachate samples collected from extraction well EW-98 are summarized in Table 7. The associated COA is included in Appendix F. Concentrations from July 2025 and previous monitoring events (November 2022 – June 2025) are presented in the Historical LFG-EW Leachate Monitoring Results Summary in Appendix F. Time-series plots of each VOC for EW-98 and the wells that have historically been sampled are included in Appendix F.

Table 7. Monthly LFG-EW Leachate Monitoring Event Summary

Well ID	EW-78	LOD	LOQ
Parameter	July 2025 Concentration		
Ammonia	1210	120	200
BOD	12000	0.2	2
Chemical Oxygen Demand	19900	3150	5000
Nitrate	ND	0.51	5
Nitrite as N	ND	0.51	5
Phenolics, Total Recoverable	37.4	1.54	2.5
Total Kjeldahl Nitrogen	1290	45.9	250
SEMI-VOLATILE ORGANIC COMPOUND (ug/L)			
Anthracene	ND	200	400
TOTAL METALS (mg/L)			

² 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.

Table 7. Monthly LFG-EW Leachate Monitoring Event Summary

Well ID	EW-78	LOD	LOQ
Parameter	July 2025 Concentration		
Arsenic	0.19	0.0018	0.02
Barium	0.842	0.0005	0.01
Cadmium	0.0019 J	0.0002	0.004
Chromium	0.0899	0.0004	0.01
Copper	0.0076 J	0.0017	0.01
Lead	0.0233	0.0018	0.01
Mercury	0.000641	1E-05	0.0002
Nickel	0.0145	0.0005	0.01
Selenium	ND	0.0069	0.05
Silver	0.0009 J	0.0004	0.01
Zinc	0.0246	0.0032	0.01
VOLATILE FATTY ACIDS (mg/L)			
Acetic Acid	3890	71.4	500
Butyric Acid	575	7	50
Formic acid	57.4	6.4	50
Hexanoic Acid	121	6	50
i-Hexanoic Acid	ND	5.1	50
i-Pentanoic Acid	189	10.2	50
Lactic Acid	74.7	5.6	50
Pentanoic Acid	66.9	5.6	50
Propionic Acid	1210	57.3	500
Pyruvic Acid	68	8.9	50
VOLATILE ORGANIC COMPOUNDS (ug/L)			
2-Butanone	20300	150	500
Acetone	31100	1400	2000
Benzene	1930	20	50
Ethylbenzene	124	20	50
Tetrahydrofuran	25300	2000	2000
Toluene	118	25	50
Xylenes	280	50	150

--- = not available

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. Refer to Appendix G for narrative sections without updates.

5.1 SETTLEMENT MONITORING AND MANAGEMENT PLAN

Information about the Settlement Monitoring and Management Plan for the SWP No. 588 Landfill and a copy of the plan can be found in the November 2022 Compliance Report for the SWP No. 588 Landfill.

5.2 MONTHLY SURVEYS

5.2.1 Topographic Data Collection

SCS collected topographic data of the Solid Waste Permit No. 588 Landfill using photogrammetric methods via an unmanned aerial vehicle (UAV or drone) on August 21, 2025. Aerial imagery collected on August 21, 2025, is depicted in Figure 12. The topographic data collected is shown on Sheet 4 in Appendix E.

Figure 12. Aerial Photo of the SWP No. 588 Landfill

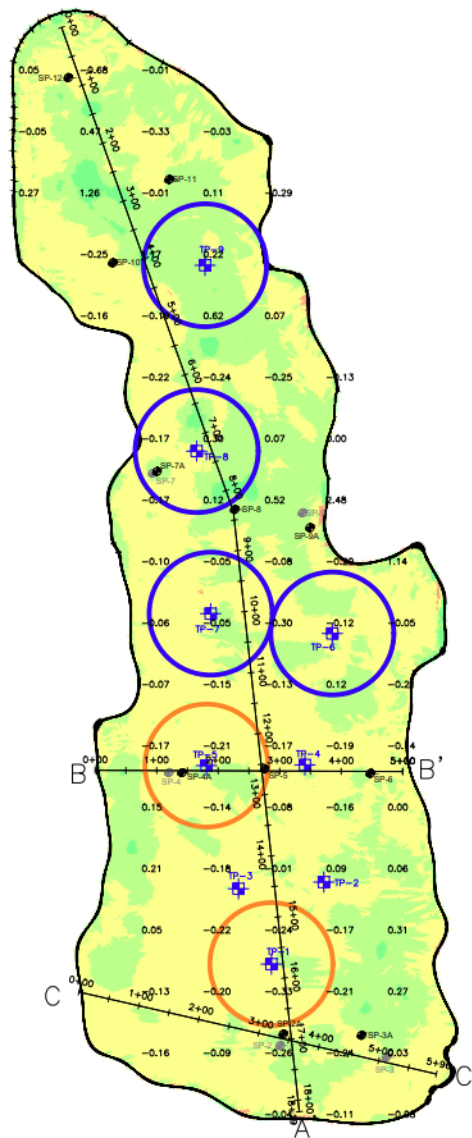


The topography within the landfill footprint was compared to topographic data collected by SCS using photogrammetric methods on July 27, 2025. A drawing depicting the July 27, 2025 topography is included as Sheet 3 in Appendix E.

Based on a comparison of the topographic data collected on those two dates, the data shows a fill of 2,700 cubic yards across the site. Fill may have been placed and spread on the site to address differential settlement, surface emissions, and to provide access to LFG collection vertical wells. Additionally, a substantial increase in vegetation at the site can influence the topographic data recorded by the drone, which contributes to the fill volume. During that same time period, calculations indicate a “cut” volume of approximately 2,900 cubic yards. Cut volumes are typically attributed to settlement. This resulted in a net volume decrease of approximately 200 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in Figure 13. Areas in yellow and orange 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 13. 1-Month Elevation Change Map



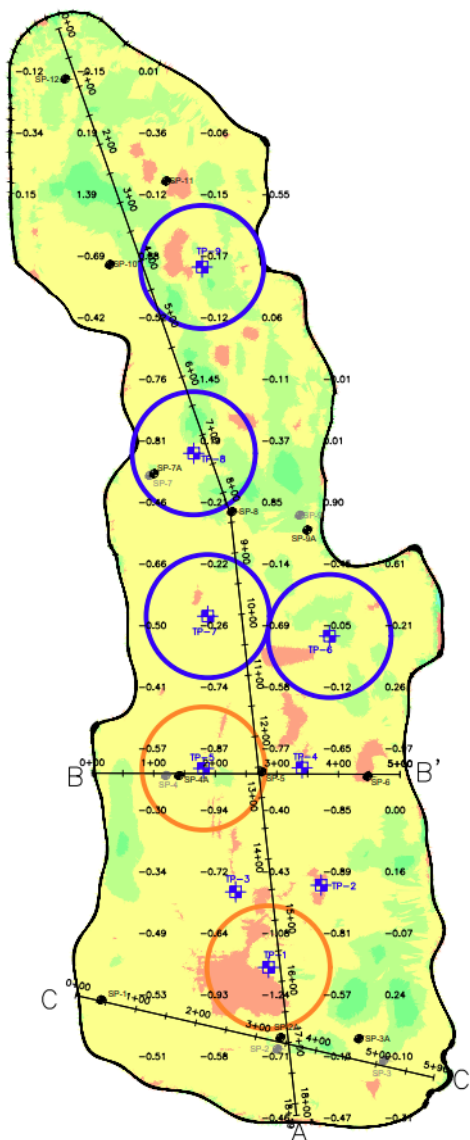
The locations of in-waste temperature monitoring probes are also shown on Figure 13, Figure 14, and Figure 15. The circles around the probes in each of these figures are indicative of the average borehole temperature. The circles shown are offset from the probes for clarity only and do not necessarily 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. Probes with no circle around them represent no temperature readings for this month due to sensor malfunctions. There were no probes measuring average temperatures greater than 250° F during the month of August 2025.

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 negligible.

SCS also compared the topographic data collected in August to the topographic data collected on May 15, 2025. 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 11,400 cubic yards. During that same time period calculations indicate approximately 2,700 cubic yards of fill were placed on the landfill, for a net decrease in waste volume of 8,700 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in Figure 14. 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 14. 3-Month Elevation Change Map

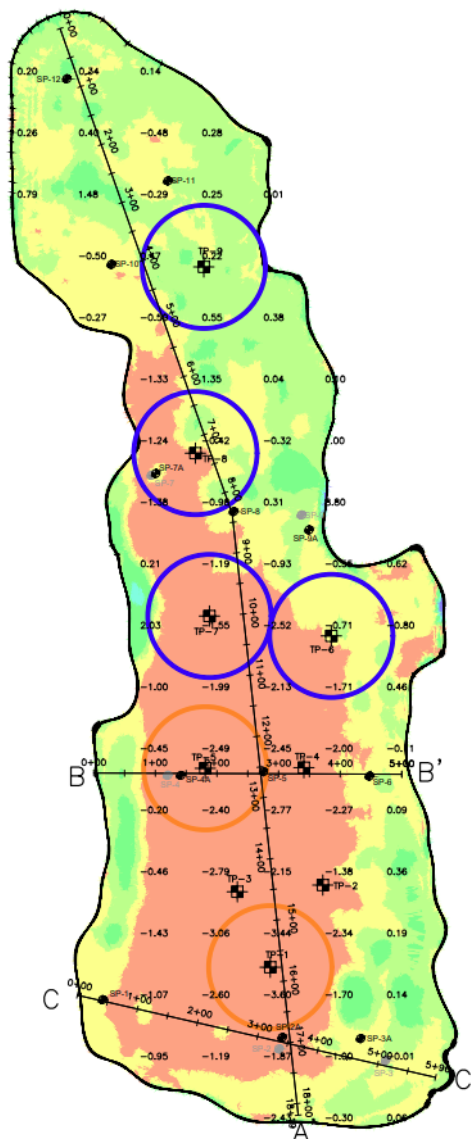


Based on the area of the landfill and the net volume change, the average elevation decrease was approximately 0.3 feet.

SCS also compared the topographic data collected in August 2025 to the drone topographic data collected on August 14, 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 26,200 cubic yards. During that same time period approximately 5,900 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 20,200 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in Figure 15. 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 15. 1-Year Elevation Change Map



The largest settlement occurred primarily at the southern end of the landfill where the waste settled by 3 feet or more in some areas. Significant settlements 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.

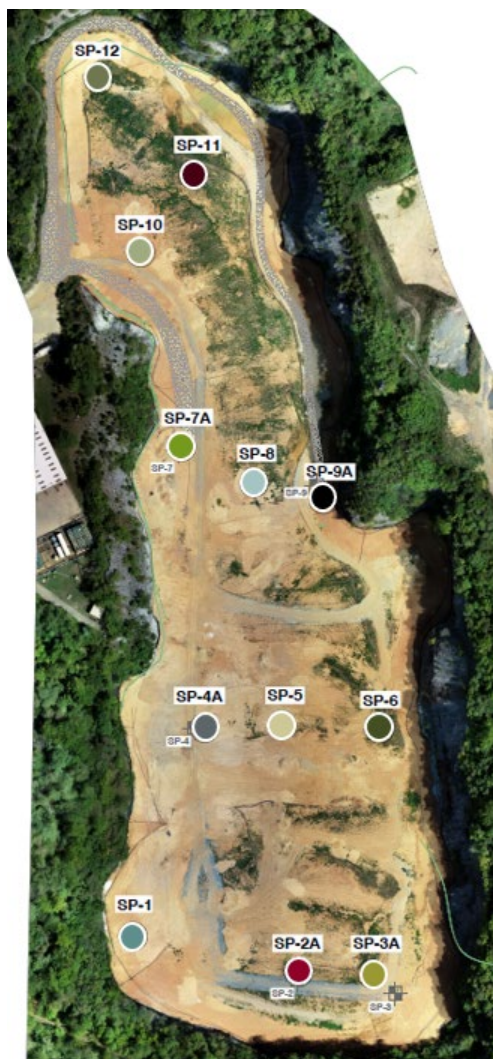
Based on the landfill area and the net volume change, the average elevation decrease was approximately 0.7 feet.

SCS will collect topographic data covering the landfill surface again in September using photogrammetric methods via UAV. This data will be compared to the data collected in September 2024, June 2025, and August 2025.

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. 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. The settlement plate locations are depicted in Figure 16 and on Sheet 1 in Appendix E. The construction and installation of the settlement plates generally conforms to the design outline in the Settlement Monitoring and Management Plan.

Figure 16. Settlement Plate Locations



The locations of the settlement plates were initially surveyed on November 14, 2022, and have been surveyed monthly thereafter. The survey coordinates and elevation changes of the settlement plates are shown in Table 8.

Table 8. Elevation and Strain Data at Settlement Plate Locations

Settlement Plate	Northing	Easting	Elevation on August 14, 2025 (ft)	Elevation Change Since July 23, 2025 (ft)	Strain ³ Since July 23, 2024	Elevation Change Since Installation (ft)
SP-1	3,397,887.7	10,412,080.9	1,828.7	0.1	0.1%	-5.7
SP-2A	3,397,823.3	10,412,370.5	1,792.3	-0.2	-0.1%	-3.4

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

Settlement Plate	Northing	Easting	Elevation on August 14, 2025 (ft)	Elevation Change Since July 23, 2025 (ft)	Strain ³ Since July 23, 2024	Elevation Change Since Installation (ft)
SP-3A	3,397,820.2	10,412,498.1	1,779.0	0.2	0.2%	-1.2
SP-4A	3,398,247.1	10,412,207.4	1,802.2	-0.1	-0.1%	-2.9
SP-5	3,398,255.9	10,412,339.7	1,787.8	-0.1	0.0%	-13.0
SP-6	3,398,248.8	10,412,510.0	1,772.7	0.0	0.0%	-4.9
SP-7A	3,398,731.4	10,412,158.2	1,822.0	0.1	0.0%	-1.4
SP-8	3,398,678.0	10,412,290.9	1,799.5	-0.0	0.0%	-7.8
SP-9A	3,398,644.2	10,412,416.1	1,788.0	-0.1	-0.1%	-0.7
SP-10	3,399,079.6	10,412,095.3	1,836.0	0.1	0.0%	-4.2
SP-11	3,399,216.4	10,412,183.8	1,814.4	-0.0	0.0%	-2.0
SP-12	3,399,381.7	10,412,019.7	1,809.7	0.2	0.1%	-0.9

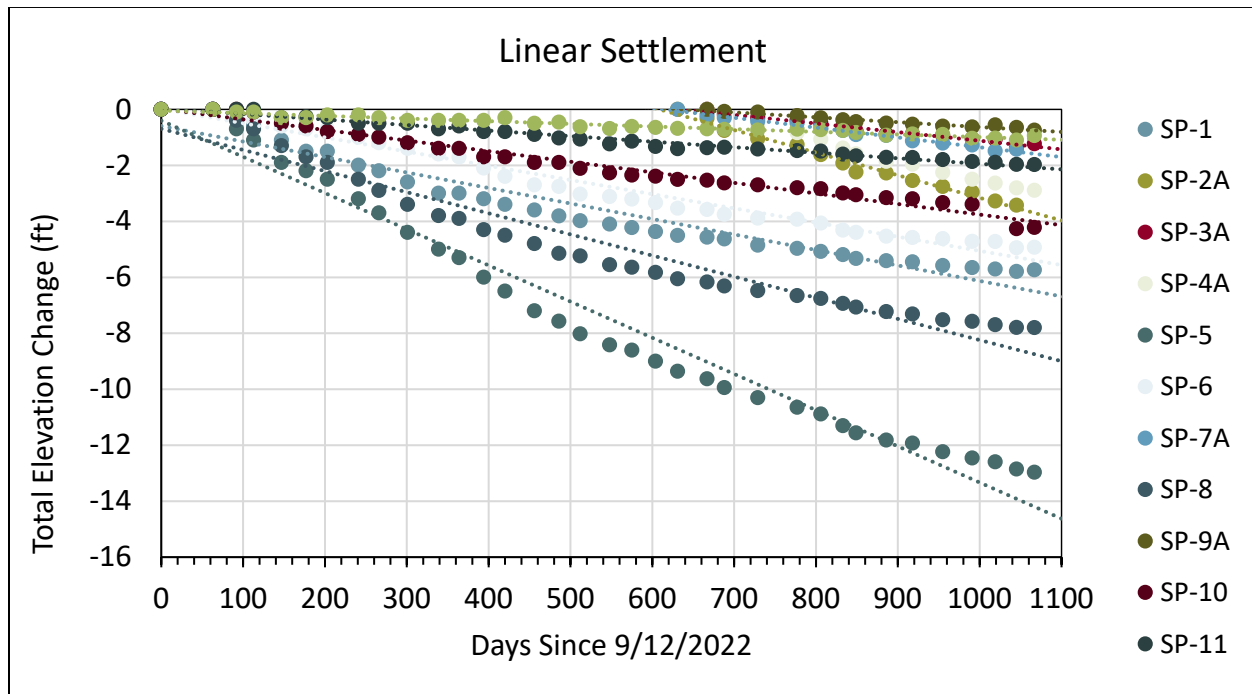
Prior to April 2024, the City's in-house surveyor read the settlement plate elevations. Starting April 2024 through June 2025, the settlement plate elevations were measured by FEI Civil Engineers and Land Surveyors. As of July 2025, the settlement plate elevations are measured by Miller Land Surveying LLC. Some variations in elevation measurements may be the result of changes in personnel and equipment.

Settlement Plate 2A demonstrated the largest strain due to settlement than at other locations. Settlement Plate 2A is at the southern end of the landfill. This area is the location of the gas wells and temperature probes exhibiting higher temperatures. These higher strain values are typical of elevated temperature landfill conditions.

The strains at the other settlement plates were lower during this monthly measurement period compared to Settlement Plate 2A.

Figure 17 shows the changes in elevation of select settlement plates over time. The data in Figure 17 are reported in days since the landfill was required to stop accepting waste.

Figure 17. Elevation Change of Select Settlement Plates Over Time



The settlement plates will be surveyed again during September 2025. The elevations surveyed will be compared to the elevations surveyed the previous months.

6.0 INTERMEDIATE COVER AND EVOH COVER SYSTEM

The City has taken steps to provide intermediate and temporary cover of the wastes in the landfill. The sections below describe the steps taken by the City and future plans related to cover.

6.1 INTERMEDIATE COVER INSTALLATION

A summary of the intermediate cover installation can be found in the October 2022 Monthly Compliance Report for the SWP No. 588 Landfill.

6.2 EVOH COVER SYSTEM DESIGN

An amendment to the Consent Decree was issued on March 21, 2024 which requires an ethylene vinyl alcohol (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 submitted on April 10, 2025. The next assessment will be submitted on or before October 7, 2025.

6.3 EVOH COVER SYSTEM PROCUREMENT

Information about the procurement of materials for the EVOH cover system can be found in the January 2023 Monthly Compliance Report for the SWP No. 588 Landfill.

6.4 EVOH COVER SYSTEM INSTALLATION

As outlined in the amendment to the Consent Decree dated March 21, 2024, the deadline for EVOH Cover System installation has been extended. The City is conducting the assessments described in Section 6.2 to determine the appropriate time for installation.

7.0 STORMWATER MANAGEMENT

Information about the most recent stormwater management plans, basin location, plan implementation, long-term control, and stormwater monitoring for the SWP No. 588 Landfill can be found in the December 2023 Monthly Compliance Report for the SWP No. 588 Landfill.

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

Refer to the December 2022 and March 2023 Monthly Compliance Reports for the SWP No. 588 Landfill for additional information about the development and implementation of the Monitoring, Maintenance, and Repair Plan.

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.

8.4 COMMUNITY OUTREACH PROGRAM

The City's consultant leading community outreach, McGuireWoods Consulting, prepared a summary of the actions taken as part of their community outreach efforts. For the month of August 2025, those actions include:

- **Ongoing basis:** Five (5) 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.

- The City met with DEQ representatives in the second week of August to discuss remediation progress and efforts moving forward. DEQ also issued an air permit for the new permanent flare that will be installed at the landfill.
- A project team meeting was held at the landfill to prepare of the installation of the new permanent flare and gas system improvements.
- Updates at the Quarry Landfill included repairing/refurbishing numerous pumps in the gas extraction system; removing surface water from rainfall with the stormwater pump; repairing vacuums in the Sidewall Odor Management System (SOMS) that were not working at peak efficiency; heavy rainfall caused some sediment runoff at the landfill, which the City self-reported and is working to clean up; performing maintenance on the leachate extraction system including removal and replacement of one pump and cleaning and rebuilding numerous others; due to settlement, one gas extraction well had to be lowered several feet to enable improved monitoring and maintenance of the gas extraction system going forward; and additional dirt was spread to address settlement in affected areas of the landfill.
- **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 from May 15, 2023, and running through July 6, 2025. Additional reports will be posted as the they are received.
- **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

Quarterly SEM

SCS performed the Third Quarter 2025 surface emissions monitoring event on August 28, 2025. The surface emissions 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 surface cover penetrations within the waste footprint.

No exceedances were detected during this quarterly monitoring event on the serpentine route, however, two exceedances were detected at surface cover pipe penetrations. This monitoring event also represented the weekly monitoring event for that week. A quarterly SEM report documenting exceedance locations, corrective actions, and re-monitoring results will be submitted to the VDEQ as part of the Semi-Annual Report. In addition, monitoring results were presented to the VDEQ in a letter dated September 3, 2025.

Weekly SEM

In addition to the standard regulatory quarterly surface emissions monitoring, the monitoring in August 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 SEM route included the 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 applicable surface cover penetrations within the waste footprint.

The Facility submitted letters to VDEQ describing the results of the August monitoring events on August 13, 2025; August 20, 2025; August 27, 2025; and, September 3, 2025. Copies of those letters are included in this Appendix.

The Facility continues to take proactive steps to limit fugitive surface emissions including dewatering activities, additional cover soil placement, and LFG system maintenance and tuning to increase gas extraction.

August 13, 2025
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 – August 7, 2025
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 Management Facility located in Bristol, Virginia on August 7, 2025. 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. 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 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	166
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	66
Number of Exceedances	4
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	4

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 retests.

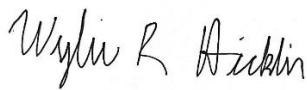
A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

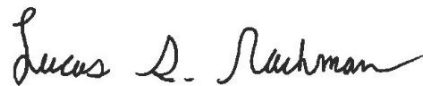
Point ID	Initial Exceedance Date	8/7/25 Event	8/7/25 Event Result	Comments
EW-76	7/15/25	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-53	7/7/25	1-Month Retest	Passed	Exceedance Resolved
EW-58	7/7/25	1-Month Retest	Passed	Exceedance Resolved
Tag 35	7/15/25	N/A	Passed	Requires 1-Month Retest
TP-7	7/15/25	N/A	Passed	Requires 1-Month Retest
EW-52	7/23/25	N/A	Passed	Requires 1-Month Retest
EW-95	7/23/25	N/A	Passed	Requires 1-Month Retest

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

Sincerely,



Wylie R Hicklin
Staff Professional
SCS Engineers



Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WRH

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 - AUGUST 7, 2025
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
1	0.5 PPM	OK			Start Serpentine Route
2	0.5 PPM	OK			
3	1.3 PPM	OK			
4	0.6 PPM	OK			
5	0.5 PPM	OK			
6	0.4 PPM	OK			
7	0.3 PPM	OK			
8	0.4 PPM	OK			
9	0.5 PPM	OK			
10	0.5 PPM	OK			
11	0.5 PPM	OK			
12	0.9 PPM	OK			
13	1.3 PPM	OK			
14	3.2 PPM	OK			
15	1.3 PPM	OK			
16	0.8 PPM	OK			
17	1.4 PPM	OK			
18	0.6 PPM	OK			
19	0.8 PPM	OK			
20	1.2 PPM	OK			
21	1.6 PPM	OK			
22	1.1 PPM	OK			
23	3.9 PPM	OK			
24	1.9 PPM	OK			
25	1.1 PPM	OK			
26	0.8 PPM	OK			
27	2.2 PPM	OK			
28	1.0 PPM	OK			
29	0.2 PPM	OK			
30	0.2 PPM	OK			
31	0.9 PPM	OK			
32	2.0 PPM	OK			
33	0.9 PPM	OK			
34	1.2 PPM	OK			
35	1.9 PPM	OK			
36	4.0 PPM	OK			
37	3.5 PPM	OK			
38	47.3 PPM	OK			
39	0.8 PPM	OK			
40	0.1 PPM	OK			
41	2.3 PPM	OK			
42	0.5 PPM	OK			
43	0.1 PPM	OK			
44	58.7 PPM	OK			
45	0.0 PPM	OK			
46	0.2 PPM	OK			
47	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 7, 2025
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
48	0.0 PPM	OK			
49	0.0 PPM	OK			
50	0.1 PPM	OK			
51	0.0 PPM	OK			
52	0.1 PPM	OK			
53	0.0 PPM	OK			
54	0.2 PPM	OK			
55	0.3 PPM	OK			
56	0.2 PPM	OK			
57	0.1 PPM	OK			
58	0.2 PPM	OK			
59	0.5 PPM	OK			
60	0.8 PPM	OK			
61	0.1 PPM	OK			
62	0.2 PPM	OK			
63	4.2 PPM	OK			
64	0.2 PPM	OK			
65	0.3 PPM	OK			
66	0.3 PPM	OK			
67	3.4 PPM	OK			
68	6.1 PPM	OK			
69	22.6 PPM	OK			
70	14.7 PPM	OK			
71	0.2 PPM	OK			
72	0.1 PPM	OK			
73	0.6 PPM	OK			
74	0.6 PPM	OK			
75	1.0 PPM	OK			
76	3.1 PPM	OK			
77	0.9 PPM	OK			
78	1.7 PPM	OK			
79	4.4 PPM	OK			
80	0.6 PPM	OK			
81	3.3 PPM	OK			
82	2.4 PPM	OK			
83	0.1 PPM	OK			
84	0.2 PPM	OK			
85	3.0 PPM	OK			
86	3.9 PPM	OK			
87	0.9 PPM	OK			
88	0.7 PPM	OK			
89	0.8 PPM	OK			
90	0.6 PPM	OK			
91	0.8 PPM	OK			
92	0.8 PPM	OK			
93	1.0 PPM	OK			
94	0.9 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 7, 2025
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
95	1.1 PPM	OK			
96	0.7 PPM	OK			
97	0.5 PPM	OK			
98	1.1 PPM	OK			
99	0.6 PPM	OK			
100	0.6 PPM	OK			End Serpentine Route
101	0.6 PPM	OK			EW-75
102	0.3 PPM	OK			EW-74
103	0.5 PPM	OK			EW-32R
104	0.2 PPM	OK			EW-71
105	0.2 PPM	OK			EW-69
106	0.2 PPM	OK			EW-72
107	0.2 PPM	OK			EW-62
108	1.9 PPM	OK			EW-33B
109	0.1 PPM	OK			EW-63
110	0.1 PPM	OK			EW-77
111	0.3 PPM	OK			EW-79
112	0.1 PPM	OK			TP-8
113	0.2 PPM	OK			EW-64
114	0.4 PPM	OK			EW-81
115	0.1 PPM	OK			EW-80
116	0.0 PPM	OK			EW-83
117	0.7 PPM	OK			EW-84
118	2931.0 PPM	HIGH_ALRM	36.59993	-82.14830	EW-49
119	141.0 PPM	OK			TP-7
120	0.3 PPM	OK			EW-50
121	676.0 PPM	HIGH_ALRM	36.59961	-82.14737	TP-6
122	6.6 PPM	OK			EW-61
123	1.7 PPM	OK			EW-85
124	10.5 PPM	OK			EW-88
125	67.6 PPM	OK			EW-48
126	115.0 PPM	OK			EW-38
127	85.6 PPM	OK			EW-86
128	13.1 PPM	OK			EW-87
129	29.3 PPM	OK			EW-60
130	1.7 PPM	OK			EW-89
131	53.6 PPM	OK			TP-4
132	240.0 PPM	OK			EW-52
133	0.3 PPM	OK			EW-68
134	0.0 PPM	OK			TP-5
135	2510.0 PPM	HIGH_ALRM	36.59890	-82.14832	EW-90
136	3.9 PPM	OK			EW-51
137	0.6 PPM	OK			EW-91
138	53.5 PPM	OK			EW-92
139	0.6 PPM	OK			EW-93
140	0.2 PPM	OK			EW-94

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 7, 2025
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
141	0.4 PPM	OK			EW-55
142	0.6 PPM	OK			EW-54
143	0.2 PPM	OK			EW-47
144	376.0 PPM	OK			EW-67
145	0.2 PPM	OK			EW-53
146	2.6 PPM	OK			EW-96
147	25.4 PPM	OK			EW-66
148	0.5 PPM	OK			TP-1
149	5.0 PPM	OK			EW-57
150	0.8 PPM	OK			EW-58
151	1.7 PPM	OK			EW-98
152	51.8 PPM	OK			EW-59
153	63.5 PPM	OK			EW-100
154	5.2 PPM	OK			EW-56
155	6.6 PPM	OK			EW-97
156	6.4 PPM	OK			EW-99
157	209.0 PPM	OK			EW-95
158	1.2 PPM	OK			EW-65
159	0.8 PPM	OK			EW-36A
160	12.5 PPM	OK			EW-82
161	10.0 PPM	OK			EW-78
162	10.3 PPM	OK			EW-42
163	1505.0 PPM	HIGH_ALRM	36.60126	-82.14804	EW-76
164	0.5 PPM	OK			TP-9
165	1.7 PPM	OK			EW-73
166	0.3 PPM	OK			EW-70

Number of locations sampled: 166

Number of exceedance locations: 4

NOTES:

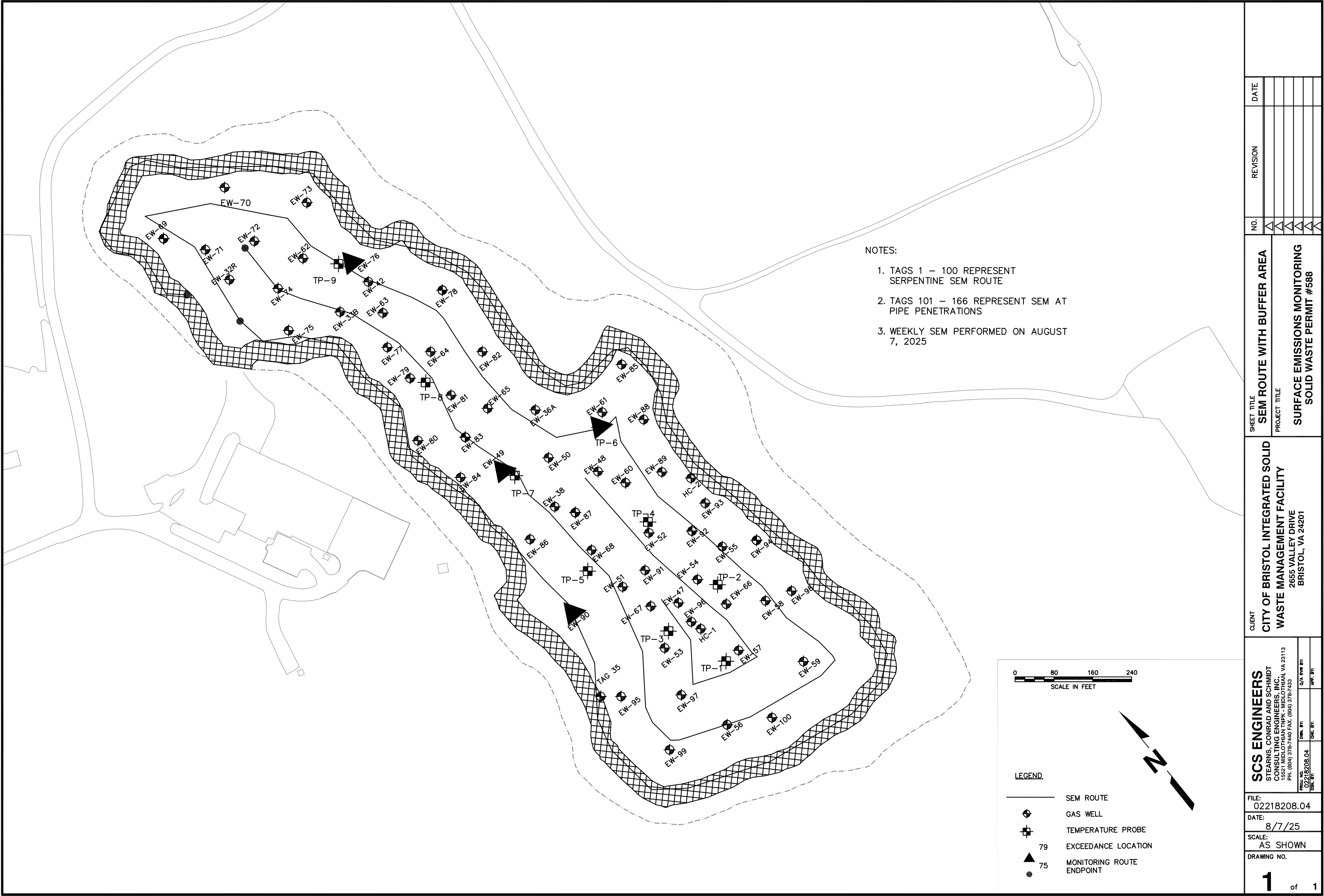
Points 1 through 100 represent serpentine SEM route.
Points 101 through 166 represent SEM at Pipe Penetrations
Weather Conditions: Partly Sunny, 77°F Wind: 5 mph ENE

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

8/7/2025	9:56	ZERO	0.0	PPM
8/7/2025	10:29	SPAN	501.0	PPM

Background Reading:

8/7/2025	10:41	Upwind	0.9	PPM
8/7/2025	10:57	Downwind	8.8	PPM



SHEET TITLE		REVISION		DATE	
SEM ROUTE WITH BUFFER AREA					
PROJECT TITLE					
SURFACE EMISSIONS MONITORING					
SOLID WASTE PERMIT #588					
CLIENT		NO.			
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 TRAIL, MIDLOTHIAN, VA 23113					
PH. (804) 378-7440 FAX. (804) 378-7433					
PROJ. NO. 02218208.04		DWG. BY:		C/A R/W BY:	
		CHK. BY:		APP. BY:	
FILE: 02218208.04					
DATE: 8/7/25					
SCALE: AS SHOWN					
DRAWING NO.					
1 of 1					

August 20, 2025
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 – August 11, 2025
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 Management Facility located in Bristol, Virginia on August 11, 2025. 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. 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 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	166
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	66
Number of Exceedances	3
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	3

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.

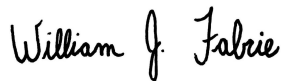
A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

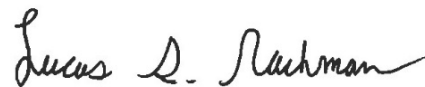
Point ID	Initial Exceedance Date	8/11/25 Event	8/11/25 Event Result	Comments
EW-76	7/15/25	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
Tag 35	7/15/25	1-Month Retest	Passed	Exceedance Resolved
TP-7	7/15/25	1-Month Retest	Passed	Exceedance Resolved
EW-52	7/23/25	N/A	Passed	Requires 1-Month Retest
EW-95	7/23/25	N/A	Passed	Requires 1-Month Retest
EW-90	8/7/25	10-Day Retest	Passed	Requires 1-Month Retest
TP-6	8/7/25	10-Day Retest	Passed	Requires 1-Month Retest
EW-49	8/7/25	10-Day Retest	Failed	Requires 2 nd 10-Day Retest

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

Sincerely,



William J. Fabrie
Project 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

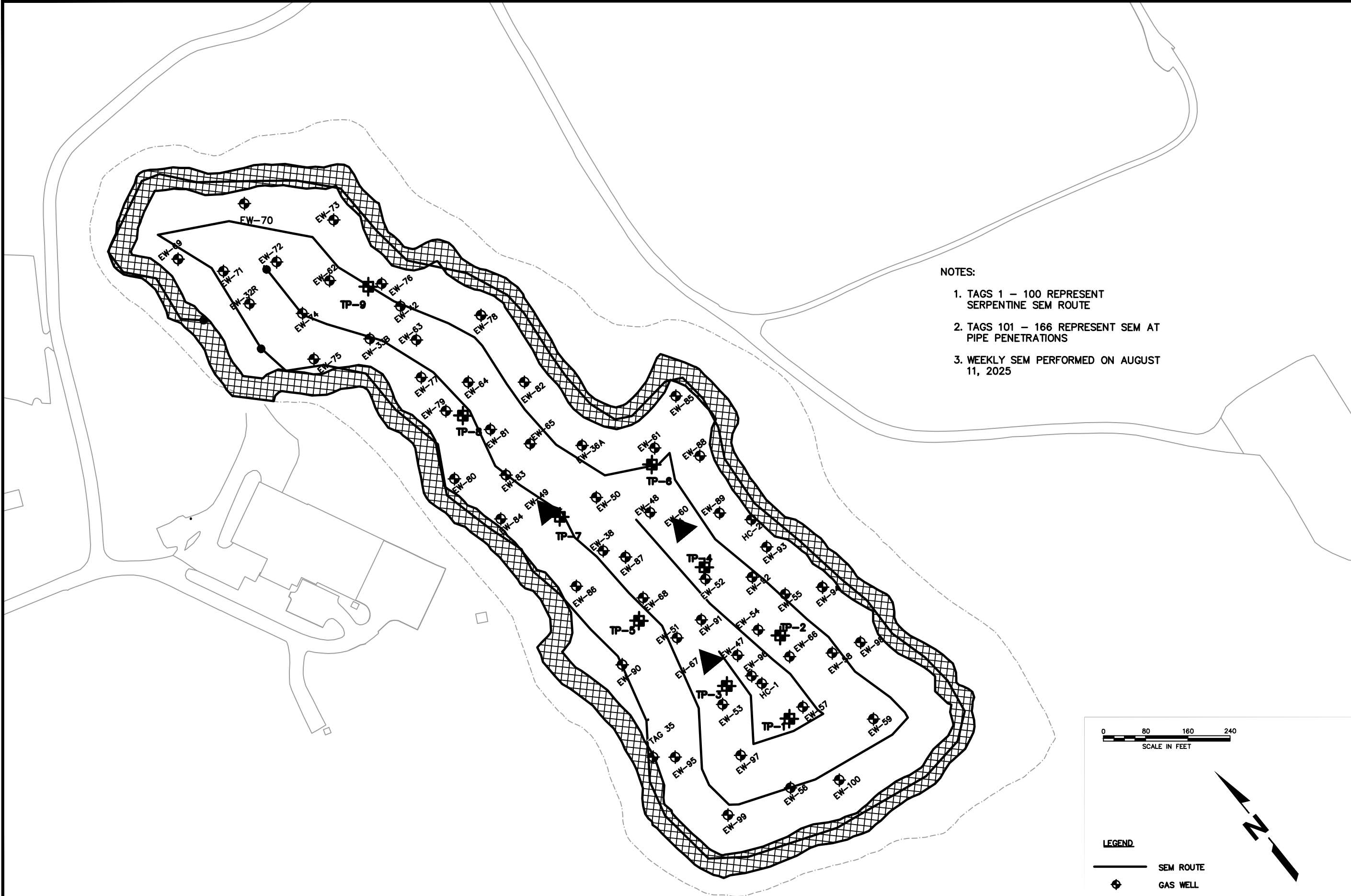
EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - AUGUST 11, 2025 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
1	0.4 PPM	OK			Start Serpentine Route
2	0.2 PPM	OK			
3	18.3 PPM	OK			
4	0.0 PPM	OK			
5	0.0 PPM	OK			
6	0.0 PPM	OK			
7	0.1 PPM	OK			
8	0.4 PPM	OK			
9	0.0 PPM	OK			
10	0.5 PPM	OK			
11	0.9 PPM	OK			
12	0.2 PPM	OK			
13	0.7 PPM	OK			
14	2.7 PPM	OK			
15	0.5 PPM	OK			
16	0.6 PPM	OK			
17	1.2 PPM	OK			
18	2.4 PPM	OK			
19	1.5 PPM	OK			
20	2.1 PPM	OK			
21	6.8 PPM	OK			
22	22.5 PPM	OK			
23	0.0 PPM	OK			
24	0.8 PPM	OK			
25	14.8 PPM	OK			
26	30.7 PPM	OK			
27	0.6 PPM	OK			
28	0.7 PPM	OK			
29	3.8 PPM	OK			
30	8.6 PPM	OK			
31	31.3 PPM	OK			
32	17.9 PPM	OK			
33	57.3 PPM	OK			
34	1.2 PPM	OK			
35	194.0 PPM	OK			
36	25.9 PPM	OK			
37	32.2 PPM	OK			
38	3.6 PPM	OK			
39	0.5 PPM	OK			
40	0.5 PPM	OK			
41	180.0 PPM	OK			
42	0.7 PPM	OK			
43	0.6 PPM	OK			
44	1.4 PPM	OK			
45	1.6 PPM	OK			
46	0.4 PPM	OK			
47	0.4 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - AUGUST 11, 2025 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
48	0.5 PPM	OK			
49	0.1 PPM	OK			
50	0.1 PPM	OK			
51	0.0 PPM	OK			
52	0.1 PPM	OK			
53	0.1 PPM	OK			
54	0.1 PPM	OK			
55	0.2 PPM	OK			
56	0.2 PPM	OK			
57	1.6 PPM	OK			
58	0.1 PPM	OK			
59	0.0 PPM	OK			
60	0.1 PPM	OK			
61	7.7 PPM	OK			
62	0.2 PPM	OK			
63	0.3 PPM	OK			
64	0.5 PPM	OK			
65	0.6 PPM	OK			
66	7.5 PPM	OK			
67	7.0 PPM	OK			
68	0.9 PPM	OK			
69	7.3 PPM	OK			
70	1.6 PPM	OK			
71	1.1 PPM	OK			
72	3.0 PPM	OK			
73	53.5 PPM	OK			
74	0.0 PPM	OK			
75	1.7 PPM	OK			
76	0.2 PPM	OK			
77	0.3 PPM	OK			
78	0.6 PPM	OK			
79	2.6 PPM	OK			
80	0.7 PPM	OK			
81	0.4 PPM	OK			
82	0.2 PPM	OK			
83	0.3 PPM	OK			
84	10.9 PPM	OK			
85	2.2 PPM	OK			
86	0.6 PPM	OK			
87	0.1 PPM	OK			
88	0.2 PPM	OK			
89	0.0 PPM	OK			
90	0.1 PPM	OK			
91	0.4 PPM	OK			
92	0.2 PPM	OK			
93	4.9 PPM	OK			
94	8.3 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 11, 2025
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
95	1.0 PPM	OK			
96	0.3 PPM	OK			
97	0.4 PPM	OK			
98	0.3 PPM	OK			
99	0.3 PPM	OK			
100	3.5 PPM	OK			End Serpentine Route
101	419.0 PPM	OK			EW-52
102	16.1 PPM	OK			TP-4
103	873.0 PPM	HIGH_ALRM	36.59958	-82.14722	EW-60
104	43.3 PPM	OK			EW-48
105	225.0 PPM	OK			TP-6
106	1.4 PPM	OK			EW-61
107	0.6 PPM	OK			EW-50
108	670.0 PPM	HIGH_ALRM	36.59856	-82.14796	EW-67
109	0.5 PPM	OK			EW-47
110	1.8 PPM	OK			EW-54
111	0.4 PPM	OK			EW-55
112	93.2 PPM	OK			EW-92
113	1.4 PPM	OK			EW-91
114	16.8 PPM	OK			EW-96
115	2.0 PPM	OK			EW-66
116	2.7 PPM	OK			EW-58
117	20.0 PPM	OK			EW-57
118	0.2 PPM	OK			TP-1
119	16.2 PPM	OK			EW-59
120	0.1 PPM	OK			EW-100
121	3.8 PPM	OK			EW-56
122	0.1 PPM	OK			EW-97
123	0.0 PPM	OK			EW-53
124	1.3 PPM	OK			EW-51
125	1.4 PPM	OK			TP-5
126	1.0 PPM	OK			EW-68
127	35.6 PPM	OK			EW-87
128	116.0 PPM	OK			EW-38
129	26.0 PPM	OK			TP-7
130	1132.0 PPM	HIGH_ALRM	36.59977	-82.14800	EW-49
131	1.0 PPM	OK			EW-83
132	0.9 PPM	OK			EW-65
133	1.0 PPM	OK			EW-81
134	0.8 PPM	OK			TP-8
135	0.8 PPM	OK			EW-64
136	1.1 PPM	OK			EW-63
137	44.1 PPM	OK			EW-42
138	140.0 PPM	OK			EW-76
139	411.0 PPM	OK			TP-9
140	1.1 PPM	OK			EW-62

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS					
WEEKLY MONITORING EVENT - AUGUST 11, 2025					
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
141	1.1 PPM	OK			EW-74
142	1.2 PPM	OK			EW-32R
143	0.6 PPM	OK			EW-69
144	0.9 PPM	OK			EW-71
145	1.8 PPM	OK			EW-72
146	2.6 PPM	OK			EW-70
147	1.1 PPM	OK			EW-73
148	3.2 PPM	OK			EW-78
149	178.0 PPM	OK			EW-82
150	3.2 PPM	OK			EW-36A
151	5.6 PPM	OK			EW-85
152	1.6 PPM	OK			EW-88
153	4.0 PPM	OK			EW-89
154	0.5 PPM	OK			EW-93
155	2.5 PPM	OK			EW-94
156	1.5 PPM	OK			EW-98
157	1.5 PPM	OK			EW-99
158	189.0 PPM	OK			EW-95
159	95.3 PPM	OK			EW-90
160	289.0 PPM	OK			EW-86
161	3.7 PPM	OK			EW-84
162	0.9 PPM	OK			EW-80
163	0.6 PPM	OK			EW-79
164	0.8 PPM	OK			EW-77
165	4.4 PPM	OK			EW-33B
166	1.8 PPM	OK			EW-75
Number of locations sampled: 166 Number of exceedance locations: 3					
NOTES: Points 1 through 100 represent serpentine SEM route. Points 101 through 166 represent SEM at Pipe Penetrations Weather Conditions: Partly Cloudy, 79°F Wind: 5 mph SE <u>Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm</u> 8/11/2025 11:42 ZERO 0.2 PPM 8/11/2025 11:52 SPAN 503.0 PPM <u>Background Reading:</u> 8/11/2025 11:56 Upwind 2.3 PPM 8/11/2025 12:11 Downwind 0.8 PPM					



- NOTES:
- 1. TAGS 1 – 100 REPRESENT SERPENTINE SEM ROUTE
 - 2. TAGS 101 – 166 REPRESENT SEM AT PIPE PENETRATIONS
 - 3. WEEKLY SEM PERFORMED ON AUGUST 11, 2025



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
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SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15821 MIDLOTHIAN TPK - MIDLOTHIAN, VA 23113 PH: (804) 378-7440 FAX: (804) 378-7433	FILE: 02218208.04
PROJ. NO. 02218208.04 DATE: 8/11/25	DATE: 8/11/25
DRAWN BY: CHKD BY:	SCALE: AS SHOWN
QA/RV BY: APP. BY:	DRAWING NO. 1 of 1

August 27, 2025
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 – August 19, 2025
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 Management Facility located in Bristol, Virginia on August 19, 2025. 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. 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 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	165
Number of Points in Serpentine Route	99
Number of Points at Surface Cover Penetrations	66
Number of Exceedances	2
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	2

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.

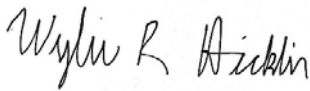
A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

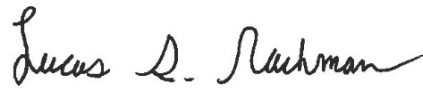
Point ID	Initial Exceedance Date	8/19/25 Event	8/19/25 Event Result	Comments
EW-76	7/15/25	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-49	8/7/25	Second 10-Day Retest	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-52	7/23/25	1-Month Retest	Passed	Exceedance Resolved
EW-95	7/23/25	1-Month Retest	Failed	Requires 1-Month Retest Follow-Up
EW-90	8/7/25	N/A	Passed	Requires 1-Month Retest
TP-6	8/7/25	N/A	Passed	Requires 1-Month Retest
EW-60	8/11/25	10-Day Retest	Passed	Requires 1-Month Retest
EW-67	8/11/25	10-Day Retest	Passed	Requires 1-Month Retest

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

Sincerely,



Wylie R Hicklin
Staff Professional
SCS Engineers



Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WRH

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 - AUGUST 19, 2025 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
1	0.0 PPM	OK			Start Serpentine Route
2	0.0 PPM	OK			
3	2.2 PPM	OK			
4	0.0 PPM	OK			
5	0.0 PPM	OK			
6	0.3 PPM	OK			
7	0.1 PPM	OK			
8	375.0 PPM	OK			
9	0.1 PPM	OK			
10	0.2 PPM	OK			
11	0.0 PPM	OK			
12	0.0 PPM	OK			
13	0.1 PPM	OK			
14	0.1 PPM	OK			
15	0.3 PPM	OK			
16	0.1 PPM	OK			
17	0.1 PPM	OK			
18	0.2 PPM	OK			
19	0.0 PPM	OK			
20	1.1 PPM	OK			
21	5.6 PPM	OK			
22	1.4 PPM	OK			
23	5.7 PPM	OK			
24	0.8 PPM	OK			
25	0.5 PPM	OK			
26	0.7 PPM	OK			
27	0.6 PPM	OK			
28	1.2 PPM	OK			
29	0.6 PPM	OK			
30	2.1 PPM	OK			
31	0.4 PPM	OK			
32	9.6 PPM	OK			
33	24.2 PPM	OK			
34	5.8 PPM	OK			
35	49.0 PPM	OK			
36	1.5 PPM	OK			
37	2.3 PPM	OK			
38	12.9 PPM	OK			
39	0.9 PPM	OK			
40	2.0 PPM	OK			
41	3.3 PPM	OK			
42	1.0 PPM	OK			
43	0.4 PPM	OK			
44	0.3 PPM	OK			
45	0.2 PPM	OK			
46	0.3 PPM	OK			
47	0.3 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - AUGUST 19, 2025 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
48	0.7 PPM	OK			
49	0.4 PPM	OK			
50	0.2 PPM	OK			
51	0.2 PPM	OK			
52	1.0 PPM	OK			
53	95.5 PPM	OK			
54	0.2 PPM	OK			
55	1.3 PPM	OK			
56	1.6 PPM	OK			
57	0.5 PPM	OK			
58	0.6 PPM	OK			
59	13.4 PPM	OK			
60	0.5 PPM	OK			
61	0.4 PPM	OK			
62	0.1 PPM	OK			
63	0.1 PPM	OK			
64	0.2 PPM	OK			
65	2.4 PPM	OK			
66	34.3 PPM	OK			
67	0.0 PPM	OK			
68	0.0 PPM	OK			
69	0.1 PPM	OK			
70	0.4 PPM	OK			
71	0.4 PPM	OK			
72	0.7 PPM	OK			
73	28.7 PPM	OK			
74	4.3 PPM	OK			
75	1.0 PPM	OK			
76	1.3 PPM	OK			
77	4.1 PPM	OK			
78	2.5 PPM	OK			
79	2.0 PPM	OK			
80	2.3 PPM	OK			
81	1.1 PPM	OK			
82	2.2 PPM	OK			
83	1.8 PPM	OK			
84	1.4 PPM	OK			
85	0.4 PPM	OK			
86	0.6 PPM	OK			
87	1.1 PPM	OK			
88	1.6 PPM	OK			
89	0.0 PPM	OK			
90	0.0 PPM	OK			
91	0.1 PPM	OK			
92	0.1 PPM	OK			
93	0.9 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - AUGUST 19, 2025 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
94	0.6 PPM	OK			
95	0.6 PPM	OK			
96	0.1 PPM	OK			
97	0.2 PPM	OK			
98	0.1 PPM	OK			
99	0.2 PPM	OK			End Serpentine Route
100	0.3 PPM	OK			EW-75
101	0.4 PPM	OK			EW-74
102	0.1 PPM	OK			EW-32R
103	0.0 PPM	OK			EW-71
104	0.0 PPM	OK			EW-69
105	0.0 PPM	OK			EW-72
106	0.1 PPM	OK			EW-62
107	0.3 PPM	OK			EW-33B
108	0.1 PPM	OK			EW-63
109	0.0 PPM	OK			EW-77
110	0.2 PPM	OK			EW-79
111	0.2 PPM	OK			TP-8
112	0.5 PPM	OK			EW-64
113	0.2 PPM	OK			EW-81
114	3.4 PPM	OK			EW-80
115	0.1 PPM	OK			EW-84
116	0.0 PPM	OK			EW-83
117	0.2 PPM	OK			EW-65
118	0.2 PPM	OK			EW-36A
119	907.0 PPM	HIGH_ALRM	36.59994	-82.14775	EW-49
120	275.0 PPM	OK			TP-7
121	0.6 PPM	OK			EW-56
122	268.0 PPM	OK			TP-6
123	2.8 PPM	OK			EW-61
124	0.4 PPM	OK			EW-85
125	13.4 PPM	OK			EW-88
126	8.4 PPM	OK			EW-89
127	225.0 PPM	OK			EW-60
128	37.6 PPM	OK			EW-48
129	0.2 PPM	OK			EW-87
130	12.7 PPM	OK			EW-38
131	4.5 PPM	OK			EW-86
132	19.6 PPM	OK			EW-90
133	0.5 PPM	OK			TP-5
134	1.5 PPM	OK			EW-68
135	322.0 PPM	OK			EW-52
136	20.0 PPM	OK			TP-4
137	23.5 PPM	OK			EW-92
138	0.2 PPM	OK			EW-93
139	0.7 PPM	OK			EW-94

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 19, 2025
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
140	1.5 PPM	OK			EW-55
141	11.3 PPM	OK			EW-54
142	0.4 PPM	OK			EW-47
143	55.5 PPM	OK			EW-91
144	52.5 PPM	OK			EW-57
145	23.1 PPM	OK			EW-67
146	2.0 PPM	OK			EW-53
147	0.7 PPM	OK			EW-96
148	0.3 PPM	OK			EW-66
149	6.0 PPM	OK			TP-1
150	24.6 PPM	OK			EW-57
151	475.0 PPM	OK			EW-58
152	0.0 PPM	OK			EW-98
153	57.2 PPM	OK			EW-59
154	28.0 PPM	OK			EW-100
155	7.7 PPM	OK			EW-56
156	1.9 PPM	OK			EW-97
157	7.0 PPM	OK			EW-99
158	1916.0 PPM	HIGH_ALARM	36.59812	-82.14823	EW-95
159	31.5 PPM	OK			EW-82
160	0.4 PPM	OK			EW-78
161	52.2 PPM	OK			EW-42
162	216.0 PPM	OK			EW-76
163	0.3 PPM	OK			TP-9
164	57.3 PPM	OK			EW-73
165	36.3 PPM	OK			EW-70

Number of locations sampled: 165

Number of exceedance locations: 2

NOTES:

Points 1 through 99 represent serpentine SEM route.
Points 100 through 165 represent SEM at Pipe Penetrations
Weather Conditions: Sunny, 86°F Wind: 3 mph ESE

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

8/19/2025	10:25	ZERO	0.0	PPM
8/19/2025	10:36	SPAN	500.0	PPM

Background Reading:

8/19/2025	10:57	Upwind	0.7	PPM
8/19/2025	11:04	Downwind	0.1	PPM

September 3, 2025
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 – August 28, 2025
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 Management Facility located in Bristol, Virginia on August 28, 2025. 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. 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 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	166
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	66
Number of Exceedances	2
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	2

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

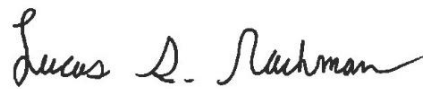
Point ID	Initial Exceedance Date	8/28/25 Event	8/28/25 Event Result	Comments
EW-76	7/15/25	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-49	8/7/25	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-95	7/23/25	1-Month Retest Follow-Up	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-90	8/7/25	N/A	Passed	Requires 1-Month Retest
TP-6	8/7/25	N/A	Passed	Requires 1-Month Retest
EW-60	8/11/25	N/A	Passed	Requires 1-Month Retest
EW-67	8/11/25	N/A	Passed	Requires 1-Month Retest

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

Sincerely,



William J. Fabrie
Project 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

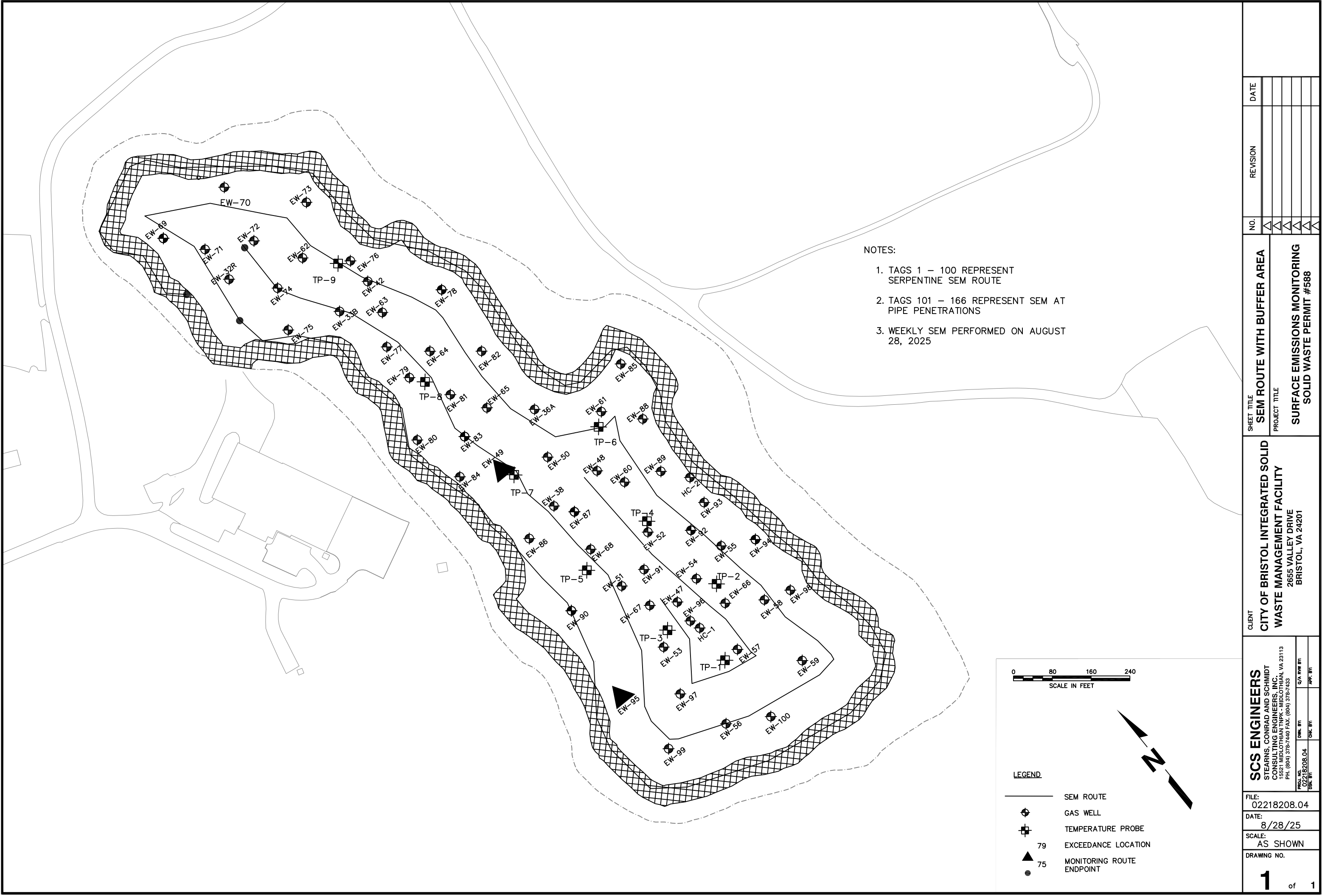
EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - AUGUST 28, 2025 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
1	4.4 PPM	OK			Start Serpentine Route
2	4.4 PPM	OK			
3	6.6 PPM	OK			
4	4.4 PPM	OK			
5	4.4 PPM	OK			
6	4.5 PPM	OK			
7	4.4 PPM	OK			
8	6.7 PPM	OK			
9	4.6 PPM	OK			
10	4.3 PPM	OK			
11	5 PPM	OK			
12	5.1 PPM	OK			
13	6 PPM	OK			
14	5.9 PPM	OK			
15	4.9 PPM	OK			
16	11.8 PPM	OK			
17	4.4 PPM	OK			
18	4.6 PPM	OK			
19	4 PPM	OK			
20	5.7 PPM	OK			
21	3.8 PPM	OK			
22	4.7 PPM	OK			
23	5.2 PPM	OK			
24	4.2 PPM	OK			
25	3.6 PPM	OK			
26	3.6 PPM	OK			
27	3.6 PPM	OK			
28	3.6 PPM	OK			
29	3.8 PPM	OK			
30	3.6 PPM	OK			
31	32.4 PPM	OK			
32	3.6 PPM	OK			
33	3.7 PPM	OK			
34	3.7 PPM	OK			
35	4 PPM	OK			
36	55.9 PPM	OK			
37	42.6 PPM	OK			
38	38.8 PPM	OK			
39	47.5 PPM	OK			
40	9.7 PPM	OK			
41	6.5 PPM	OK			
42	14.2 PPM	OK			
43	4.8 PPM	OK			
44	4.7 PPM	OK			
45	8.1 PPM	OK			
46	6.8 PPM	OK			
47	5.4 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 28, 2025
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
48	4.2 PPM	OK			
49	3.4 PPM	OK			
50	3.4 PPM	OK			
51	3.7 PPM	OK			
52	3.5 PPM	OK			
53	3.5 PPM	OK			
54	3.3 PPM	OK			
55	3.3 PPM	OK			
56	44.5 PPM	OK			
57	3 PPM	OK			
58	3 PPM	OK			
59	3 PPM	OK			
60	3 PPM	OK			
61	3 PPM	OK			
62	5.2 PPM	OK			
63	3 PPM	OK			
64	3 PPM	OK			
65	3.2 PPM	OK			
66	3.6 PPM	OK			
67	6 PPM	OK			
68	6.7 PPM	OK			
69	42.4 PPM	OK			
70	19.4 PPM	OK			
71	6.6 PPM	OK			
72	4.3 PPM	OK			
73	2.9 PPM	OK			
74	2.9 PPM	OK			
75	4.5 PPM	OK			
76	28.3 PPM	OK			
77	145 PPM	OK			
78	11 PPM	OK			
79	3 PPM	OK			
80	3.1 PPM	OK			
81	3.3 PPM	OK			
82	53.2 PPM	OK			
83	4 PPM	OK			
84	4.1 PPM	OK			
85	3.2 PPM	OK			
86	5 PPM	OK			
87	4.3 PPM	OK			
88	7.4 PPM	OK			
89	3.2 PPM	OK			
90	3.1 PPM	OK			
91	34.2 PPM	OK			
92	6.8 PPM	OK			
93	12.5 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - AUGUST 28, 2025 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
94	8.6 PPM	OK			
95	2.8 PPM	OK			
96	5.5 PPM	OK			
97	3.5 PPM	OK			
98	2.7 PPM	OK			
99	2.8 PPM	OK			
100	12.5 PPM	OK			End Serpentine Route
101	70.9 PPM	OK			EW-52
102	27.4 PPM	OK			TP-4
103	442 PPM	OK			EW-60
104	22.1 PPM	OK			EW-48
105	10.8 PPM	OK			TP-6
106	9.6 PPM	OK			EW-61
107	3.2 PPM	OK			EW-50
108	89.9 PPM	OK			EW-67
109	2.9 PPM	OK			EW-47
110	12.9 PPM	OK			EW-54
111	3.5 PPM	OK			EW-55
112	174 PPM	OK			EW-92
113	8.3 PPM	OK			EW-91
114	3 PPM	OK			EW-96
115	5.3 PPM	OK			EW-66
116	130 PPM	OK			EW-58
117	7.5 PPM	OK			EW-57
118	5.3 PPM	OK			TP-1
119	9.8 PPM	OK			EW-59
120	13 PPM	OK			EW-100
121	3.3 PPM	OK			EW-56
122	2.7 PPM	OK			EW-97
123	3.2 PPM	OK			EW-53
124	7.7 PPM	OK			EW-51
125	9 PPM	OK			TP-5
126	22.6 PPM	OK			EW-68
127	16.1 PPM	OK			EW-87
128	11.5 PPM	OK			EW-38
129	242 PPM	OK			TP-7
130	551 PPM	HIGH_ALRM	36.59994	-82.14775	EW-49
131	2.9 PPM	OK			EW-83
132	3.1 PPM	OK			EW-65
133	2.6 PPM	OK			EW-81
134	2.5 PPM	OK			TP-8
135	3.4 PPM	OK			EW-64
136	2.6 PPM	OK			EW-63
137	17.4 PPM	OK			EW-42
138	88.9 PPM	OK			EW-76
139	7.5 PPM	OK			TP-9

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - AUGUST 28, 2025 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
140	437 PPM	OK			EW-62
141	2.5 PPM	OK			EW-74
142	3.1 PPM	OK			EW-32R
143	2.3 PPM	OK			EW-69
144	2.2 PPM	OK			EW-71
145	2.2 PPM	OK			EW-72
146	2.3 PPM	OK			EW-70
147	409 PPM	OK			EW-73
148	8.2 PPM	OK			EW-78
149	2.7 PPM	OK			EW-82
150	5.5 PPM	OK			EW-36A
151	3.1 PPM	OK			EW-85
152	14.6 PPM	OK			EW-88
153	22.3 PPM	OK			EW-89
154	2.3 PPM	OK			EW-93
155	5.1 PPM	OK			EW-94
156	2.6 PPM	OK			EW-98
157	4.3 PPM	OK			EW-99
158	1346 PPM	HIGH_ALARM	36.59812	-82.14823	EW-95
159	3.3 PPM	OK			EW-90
160	20.8 PPM	OK			EW-86
161	3.1 PPM	OK			EW-84
162	3.1 PPM	OK			EW-80
163	2.8 PPM	OK			EW-79
164	2.6 PPM	OK			EW-77
165	109 PPM	OK			EW-33B
166	3.1 PPM	OK			EW-75
Number of locations sampled: 166 Number of exceedance locations: 2					
NOTES: Points 1 through 100 represent serpentine SEM route. Points 101 through 166 represent SEM at Pipe Penetrations Weather Conditions: Sunny, 78°F Wind: 4 mph NE <u>Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm</u> 8/28/2025 11:15 ZERO 0.4 PPM 8/28/2025 11:16 SPAN 500.0 PPM <u>Background Reading:</u> 8/28/2025 11:21 Upwind 1.2 PPM 8/28/2025 11:22 Downwind 4.7 PPM					



NOTES:

1. TAGS 1 – 100 REPRESENT SERPENTINE SEM ROUTE

2. TAGS 101 – 166 REPRESENT SEM AT PIPE PENETRATIONS

3. WEEKLY SEM PERFORMED ON AUGUST 28, 2025



LEGEND

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

SHEET TITLE		REVISION		DATE	
SEM ROUTE WITH BUFFER AREA					
PROJECT TITLE					
SURFACE EMISSIONS MONITORING					
SOLID WASTE PERMIT #588					
CLIENT		NO.			
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 TRAIL, MIDLOTHIAN, VA 23113					
PH. (804) 378-7440 FAX. (804) 378-7433					
FILE: 02218208.04					
DATE: 8/28/25					
SCALE: AS SHOWN					
DRAWING NO.					
1 of 1					



Appendix B

In-Waste Temperatures on Select Days in August

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Figure B - 1 Average Temperatures Recorded by TP-1 on August 6, 2025

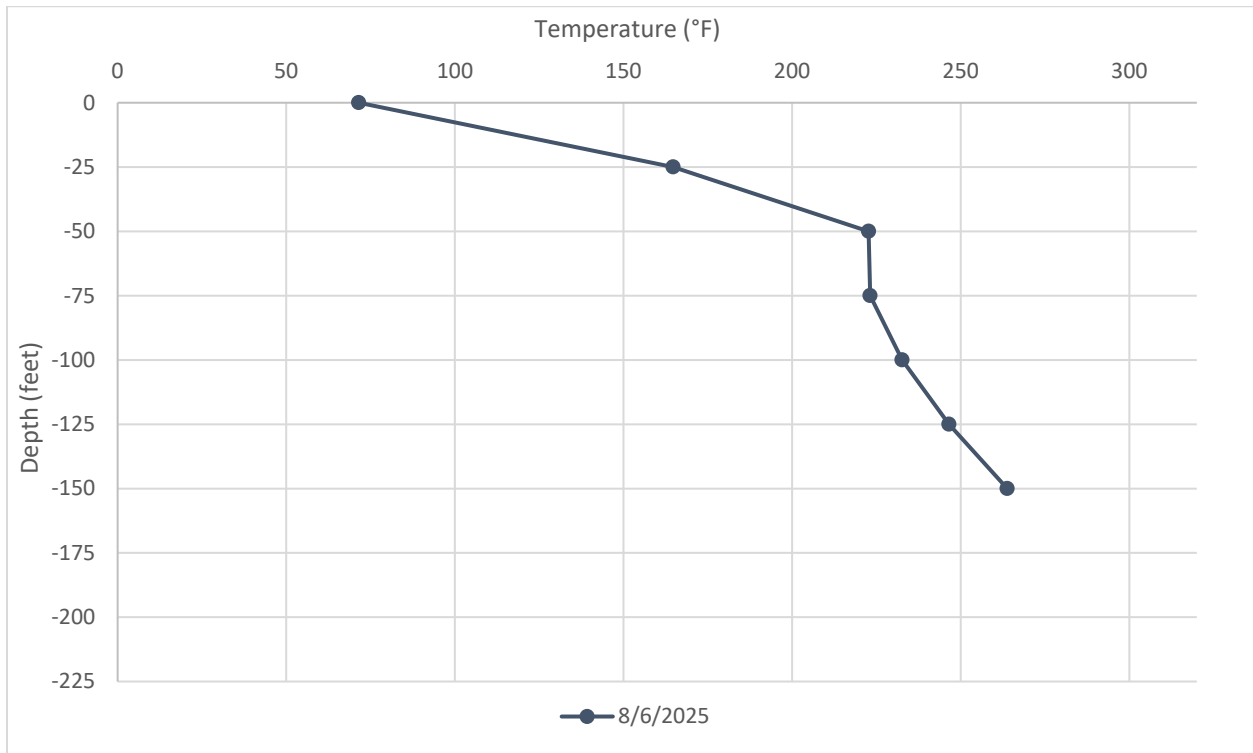


Figure B - 2 Average Temperatures Recorded by TP-1 on August 13, 2025

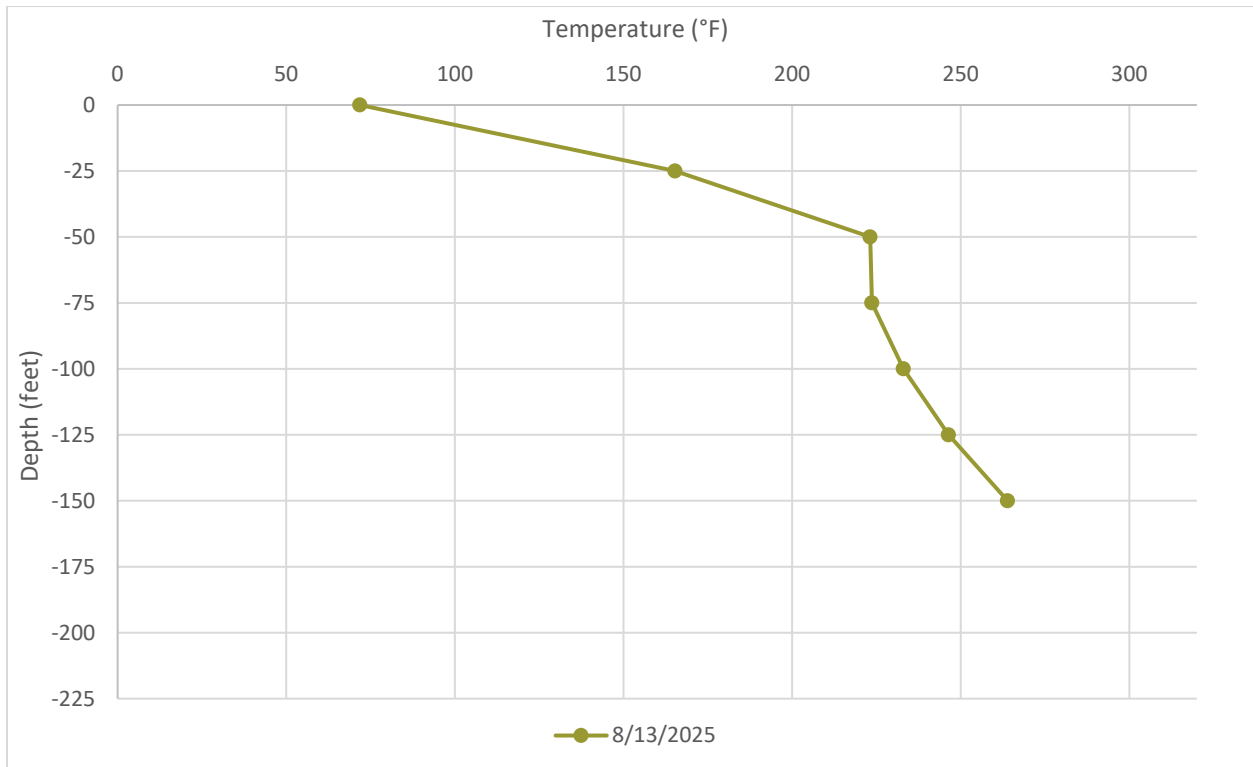


Figure B - 3 Average Temperatures Recorded by TP-1 on August 20, 2025

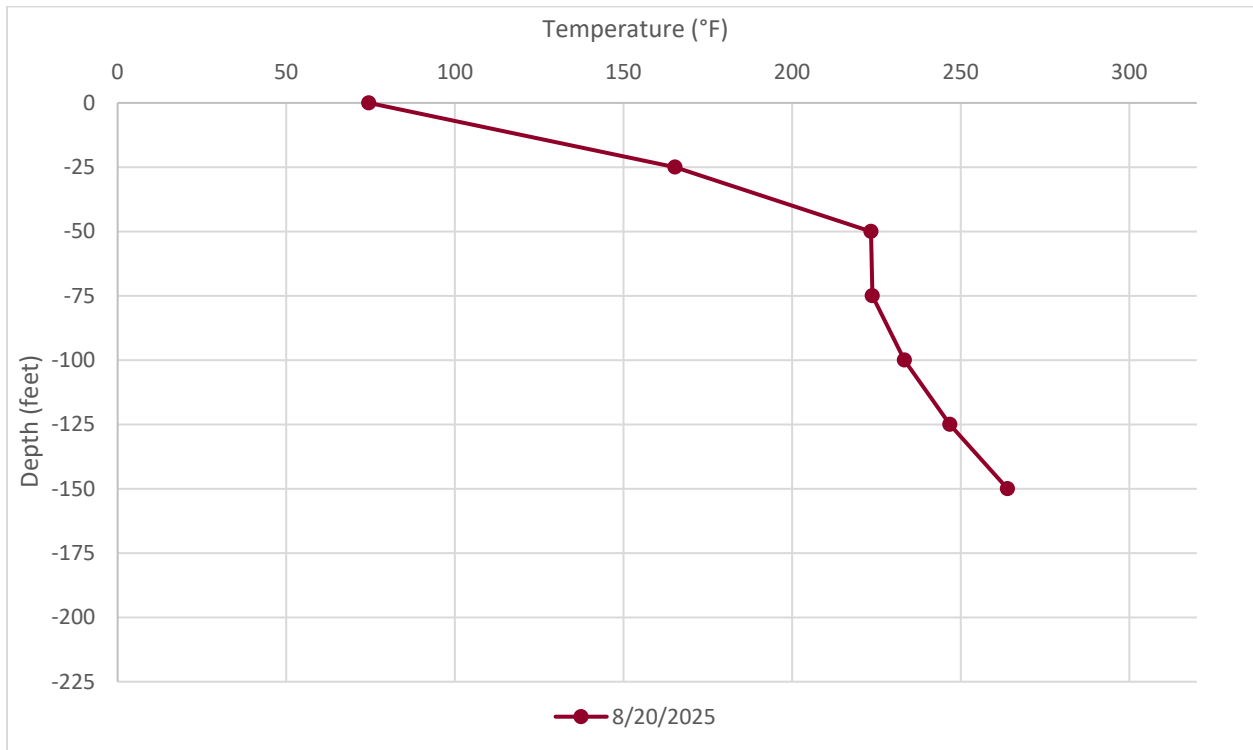


Figure B - 4 Average Temperatures Recorded by TP-1 on August 27, 2025

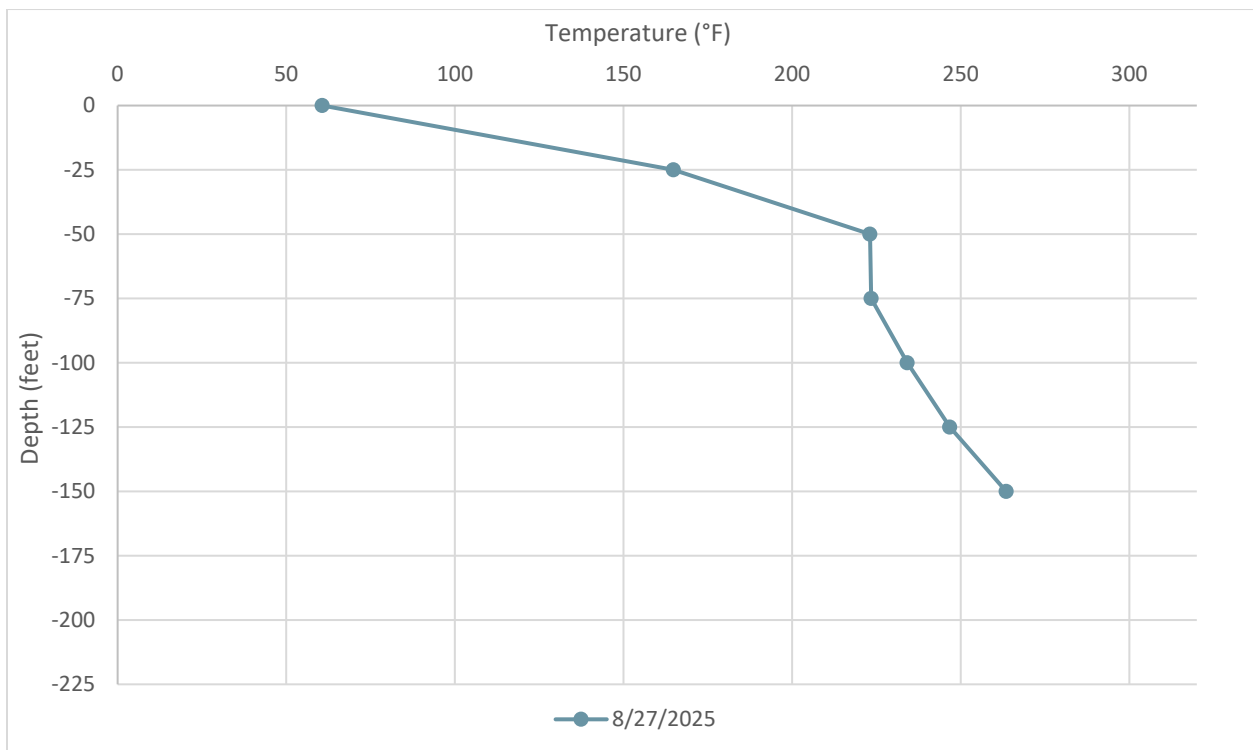


Figure B - 5 Average Temperatures Recorded by TP-5 on August 6, 2025

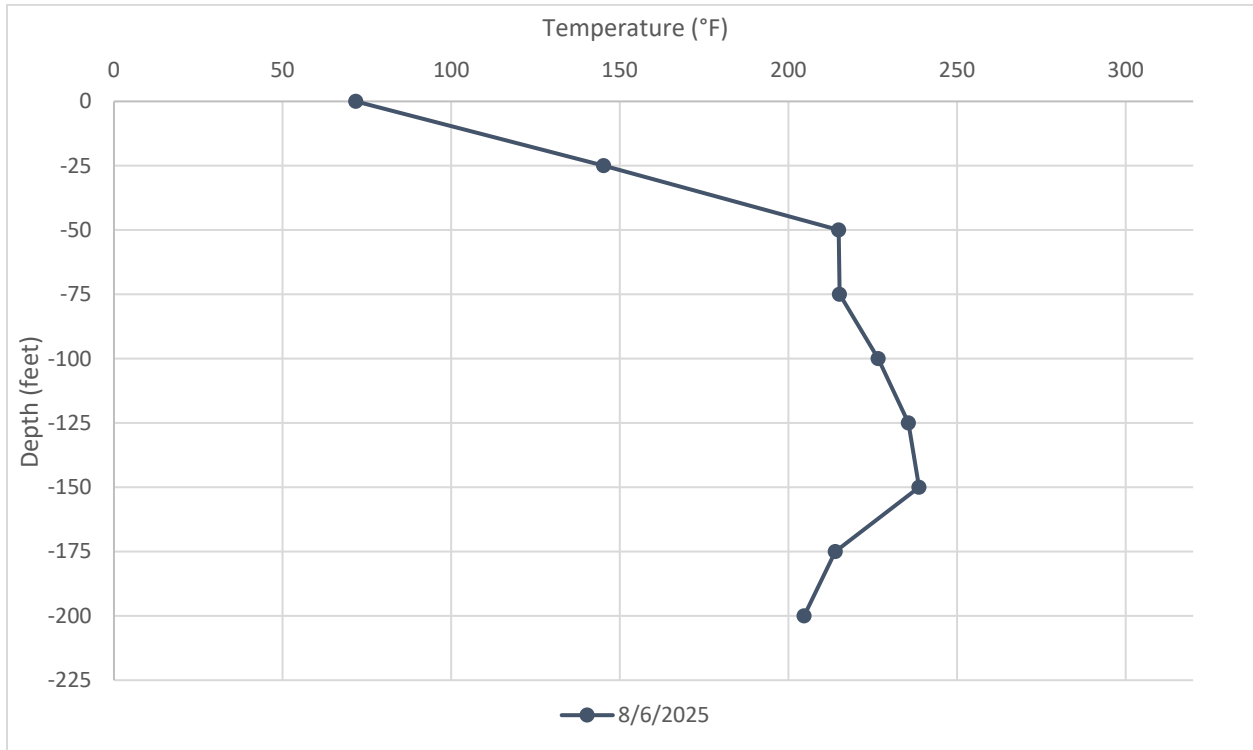


Figure B - 6 Average Temperatures Recorded by TP-5 on August 13, 2025

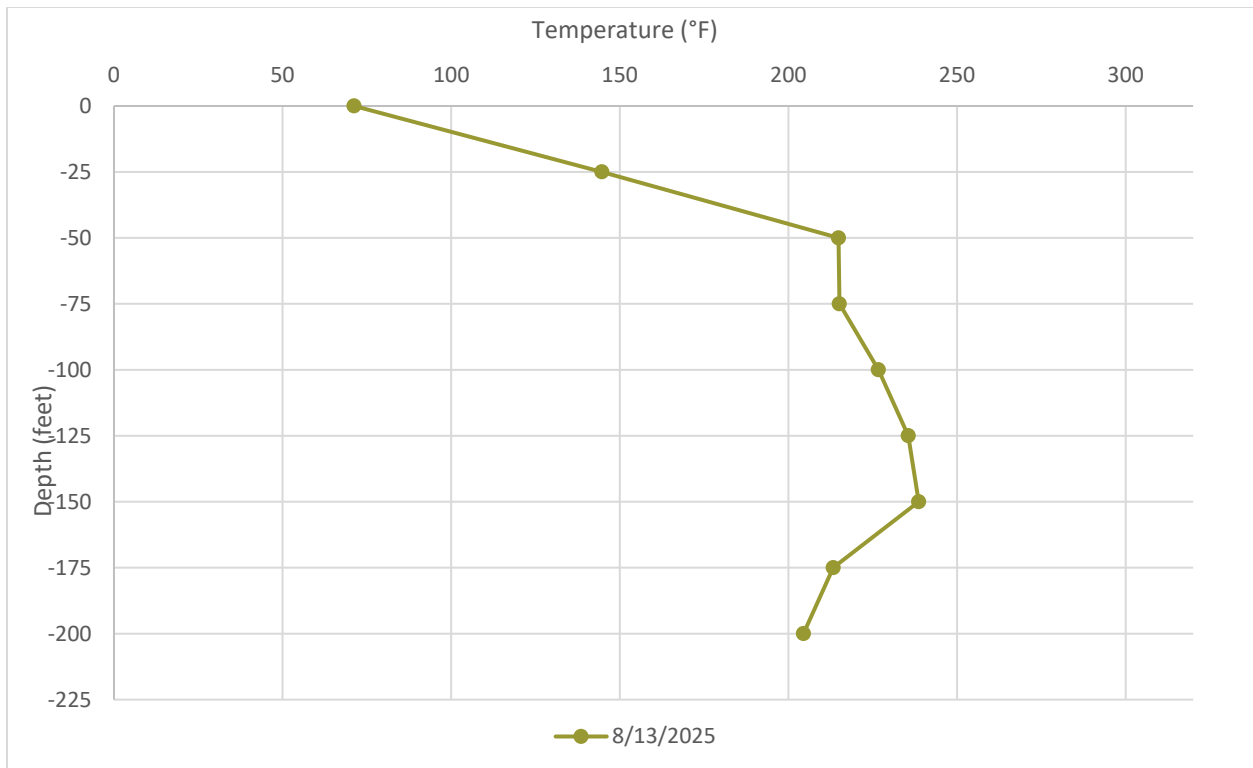


Figure B - 7 Average Temperatures Recorded by TP-5 on August 20, 2025

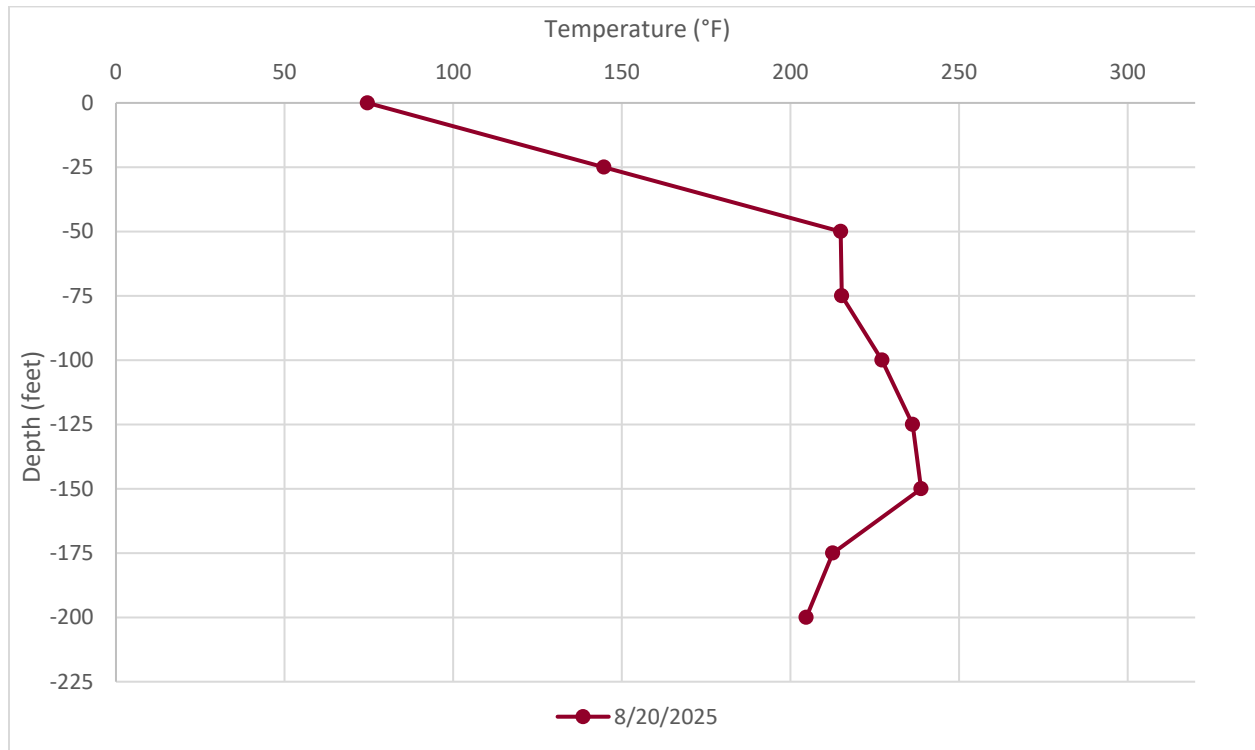


Figure B - 8 Average Temperatures Recorded by TP-5 on August 27, 2025

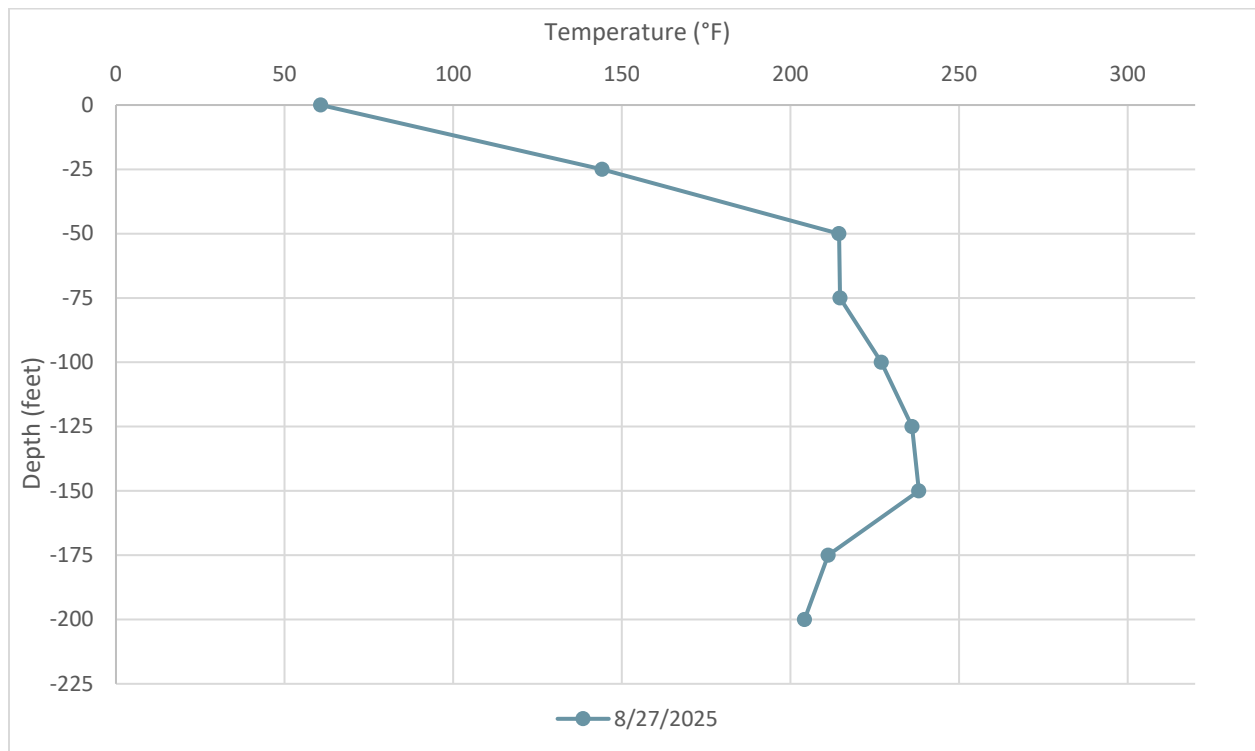


Figure B - 9 Average Temperatures Recorded by TP-6 on August 6, 2025

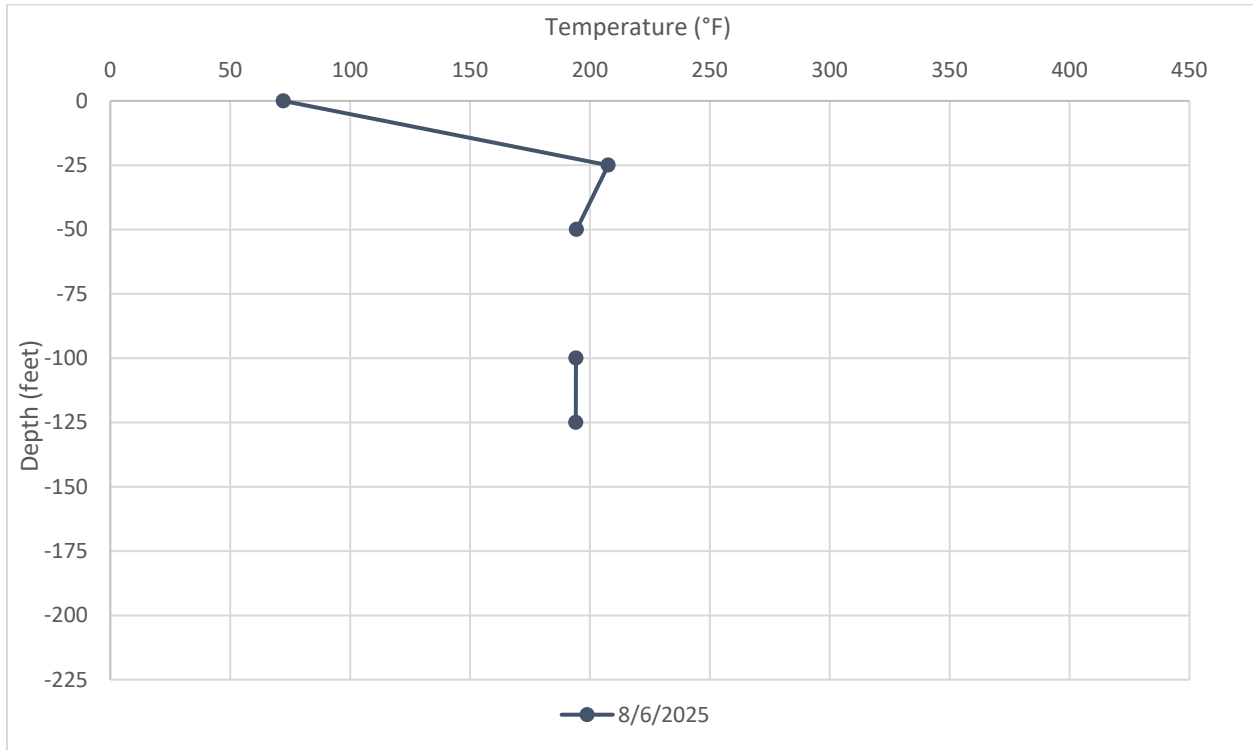


Figure B - 10 Average Temperatures Recorded by TP-6 on August 13, 2025

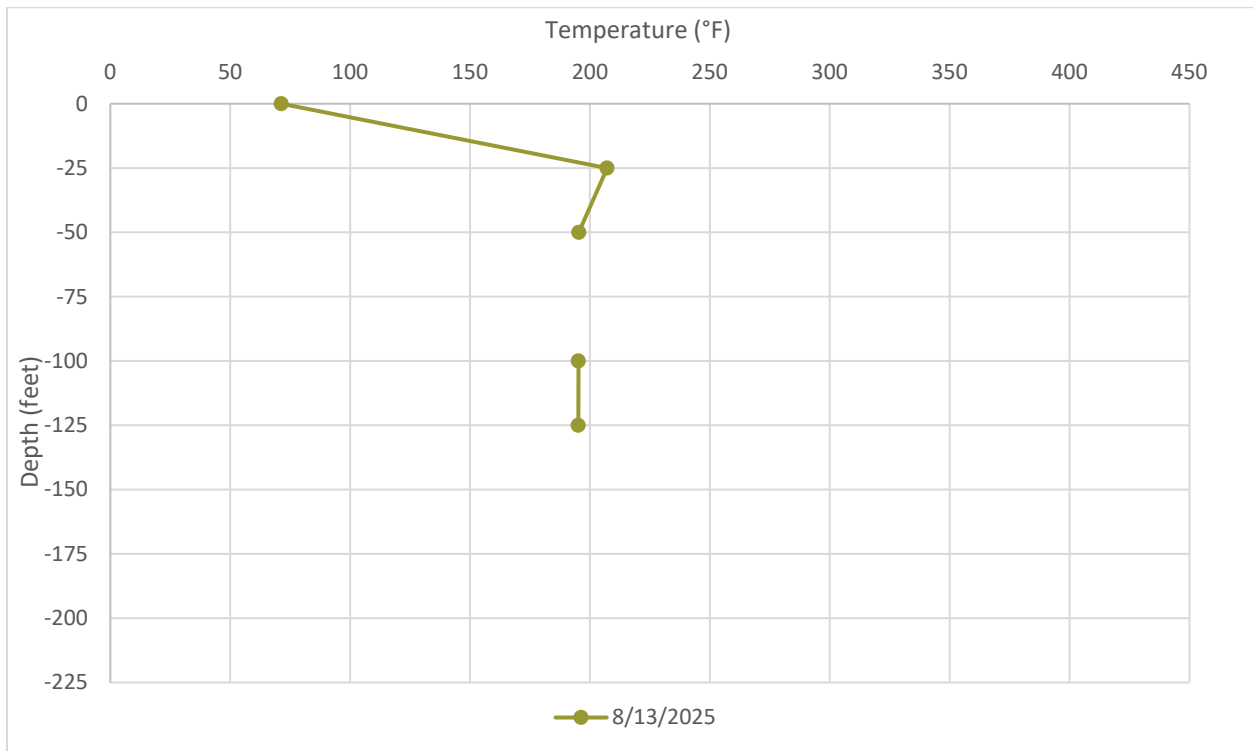


Figure B - 11 Average Temperatures Recorded by TP-6 on August 20, 2025

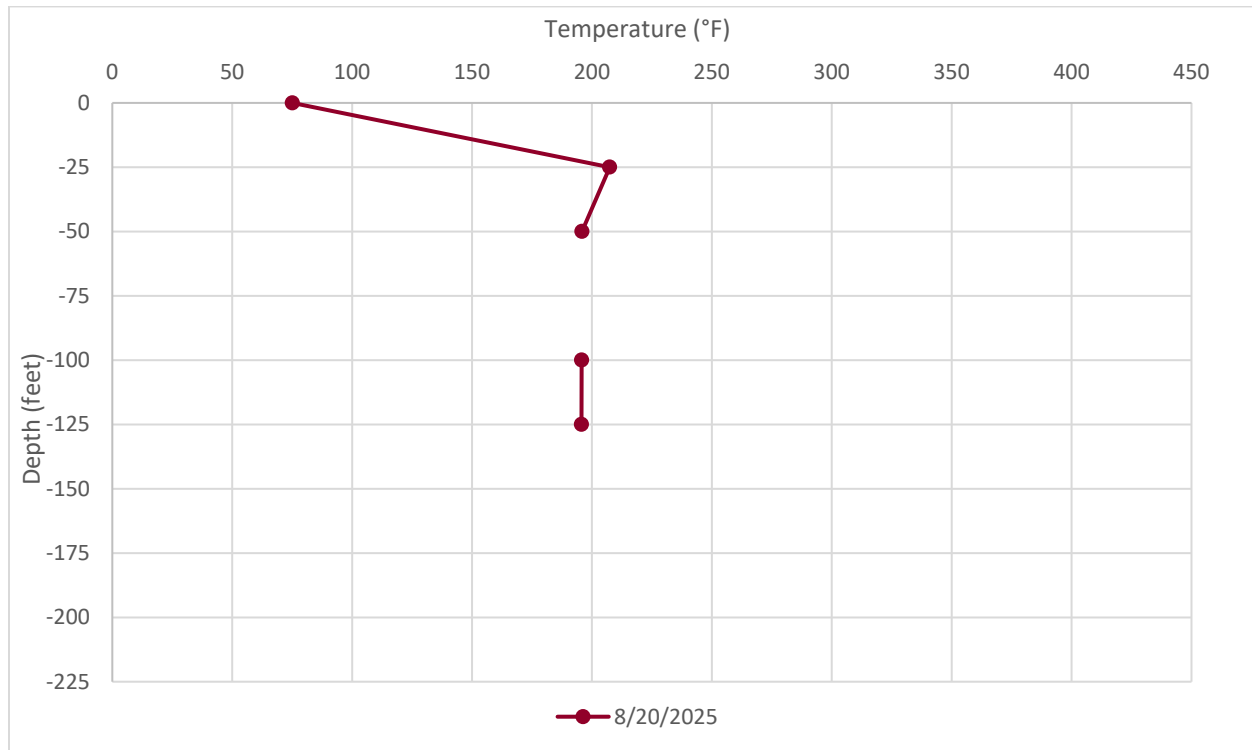


Figure B - 12 Average Temperatures Recorded by TP-6 on August 27, 2025

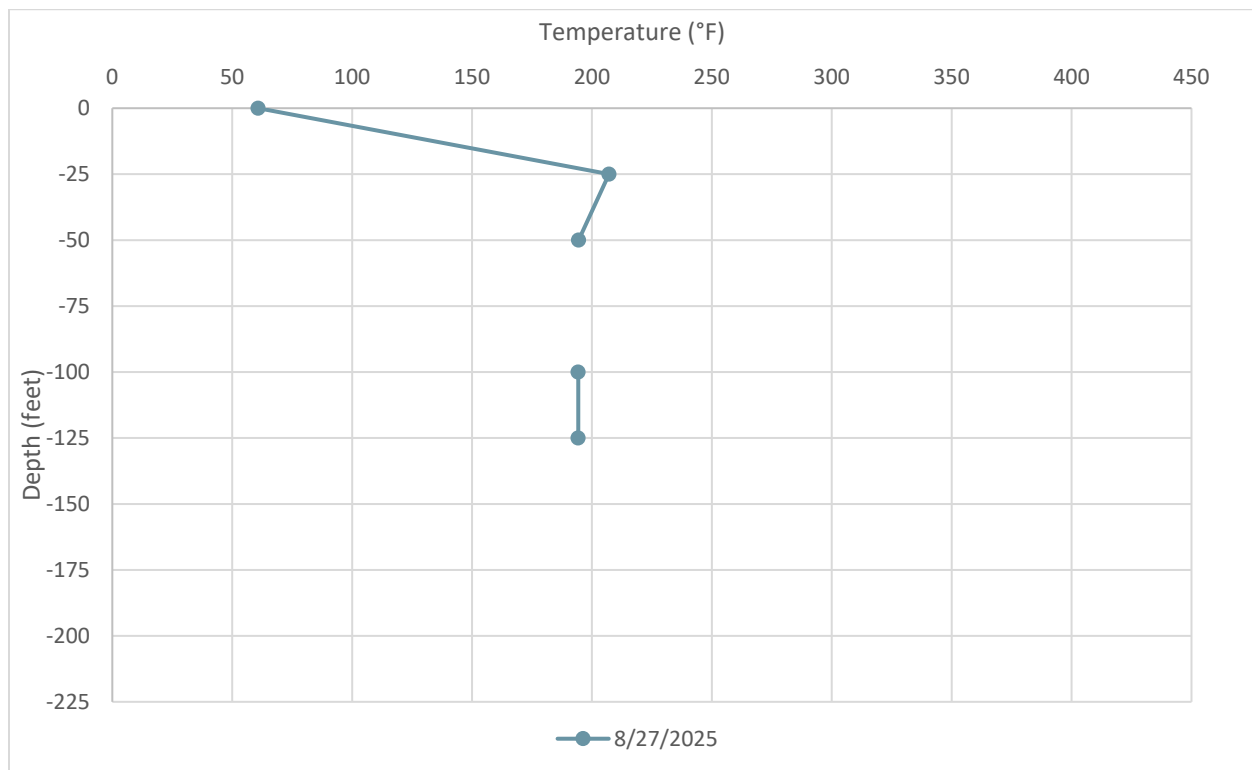


Figure B - 13 Average Temperatures Recorded by TP-7 on August 6, 2025

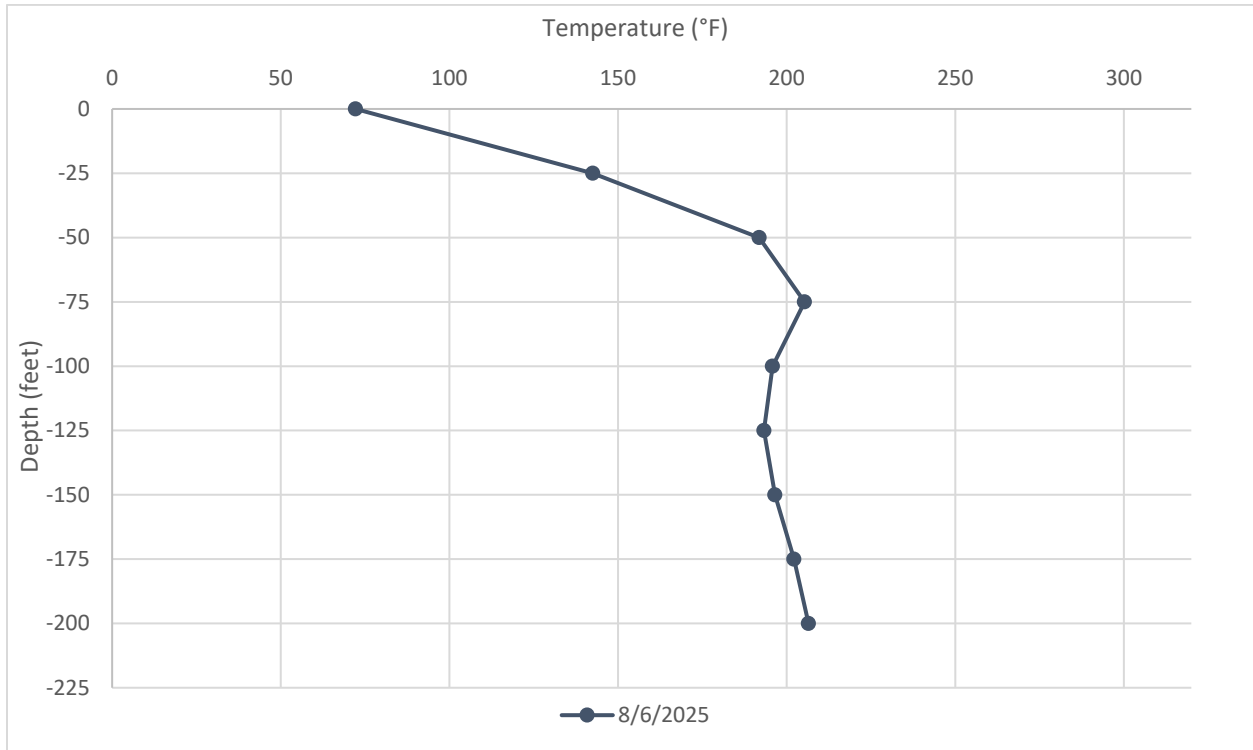


Figure B - 14 Average Temperatures Recorded by TP-7 on August 13, 2025

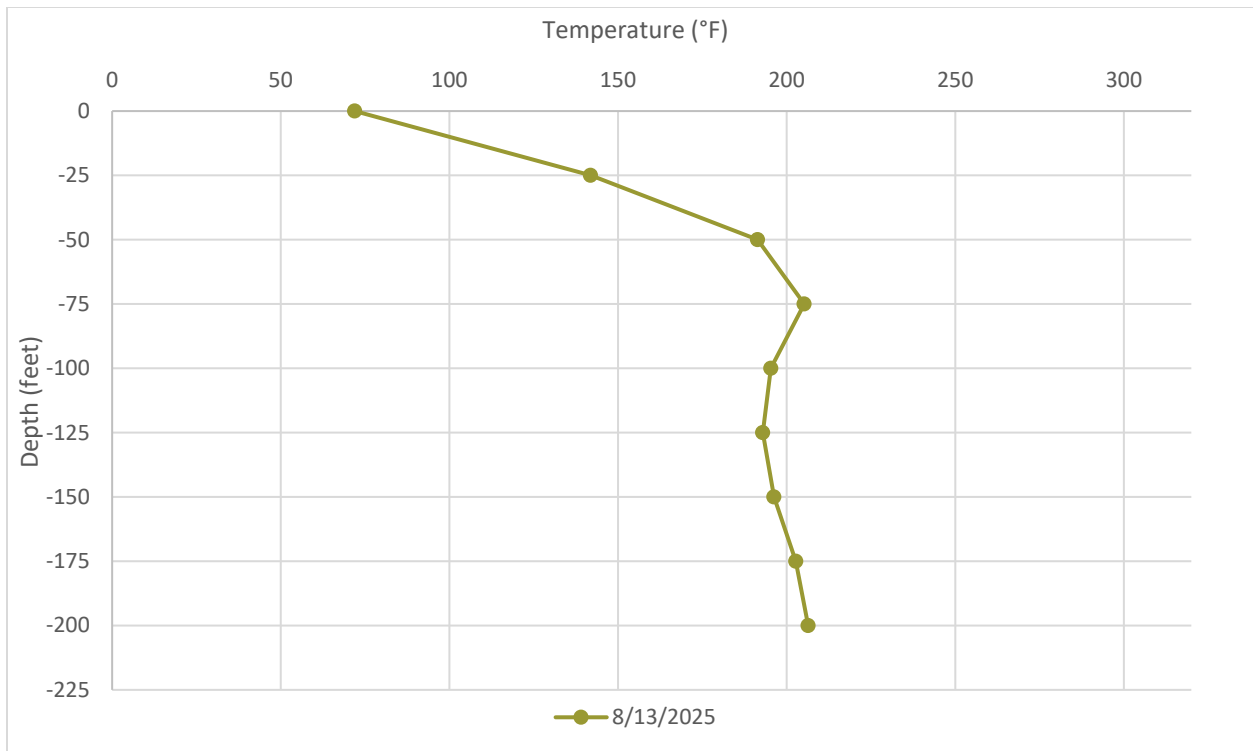


Figure B - 15 Average Temperatures Recorded by TP-7 on August 20, 2025

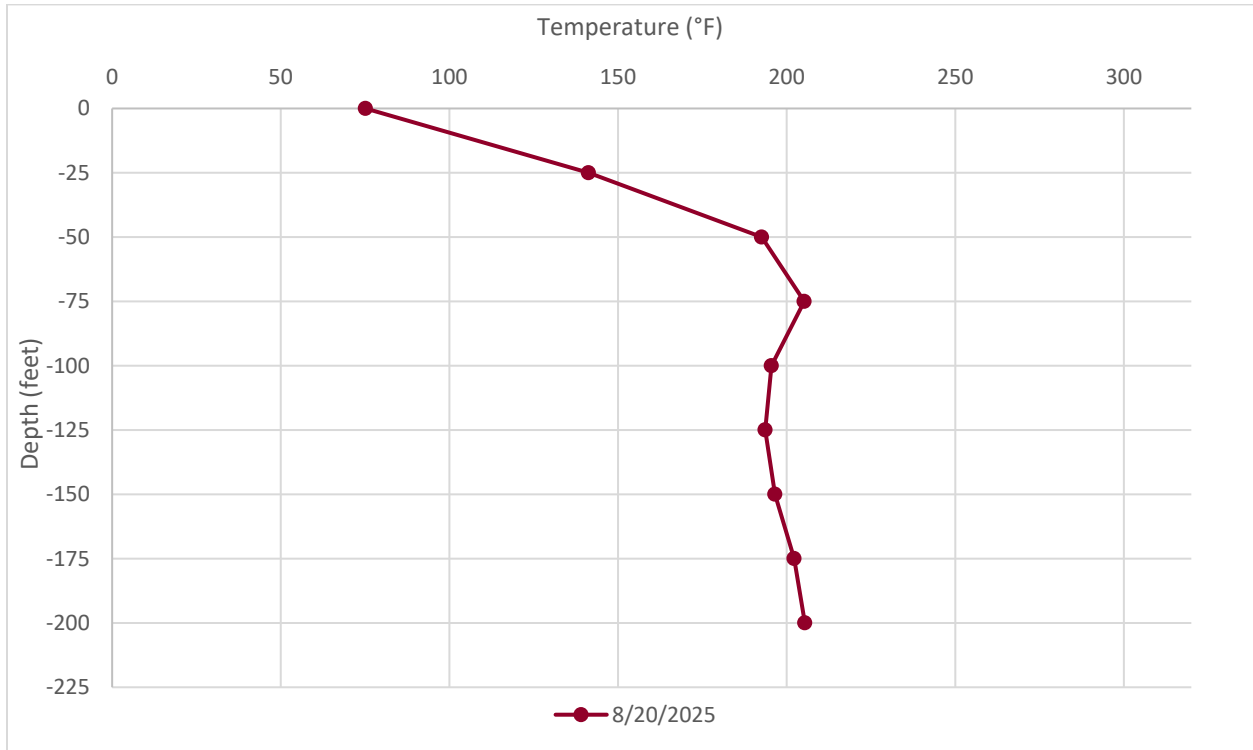


Figure B - 16 Average Temperatures Recorded by TP-7 on August 27, 2025

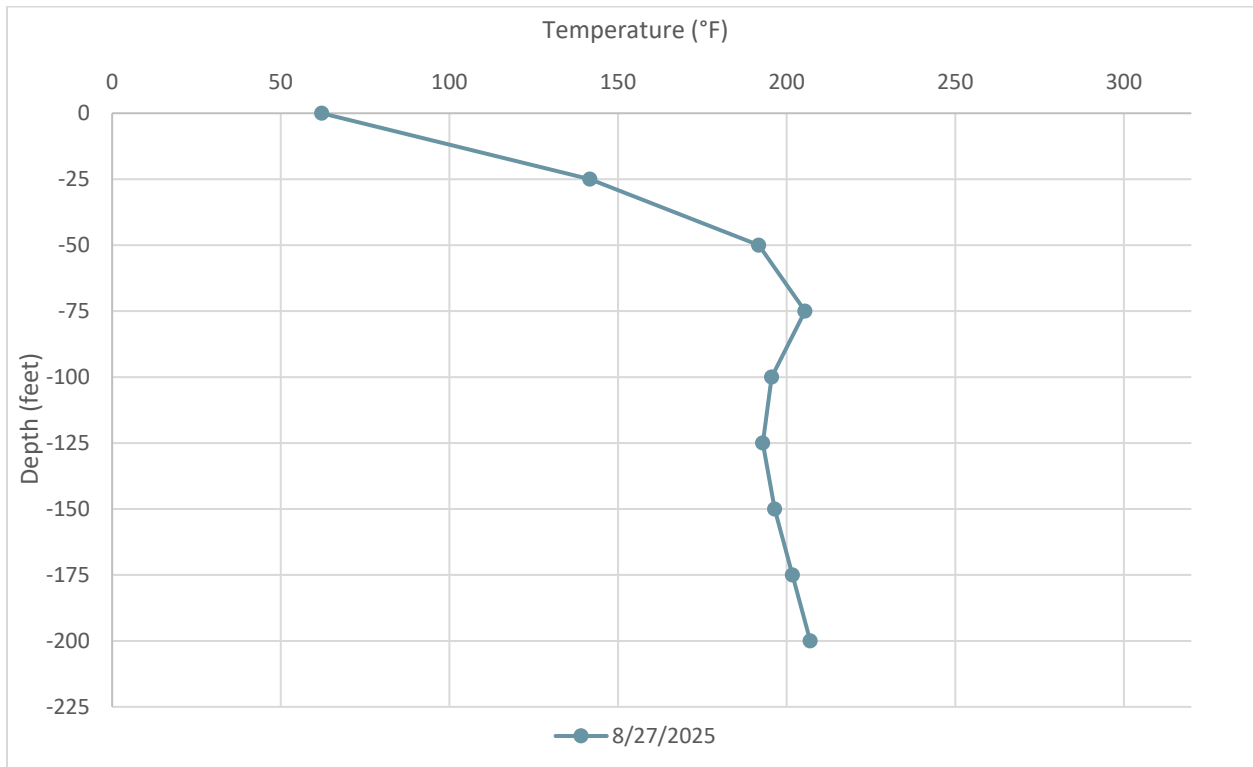


Figure B - 17 Average Temperatures Recorded by TP-8 on August 6, 2025

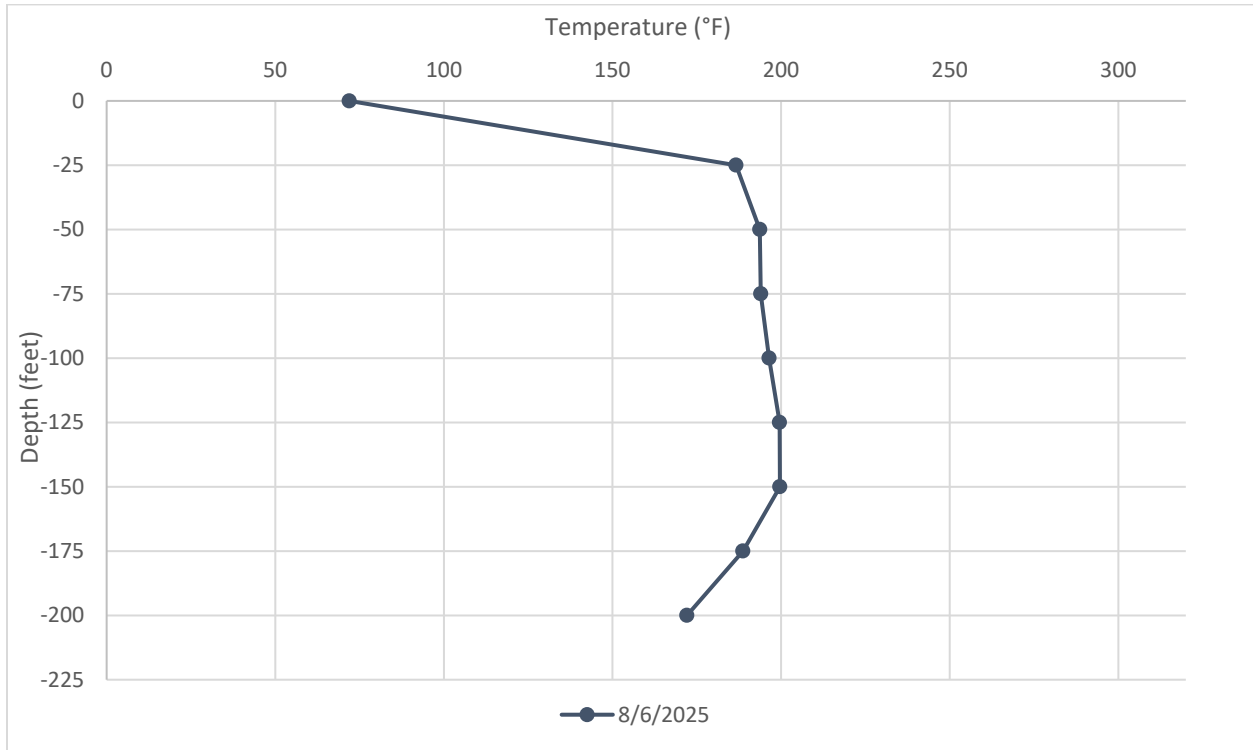


Figure B - 18 Average Temperatures Recorded by TP-8 on August 13, 2025

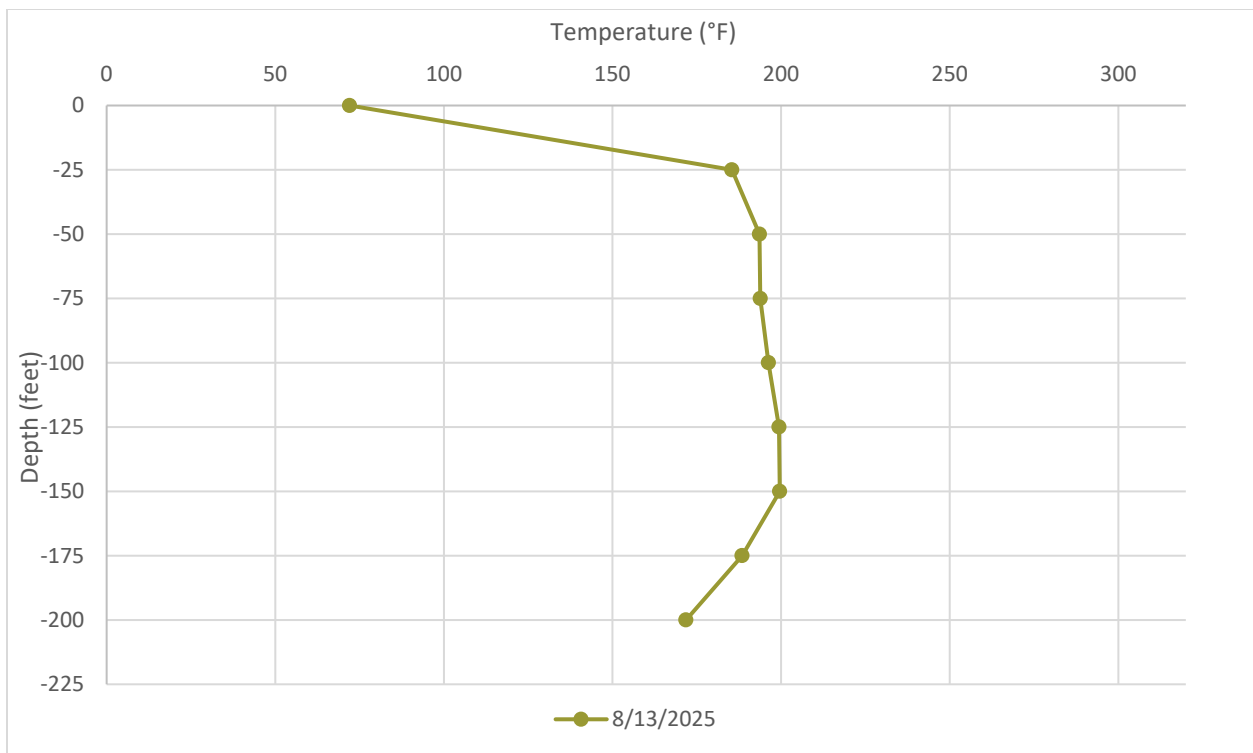


Figure B - 19 Average Temperatures Recorded by TP-8 on August 20, 2025

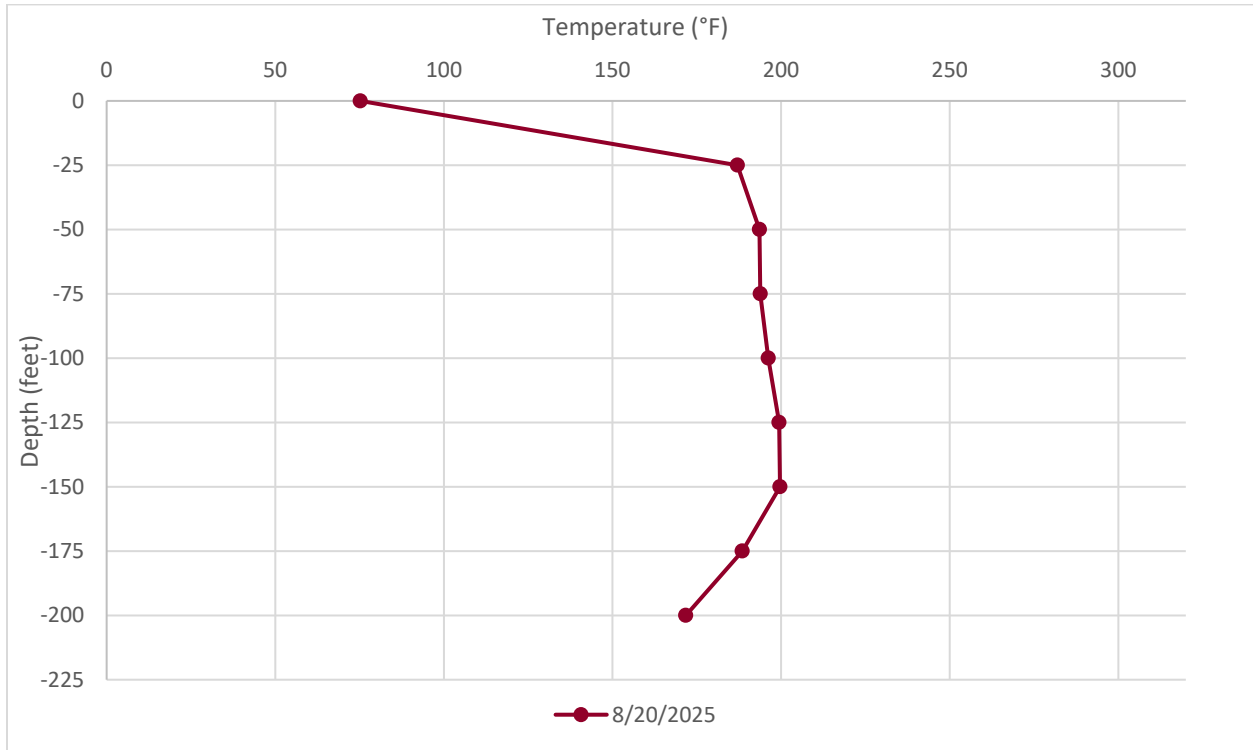


Figure B - 20 Average Temperatures Recorded by TP-8 on August 27, 2025

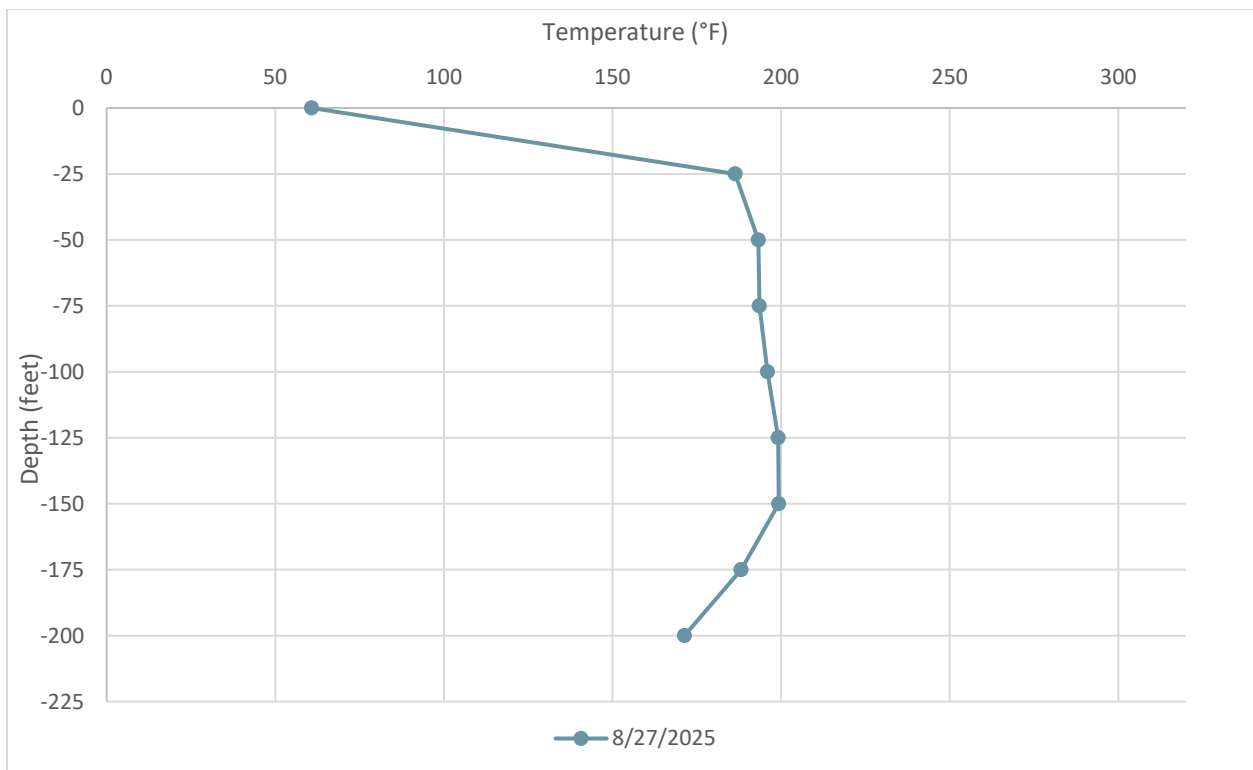


Figure B - 21 Average Temperatures Recorded by TP-9 on August 6, 2025

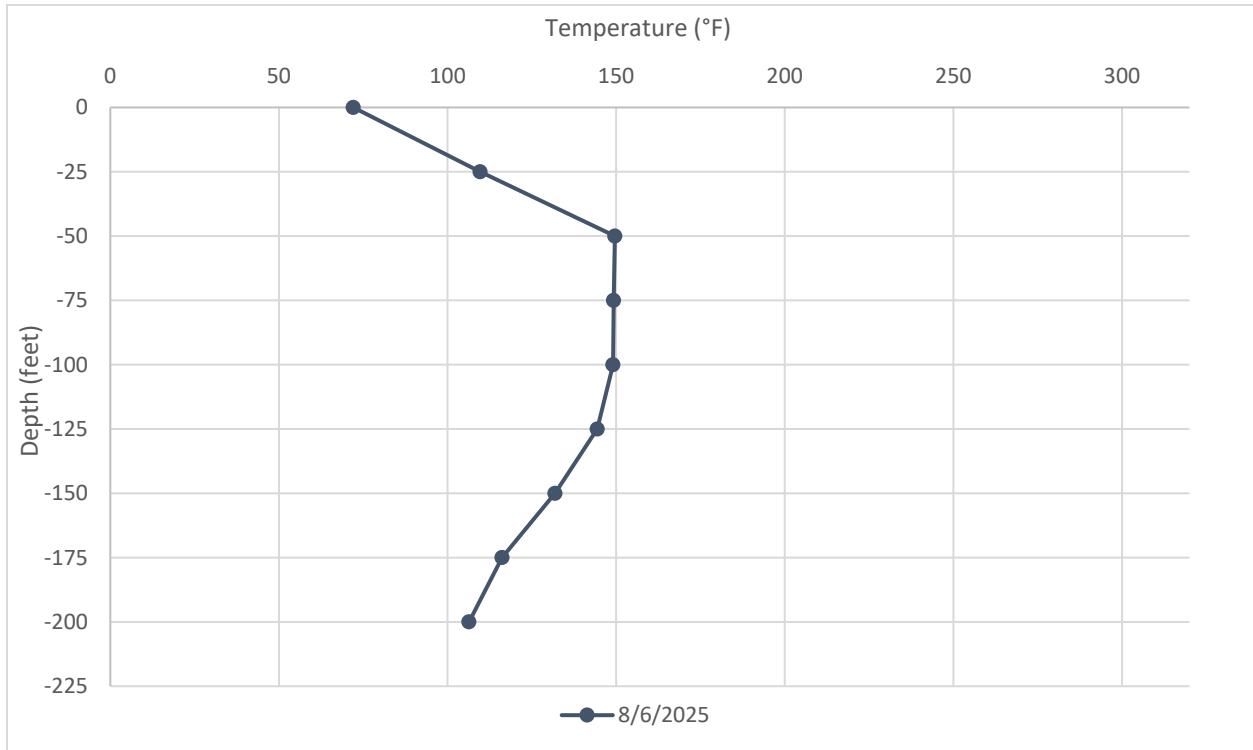


Figure B - 22 Average Temperatures Recorded by TP-9 on August 13, 2025

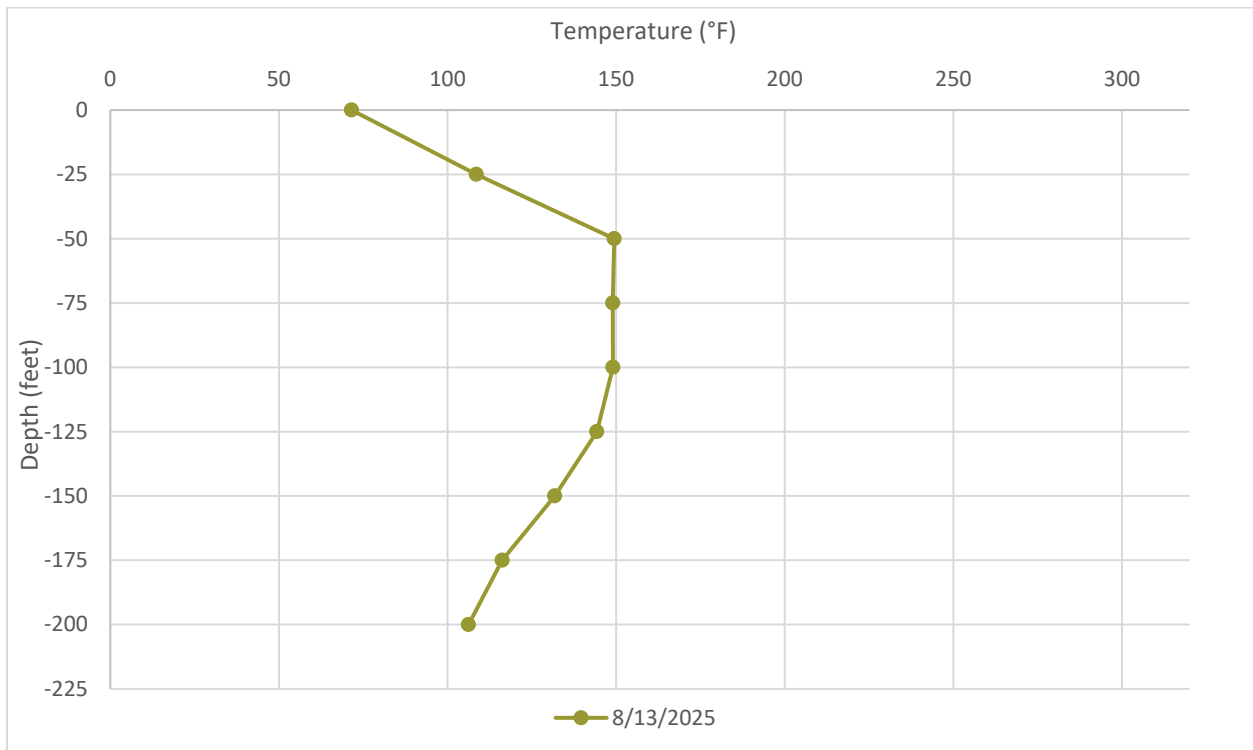


Figure B - 23 Average Temperatures Recorded by TP-9 on August 20, 2025

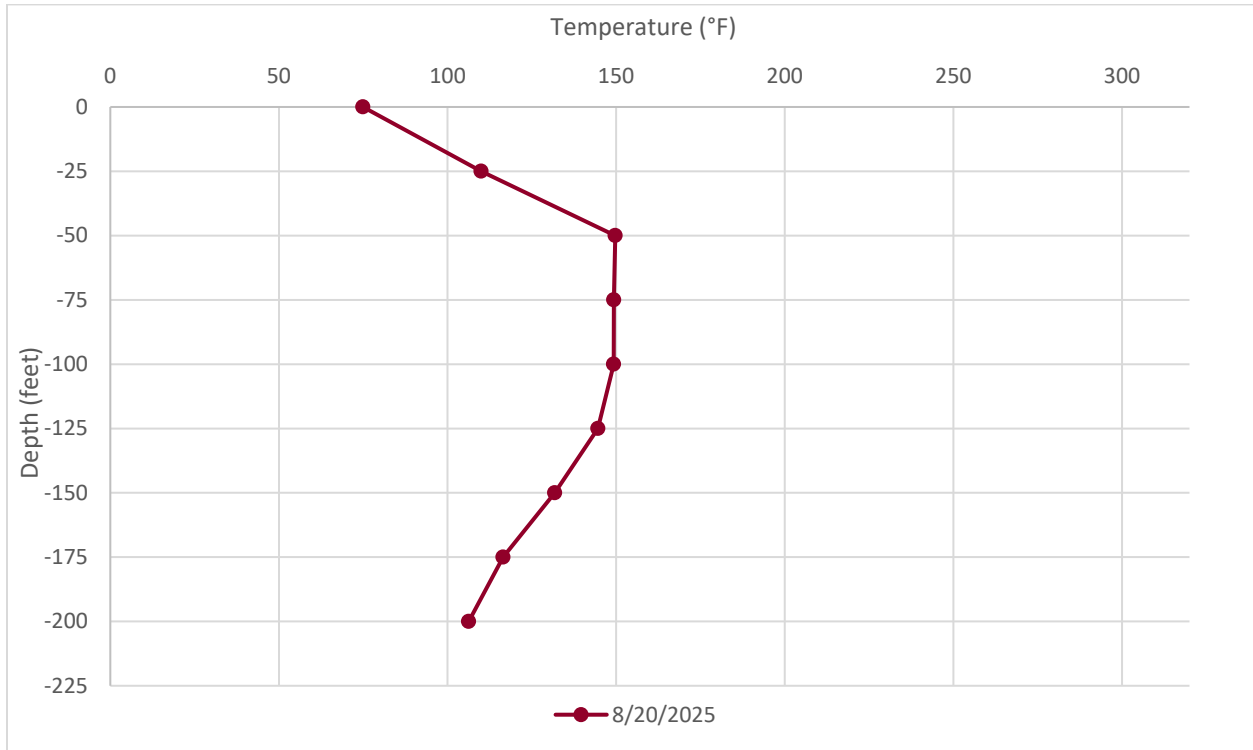
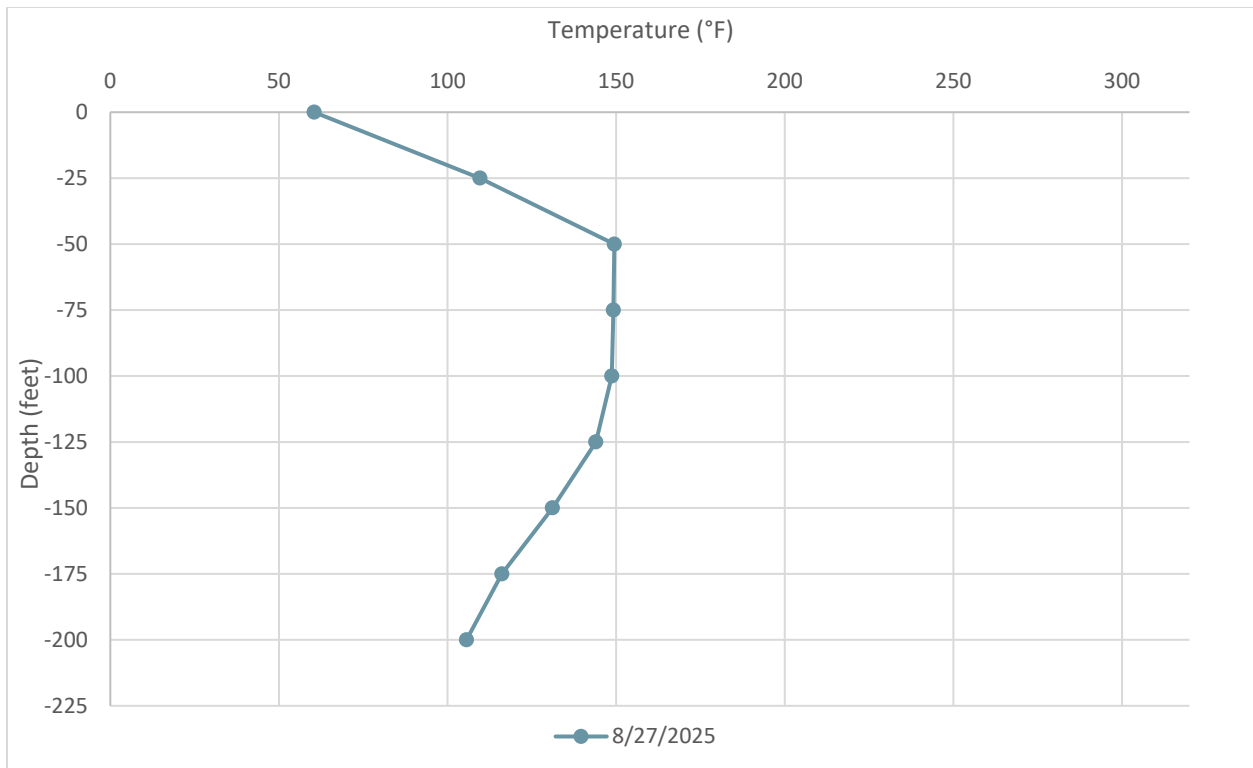


Figure B - 24 Average Temperatures Recorded by TP-9 on August 27, 2025





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 | September 2, 2025

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)
Aug 1	101.3	98.3	106.2
Aug 2	100.2	97.9	104.5
Aug 3	101.3	97.5	105.3
Aug 4	102.0	97.8	107.3
Aug 5	101.2	97.6	106.0
Aug 6	101.7	97.7	108.7
Aug 7	103.0	97.8	109.6
Aug 8	103.7	99.4	109.3
Aug 9	103.1	98.0	109.6
Aug 10	103.7	97.8	109.6
Aug 11	102.6	97.9	109.0
Aug 12	99.6	94.6	106.5
Aug 13	97.6	92.8	101.7
Aug 14	99.0	95.4	105.7
Aug 15	99.2	94.2	106.8
Aug 16	100.2	94.3	107.4
Aug 17	100.2	94.1	108.2
Aug 18	99.6	94.0	106.8
Aug 19	100.3	94.2	108.5
Aug 20	99.2	95.3	106.4
Aug 21	99.1	95.3	105.4
Aug 22	98.3	92.6	107.6
Aug 23	96.6	92.2	103.0
Aug 24	97.3	91.9	105.3
Aug 25	90.8	75.4	100.4
Aug 26	79.7	70.0	91.3
Aug 27	77.6	65.3	91.1
Aug 28	80.4	69.3	93.7
Aug 29	80.6	68.8	93.8
Aug 30	82.3	71.1	96.2
Summary	96.7	77.6	103.7

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 33B
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	76.4	69.1	94.6
Aug 2	72.6	65.6	90.1
Aug 3	71.5	64.7	83.7
Aug 4	74.5	62.2	88.8
Aug 5	75.5	64.5	90.4
Aug 6	77.8	64.3	99.0
Aug 7	79.0	63.7	100.2
Aug 8	80.8	63.9	101.2
Aug 9	78.8	63.3	100.6
Aug 10	82.6	63.6	105.3
Aug 11	79.3	68.3	100.1
Aug 12	79.0	68.8	97.9
Aug 13	76.0	71.0	87.3
Aug 14	80.9	70.5	102.3
Aug 15	83.1	68.7	103.2
Aug 16	84.8	68.0	104.9
Aug 17	84.9	67.2	105.9
Aug 18	84.2	68.5	102.9
Aug 19	86.7	70.4	109.7
Aug 20	80.5	70.2	99.3
Aug 21	80.9	70.6	96.8
Aug 22	81.7	68.1	107.5
Aug 23	75.4	69.8	96.6
Aug 24	77.2	67.3	98.4
Aug 25	73.3	61.5	88.8
Aug 26	69.6	54.8	87.4
Aug 27	69.0	51.2	91.4
Aug 28	72.5	54.7	95.3
Aug 29	72.5	53.7	93.6
Aug 30	74.9	57.7	96.1
Summary	77.9	69.0	86.7

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

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	77.4	70.8	89.8
Aug 2	73.9	68.4	84.2
Aug 3	73.1	67.0	83.3
Aug 4	76.2	65.4	92.4
Aug 5	76.2	67.3	89.2
Aug 6	78.4	67.1	98.0
Aug 7	79.3	66.7	98.0
Aug 8	80.5	66.7	99.7
Aug 9	79.2	66.1	102.7
Aug 10	82.0	66.2	102.0
Aug 11	80.0	70.3	95.5
Aug 12	79.3	70.8	95.0
Aug 13	76.6	72.7	86.6
Aug 14	81.2	72.9	99.5
Aug 15	83.5	71.0	101.2
Aug 16	84.7	70.5	104.1
Aug 17	83.1	69.8	102.0
Aug 18	84.2	70.9	102.0
Aug 19	86.6	71.9	112.1
Aug 20	80.4	72.6	97.2
Aug 21	81.5	73.3	95.2
Aug 22	82.3	71.4	106.0
Aug 23	77.5	72.8	95.2
Aug 24	78.0	70.2	94.1
Aug 25	74.5	65.0	85.2
Aug 26	71.7	60.3	85.2
Aug 27	71.1	57.6	88.4
Aug 28	73.9	60.3	92.7
Aug 29	73.7	59.7	89.7
Aug 30	76.5	63.3	95.6
Summary	78.6	71.1	86.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 38

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	110.6	108.9	113.2
Aug 2	109.2	107.2	111.6
Aug 3	108.5	107.1	109.6
Aug 4	108.4	106.9	110.8
Aug 5	108.0	106.2	111.2
Aug 6	108.6	106.0	112.8
Aug 7	109.0	105.6	112.9
Aug 8	109.9	107.7	113.4
Aug 9	110.0	107.1	114.2
Aug 10	110.5	107.1	115.2
Aug 11	110.2	108.4	113.5
Aug 12	110.3	107.9	114.4
Aug 13	110.0	107.9	111.7
Aug 14	110.7	109.2	114.3
Aug 15	110.6	108.4	114.6
Aug 16	110.9	107.8	114.7
Aug 17	110.9	108.3	114.5
Aug 18	111.5	108.7	115.4
Aug 19	112.1	109.1	116.4
Aug 20	111.1	109.3	114.0
Aug 21	111.5	109.4	115.4
Aug 22	111.7	109.3	116.4
Aug 23	110.7	107.9	114.5
Aug 24	110.9	108.3	114.5
Aug 25	109.9	107.5	112.3
Aug 26	109.3	106.7	112.7
Aug 27	108.9	105.1	113.2
Aug 28	109.9	106.6	114.6
Aug 29	110.1	107.1	113.6
Aug 30	111.2	108.2	115.5
Summary	110.2	108.0	112.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 42

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	121.3	120.7	122.4
Aug 2	121.2	120.3	122.9
Aug 3	121.1	120.2	122.2
Aug 4	121.0	120.2	122.1
Aug 5	120.9	120.0	122.1
Aug 6	120.9	119.9	122.7
Aug 7	120.7	119.6	122.5
Aug 8	120.8	119.5	122.3
Aug 9	120.5	119.5	122.0
Aug 10	120.6	119.4	122.5
Aug 11	120.6	119.6	122.4
Aug 12	120.5	119.5	121.9
Aug 13	120.1	119.0	121.0
Aug 14	120.4	119.6	122.1
Aug 15	120.4	119.3	121.8
Aug 16	120.2	119.0	121.7
Aug 17	120.0	118.9	121.6
Aug 18	120.0	118.8	121.2
Aug 19	120.2	119.0	121.9
Aug 20	119.7	119.0	121.5
Aug 21	119.7	118.8	121.0
Aug 22	119.8	118.8	121.6
Aug 23	119.5	118.4	121.3
Aug 24	119.5	118.5	121.0
Aug 25	119.0	118.1	120.5
Aug 26	118.8	117.7	120.5
Aug 27	118.4	116.9	120.2
Aug 28	119.0	117.8	120.6
Aug 29	119.1	118.1	120.6
Aug 30	119.3	118.1	121.0
Summary	120.1	118.4	121.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 47

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	85.1	80.0	94.0
Aug 2	80.4	75.7	88.4
Aug 3	79.3	73.4	85.3
Aug 4	80.8	73.7	92.5
Aug 5	79.7	72.5	90.1
Aug 6	81.1	72.7	93.5
Aug 7	82.2	72.0	94.7
Aug 8	84.0	73.6	97.3
Aug 9	84.2	73.7	98.7
Aug 10	86.6	74.1	102.0
Aug 11	84.3	78.7	98.6
Aug 12	82.5	74.5	97.4
Aug 13	81.5	76.2	92.4
Aug 14	85.5	78.6	99.3
Aug 15	85.9	76.2	101.9
Aug 16	86.7	74.7	102.6
Aug 17	86.4	74.4	102.7
Aug 18	86.7	75.4	101.1
Aug 19	88.3	76.9	105.0
Aug 20	84.3	77.4	95.0
Aug 21	85.7	78.2	97.0
Aug 22	85.8	76.4	103.3
Aug 23	81.4	75.8	93.0
Aug 24	81.5	73.9	94.7
Aug 25	77.5	66.1	89.8
Aug 26	72.6	60.7	90.1
Aug 27	70.9	56.8	88.6
Aug 28	73.6	60.3	92.1
Aug 29	74.5	59.7	92.9
Aug 30	77.2	64.6	96.1
Summary	81.9	70.9	88.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 48

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	74.5	67.5	92.1
Aug 2	70.7	64.3	85.0
Aug 3	69.7	62.2	79.3
Aug 4	71.9	59.6	87.9
Aug 5	72.7	62.8	87.0
Aug 6	74.4	62.8	91.0
Aug 7	74.6	61.8	91.6
Aug 8	76.1	61.2	92.5
Aug 9	76.1	60.9	96.9
Aug 10	78.9	60.5	100.4
Aug 11	77.0	65.6	97.1
Aug 12	76.4	66.8	94.4
Aug 13	73.8	70.3	85.9
Aug 14	79.4	69.3	100.9
Aug 15	80.5	67.1	100.5
Aug 16	82.1	66.1	102.5
Aug 17	80.3	65.3	100.2
Aug 18	80.7	66.5	99.1
Aug 19	82.7	68.1	104.2
Aug 20	77.3	68.1	91.7
Aug 21	79.6	68.9	93.1
Aug 22	79.1	66.0	102.5
Aug 23	73.8	68.3	91.9
Aug 24	74.5	66.2	90.1
Aug 25	69.5	57.9	84.9
Aug 26	65.8	51.8	83.5
Aug 27	64.2	48.4	85.8
Aug 28	67.7	51.9	87.5
Aug 29	67.1	50.1	87.9
Aug 30	71.3	54.7	93.2
Summary	74.8	64.2	82.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 49

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	98.6	71.0	171.8
Aug 2	70.3	64.3	81.4
Aug 3	68.4	62.8	76.5
Aug 4	92.3	59.9	170.8
Aug 5	105.8	62.7	170.2
Aug 6	113.2	73.1	172.8
Aug 7	113.7	77.0	172.6
Aug 8	111.4	74.4	171.7
Aug 9	83.2	69.7	101.0
Aug 10	83.5	67.2	109.1
Aug 11	125.7	72.5	171.8
Aug 12	140.7	105.0	173.9
Aug 13	143.2	84.7	174.5
Aug 14	157.8	90.8	167.9
Aug 15	97.2	66.9	170.7
Aug 16	95.3	65.9	143.7
Aug 17	150.8	139.9	161.3
Aug 18	140.1	101.1	172.1
Aug 19	122.8	86.7	172.7
Aug 20	127.6	71.3	163.7
Aug 21	138.5	83.6	173.1
Aug 22	106.9	71.2	172.0
Aug 23	80.7	72.5	101.1
Aug 24	75.5	66.1	91.3
Aug 25	109.4	58.4	172.3
Aug 26	117.3	82.2	174.1
Aug 27	119.5	58.2	174.2
Aug 28	114.4	82.5	174.6
Aug 29	108.3	56.4	173.6
Aug 30	76.4	62.1	95.0
Summary	109.6	68.4	157.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 50

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	87.2	76.9	121.3
Aug 2	73.4	66.9	83.7
Aug 3	70.3	65.0	78.6
Aug 4	81.5	61.8	124.1
Aug 5	87.2	67.8	125.0
Aug 6	89.1	71.1	123.3
Aug 7	89.9	71.6	120.5
Aug 8	86.5	69.9	119.6
Aug 9	79.4	68.2	96.2
Aug 10	80.5	66.7	96.9
Aug 11	96.4	70.8	122.4
Aug 12	100.6	82.4	121.9
Aug 13	102.9	75.7	119.7
Aug 14	109.4	81.7	116.3
Aug 15	87.6	69.7	117.2
Aug 16	83.9	67.2	99.7
Aug 17	92.9	83.0	104.7
Aug 18	93.6	79.6	114.8
Aug 19	90.9	74.5	118.3
Aug 20	96.9	73.0	111.5
Aug 21	99.2	77.0	117.0
Aug 22	85.6	70.8	116.2
Aug 23	76.6	71.7	90.6
Aug 24	75.7	68.5	90.3
Aug 25	81.1	60.4	114.9
Aug 26	80.0	63.3	113.8
Aug 27	80.4	53.6	111.7
Aug 28	78.0	58.5	119.3
Aug 29	78.1	57.1	114.3
Aug 30	74.1	60.5	91.4
Summary	86.3	70.3	109.4

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 51
Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	75.3	68.8	89.7
Aug 2	70.6	65.0	80.6
Aug 3	69.7	63.3	78.1
Aug 4	72.4	60.7	87.2
Aug 5	72.3	63.6	85.3
Aug 6	74.1	63.2	91.6
Aug 7	74.5	62.4	90.7
Aug 8	75.8	61.6	93.6
Aug 9	75.6	61.6	94.3
Aug 10	77.8	61.1	100.7
Aug 11	77.0	66.0	92.8
Aug 12	76.7	66.7	96.3
Aug 13	73.8	70.6	84.1
Aug 14	78.2	69.5	100.0
Aug 15	79.4	66.7	99.6
Aug 16	80.5	65.6	102.3
Aug 17	79.1	64.9	98.1
Aug 18	79.8	66.0	99.3
Aug 19	81.8	67.9	105.2
Aug 20	76.7	67.7	91.9
Aug 21	78.5	68.8	95.1
Aug 22	78.8	66.3	102.4
Aug 23	73.2	68.2	88.3
Aug 24	73.5	65.8	90.1
Aug 25	68.3	57.3	82.0
Aug 26	64.5	51.3	80.7
Aug 27	63.1	47.8	85.4
Aug 28	66.4	51.3	86.5
Aug 29	66.4	49.6	86.4
Aug 30	69.9	54.4	92.3
Summary	74.1	63.1	81.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 52

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	157.8	156.9	159.2
Aug 2	134.1	68.2	171.0
Aug 3	157.7	157.1	158.7
Aug 4	158.5	157.0	160.4
Aug 5	158.1	128.5	160.4
Aug 6	160.6	158.8	162.4
Aug 7	160.3	158.9	161.7
Aug 8	160.3	159.0	161.6
Aug 9	160.2	159.0	162.1
Aug 10	160.4	158.6	162.1
Aug 11	160.1	159.1	161.6
Aug 12	160.1	157.6	161.6
Aug 13	158.1	156.5	160.2
Aug 14	158.3	157.3	159.6
Aug 15	159.5	157.7	161.7
Aug 16	156.8	64.3	163.6
Aug 17	160.8	158.8	163.1
Aug 18	161.2	159.8	162.9
Aug 19	161.7	159.6	164.0
Aug 20	161.0	160.2	162.4
Aug 21	160.6	159.7	162.0
Aug 22	160.3	159.1	162.4
Aug 23	159.3	156.9	160.8
Aug 24	155.7	65.3	161.1
Aug 25	159.5	158.3	160.4
Aug 26	158.6	157.4	160.2
Aug 27	159.0	157.5	160.7
Aug 28	157.7	156.1	159.5
Aug 29	157.3	155.6	159.2
Aug 30	157.4	155.7	159.2
Summary	158.4	134.1	161.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 53

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	125.9	119.9	132.6
Aug 2	121.3	111.9	127.5
Aug 3	116.5	106.2	122.4
Aug 4	122.3	114.2	136.0
Aug 5	122.5	110.8	132.5
Aug 6	126.9	118.4	140.5
Aug 7	127.1	115.9	139.8
Aug 8	131.1	124.9	142.4
Aug 9	132.3	123.5	145.0
Aug 10	134.9	124.0	148.7
Aug 11	134.6	128.5	145.2
Aug 12	135.1	123.7	145.9
Aug 13	129.8	121.0	134.8
Aug 14	132.5	127.5	144.0
Aug 15	135.2	127.1	147.9
Aug 16	137.9	129.5	150.3
Aug 17	138.8	130.1	149.0
Aug 18	140.0	133.1	150.6
Aug 19	140.9	133.9	151.7
Aug 20	140.0	134.7	147.7
Aug 21	139.6	135.4	147.7
Aug 22	138.4	129.9	152.2
Aug 23	135.4	124.8	142.4
Aug 24	136.4	123.1	148.5
Aug 25	135.3	130.2	142.5
Aug 26	133.3	125.4	143.8
Aug 27	132.1	123.8	145.0
Aug 28	134.8	125.2	147.8
Aug 29	131.3	125.9	140.4
Aug 30	131.4	121.9	144.2
Summary	132.4	116.5	140.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 54

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	80.2	73.1	91.9
Aug 2	74.4	68.8	84.0
Aug 3	73.8	67.3	82.1
Aug 4	75.8	66.1	89.6
Aug 5	75.3	66.9	88.5
Aug 6	77.4	66.6	93.8
Aug 7	78.1	66.7	94.6
Aug 8	79.7	67.3	96.7
Aug 9	79.6	66.7	98.5
Aug 10	82.6	67.6	103.6
Aug 11	81.5	71.6	96.8
Aug 12	81.8	71.8	100.5
Aug 13	79.3	74.2	89.7
Aug 14	85.2	77.1	103.8
Aug 15	84.4	73.8	102.7
Aug 16	83.3	69.3	104.6
Aug 17	81.3	67.9	100.4
Aug 18	82.1	68.7	101.5
Aug 19	83.9	70.2	105.4
Aug 20	78.8	70.1	94.4
Aug 21	81.2	71.5	99.1
Aug 22	80.8	69.3	103.8
Aug 23	75.8	70.3	91.6
Aug 24	75.8	68.1	91.4
Aug 25	70.9	60.2	84.2
Aug 26	67.1	54.4	84.8
Aug 27	66.1	51.4	86.8
Aug 28	69.0	54.6	87.3
Aug 29	69.0	53.1	88.4
Aug 30	72.8	58.3	94.6
Summary	77.6	66.1	85.2

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 55
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	139.8	127.8	145.3
Aug 2	137.0	129.1	141.3
Aug 3	137.7	130.4	139.7
Aug 4	138.5	136.0	142.9
Aug 5	138.1	134.6	141.9
Aug 6	135.0	55.6	144.7
Aug 7	137.7	132.3	144.9
Aug 8	138.8	135.2	144.4
Aug 9	138.1	133.2	145.2
Aug 10	139.5	135.3	146.6
Aug 11	139.9	136.8	146.0
Aug 12	141.4	132.7	145.7
Aug 13	137.0	109.1	142.7
Aug 14	139.9	128.8	146.7
Aug 15	142.0	137.6	147.9
Aug 16	143.8	139.5	149.7
Aug 17	144.2	140.5	149.7
Aug 18	144.5	141.0	148.4
Aug 19	146.2	142.0	153.5
Aug 20	146.0	143.6	150.4
Aug 21	145.6	138.7	150.2
Aug 22	145.8	142.3	153.6
Aug 23	143.4	116.9	150.2
Aug 24	143.9	124.9	150.5
Aug 25	142.6	132.7	145.6
Aug 26	142.1	136.8	147.4
Aug 27	142.4	135.9	149.3
Aug 28	145.6	142.0	151.6
Aug 29	146.3	142.4	150.9
Aug 30	147.2	144.7	153.0
Summary	141.7	135.0	147.2

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 56

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	180.7	180.1	181.3
Aug 2	180.2	179.3	180.7
Aug 3	179.9	179.1	180.6
Aug 4	180.1	178.9	181.0
Aug 5	180.2	179.6	180.8
Aug 6	180.2	179.7	181.1
Aug 7	180.0	179.3	180.8
Aug 8	180.0	179.4	181.0
Aug 9	179.8	179.0	180.6
Aug 10	179.7	179.0	180.8
Aug 11	179.6	179.1	180.3
Aug 12	179.6	178.5	180.2
Aug 13	178.8	177.8	179.7
Aug 14	178.4	177.7	179.3
Aug 15	178.5	177.7	179.7
Aug 16	178.8	178.2	179.8
Aug 17	178.8	178.0	179.7
Aug 18	178.7	178.1	179.4
Aug 19	178.7	178.1	179.9
Aug 20	178.4	178.0	179.2
Aug 21	177.5	176.4	178.6
Aug 22	176.6	175.6	178.0
Aug 23	176.3	175.4	176.9
Aug 24	176.3	175.4	177.4
Aug 25	175.8	175.2	176.6
Aug 26	175.6	174.5	176.7
Aug 27	175.6	174.2	177.0
Aug 28	176.0	174.9	177.1
Aug 29	175.9	174.9	176.8
Aug 30	175.9	175.3	176.9
Summary	178.3	175.6	180.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 57

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	90.5	84.0	104.1
Aug 2	84.5	77.0	92.9
Aug 3	83.4	74.0	90.9
Aug 4	86.4	77.1	102.1
Aug 5	85.5	76.4	98.0
Aug 6	87.6	76.9	104.4
Aug 7	87.5	75.3	104.0
Aug 8	88.9	76.7	105.0
Aug 9	88.3	76.2	108.5
Aug 10	91.0	76.4	109.8
Aug 11	91.1	79.8	109.2
Aug 12	93.3	84.2	111.7
Aug 13	89.4	80.4	100.4
Aug 14	95.7	88.1	112.9
Aug 15	96.4	85.7	114.6
Aug 16	97.6	83.3	118.5
Aug 17	95.8	83.0	114.6
Aug 18	96.2	82.4	115.9
Aug 19	96.8	84.2	118.8
Aug 20	92.8	85.3	109.0
Aug 21	94.1	86.5	108.1
Aug 22	94.3	83.8	116.7
Aug 23	89.8	82.9	105.4
Aug 24	90.0	80.1	107.3
Aug 25	85.8	74.8	98.8
Aug 26	81.9	69.0	100.1
Aug 27	81.0	67.1	101.0
Aug 28	84.2	69.5	103.2
Aug 29	84.1	68.7	103.6
Aug 30	86.9	73.3	107.1
Summary	89.7	81.0	97.6

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 58
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	105.5	104.7	106.6
Aug 2	105.6	104.9	106.5
Aug 3	105.5	105.0	106.3
Aug 4	105.6	104.7	106.9
Aug 5	105.5	104.6	106.9
Aug 6	105.5	104.3	107.4
Aug 7	105.8	104.4	107.6
Aug 8	106.1	104.8	107.6
Aug 9	106.2	105.0	108.0
Aug 10	106.6	105.3	108.4
Aug 11	106.6	105.6	108.2
Aug 12	106.8	105.7	108.2
Aug 13	106.7	105.8	107.4
Aug 14	107.1	106.2	108.7
Aug 15	107.2	106.3	109.0
Aug 16	107.3	105.9	109.2
Aug 17	107.0	106.0	108.8
Aug 18	107.1	105.7	108.9
Aug 19	107.3	106.0	109.2
Aug 20	106.8	106.0	108.2
Aug 21	107.2	106.2	109.0
Aug 22	107.4	106.4	109.4
Aug 23	106.9	105.7	108.6
Aug 24	106.9	105.9	108.2
Aug 25	106.3	105.3	107.5
Aug 26	105.8	104.5	107.6
Aug 27	105.3	103.8	107.4
Aug 28	105.7	104.1	107.7
Aug 29	105.8	104.4	107.8
Aug 30	106.3	105.0	108.5
Summary	106.4	105.3	107.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 59

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	116.9	116.0	118.2
Aug 2	115.9	115.1	116.7
Aug 3	115.6	115.0	116.5
Aug 4	115.9	115.2	117.0
Aug 5	115.9	115.1	117.7
Aug 6	116.1	115.3	117.2
Aug 7	116.5	115.3	118.3
Aug 8	116.8	115.6	119.5
Aug 9	116.7	115.7	118.3
Aug 10	116.9	115.7	118.2
Aug 11	116.7	116.0	117.7
Aug 12	113.4	33.3	118.2
Aug 13	117.3	116.5	118.2
Aug 14	118.3	117.2	120.0
Aug 15	118.1	116.5	120.4
Aug 16	114.8	46.3	119.2
Aug 17	117.8	116.6	119.1
Aug 18	118.1	116.9	119.6
Aug 19	118.3	117.2	119.8
Aug 20	117.9	117.1	119.1
Aug 21	118.2	117.4	119.4
Aug 22	118.1	117.1	120.3
Aug 23	117.1	116.1	118.0
Aug 24	117.1	116.1	118.4
Aug 25	117.2	116.0	118.9
Aug 26	116.7	115.4	118.2
Aug 27	116.3	114.7	118.4
Aug 28	116.6	115.2	119.2
Aug 29	116.5	115.2	118.1
Aug 30	116.7	115.6	118.5
Summary	116.8	113.4	118.3

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 60
Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	143.4	139.1	158.0
Aug 2	124.5	72.8	153.9
Aug 3	137.6	135.9	138.9
Aug 4	149.1	135.4	173.1
Aug 5	143.5	137.8	168.3
Aug 6	149.3	135.9	171.5
Aug 7	151.2	137.5	173.2
Aug 8	140.7	136.7	145.2
Aug 9	136.8	134.0	140.5
Aug 10	135.8	132.7	140.2
Aug 11	135.0	132.5	138.2
Aug 12	133.4	129.2	140.4
Aug 13	126.7	123.8	130.2
Aug 14	149.9	124.7	174.1
Aug 15	138.8	134.5	145.5
Aug 16	134.4	131.0	138.1
Aug 17	131.4	127.6	135.9
Aug 18	130.0	126.5	134.4
Aug 19	144.0	125.3	174.3
Aug 20	152.0	126.7	177.0
Aug 21	138.0	132.7	144.3
Aug 22	134.4	129.6	138.4
Aug 23	129.2	123.9	132.9
Aug 24	127.4	122.4	130.9
Aug 25	126.1	122.9	130.6
Aug 26	142.8	120.6	173.6
Aug 27	130.0	124.1	134.0
Aug 28	136.6	123.3	173.0
Aug 29	134.9	126.9	161.4
Aug 30	127.9	123.8	132.6
Summary	137.2	124.5	152.0

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 61
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	158.7	157.7	160.1
Aug 2	158.7	157.7	159.8
Aug 3	159.7	158.6	160.7
Aug 4	161.3	159.5	163.4
Aug 5	157.4	152.3	162.1
Aug 6	158.7	150.9	163.8
Aug 7	162.9	160.9	164.4
Aug 8	163.5	162.8	164.7
Aug 9	163.5	162.7	164.9
Aug 10	163.6	162.7	164.8
Aug 11	164.2	163.1	165.9
Aug 12	164.3	163.1	165.1
Aug 13	162.7	161.3	164.0
Aug 14	162.5	161.8	164.1
Aug 15	162.6	161.6	163.8
Aug 16	163.0	162.2	164.3
Aug 17	163.2	162.3	164.6
Aug 18	163.5	162.5	164.4
Aug 19	163.7	162.7	165.2
Aug 20	164.6	163.4	166.3
Aug 21	164.7	163.9	165.3
Aug 22	164.0	163.4	165.3
Aug 23	163.6	162.1	164.7
Aug 24	163.4	162.4	164.2
Aug 25	162.9	162.2	163.6
Aug 26	162.4	161.6	163.2
Aug 27	160.6	155.6	164.3
Aug 28	158.7	154.5	163.8
Aug 29	162.6	161.4	164.1
Aug 30	163.0	162.1	164.0
Summary	162.3	157.4	164.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 62

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	113.0	111.6	114.8
Aug 2	111.9	110.8	113.6
Aug 3	111.7	110.5	112.9
Aug 4	111.5	110.4	113.2
Aug 5	111.2	110.0	113.1
Aug 6	111.4	110.2	113.9
Aug 7	111.5	109.8	114.2
Aug 8	111.7	110.0	114.3
Aug 9	111.4	109.9	114.0
Aug 10	111.5	109.8	113.9
Aug 11	111.4	110.2	113.4
Aug 12	111.4	109.4	114.0
Aug 13	111.1	109.5	112.8
Aug 14	112.0	111.0	114.2
Aug 15	112.1	110.7	114.7
Aug 16	112.3	110.1	114.7
Aug 17	112.3	110.8	114.9
Aug 18	112.3	110.8	114.8
Aug 19	112.8	111.0	115.8
Aug 20	112.4	111.3	115.2
Aug 21	112.5	111.2	114.5
Aug 22	112.4	110.9	115.7
Aug 23	111.9	109.6	114.2
Aug 24	112.1	109.9	114.3
Aug 25	103.2	82.3	112.7
Aug 26	85.4	76.9	96.5
Aug 27	84.0	73.4	97.5
Aug 28	98.0	77.6	119.7
Aug 29	113.8	112.8	115.1
Aug 30	113.0	111.8	114.8
Summary	109.4	84.0	113.8

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 63
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	73.9	67.5	87.7
Aug 2	70.2	64.2	85.4
Aug 3	69.0	62.4	79.8
Aug 4	72.0	58.7	91.8
Aug 5	72.5	62.2	86.0
Aug 6	74.0	61.5	90.6
Aug 7	74.6	60.9	91.5
Aug 8	75.5	60.5	93.2
Aug 9	74.4	59.9	93.1
Aug 10	76.8	59.9	96.5
Aug 11	76.2	65.0	92.6
Aug 12	75.4	66.4	91.4
Aug 13	73.3	70.1	82.3
Aug 14	77.9	69.1	98.7
Aug 15	79.4	66.8	99.8
Aug 16	80.4	65.7	103.4
Aug 17	78.6	64.8	100.1
Aug 18	79.3	66.2	97.3
Aug 19	81.1	67.1	101.0
Aug 20	76.6	67.2	90.5
Aug 21	77.4	68.5	90.4
Aug 22	77.4	65.0	98.8
Aug 23	73.0	67.6	90.6
Aug 24	73.3	66.1	89.8
Aug 25	68.0	57.4	80.6
Aug 26	64.3	51.6	83.5
Aug 27	62.4	47.8	84.0
Aug 28	66.0	50.8	86.0
Aug 29	65.8	49.6	86.8
Aug 30	69.0	54.4	90.5
Summary	73.6	62.4	81.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 64

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	74.4	67.4	91.2
Aug 2	70.5	64.2	83.8
Aug 3	69.5	62.3	82.4
Aug 4	72.4	59.0	89.9
Aug 5	72.9	62.2	87.9
Aug 6	74.8	61.7	95.0
Aug 7	75.2	61.2	95.9
Aug 8	75.8	60.5	96.4
Aug 9	75.1	59.9	97.0
Aug 10	79.2	59.9	101.7
Aug 11	76.7	65.2	96.7
Aug 12	76.1	66.3	93.5
Aug 13	73.7	70.1	86.7
Aug 14	78.2	69.1	99.9
Aug 15	79.9	66.5	104.6
Aug 16	81.1	65.3	104.6
Aug 17	79.2	64.5	100.1
Aug 18	79.5	66.0	101.8
Aug 19	82.2	67.5	106.1
Aug 20	76.9	67.2	95.4
Aug 21	78.6	68.3	93.8
Aug 22	78.8	65.5	106.2
Aug 23	73.6	67.7	96.7
Aug 24	73.8	65.6	92.3
Aug 25	69.1	57.1	85.8
Aug 26	64.6	50.9	86.1
Aug 27	64.0	48.0	89.9
Aug 28	67.3	51.1	90.0
Aug 29	66.9	49.5	87.9
Aug 30	70.9	54.4	93.5
Summary	74.4	64.0	82.2

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 65

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	140.1	138.9	141.2
Aug 2	137.2	135.6	138.5
Aug 3	136.6	135.8	137.2
Aug 4	138.7	135.7	141.1
Aug 5	140.4	139.2	141.9
Aug 6	140.8	139.7	142.8
Aug 7	141.2	140.1	143.1
Aug 8	141.5	140.4	143.4
Aug 9	141.4	140.2	143.1
Aug 10	141.9	140.5	144.2
Aug 11	141.9	141.0	143.5
Aug 12	141.8	139.7	143.9
Aug 13	141.1	139.3	142.3
Aug 14	142.1	141.2	144.5
Aug 15	142.3	140.9	144.7
Aug 16	142.4	140.8	144.9
Aug 17	138.2	135.2	141.4
Aug 18	139.6	134.2	143.5
Aug 19	142.2	139.1	145.7
Aug 20	136.6	134.4	139.0
Aug 21	137.8	132.8	142.2
Aug 22	141.1	138.5	144.4
Aug 23	141.1	136.8	145.1
Aug 24	141.4	139.0	143.6
Aug 25	141.9	139.9	144.8
Aug 26	141.2	140.1	142.8
Aug 27	140.9	139.3	142.8
Aug 28	141.1	139.4	142.9
Aug 29	141.1	139.8	142.9
Aug 30	141.4	139.7	143.3
Summary	140.6	136.6	142.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 66

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	169.1	166.2	170.7
Aug 2	169.0	167.2	170.2
Aug 3	168.3	166.9	169.3
Aug 4	169.4	168.5	170.7
Aug 5	170.0	168.1	171.2
Aug 6	171.0	169.5	172.7
Aug 7	170.9	169.3	172.5
Aug 8	171.4	170.3	172.9
Aug 9	171.5	169.8	173.6
Aug 10	172.0	170.2	174.3
Aug 11	172.3	170.5	174.3
Aug 12	172.8	171.2	174.3
Aug 13	172.1	167.4	173.8
Aug 14	172.1	168.0	173.6
Aug 15	172.3	170.2	174.0
Aug 16	173.0	171.2	175.0
Aug 17	173.3	172.1	174.7
Aug 18	173.6	172.4	175.5
Aug 19	174.7	172.7	177.4
Aug 20	174.7	174.1	175.6
Aug 21	173.7	155.6	176.4
Aug 22	174.2	173.0	176.0
Aug 23	173.3	166.1	174.8
Aug 24	173.6	170.1	175.5
Aug 25	172.9	171.7	174.3
Aug 26	172.2	170.9	173.9
Aug 27	172.1	169.8	174.8
Aug 28	173.0	171.5	174.9
Aug 29	173.3	171.5	175.2
Aug 30	173.6	172.1	175.7
Summary	172.2	168.3	174.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 67

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	152.4	148.5	155.4
Aug 2	151.2	146.2	154.2
Aug 3	150.2	145.9	152.4
Aug 4	153.9	149.2	159.6
Aug 5	153.6	150.4	157.6
Aug 6	154.3	151.0	158.6
Aug 7	155.0	149.8	159.5
Aug 8	157.7	154.2	161.2
Aug 9	158.5	155.3	163.0
Aug 10	159.4	155.6	163.9
Aug 11	159.3	157.1	163.8
Aug 12	161.0	158.1	164.4
Aug 13	160.0	155.9	162.3
Aug 14	160.8	159.0	164.6
Aug 15	160.8	158.2	164.9
Aug 16	162.0	158.8	165.6
Aug 17	162.5	159.9	166.1
Aug 18	162.6	160.0	165.6
Aug 19	163.2	160.4	168.6
Aug 20	163.1	161.1	165.7
Aug 21	162.9	159.2	165.8
Aug 22	162.4	158.6	167.5
Aug 23	161.3	153.6	163.8
Aug 24	162.3	158.1	165.6
Aug 25	160.3	158.4	161.9
Aug 26	158.7	155.8	163.2
Aug 27	158.2	126.9	164.3
Aug 28	162.3	158.2	166.9
Aug 29	163.7	160.0	167.4
Aug 30	164.8	162.0	168.6
Summary	159.3	150.2	164.8

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 68
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	138.7	136.5	140.1
Aug 2	118.6	77.0	147.0
Aug 3	137.7	136.8	138.8
Aug 4	137.3	135.5	138.7
Aug 5	137.2	131.5	138.9
Aug 6	137.0	134.8	139.0
Aug 7	137.6	135.5	139.7
Aug 8	139.0	137.1	140.5
Aug 9	139.1	137.7	140.9
Aug 10	139.3	137.8	141.0
Aug 11	139.2	138.1	141.3
Aug 12	139.6	138.5	140.7
Aug 13	138.9	137.4	140.0
Aug 14	138.6	137.8	139.5
Aug 15	138.4	137.4	140.1
Aug 16	138.9	137.7	140.2
Aug 17	139.3	137.9	141.2
Aug 18	139.6	137.7	141.1
Aug 19	139.7	137.6	142.1
Aug 20	139.6	138.6	141.2
Aug 21	139.6	138.3	141.2
Aug 22	139.5	138.0	141.4
Aug 23	138.9	136.9	139.8
Aug 24	138.9	137.6	140.0
Aug 25	138.3	137.2	139.3
Aug 26	138.2	136.8	139.7
Aug 27	138.2	135.8	140.1
Aug 28	139.2	137.8	140.9
Aug 29	139.2	137.8	140.3
Aug 30	139.0	137.7	140.5
Summary	138.1	118.6	139.7

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 69
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	87.7	82.7	98.4
Aug 2	83.8	78.8	92.9
Aug 3	82.7	76.5	92.0
Aug 4	84.1	74.9	97.1
Aug 5	82.9	75.5	95.7
Aug 6	84.0	75.2	99.4
Aug 7	84.4	73.9	99.6
Aug 8	85.2	74.4	99.9
Aug 9	85.5	73.7	101.1
Aug 10	87.0	73.8	103.8
Aug 11	86.6	78.4	100.1
Aug 12	86.8	79.6	101.5
Aug 13	84.4	80.7	89.8
Aug 14	88.4	81.3	104.0
Aug 15	90.0	80.3	107.2
Aug 16	89.9	78.9	107.0
Aug 17	89.7	78.7	106.7
Aug 18	89.7	80.1	106.0
Aug 19	90.3	80.1	107.0
Aug 20	87.4	80.6	100.1
Aug 21	88.0	81.4	101.2
Aug 22	88.5	78.4	107.0
Aug 23	84.1	80.3	93.8
Aug 24	85.3	78.4	99.3
Aug 25	82.9	73.5	96.9
Aug 26	80.0	69.4	93.9
Aug 27	78.4	64.0	96.5
Aug 28	80.7	68.4	98.7
Aug 29	80.7	67.6	97.2
Aug 30	83.0	70.9	102.5
Summary	85.4	78.4	90.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 70

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	76.5	71.5	89.0
Aug 2	73.6	69.0	82.6
Aug 3	72.6	67.4	82.5
Aug 4	74.8	64.8	88.8
Aug 5	74.7	66.6	86.8
Aug 6	76.9	65.7	94.1
Aug 7	77.6	65.7	95.9
Aug 8	77.4	65.4	94.7
Aug 9	76.9	64.5	96.3
Aug 10	78.7	64.6	98.8
Aug 11	77.7	68.5	97.2
Aug 12	77.0	68.7	94.8
Aug 13	74.6	71.6	82.0
Aug 14	79.1	71.0	97.4
Aug 15	81.4	69.1	102.4
Aug 16	81.3	67.9	102.5
Aug 17	80.4	67.4	102.7
Aug 18	79.8	68.5	100.9
Aug 19	81.6	69.1	100.7
Aug 20	78.8	69.6	96.5
Aug 21	79.5	70.9	95.5
Aug 22	79.0	67.3	101.1
Aug 23	74.7	69.7	89.7
Aug 24	75.3	68.1	90.6
Aug 25	70.8	60.4	87.3
Aug 26	66.8	53.9	85.4
Aug 27	65.2	49.8	87.4
Aug 28	68.2	52.6	90.9
Aug 29	67.6	51.8	89.6
Aug 30	70.5	55.7	91.4
Summary	75.6	65.2	81.6

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 71
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	139.2	138.4	140.0
Aug 2	139.3	138.8	140.0
Aug 3	139.4	138.6	140.0
Aug 4	139.6	138.8	140.3
Aug 5	139.4	138.3	140.6
Aug 6	139.4	138.5	141.1
Aug 7	139.5	138.6	141.0
Aug 8	140.0	139.2	140.8
Aug 9	140.1	139.0	141.1
Aug 10	140.4	139.4	141.6
Aug 11	140.3	139.3	141.3
Aug 12	140.5	139.4	141.2
Aug 13	140.0	138.5	140.6
Aug 14	140.5	140.1	141.2
Aug 15	140.7	140.1	141.6
Aug 16	140.8	140.1	141.8
Aug 17	140.8	140.2	141.8
Aug 18	140.8	140.2	141.6
Aug 19	141.0	140.2	142.1
Aug 20	140.7	140.1	141.5
Aug 21	140.6	140.1	141.3
Aug 22	140.7	139.5	141.8
Aug 23	140.4	138.8	141.0
Aug 24	140.6	139.4	141.9
Aug 25	140.6	140.1	141.1
Aug 26	140.4	139.9	141.1
Aug 27	140.3	139.6	141.2
Aug 28	140.6	139.9	141.4
Aug 29	140.6	140.1	141.4
Aug 30	140.8	140.0	141.8
Summary	140.3	139.2	141.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 72

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	135.8	134.2	137.5
Aug 2	135.8	134.4	137.6
Aug 3	135.8	134.4	137.3
Aug 4	135.5	134.3	137.6
Aug 5	135.1	133.5	137.1
Aug 6	135.2	133.6	138.6
Aug 7	135.6	133.5	139.2
Aug 8	136.1	134.3	138.8
Aug 9	136.1	134.3	139.0
Aug 10	136.3	134.3	139.0
Aug 11	136.3	134.9	139.0
Aug 12	136.6	134.5	138.5
Aug 13	135.5	130.8	136.8
Aug 14	136.2	134.9	138.3
Aug 15	136.5	135.0	138.7
Aug 16	136.8	134.9	138.9
Aug 17	137.1	135.8	139.1
Aug 18	136.9	135.9	138.5
Aug 19	137.4	135.4	140.1
Aug 20	137.0	135.5	139.4
Aug 21	136.7	135.0	138.5
Aug 22	136.6	135.2	139.9
Aug 23	136.0	131.6	138.5
Aug 24	136.4	133.2	138.8
Aug 25	135.8	134.9	137.1
Aug 26	135.6	134.2	137.3
Aug 27	135.4	133.3	137.7
Aug 28	136.5	134.8	139.1
Aug 29	136.5	135.0	138.2
Aug 30	136.8	135.5	138.8
Summary	136.2	135.1	137.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 73

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	110.7	110.2	111.7
Aug 2	111.4	110.8	112.1
Aug 3	112.2	111.4	113.0
Aug 4	113.1	112.3	114.0
Aug 5	113.7	113.0	114.6
Aug 6	114.5	113.7	115.8
Aug 7	115.1	114.2	116.4
Aug 8	115.5	114.7	116.8
Aug 9	115.9	115.0	117.1
Aug 10	116.4	115.5	117.5
Aug 11	116.4	115.8	117.4
Aug 12	116.0	115.5	116.9
Aug 13	115.4	115.0	115.7
Aug 14	115.2	114.6	116.1
Aug 15	115.7	114.8	116.8
Aug 16	116.2	115.3	117.4
Aug 17	116.4	115.6	117.6
Aug 18	116.5	115.8	117.4
Aug 19	116.6	115.8	117.9
Aug 20	116.3	115.8	117.4
Aug 21	116.1	115.7	116.7
Aug 22	116.1	115.4	117.5
Aug 23	116.0	115.3	117.4
Aug 24	116.0	115.3	116.9
Aug 25	115.0	113.5	116.1
Aug 26	113.8	113.1	115.0
Aug 27	112.0	76.6	115.3
Aug 28	113.7	112.9	115.3
Aug 29	113.7	112.8	115.0
Aug 30	113.7	112.6	115.4
Summary	114.8	110.7	116.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 74

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	123.6	121.7	125.1
Aug 2	123.0	121.9	124.6
Aug 3	124.0	121.3	125.1
Aug 4	123.9	122.7	125.8
Aug 5	123.2	120.7	125.2
Aug 6	123.6	121.3	127.4
Aug 7	124.2	122.0	128.1
Aug 8	125.5	123.3	128.5
Aug 9	125.0	123.2	127.6
Aug 10	125.2	122.9	128.6
Aug 11	125.5	123.2	128.3
Aug 12	126.0	123.0	128.2
Aug 13	125.1	121.8	126.9
Aug 14	125.3	124.0	126.9
Aug 15	124.8	123.3	127.3
Aug 16	125.7	123.8	127.7
Aug 17	126.0	124.2	128.3
Aug 18	125.7	124.2	127.6
Aug 19	126.0	124.1	128.9
Aug 20	126.1	124.4	128.7
Aug 21	125.6	123.7	127.1
Aug 22	125.0	122.9	128.1
Aug 23	124.4	121.6	126.2
Aug 24	125.0	121.9	127.3
Aug 25	123.8	122.0	124.7
Aug 26	123.4	121.9	125.1
Aug 27	123.4	121.3	125.8
Aug 28	124.9	122.6	127.5
Aug 29	125.2	123.4	127.8
Aug 30	125.3	123.6	127.3
Summary	124.8	123.0	126.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 75

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	125.5	124.8	126.2
Aug 2	125.3	124.9	125.9
Aug 3	125.4	124.6	125.8
Aug 4	125.6	125.0	126.3
Aug 5	125.4	124.6	126.2
Aug 6	125.7	124.7	127.4
Aug 7	125.8	124.9	127.2
Aug 8	126.1	125.0	127.4
Aug 9	126.2	125.3	127.5
Aug 10	126.4	125.5	127.9
Aug 11	126.2	125.8	126.8
Aug 12	126.2	124.8	127.1
Aug 13	125.8	125.2	126.3
Aug 14	126.1	125.5	127.6
Aug 15	126.5	125.8	127.9
Aug 16	126.7	125.9	128.1
Aug 17	126.6	125.9	128.3
Aug 18	126.8	125.9	127.9
Aug 19	126.9	126.0	128.7
Aug 20	126.4	125.8	127.5
Aug 21	126.3	125.7	127.0
Aug 22	126.5	125.6	128.3
Aug 23	126.1	124.2	126.7
Aug 24	126.3	125.1	127.3
Aug 25	125.6	125.0	126.3
Aug 26	125.2	124.7	125.7
Aug 27	125.1	124.5	125.9
Aug 28	125.4	124.6	126.3
Aug 29	125.4	124.6	126.2
Aug 30	125.4	124.8	126.5
Summary	126.0	125.1	126.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 76

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	126.1	125.9	126.8
Aug 2	126.3	126.1	126.6
Aug 3	126.5	126.1	126.9
Aug 4	126.9	126.5	127.3
Aug 5	127.1	126.7	127.5
Aug 6	127.3	126.9	127.8
Aug 7	127.5	127.1	128.0
Aug 8	127.5	127.1	128.0
Aug 9	127.5	127.1	128.2
Aug 10	127.7	127.3	128.1
Aug 11	127.7	127.4	128.0
Aug 12	127.6	127.3	127.9
Aug 13	127.3	127.1	127.5
Aug 14	127.6	127.2	128.0
Aug 15	127.8	127.4	128.3
Aug 16	128.0	127.5	128.5
Aug 17	128.0	127.6	128.4
Aug 18	128.1	127.6	128.6
Aug 19	128.1	127.7	128.6
Aug 20	128.0	127.6	128.4
Aug 21	128.0	127.7	128.3
Aug 22	128.0	127.8	128.6
Aug 23	128.0	127.7	128.6
Aug 24	127.9	127.5	128.5
Aug 25	127.9	127.6	128.2
Aug 26	127.9	127.6	128.2
Aug 27	127.9	127.5	128.3
Aug 28	127.9	127.6	128.4
Aug 29	127.9	127.5	128.3
Aug 30	127.9	127.6	128.5
Summary	127.6	126.1	128.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 77

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	77.5	71.1	91.5
Aug 2	73.9	67.1	90.3
Aug 3	73.1	65.1	83.6
Aug 4	76.3	64.0	92.8
Aug 5	77.6	66.5	93.3
Aug 6	79.3	66.6	100.8
Aug 7	80.2	65.5	102.1
Aug 8	81.8	65.8	102.6
Aug 9	80.3	64.4	101.5
Aug 10	82.8	64.3	107.6
Aug 11	81.2	69.5	98.2
Aug 12	79.7	70.1	97.5
Aug 13	76.1	71.2	87.8
Aug 14	81.3	70.9	100.8
Aug 15	84.0	69.4	104.1
Aug 16	84.9	68.4	104.6
Aug 17	83.2	67.3	104.6
Aug 18	83.9	68.5	102.5
Aug 19	86.4	70.4	109.7
Aug 20	80.2	70.2	99.0
Aug 21	81.6	70.9	99.7
Aug 22	81.7	68.1	105.2
Aug 23	75.7	69.7	93.8
Aug 24	76.5	67.2	94.4
Aug 25	72.8	60.8	87.9
Aug 26	69.3	54.1	87.4
Aug 27	67.4	50.5	85.7
Aug 28	71.5	54.7	94.4
Aug 29	71.5	53.8	93.8
Aug 30	74.7	58.1	98.8
Summary	78.2	67.4	86.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 78

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	113.1	111.8	116.2
Aug 2	112.7	110.4	115.4
Aug 3	112.9	110.4	115.1
Aug 4	113.2	111.0	117.0
Aug 5	112.8	110.5	116.1
Aug 6	113.7	111.0	118.0
Aug 7	113.3	110.7	118.0
Aug 8	114.1	111.7	118.3
Aug 9	113.6	111.2	117.8
Aug 10	113.6	111.1	118.0
Aug 11	114.1	112.1	117.5
Aug 12	113.9	111.2	117.3
Aug 13	112.7	110.3	114.3
Aug 14	112.4	107.5	117.5
Aug 15	112.7	108.3	117.7
Aug 16	113.8	107.6	118.8
Aug 17	113.1	107.7	117.0
Aug 18	113.5	110.6	117.5
Aug 19	114.4	109.9	118.8
Aug 20	113.4	108.9	116.0
Aug 21	113.5	109.2	117.3
Aug 22	113.3	110.2	118.7
Aug 23	112.5	109.1	117.7
Aug 24	111.7	108.3	115.1
Aug 25	111.0	108.1	114.1
Aug 26	110.2	106.5	115.1
Aug 27	108.6	104.2	114.5
Aug 28	109.7	103.2	115.2
Aug 29	111.8	108.6	115.4
Aug 30	111.9	105.9	117.1
Summary	112.7	108.6	114.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 79

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	76.8	70.5	92.2
Aug 2	72.7	66.3	87.6
Aug 3	71.8	64.3	81.9
Aug 4	74.8	62.4	90.0
Aug 5	75.6	65.1	88.9
Aug 6	77.9	65.1	100.4
Aug 7	78.7	64.3	100.6
Aug 8	80.6	64.6	102.5
Aug 9	79.6	64.0	103.1
Aug 10	82.9	64.2	107.4
Aug 11	80.2	69.1	101.0
Aug 12	79.3	69.6	97.8
Aug 13	76.3	70.6	89.2
Aug 14	81.0	70.9	104.5
Aug 15	83.5	69.2	105.3
Aug 16	85.1	68.3	108.5
Aug 17	84.1	68.0	106.0
Aug 18	84.2	68.9	103.7
Aug 19	87.0	71.3	111.3
Aug 20	81.1	71.3	100.1
Aug 21	81.3	71.4	97.6
Aug 22	82.4	69.0	109.0
Aug 23	76.4	70.0	99.2
Aug 24	76.9	67.6	97.9
Aug 25	73.2	61.8	86.2
Aug 26	70.0	55.0	87.5
Aug 27	68.9	51.6	92.1
Aug 28	72.0	55.1	97.0
Aug 29	72.1	54.3	90.4
Aug 30	75.1	58.3	100.9
Summary	78.0	68.9	87.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 80

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	76.1	67.7	93.8
Aug 2	71.1	64.7	85.2
Aug 3	69.8	62.6	80.7
Aug 4	73.9	59.3	98.2
Aug 5	74.2	62.3	93.8
Aug 6	76.3	62.2	99.2
Aug 7	77.0	61.8	96.8
Aug 8	78.1	60.9	99.6
Aug 9	77.9	60.3	101.0
Aug 10	80.8	60.4	104.4
Aug 11	78.1	65.5	97.1
Aug 12	77.6	66.9	96.0
Aug 13	74.4	70.6	85.7
Aug 14	80.0	69.4	103.9
Aug 15	83.5	67.1	107.3
Aug 16	83.5	66.0	109.5
Aug 17	82.0	65.0	107.3
Aug 18	83.1	66.4	107.1
Aug 19	84.5	67.7	108.0
Aug 20	78.0	68.1	97.9
Aug 21	79.6	69.2	94.3
Aug 22	80.7	66.0	106.4
Aug 23	74.5	68.3	91.7
Aug 24	74.9	65.6	95.7
Aug 25	70.4	57.3	85.8
Aug 26	67.4	51.5	90.1
Aug 27	66.0	48.0	91.3
Aug 28	70.1	50.9	94.3
Aug 29	69.7	50.0	94.7
Aug 30	71.5	54.6	98.1
Summary	76.2	66.0	84.5

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 81
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	162.1	160.0	163.9
Aug 2	161.7	160.3	162.9
Aug 3	162.1	160.6	163.2
Aug 4	163.4	162.3	164.5
Aug 5	163.7	163.0	164.4
Aug 6	164.0	162.9	165.7
Aug 7	164.5	163.3	166.4
Aug 8	165.4	164.6	166.6
Aug 9	165.3	164.8	166.8
Aug 10	165.5	164.4	166.5
Aug 11	165.5	163.9	166.4
Aug 12	165.9	162.9	166.9
Aug 13	164.0	155.6	166.3
Aug 14	164.3	163.5	165.6
Aug 15	164.5	163.4	165.7
Aug 16	165.3	164.2	166.3
Aug 17	165.4	164.1	166.8
Aug 18	165.5	164.7	166.8
Aug 19	166.0	164.8	168.0
Aug 20	166.0	164.7	167.0
Aug 21	165.8	164.1	166.8
Aug 22	165.8	164.2	167.2
Aug 23	164.9	160.9	166.2
Aug 24	164.8	161.9	165.6
Aug 25	164.0	162.6	165.0
Aug 26	163.4	162.1	164.5
Aug 27	163.8	162.9	165.4
Aug 28	164.4	163.2	165.5
Aug 29	164.4	163.0	165.6
Aug 30	164.5	163.3	165.5
Summary	164.5	161.7	166.0

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 82
Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	171.1	169.6	172.2
Aug 2	170.5	167.9	171.9
Aug 3	170.4	168.6	171.3
Aug 4	171.0	170.1	171.5
Aug 5	171.1	170.3	171.7
Aug 6	171.4	170.3	172.6
Aug 7	172.0	170.5	173.4
Aug 8	172.9	172.0	173.9
Aug 9	172.8	171.2	173.7
Aug 10	172.9	172.2	174.5
Aug 11	172.9	171.8	173.4
Aug 12	173.1	170.0	174.0
Aug 13	170.9	167.0	173.3
Aug 14	170.9	170.3	172.7
Aug 15	171.4	169.8	172.6
Aug 16	172.1	171.1	173.4
Aug 17	172.2	171.2	173.0
Aug 18	172.7	172.1	173.5
Aug 19	172.7	171.7	173.9
Aug 20	172.4	171.0	173.1
Aug 21	172.2	171.6	172.9
Aug 22	172.2	171.1	173.0
Aug 23	171.7	168.1	173.1
Aug 24	171.5	170.2	172.1
Aug 25	170.6	168.3	171.6
Aug 26	170.2	169.3	171.0
Aug 27	170.4	169.0	172.1
Aug 28	171.4	170.4	172.4
Aug 29	172.1	171.2	173.1
Aug 30	172.4	171.7	173.0
Summary	171.7	170.2	173.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 83

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	167.5	165.5	169.0
Aug 2	167.0	166.3	167.5
Aug 3	167.3	166.5	167.9
Aug 4	167.6	166.7	168.1
Aug 5	167.4	167.0	168.0
Aug 6	167.4	166.6	168.1
Aug 7	167.4	166.3	167.9
Aug 8	167.7	167.0	168.3
Aug 9	167.4	166.4	168.1
Aug 10	167.4	166.2	168.5
Aug 11	167.1	166.0	167.6
Aug 12	167.5	166.2	168.3
Aug 13	166.9	163.6	167.7
Aug 14	167.2	165.3	168.2
Aug 15	167.5	166.8	168.2
Aug 16	167.6	166.9	168.2
Aug 17	167.4	166.6	167.9
Aug 18	167.4	166.8	168.2
Aug 19	167.5	166.7	168.3
Aug 20	167.2	166.5	168.0
Aug 21	167.2	166.2	167.7
Aug 22	167.1	166.4	167.7
Aug 23	166.7	164.5	167.3
Aug 24	166.6	165.2	167.1
Aug 25	166.1	165.2	166.8
Aug 26	165.7	165.2	166.4
Aug 27	165.5	164.7	166.5
Aug 28	165.3	164.7	166.0
Aug 29	165.4	164.5	166.1
Aug 30	165.5	164.5	166.3
Summary	166.9	165.3	167.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 84

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	162.8	162.3	163.2
Aug 2	162.4	162.1	162.7
Aug 3	162.4	162.0	162.6
Aug 4	162.6	162.3	163.1
Aug 5	162.7	162.4	163.2
Aug 6	162.8	162.4	163.4
Aug 7	162.9	162.4	163.3
Aug 8	163.0	162.6	163.5
Aug 9	163.0	162.5	163.6
Aug 10	163.1	162.5	163.7
Aug 11	163.0	162.7	163.6
Aug 12	163.1	162.6	163.6
Aug 13	162.8	162.4	163.1
Aug 14	162.8	162.5	163.4
Aug 15	162.7	162.3	163.4
Aug 16	162.7	162.3	163.5
Aug 17	162.8	162.3	163.4
Aug 18	162.8	162.4	163.2
Aug 19	162.8	162.3	163.6
Aug 20	162.8	162.4	163.3
Aug 21	162.8	162.4	163.2
Aug 22	162.7	162.1	163.4
Aug 23	162.3	162.0	162.8
Aug 24	162.4	162.0	163.0
Aug 25	162.1	161.8	162.5
Aug 26	161.9	161.5	162.4
Aug 27	162.0	161.4	162.6
Aug 28	162.1	161.5	162.7
Aug 29	162.0	161.6	162.6
Aug 30	161.9	161.5	162.6
Summary	162.6	161.9	163.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 85

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	157.4	156.5	158.9
Aug 2	157.1	155.8	157.8
Aug 3	157.0	156.1	158.0
Aug 4	156.3	153.6	157.5
Aug 5	156.2	155.0	157.7
Aug 6	155.9	152.8	159.6
Aug 7	156.6	154.9	159.8
Aug 8	157.1	155.8	159.8
Aug 9	156.4	153.1	159.1
Aug 10	157.3	155.6	160.2
Aug 11	157.0	154.0	159.9
Aug 12	156.6	154.4	159.6
Aug 13	156.4	152.8	159.0
Aug 14	157.2	154.3	158.7
Aug 15	156.7	154.5	160.2
Aug 16	157.7	156.2	160.0
Aug 17	156.1	153.9	157.6
Aug 18	156.1	153.4	159.2
Aug 19	157.3	155.5	160.4
Aug 20	157.2	156.2	159.6
Aug 21	157.5	156.0	159.4
Aug 22	157.0	155.6	159.8
Aug 23	157.1	154.8	159.8
Aug 24	156.9	154.9	158.9
Aug 25	155.8	153.8	157.5
Aug 26	155.7	154.2	157.1
Aug 27	155.2	153.4	158.5
Aug 28	155.9	154.2	158.8
Aug 29	156.6	155.1	159.1
Aug 30	157.2	155.6	158.8
Summary	156.7	155.2	157.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 86

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	144.4	144.0	145.4
Aug 2	144.0	143.4	144.6
Aug 3	142.6	142.0	143.7
Aug 4	142.5	141.9	143.5
Aug 5	143.0	142.4	143.9
Aug 6	143.6	142.5	144.8
Aug 7	144.3	143.4	145.3
Aug 8	144.9	144.1	145.8
Aug 9	145.0	144.3	146.3
Aug 10	145.2	144.4	146.2
Aug 11	145.1	144.7	146.3
Aug 12	145.4	144.9	146.2
Aug 13	145.1	144.2	145.5
Aug 14	144.0	143.5	144.8
Aug 15	144.2	143.5	145.2
Aug 16	144.7	143.7	145.7
Aug 17	145.0	144.2	145.9
Aug 18	145.2	144.4	146.1
Aug 19	145.5	144.6	146.8
Aug 20	145.5	144.8	146.5
Aug 21	145.6	144.9	146.3
Aug 22	145.5	144.8	146.6
Aug 23	145.2	144.5	146.0
Aug 24	145.2	144.4	146.2
Aug 25	144.8	144.4	145.2
Aug 26	144.5	143.9	145.3
Aug 27	144.3	138.8	145.7
Aug 28	144.7	143.9	145.6
Aug 29	144.7	143.7	145.3
Aug 30	144.9	144.3	146.0
Summary	144.6	142.5	145.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 87

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	99.4	91.9	108.1
Aug 2	91.9	81.7	101.4
Aug 3	90.5	84.4	94.2
Aug 4	95.3	89.1	105.1
Aug 5	93.7	87.7	103.1
Aug 6	94.4	86.9	105.2
Aug 7	94.7	85.8	105.0
Aug 8	98.3	90.7	107.4
Aug 9	99.0	88.9	112.6
Aug 10	101.2	91.5	112.9
Aug 11	98.6	93.3	109.3
Aug 12	100.3	89.4	109.3
Aug 13	95.3	84.3	101.1
Aug 14	99.6	94.2	110.6
Aug 15	101.3	92.8	112.8
Aug 16	102.8	92.6	113.5
Aug 17	101.8	93.3	113.4
Aug 18	102.7	93.3	114.1
Aug 19	104.4	93.7	119.8
Aug 20	100.1	93.8	109.1
Aug 21	100.1	93.2	108.5
Aug 22	101.2	92.1	114.5
Aug 23	95.4	87.0	103.6
Aug 24	96.0	84.3	106.8
Aug 25	94.4	90.3	100.3
Aug 26	91.8	84.2	101.6
Aug 27	91.4	81.9	104.3
Aug 28	92.0	81.0	105.3
Aug 29	93.6	83.4	103.9
Aug 30	95.2	84.2	109.1
Summary	97.2	90.5	104.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 88

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	170.0	169.5	170.9
Aug 2	169.8	168.9	170.6
Aug 3	169.6	168.4	170.8
Aug 4	169.9	168.6	170.8
Aug 5	167.4	90.8	171.7
Aug 6	171.5	170.7	172.3
Aug 7	171.7	171.2	172.6
Aug 8	171.8	170.7	172.7
Aug 9	171.7	170.4	172.5
Aug 10	171.8	170.9	172.4
Aug 11	171.6	170.8	172.6
Aug 12	171.8	170.9	172.5
Aug 13	171.1	170.0	172.0
Aug 14	171.0	170.5	171.9
Aug 15	171.0	170.1	172.1
Aug 16	171.5	170.4	172.8
Aug 17	171.6	170.9	172.5
Aug 18	171.8	171.1	172.8
Aug 19	171.7	170.8	172.9
Aug 20	172.0	171.3	173.0
Aug 21	172.0	171.0	172.6
Aug 22	171.7	171.0	172.7
Aug 23	171.6	170.6	172.6
Aug 24	171.9	171.0	172.5
Aug 25	171.8	171.1	172.4
Aug 26	171.5	170.9	171.9
Aug 27	171.7	171.1	172.3
Aug 28	171.7	171.0	172.2
Aug 29	171.4	170.7	172.0
Aug 30	171.4	170.7	171.9
Summary	171.2	167.4	172.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 89

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	199.1	198.8	199.4
Aug 2	199.4	198.0	200.4
Aug 3	199.4	199.3	199.6
Aug 4	199.5	199.3	199.8
Aug 5	199.7	199.5	200.0
Aug 6	198.6	196.7	199.5
Aug 7	199.2	198.2	199.6
Aug 8	199.2	198.9	199.5
Aug 9	199.2	199.0	199.5
Aug 10	199.2	198.9	199.6
Aug 11	199.3	199.0	199.6
Aug 12	198.7	196.6	199.5
Aug 13	199.1	199.0	199.4
Aug 14	199.2	199.0	199.6
Aug 15	199.4	199.1	199.7
Aug 16	199.5	199.2	199.8
Aug 17	198.7	196.5	199.6
Aug 18	197.8	195.5	199.2
Aug 19	199.3	199.0	199.6
Aug 20	199.2	199.0	199.3
Aug 21	198.2	195.9	199.2
Aug 22	195.5	194.9	196.0
Aug 23	194.8	194.3	195.1
Aug 24	194.3	193.8	194.6
Aug 25	196.3	193.8	198.4
Aug 26	198.4	198.1	198.6
Aug 27	198.3	195.8	199.1
Aug 28	198.6	198.3	199.2
Aug 29	198.2	195.9	199.0
Aug 30	197.6	195.3	199.0
Summary	198.4	194.3	199.7

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 90
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	135.5	135.0	136.1
Aug 2	135.1	134.6	135.4
Aug 3	135.0	134.8	135.3
Aug 4	135.1	134.8	135.8
Aug 5	135.1	134.6	135.7
Aug 6	135.1	134.6	136.0
Aug 7	135.2	134.6	136.1
Aug 8	135.4	134.9	136.2
Aug 9	135.3	134.8	136.2
Aug 10	135.4	134.7	136.3
Aug 11	135.3	134.6	136.0
Aug 12	135.4	135.0	136.2
Aug 13	135.1	134.7	135.4
Aug 14	135.2	134.9	135.8
Aug 15	135.1	134.7	135.8
Aug 16	135.3	134.6	136.0
Aug 17	135.2	134.6	135.9
Aug 18	135.2	134.7	136.1
Aug 19	135.2	134.6	136.2
Aug 20	135.1	134.7	135.8
Aug 21	135.1	134.7	135.7
Aug 22	135.0	134.5	136.0
Aug 23	134.7	134.2	135.3
Aug 24	134.7	134.2	135.4
Aug 25	134.6	134.2	134.8
Aug 26	134.4	133.8	135.0
Aug 27	134.3	133.8	135.2
Aug 28	134.5	133.7	135.5
Aug 29	134.6	133.9	135.2
Aug 30	134.6	134.1	135.4
Summary	135.0	134.3	135.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 91

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	156.7	152.7	158.6
Aug 2	132.2	70.2	170.9
Aug 3	156.5	155.6	157.6
Aug 4	138.7	74.4	158.1
Aug 5	148.9	146.8	150.3
Aug 6	151.0	149.1	152.6
Aug 7	152.7	150.8	154.5
Aug 8	155.2	153.8	156.6
Aug 9	156.5	155.2	158.0
Aug 10	157.7	156.3	159.8
Aug 11	157.9	156.3	159.0
Aug 12	158.7	156.6	159.8
Aug 13	157.4	153.3	159.4
Aug 14	157.8	154.1	159.2
Aug 15	158.8	157.8	159.9
Aug 16	159.5	158.3	160.8
Aug 17	159.4	157.2	160.8
Aug 18	159.7	159.0	161.3
Aug 19	160.2	158.1	162.0
Aug 20	160.0	159.0	160.9
Aug 21	159.9	158.4	160.9
Aug 22	159.7	158.3	161.4
Aug 23	159.0	153.3	159.8
Aug 24	159.4	155.9	160.9
Aug 25	159.0	158.1	159.9
Aug 26	158.8	157.8	159.7
Aug 27	159.2	158.1	160.6
Aug 28	159.0	157.8	160.6
Aug 29	158.9	151.4	160.6
Aug 30	159.3	158.4	160.8
Summary	156.3	132.2	160.2

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 92

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	173.4	159.4	183.0
Aug 2	174.4	163.1	183.8
Aug 3	172.1	158.5	181.7
Aug 4	176.2	165.8	180.7
Aug 5	177.5	172.7	181.7
Aug 6	176.7	172.1	182.6
Aug 7	175.5	167.5	180.1
Aug 8	177.7	173.1	182.5
Aug 9	178.9	171.1	182.7
Aug 10	179.7	175.8	181.7
Aug 11	176.4	165.5	181.3
Aug 12	179.3	168.6	183.5
Aug 13	173.6	145.5	183.5
Aug 14	177.5	166.9	180.9
Aug 15	178.5	175.3	182.8
Aug 16	179.2	172.8	183.9
Aug 17	177.3	167.6	182.3
Aug 18	177.1	168.8	184.6
Aug 19	179.5	174.4	185.5
Aug 20	175.9	166.4	179.9
Aug 21	174.1	161.7	180.9
Aug 22	176.8	171.1	180.7
Aug 23	173.0	146.3	179.0
Aug 24	171.5	154.4	178.8
Aug 25	168.1	156.5	177.5
Aug 26	163.1	155.3	170.4
Aug 27	162.4	156.5	175.4
Aug 28	162.6	147.7	171.6
Aug 29	165.6	159.7	174.1
Aug 30	166.7	154.4	177.3
Summary	174.0	162.4	179.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 93

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	106.3	95.0	114.0
Aug 2	86.9	68.5	109.5
Aug 3	89.8	77.1	99.0
Aug 4	85.6	73.6	102.4
Aug 5	83.0	72.6	99.6
Aug 6	86.0	70.8	109.8
Aug 7	85.4	69.5	109.5
Aug 8	86.4	70.0	111.1
Aug 9	84.3	69.4	111.3
Aug 10	86.6	69.3	111.3
Aug 11	85.8	74.0	103.8
Aug 12	85.5	74.5	106.7
Aug 13	84.6	75.9	96.4
Aug 14	89.8	77.4	107.3
Aug 15	86.8	72.8	111.5
Aug 16	86.1	69.0	114.8
Aug 17	84.0	68.7	108.8
Aug 18	84.8	69.8	113.5
Aug 19	87.1	71.3	116.1
Aug 20	82.2	72.1	103.5
Aug 21	84.9	72.9	105.8
Aug 22	83.0	70.3	112.1
Aug 23	80.5	73.6	107.3
Aug 24	79.6	69.6	102.0
Aug 25	74.0	62.2	91.8
Aug 26	69.8	55.8	90.7
Aug 27	70.4	51.6	101.0
Aug 28	72.6	55.7	99.0
Aug 29	71.6	55.5	98.2
Aug 30	76.8	60.8	102.4
Summary	83.3	69.8	106.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 94

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	153.4	148.2	157.4
Aug 2	142.0	127.9	153.4
Aug 3	130.5	124.6	135.3
Aug 4	122.7	117.9	127.5
Aug 5	116.3	112.7	122.7
Aug 6	115.0	110.4	122.9
Aug 7	114.6	110.1	123.2
Aug 8	114.6	110.2	122.5
Aug 9	114.1	109.6	122.8
Aug 10	115.1	109.3	122.8
Aug 11	116.1	112.1	123.4
Aug 12	117.3	113.5	125.8
Aug 13	116.8	111.6	120.8
Aug 14	118.0	112.8	124.7
Aug 15	115.5	111.4	123.1
Aug 16	114.0	108.9	121.5
Aug 17	111.7	107.0	121.0
Aug 18	123.6	105.9	144.7
Aug 19	153.5	145.7	159.9
Aug 20	160.5	157.2	164.2
Aug 21	164.0	161.5	167.5
Aug 22	165.4	163.7	168.7
Aug 23	166.6	163.7	170.0
Aug 24	167.9	165.2	170.9
Aug 25	168.7	167.4	171.6
Aug 26	169.0	167.8	171.6
Aug 27	170.0	168.3	172.9
Aug 28	170.6	168.9	173.1
Aug 29	171.0	169.6	173.8
Aug 30	163.0	151.5	170.9
Summary	138.7	111.7	171.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 95

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	140.3	114.5	144.5
Aug 2	140.9	139.6	141.8
Aug 3	140.1	139.1	140.6
Aug 4	135.7	127.5	142.1
Aug 5	132.6	119.8	142.3
Aug 6	120.6	98.0	140.6
Aug 7	123.5	97.6	142.2
Aug 8	131.4	121.7	143.0
Aug 9	130.4	122.9	137.8
Aug 10	130.7	118.1	136.9
Aug 11	134.1	124.3	142.7
Aug 12	133.0	125.7	142.5
Aug 13	138.2	132.1	141.8
Aug 14	140.1	136.0	143.4
Aug 15	135.4	126.1	139.9
Aug 16	127.6	108.6	138.8
Aug 17	122.4	101.5	136.5
Aug 18	120.2	102.9	143.3
Aug 19	119.9	98.3	142.7
Aug 20	111.1	96.8	126.6
Aug 21	120.2	102.4	130.9
Aug 22	132.6	116.6	143.7
Aug 23	132.1	127.6	134.5
Aug 24	128.7	109.1	137.5
Aug 25	128.9	120.8	142.4
Aug 26	131.0	119.6	142.7
Aug 27	126.1	111.8	141.9
Aug 28	130.1	121.2	142.7
Aug 29	134.2	127.0	142.9
Aug 30	133.3	127.3	139.7
Summary	130.2	111.1	140.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 96

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	140.3	139.3	141.8
Aug 2	139.1	136.7	140.6
Aug 3	139.1	137.7	140.4
Aug 4	140.2	137.8	142.7
Aug 5	139.7	137.1	141.1
Aug 6	139.5	137.7	141.4
Aug 7	138.9	137.1	140.1
Aug 8	139.5	138.5	141.0
Aug 9	139.7	138.7	141.5
Aug 10	139.9	138.2	141.8
Aug 11	139.5	138.0	141.3
Aug 12	139.9	138.4	141.0
Aug 13	137.8	134.2	140.0
Aug 14	138.1	137.0	139.8
Aug 15	139.0	137.6	141.2
Aug 16	139.3	138.0	141.0
Aug 17	138.8	137.6	140.5
Aug 18	139.1	137.9	141.1
Aug 19	139.2	138.1	141.5
Aug 20	138.6	137.6	139.9
Aug 21	138.5	136.9	139.8
Aug 22	138.5	137.3	140.5
Aug 23	137.7	135.8	138.6
Aug 24	137.8	135.2	139.2
Aug 25	137.7	136.7	138.7
Aug 26	137.6	136.3	139.7
Aug 27	138.1	136.6	140.1
Aug 28	138.1	136.7	140.1
Aug 29	137.9	136.5	139.4
Aug 30	138.4	137.0	140.2
Summary	138.9	137.6	140.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 97

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	153.9	152.4	155.0
Aug 2	152.9	150.8	154.1
Aug 3	153.1	151.5	154.5
Aug 4	154.4	151.7	156.6
Aug 5	154.8	153.8	156.0
Aug 6	155.1	153.6	157.0
Aug 7	154.9	153.2	156.4
Aug 8	155.3	154.0	156.6
Aug 9	155.4	153.7	156.7
Aug 10	155.5	153.6	157.7
Aug 11	155.4	154.0	156.8
Aug 12	155.6	154.1	156.4
Aug 13	153.4	150.9	155.8
Aug 14	152.8	151.7	154.7
Aug 15	153.9	152.5	155.3
Aug 16	155.0	153.8	156.2
Aug 17	154.9	153.6	155.9
Aug 18	155.1	153.9	156.1
Aug 19	155.3	153.9	157.2
Aug 20	154.9	153.8	155.9
Aug 21	154.3	152.8	155.5
Aug 22	153.6	152.1	155.2
Aug 23	153.1	151.1	153.9
Aug 24	153.4	152.1	154.3
Aug 25	152.8	151.7	153.5
Aug 26	152.3	150.6	154.1
Aug 27	153.0	152.0	154.0
Aug 28	153.1	151.5	154.9
Aug 29	152.8	151.6	154.0
Aug 30	152.9	151.8	154.0
Summary	154.1	152.3	155.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 98

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	79.9	69.0	94.6
Aug 2	81.6	77.6	89.6
Aug 3	81.8	76.5	89.0
Aug 4	84.5	75.9	98.5
Aug 5	84.7	78.2	96.2
Aug 6	87.4	78.6	101.2
Aug 7	88.0	79.5	102.6
Aug 8	89.2	79.6	103.5
Aug 9	89.4	80.3	105.2
Aug 10	107.3	83.0	116.9
Aug 11	93.2	71.4	109.9
Aug 12	81.4	66.5	100.4
Aug 13	86.7	82.7	91.8
Aug 14	91.8	85.2	104.3
Aug 15	93.4	86.1	106.8
Aug 16	94.9	85.3	111.5
Aug 17	93.8	85.3	110.3
Aug 18	94.8	86.1	110.2
Aug 19	95.1	81.9	110.4
Aug 20	86.9	71.2	101.4
Aug 21	92.6	78.3	104.3
Aug 22	95.0	88.8	108.7
Aug 23	92.6	88.7	103.1
Aug 24	88.1	69.0	98.9
Aug 25	76.1	58.7	94.9
Aug 26	85.3	76.1	98.4
Aug 27	80.0	56.6	95.2
Aug 28	73.3	51.4	97.9
Aug 29	85.9	74.3	101.6
Aug 30	81.3	61.5	97.5
Summary	87.9	73.3	107.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 99

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	146.6	146.4	146.9
Aug 2	146.5	146.2	146.8
Aug 3	146.4	146.2	146.8
Aug 4	146.6	146.3	146.9
Aug 5	146.6	146.2	147.1
Aug 6	146.8	146.3	147.6
Aug 7	147.1	146.6	147.8
Aug 8	147.4	147.0	148.1
Aug 9	147.6	147.1	148.3
Aug 10	147.7	147.3	148.3
Aug 11	147.7	147.3	148.2
Aug 12	147.8	147.4	148.5
Aug 13	147.9	147.4	148.2
Aug 14	147.8	147.3	148.3
Aug 15	147.7	147.4	148.3
Aug 16	147.9	147.4	148.6
Aug 17	147.9	147.5	148.7
Aug 18	147.9	147.5	148.5
Aug 19	147.9	147.4	148.6
Aug 20	147.8	147.6	148.4
Aug 21	147.9	147.6	148.4
Aug 22	147.8	147.4	148.6
Aug 23	147.6	147.1	148.0
Aug 24	147.6	147.2	148.0
Aug 25	147.3	147.0	147.9
Aug 26	147.2	146.8	147.7
Aug 27	147.1	146.4	147.7
Aug 28	147.3	146.7	148.0
Aug 29	147.4	147.0	147.9
Aug 30	147.4	146.8	148.0
Summary	147.4	146.4	147.9

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 100
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	158.7	158.2	159.3
Aug 2	118.6	77.0	147.0
Aug 3	157.3	156.9	157.6
Aug 4	137.3	135.5	138.7
Aug 5	156.9	156.5	157.6
Aug 6	137.0	134.8	139.0
Aug 7	157.0	156.2	157.8
Aug 8	139.0	137.1	140.5
Aug 9	157.4	156.8	158.2
Aug 10	139.3	137.8	141.0
Aug 11	157.4	156.9	158.0
Aug 12	139.6	138.5	140.7
Aug 13	157.4	156.9	157.8
Aug 14	138.6	137.8	139.5
Aug 15	157.4	156.9	158.0
Aug 16	138.9	137.7	140.2
Aug 17	157.4	156.8	158.1
Aug 18	139.6	137.7	141.1
Aug 19	157.6	156.7	158.7
Aug 20	139.6	138.6	141.2
Aug 21	157.6	157.3	158.2
Aug 22	139.5	138.0	141.4
Aug 23	157.2	156.6	157.7
Aug 24	138.9	137.6	140.0
Aug 25	157.1	156.7	157.5
Aug 26	138.2	136.8	139.7
Aug 27	156.9	156.1	157.8
Aug 28	139.2	137.8	140.9
Aug 29	157.2	156.6	158.0
Aug 30	139.0	137.7	140.5
Summary	157.4	156.9	158.7

Appendix D

Solid Waste Permit 588 Daily Borehole Temperature Averages

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Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 1

Date	Depth from Surface					
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft
1-Aug	165.2	222.7	223.1	233.0	246.4	263.9
2-Aug	165.0	222.4	222.8	233.2	246.6	263.8
3-Aug	165.0	222.3	222.7	233.1	246.7	263.8
4-Aug	165.0	222.4	222.9	233.3	246.9	263.9
5-Aug	165.0	222.4	222.9	233.2	246.8	263.9
6-Aug	164.8	222.7	223.1	232.7	246.5	263.8
7-Aug	165.0	222.9	223.3	232.6	246.4	263.9
8-Aug	165.4	223.1	223.5	232.6	246.5	264.0
9-Aug	165.4	223.2	223.6	232.4	246.3	263.9
10-Aug	165.6	223.4	223.8	232.6	246.4	263.9
11-Aug	165.4	223.3	223.7	232.7	246.4	264.0
12-Aug	165.3	223.2	223.6	232.8	246.4	263.9
13-Aug	165.3	223.2	223.7	233.0	246.4	263.9
14-Aug	165.4	223.3	223.8	233.2	246.7	264.0
15-Aug	165.4	223.4	223.9	233.2	246.6	264.1
16-Aug	165.5	223.5	224.0	233.2	246.7	264.1
17-Aug	165.4	223.5	223.9	233.3	246.8	264.0
18-Aug	165.5	223.5	223.9	233.4	246.8	264.0
19-Aug	165.4	223.6	224.1	233.5	246.9	264.1
20-Aug	165.3	223.4	223.8	233.3	246.8	263.9
21-Aug	165.4	223.6	224.0	233.5	247.0	264.1
22-Aug	165.4	223.5	224.0	233.6	247.0	264.1
23-Aug	165.2	223.4	223.8	233.5	246.9	263.9
24-Aug	165.3	223.4	223.9	233.6	247.0	263.9
25-Aug	164.9	223.2	223.7	233.7	246.9	263.7
26-Aug	164.8	223.2	223.6	234.1	247.0	263.7
27-Aug	164.8	223.1	223.5	234.2	246.8	263.5
28-Aug	165.1	223.1	223.6	234.6	247.0	263.6
29-Aug	165.0	223.1	223.6	235.0	247.0	263.7
30-Aug	165.2	223.3	223.7	235.2	247.2	263.8
31-Aug	165.0	223.2	223.7	235.1	247.2	263.7
Average	165.2	223.1	223.6	233.4	246.7	263.9

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 5

Date	Depth from Surface							
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Aug	145.3	215.0	215.3	226.8	235.7	238.8	214.6	204.7
2-Aug	145.0	214.8	215.0	226.5	235.4	238.5	214.0	204.4
3-Aug	145.1	214.8	215.1	226.5	235.4	238.5	213.9	204.4
4-Aug	145.1	214.8	215.1	226.5	235.4	238.5	213.8	204.4
5-Aug	145.1	214.8	215.1	226.5	235.5	238.5	213.8	204.5
6-Aug	145.2	214.9	215.2	226.6	235.6	238.7	213.9	204.7
7-Aug	145.2	214.9	215.2	226.7	235.6	238.7	213.8	204.6
8-Aug	145.1	214.9	215.2	226.7	235.6	238.7	213.8	204.6
9-Aug	145.2	214.9	215.2	226.7	235.6	238.7	213.7	204.7
10-Aug	145.2	215.1	215.3	226.9	235.7	238.8	213.8	204.7
11-Aug	145.1	215.0	215.3	226.8	235.7	238.8	213.7	204.7
12-Aug	145.0	215.0	215.3	226.9	235.7	238.9	213.6	204.7
13-Aug	144.7	214.9	215.1	226.7	235.6	238.6	213.3	204.5
14-Aug	144.8	215.0	215.2	226.9	235.8	238.8	213.4	204.7
15-Aug	144.8	215.0	215.3	227.0	235.9	238.8	213.3	204.7
16-Aug	144.8	215.0	215.3	226.9	235.9	238.8	213.1	204.7
17-Aug	144.7	215.0	215.2	227.0	236.0	238.8	212.9	204.6
18-Aug	144.6	215.1	215.4	227.1	236.3	239.0	213.0	204.9
19-Aug	144.7	215.1	215.4	227.1	236.2	238.9	212.8	204.8
20-Aug	144.7	214.9	215.2	227.2	236.2	238.7	212.6	204.7
21-Aug	144.6	214.9	215.2	227.2	236.4	238.8	212.5	204.7
22-Aug	144.6	214.9	215.2	227.3	236.4	238.7	212.3	204.7
23-Aug	144.4	214.8	215.1	227.4	236.3	238.5	212.1	204.6
24-Aug	144.4	214.8	215.1	227.3	236.5	238.5	212.0	204.6
25-Aug	144.4	214.6	214.9	227.2	236.2	238.3	211.6	204.3
26-Aug	144.2	214.5	214.8	227.0	236.2	238.2	211.4	204.2
27-Aug	144.2	214.4	214.7	227.0	236.1	238.1	211.2	204.2
28-Aug	144.3	214.6	214.8	227.1	236.3	238.3	211.3	204.4
29-Aug	144.4	214.5	214.8	227.0	236.3	238.2	211.1	204.3
30-Aug	144.5	214.6	214.9	227.1	236.3	238.3	211.1	204.4
31-Aug	144.4	214.6	214.9	227.1	236.3	238.3	211.0	204.4
Average	144.8	214.8	215.1	226.9	235.9	238.6	212.9	204.6

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 6

Date	Depth from Surface				
	25 ft	50 ft	75 ft	100 ft	125 ft
1-Aug	207.3	194.3	*	194.1	194.0
2-Aug	207.2	194.2	*	194.0	193.9
3-Aug	207.3	193.8	*	193.6	193.5
4-Aug	207.2	194.2	*	194.0	194.0
5-Aug	207.4	194.2	*	194.0	194.0
6-Aug	207.6	194.4	*	194.2	194.2
7-Aug	207.6	194.6	*	194.4	194.4
8-Aug	207.6	194.8	*	194.6	194.5
9-Aug	207.6	194.9	*	194.7	194.6
10-Aug	207.7	195.4	*	195.2	195.2
11-Aug	207.6	195.6	*	195.4	195.4
12-Aug	207.4	195.9	*	195.8	195.7
13-Aug	207.2	195.4	*	195.2	195.1
14-Aug	207.3	197.0	*	196.8	196.8
15-Aug	207.6	197.8	*	197.7	197.6
16-Aug	207.6	198.1	*	197.8	197.8
17-Aug	207.4	198.4	*	198.3	198.3
18-Aug	207.5	198.2	*	198.0	198.1
19-Aug	207.7	198.3	*	198.2	198.1
20-Aug	207.4	195.9	*	195.8	195.7
21-Aug	207.4	195.4	*	195.2	195.1
22-Aug	207.5	197.3	*	197.2	197.1
23-Aug	207.3	195.3	*	195.1	195.1
24-Aug	207.2	196.4	*	196.2	196.3
25-Aug	207.1	194.4	*	194.3	194.3
26-Aug	207.2	193.9	*	193.8	193.7
27-Aug	207.2	194.5	*	194.3	194.3
28-Aug	207.0	195.6	*	195.4	195.4
29-Aug	207.0	195.3	*	195.1	195.2
30-Aug	207.4	195.0	*	194.6	194.6
31-Aug	207.4	194.2	*	194.0	194.0
Average	207.4	195.6	N/A	195.4	195.4

* Indicates sensor reading issues

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 7

Date	Depth from Surface							
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Aug	144.8	191.3	204.6	195.6	193.2	196.3	202.4	206.5
2-Aug	144.8	190.9	204.2	195.2	192.9	196.0	202.3	206.4
3-Aug	144.6	191.2	204.3	195.4	193.0	196.1	201.9	205.6
4-Aug	144.8	191.4	204.6	195.3	192.9	196.0	202.0	205.4
5-Aug	143.5	191.7	205.3	195.5	193.1	196.2	201.5	205.8
6-Aug	142.6	191.9	205.3	195.8	193.3	196.6	202.2	206.5
7-Aug	141.9	191.8	205.5	195.7	193.2	196.5	202.5	206.5
8-Aug	141.6	191.9	205.4	195.7	193.3	196.5	202.2	206.2
9-Aug	141.7	192.0	205.5	195.7	193.4	196.6	202.5	206.0
10-Aug	141.8	192.0	205.6	195.8	193.4	196.8	202.6	206.5
11-Aug	141.9	191.8	205.6	195.6	193.2	196.6	202.8	206.4
12-Aug	141.9	191.7	205.4	195.6	193.2	196.5	202.6	206.3
13-Aug	141.9	191.4	205.2	195.3	192.9	196.3	202.8	206.4
14-Aug	142.2	191.4	204.9	195.4	193.1	196.4	202.6	206.1
15-Aug	142.3	191.9	205.1	195.7	193.6	196.7	202.9	206.5
16-Aug	142.3	192.1	205.2	195.7	193.6	196.8	202.7	206.7
17-Aug	141.7	192.0	205.3	195.6	193.3	196.5	202.7	206.6
18-Aug	141.6	192.3	205.2	195.7	193.5	196.8	202.6	206.8
19-Aug	141.6	192.9	205.4	195.9	194.1	197.0	201.3	205.9
20-Aug	141.3	192.6	205.2	195.5	193.7	196.6	202.3	205.4
21-Aug	141.5	192.5	205.2	195.5	193.5	196.5	202.2	205.4
22-Aug	141.6	192.1	205.3	195.5	193.4	196.5	202.4	205.8
23-Aug	141.6	191.9	205.3	195.5	193.2	196.5	201.9	205.7
24-Aug	141.5	191.5	205.0	195.3	193.1	196.4	201.5	205.5
25-Aug	141.5	191.1	205.2	195.3	192.9	196.3	201.7	205.8
26-Aug	141.7	191.1	205.2	195.4	192.9	196.4	201.9	206.3
27-Aug	141.7	191.8	205.5	195.6	193.0	196.5	201.8	207.1
28-Aug	141.7	191.8	205.5	195.6	192.9	196.7	201.9	206.7
29-Aug	141.9	191.5	205.0	195.4	192.8	196.4	202.1	207.6
30-Aug	142.1	191.6	205.7	195.6	193.0	196.6	201.8	208.0
31-Aug	142.1	191.7	205.8	195.6	192.9	196.8	201.7	206.7
Average	142.3	191.8	205.2	195.5	193.2	196.5	202.2	206.3

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 8

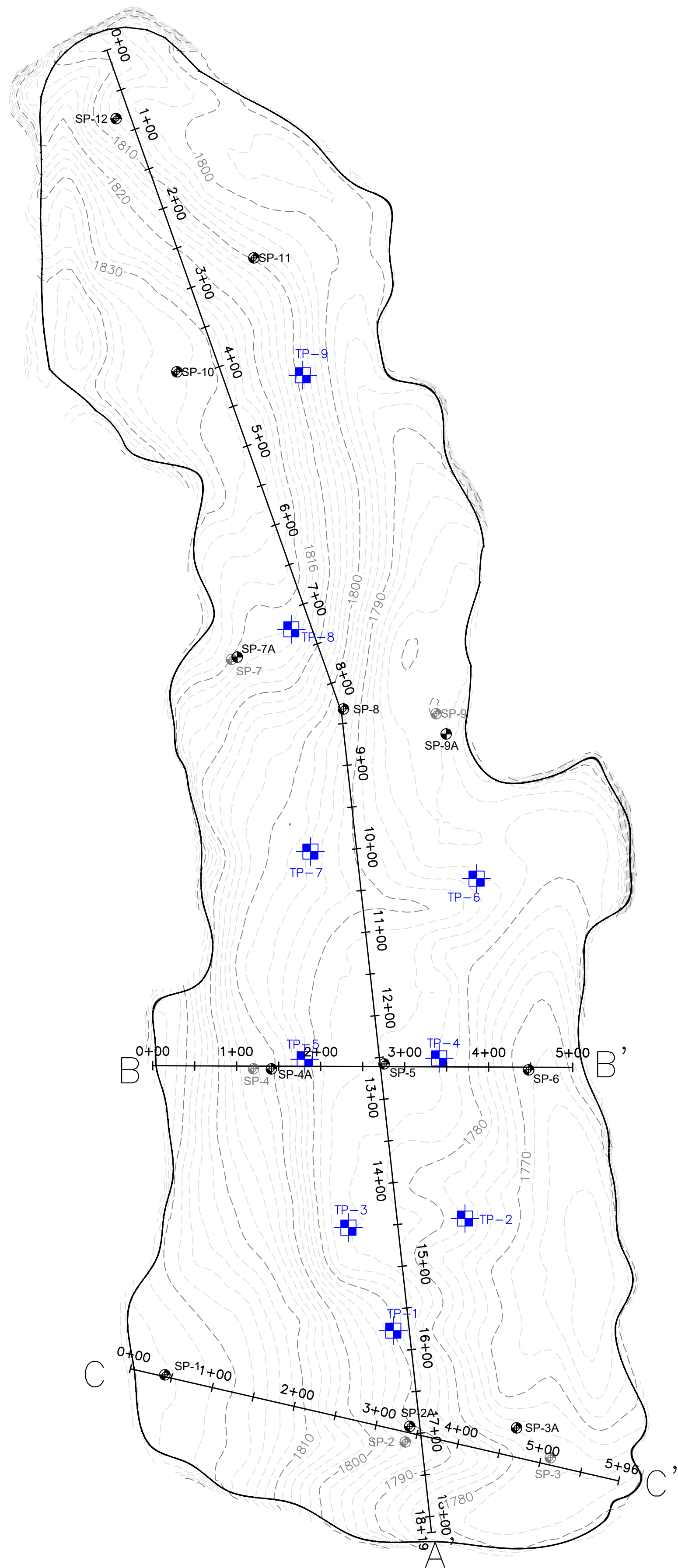
Date	Depth from Surface							
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Aug	185.7	193.7	193.9	196.4	199.3	199.4	188.6	172.1
2-Aug	186.0	193.5	193.8	196.3	199.2	199.3	188.5	171.9
3-Aug	186.0	193.5	193.8	196.3	199.3	199.5	188.6	171.9
4-Aug	186.4	193.5	193.8	196.3	199.3	199.5	188.6	171.9
5-Aug	186.5	193.6	193.9	196.3	199.4	199.5	188.6	172.0
6-Aug	186.6	193.7	194.0	196.4	199.6	199.7	188.7	172.1
7-Aug	186.8	193.7	194.0	196.4	199.6	199.7	188.7	172.0
8-Aug	186.9	193.7	194.0	196.4	199.5	199.7	188.7	172.0
9-Aug	186.7	193.6	193.9	196.3	199.4	199.6	188.5	171.9
10-Aug	186.8	193.7	194.0	196.4	199.5	199.7	188.5	171.9
11-Aug	186.7	193.7	194.0	196.3	199.5	199.7	188.5	171.9
12-Aug	187.1	193.7	193.9	196.3	199.5	199.7	188.5	171.9
13-Aug	185.4	193.6	193.8	196.3	199.4	199.6	188.5	171.8
14-Aug	186.2	193.7	193.9	196.3	199.4	199.7	188.5	171.9
15-Aug	186.4	193.6	193.9	196.3	199.4	199.6	188.3	171.7
16-Aug	186.7	193.7	194.0	196.3	199.5	199.7	188.5	171.8
17-Aug	186.9	193.6	193.9	196.3	199.5	199.7	188.4	171.9
18-Aug	187.0	193.6	193.9	196.3	199.5	199.7	188.3	171.8
19-Aug	187.1	193.8	194.1	196.5	199.7	199.9	188.5	172.0
20-Aug	187.0	193.6	193.8	196.2	199.4	199.7	188.5	171.8
21-Aug	187.1	193.6	193.9	196.2	199.4	199.7	188.4	171.8
22-Aug	187.1	193.6	193.9	196.3	199.4	199.7	188.3	171.7
23-Aug	186.9	193.6	193.8	196.2	199.4	199.6	188.3	171.6
24-Aug	186.7	193.6	193.8	196.2	199.3	199.6	188.3	171.7
25-Aug	186.5	193.3	193.6	195.9	199.1	199.3	188.0	171.4
26-Aug	186.3	193.3	193.6	196.0	199.1	199.3	188.1	171.3
27-Aug	186.4	193.3	193.6	196.0	199.2	199.3	188.2	171.4
28-Aug	186.6	193.4	193.7	196.1	199.3	199.4	188.3	171.4
29-Aug	186.8	193.3	193.6	195.9	199.1	199.3	188.0	171.3
30-Aug	186.9	193.4	193.7	196.1	199.2	199.5	188.3	171.4
31-Aug	186.9	193.4	193.7	196.1	199.2	199.4	188.4	171.5
Average	186.6	193.6	193.8	196.2	199.4	199.6	188.4	171.8

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 9

Date	Depth from Surface							
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Aug	103.6	148.5	147.6	149.2	144.7	132.0	116.2	105.2
2-Aug	107.2	148.6	148.0	149.1	144.4	131.8	116.1	105.9
3-Aug	107.5	148.9	148.3	149.1	144.4	131.9	116.1	106.0
4-Aug	109.1	149.3	148.9	149.1	144.5	132.0	116.2	106.3
5-Aug	109.6	149.6	149.2	149.1	144.4	132.0	116.2	106.4
6-Aug	109.7	149.6	149.3	149.1	144.4	131.9	116.2	106.4
7-Aug	109.7	149.7	149.3	149.1	144.4	131.9	116.2	106.4
8-Aug	109.9	149.8	149.4	149.2	144.5	131.9	116.3	106.5
9-Aug	109.9	149.7	149.4	149.2	144.4	131.9	116.3	106.4
10-Aug	110.0	149.8	149.5	149.2	144.4	131.9	116.4	106.5
11-Aug	109.9	149.8	149.4	149.3	144.5	132.0	116.4	106.5
12-Aug	110.0	149.7	149.4	149.1	144.4	131.9	116.3	106.4
13-Aug	108.6	149.5	149.0	149.1	144.3	131.8	116.2	106.2
14-Aug	109.3	149.6	149.1	149.5	144.7	132.1	116.5	106.4
15-Aug	109.9	149.9	149.5	149.4	144.7	132.1	116.5	106.4
16-Aug	110.0	150.0	149.6	149.5	144.8	132.2	116.6	106.4
17-Aug	110.0	149.9	149.5	149.4	144.7	132.0	116.6	106.3
18-Aug	110.2	150.0	149.6	149.4	144.7	132.0	116.7	106.4
19-Aug	110.2	150.0	149.7	149.4	144.8	132.0	116.7	106.5
20-Aug	110.0	149.8	149.3	149.3	144.6	131.8	116.5	106.3
21-Aug	109.9	149.8	149.3	149.3	144.7	131.8	116.5	106.4
22-Aug	109.9	149.8	149.3	149.3	144.7	131.8	116.6	106.5
23-Aug	109.8	149.6	149.1	149.1	144.4	131.6	116.4	106.2
24-Aug	109.6	149.5	149.0	149.1	144.5	131.6	116.4	106.1
25-Aug	109.7	149.5	149.1	149.0	144.3	131.4	116.3	106.0
26-Aug	109.6	149.5	149.1	148.7	144.1	131.3	116.1	105.7
27-Aug	109.7	149.5	149.2	148.7	144.0	131.2	116.1	105.7
28-Aug	109.7	149.6	149.2	148.9	144.1	131.3	116.2	105.7
29-Aug	109.6	149.4	149.0	148.9	144.1	131.2	116.2	105.6
30-Aug	109.8	149.7	149.2	149.1	144.3	131.4	116.4	105.8
31-Aug	109.8	149.5	149.1	149.0	144.1	131.4	116.4	105.7
Average	109.4	149.6	149.2	149.2	144.5	131.8	116.3	106.2

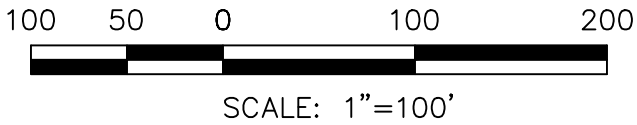
Appendix E

Monthly Topography Analysis

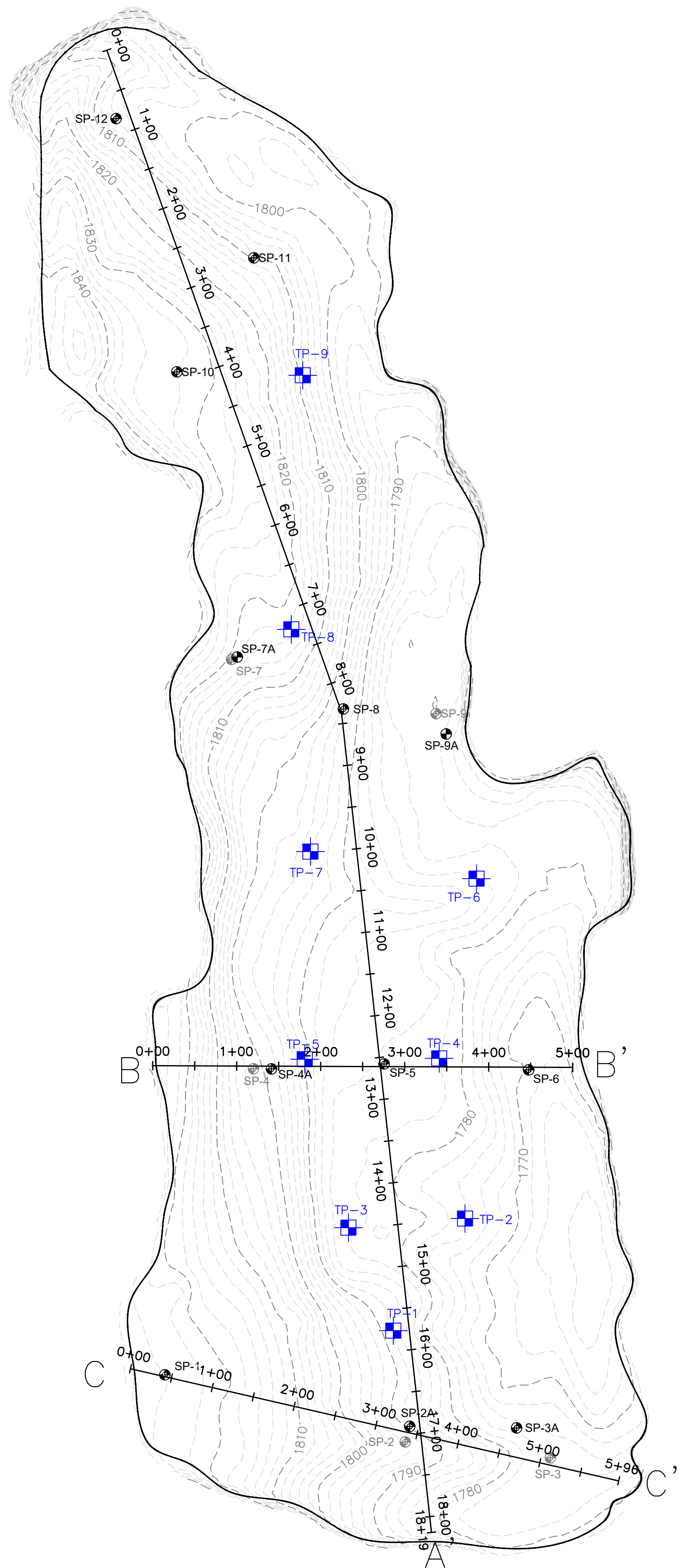


- LEGEND**
- MAJOR CONTOURS (EVERY 10')
 - MINOR CONTOURS (EVERY 2')
 - APPROXIMATE SIDEWALL LOCATION
 - SP-8 SETTLEMENT PLATE
 - SP-9 DECOMMISSIONED SETTLEMENT PLATE
 - TP-3 TEMPERATURE MONITORING PROBE

- NOTES:**
- GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON AUGUST 14, 2024 BY SCS ENGINEERS.
 - 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.
 - THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
 - THE VERTICAL DATUM IS BASED UPON NAVD-88.

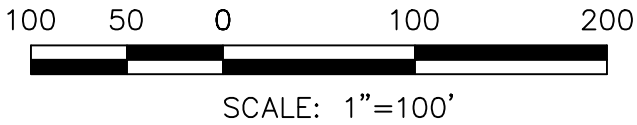


SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 1827 LANTANA DRIVE, SUITE 100 BRISTOL, VIRGINIA 22113 PH: (804) 378-7440 FAX: (804) 378-7433		CADD FILE: SURF1 COMP		DATE: 9/4/2025		SCALE:		DRAWING NO. 1	
		PROJ. NO.: 02218208.05		DATE: 02/21/2025		SCALE: 1"=100'		DRAWING NO. 8	
CLIENT CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VIRGINIA 24201		SHEET TITLE AUGUST 2024 LANDFILL TOPOGRAPHY		PROJECT TITLE MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588		NO.		REVISION	
						DATE			

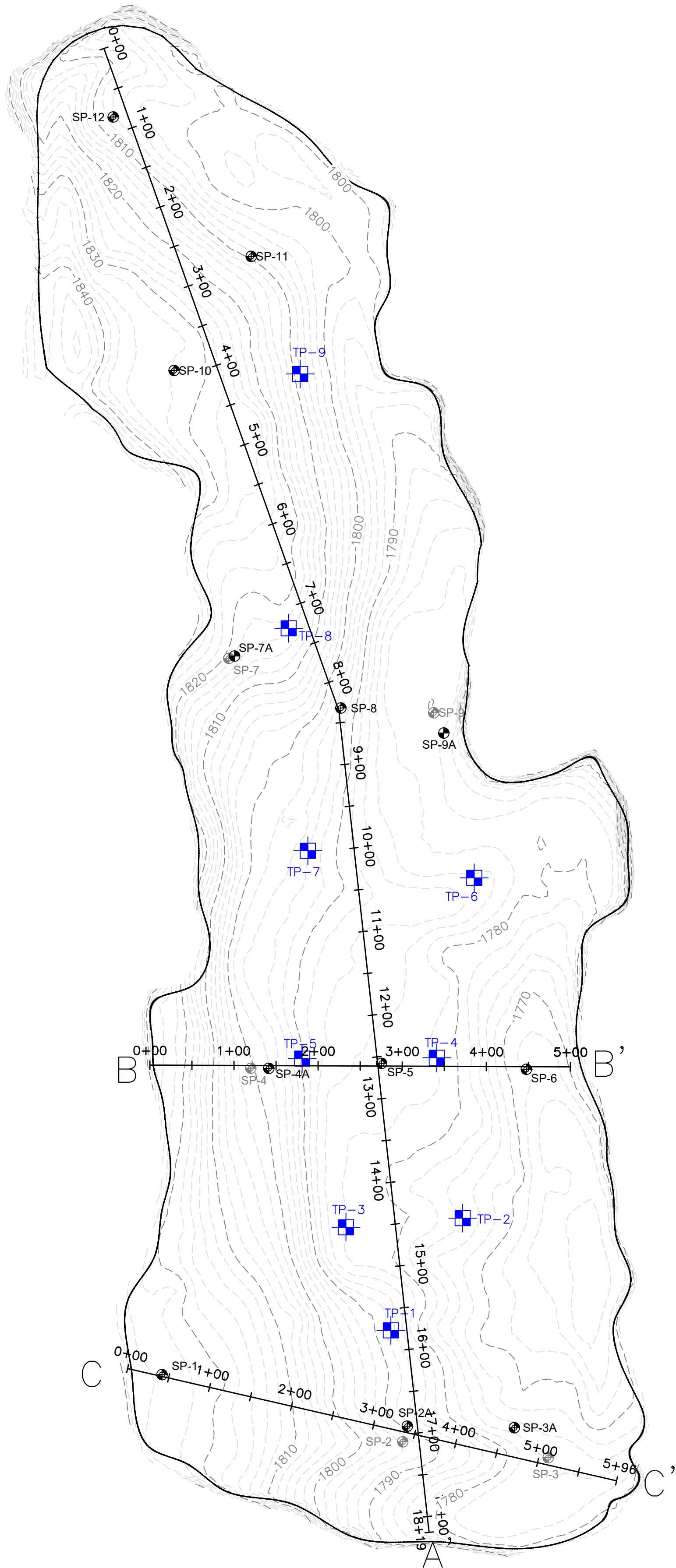


- LEGEND
- MAJOR CONTOURS (EVERY 10')
 - MINOR CONTOURS (EVERY 2')
 - APPROXIMATE SIDEWALL LOCATION
 - SP-8 SETTLEMENT PLATE
 - SP-9 DECOMMISSIONED SETTLEMENT PLATE
 - TP-3 TEMPERATURE MONITORING PROBE

- NOTES:
- GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON MAY 15, 2025 BY SCS ENGINEERS.
 - 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.
 - THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
 - THE VERTICAL DATUM IS BASED UPON NAVD-88.

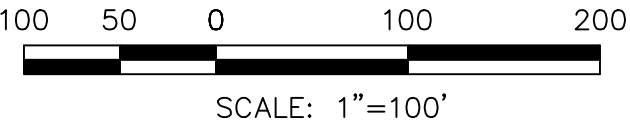


CLIENT		CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY		MAY 2025		NO.		REVISION		DATE	
SCS ENGINEERS		STEARNs, CONRAD AND SCHMIDT CONSULTING ENGINEERS INC.		LANDFILL TOPOGRAPHY		△					
1827 HUNTERS LANE, SUITE 100		1827 MIDLOTHIAN TPK., MIDLOTHIAN, VA 23113		PROJECT TITLE		△					
PH. (804) 378-7440 FAX. (804) 378-7433		2655 VALLEY DRIVE		MONTHLY TOPOGRAPHY ANALYSIS		△					
PROJ. NO. 02218208.05		BRISTOL, VIRGINIA 24201		SOLID WASTE PERMIT #588		△					
CADD FILE: SURF1 COMP		O/A RW BY: JMM				△					
DATE: 9/4/2025		POD BY: JMM				△					
SCALE:		CHK. BY: C/JW				△					
DRAWING NO.		SRB				△					
2		C/JW				△					
8		C/JW				△					

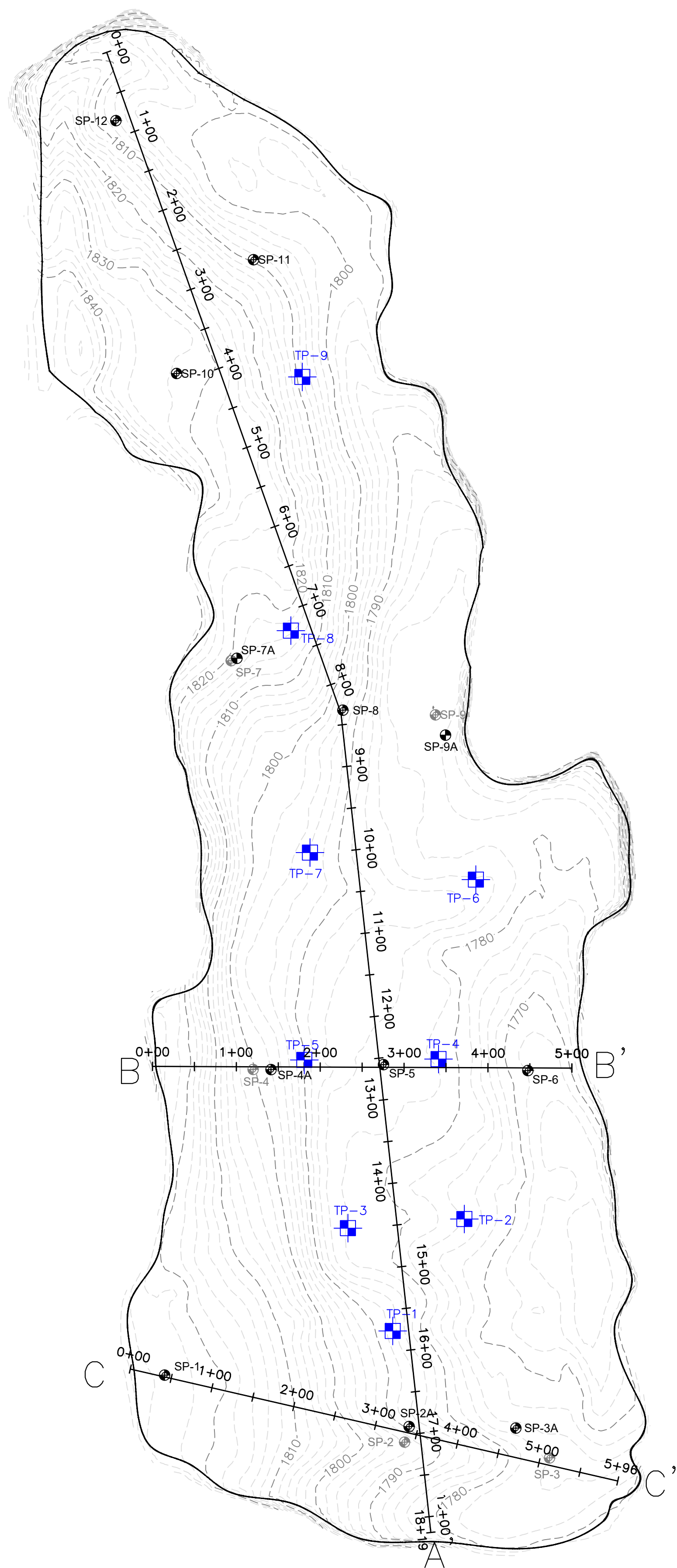


- LEGEND
- MAJOR CONTOURS (EVERY 10')
 - MINOR CONTOURS (EVERY 2')
 - APPROXIMATE SIDEWALL LOCATION
 - SP-8 SETTLEMENT PLATE
 - SP-9 DECOMMISSIONED SETTLEMENT PLATE
 - TP-3 TEMPERATURE MONITORING PROBE

- NOTES:
- GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON JULY 29, 2025 BY SCS ENGINEERS.
 - 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.
 - THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
 - THE VERTICAL DATUM IS BASED UPON NAVD-88.



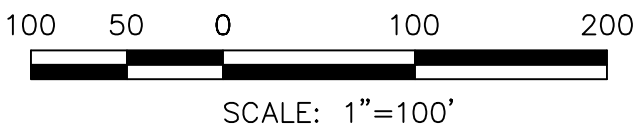
SCS ENGINEERS		CADD FILE:		DRAWING NO.	
STEARNS, CONRAD AND SCHMIDT		SURF COMP		3	
CONSULTING ENGINEERS, INC.		DATE:		9/4/2025	
15521 MIDLOTHIAN TPK - MIDLOTHIAN, VA 23113		SCALE:			
PH. (804) 378-7440 FAX. (804) 378-7433					
PROJ. NO.	DWG. BY:	Q/A REVIEW	CHK. BY:	NO.	DATE
02218208.05	MM	CJW	MM	△	
ISSN BY:	CHK. BY:	APP. BY:		△	
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- LEGEND**
- MAJOR CONTOURS (EVERY 10')
 - MINOR CONTOURS (EVERY 2')
 - APPROXIMATE SIDEWALL LOCATION
 - SETTLEMENT PLATE
 - DECOMMISSIONED SETTLEMENT PLATE
 - TEMPERATURE MONITORING PROBE

NOTES:

- GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON AUGUST 21, 2025 BY SCS ENGINEERS.
- 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.
- THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
- THE VERTICAL DATUM IS BASED UPON NAVD-88.

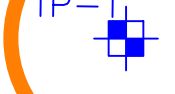


SCS ENGINEERS STEARNES, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC., 1523 MIDLOTHIAN TPK., SUITE 200 FARMAN, VA 23113 PH. (804) 378-7440 FAX. (804) 378-7433		CLIENT		AUGUST 2025 LANDFILL TOPOGRAPHY		NO.		REVISION		DATE	
CADD FILE: SURF1.DWG		CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY		PROJECT TITLE		△					
DATE: 9/4/2025		2655 VALLEY DRIVE BRISTOL, VIRGINIA 24201		MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588		△					
SCALE:		PROJ. NO. 2208.05				△					
DRAWING NO.		DWN. BY: C.J.W.				△					
		CHK. BY:				△					
		APP. BY:				△					
		CJW				△					
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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

- SPOT ELEVATION ON 100' GRID
- | | |
|---|--|
|  | TEMPERATURE MONITORING PROBE WITH
AVERAGE TEMPERATURES AT DEPTH LESS THAN 200 °F |
|  | TEMPERATURE MONITORING PROBE WITH
AVERAGE TEMPERATURES AT DEPTH BETWEEN 200 °F AND 250 °F |
|  | TEMPERATURE MONITORING PROBE WITH
AVERAGE TEMPERATURES AT DEPTH BETWEEN 250 °F AND 300 °F |

Volume

Base Surface TOPO – July 29, 2025
Comparison Surface TOPO – August 21, 2025

Cut Volume	2,852	Cu. Yd.
Fill Volume	2,683	Cu. Yd.
Net Cut	169	Cu. Yd.

Number	Minimum Elevation	Maximum Elevation	Color
1	−20.000	−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	
8	10.000	20.000	

NOTES:

1. THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON JULY 29, 2025 AND AUGUST 21, 2025 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.

**AUGUST VOLUME CHANGE
JULY 2025 TO AUGUST 2025**

SHEET 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.
45231 180TH STREET, N.W. • MILLOTJAN, WA 98047

PH. (804) 378-7440 FAX. (804) 378-7433

J. NO.	DWN. BY:	Q/A RWV BY:
218208.05	VMM	CJW
BY:	CHK. BY:	APP. BY:

CADD FILE:
SURF COMP

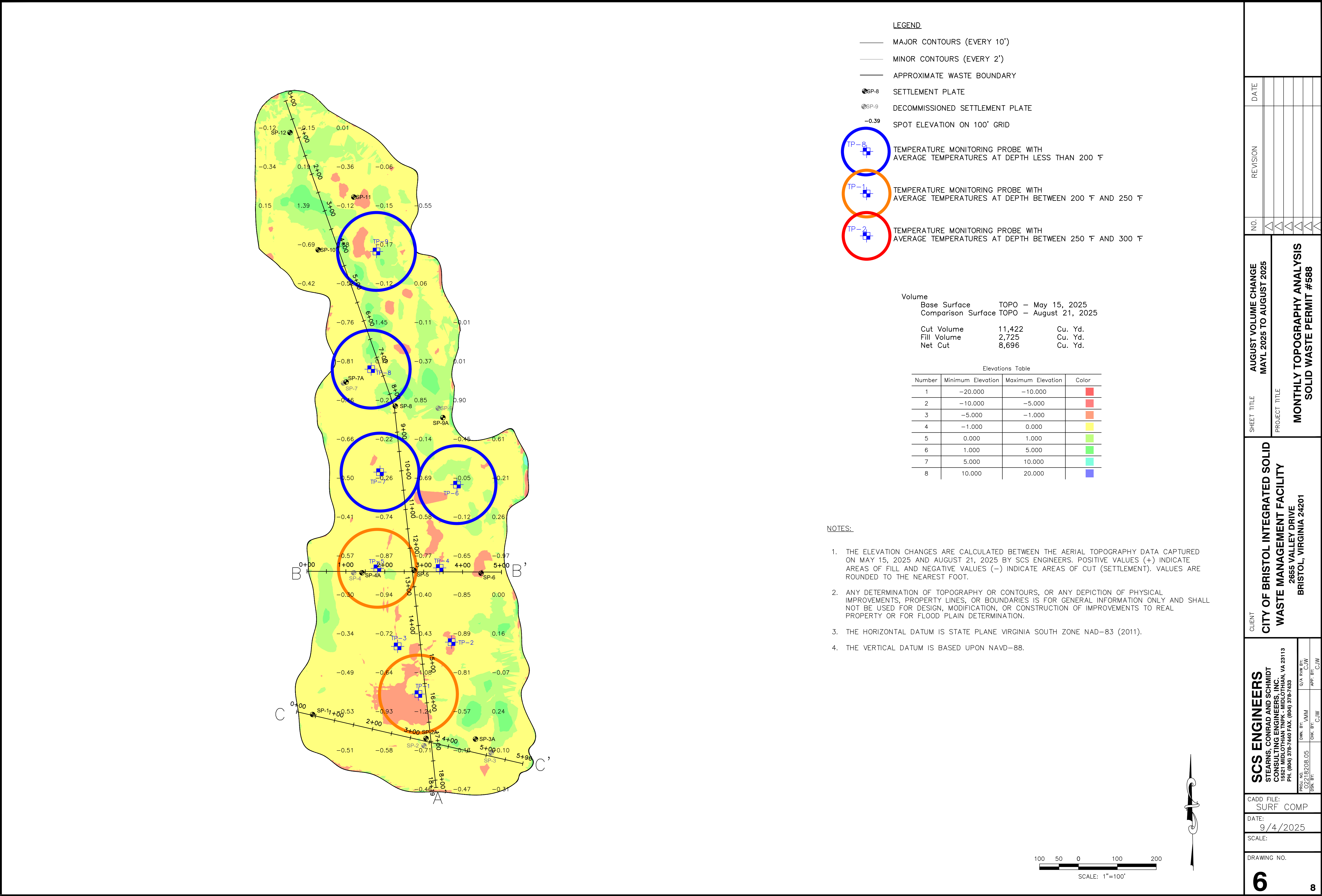
DATE: 9/4/2025

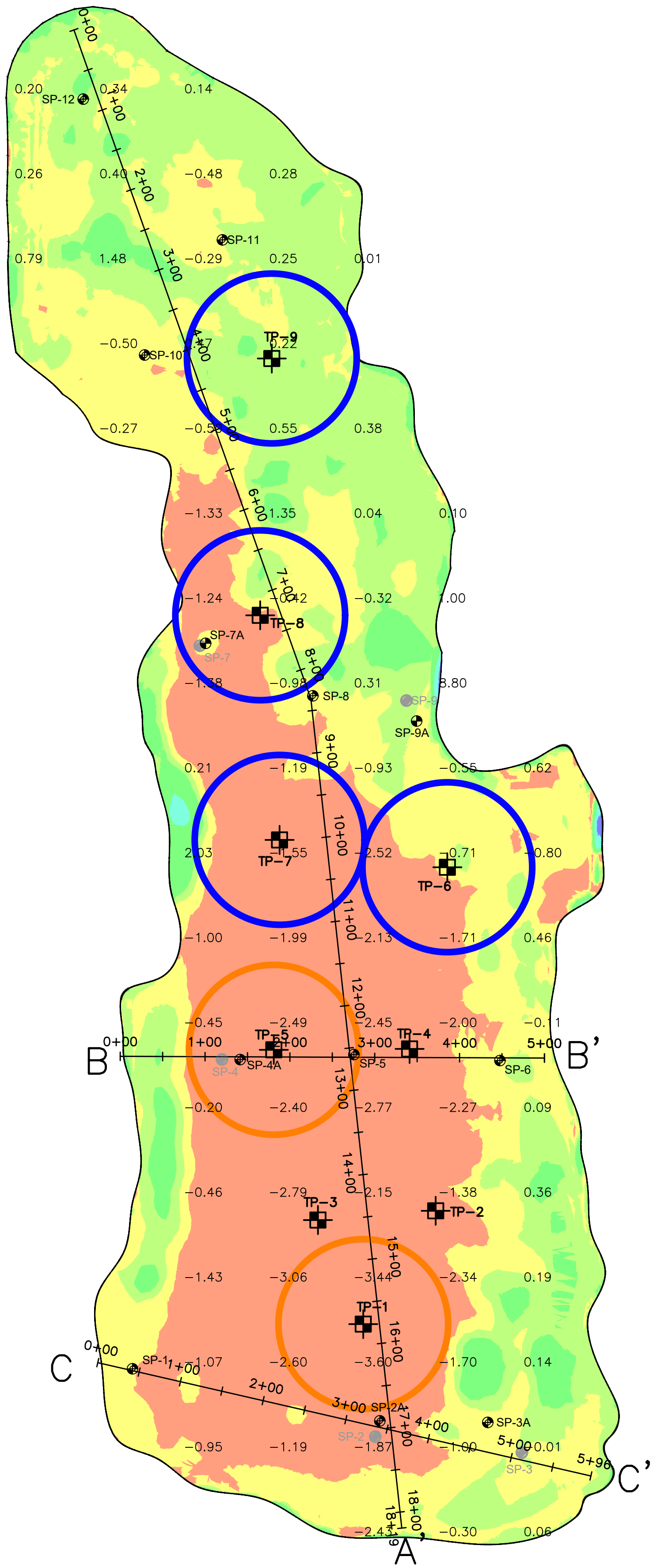
SCALE:

DRAWING NO.

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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

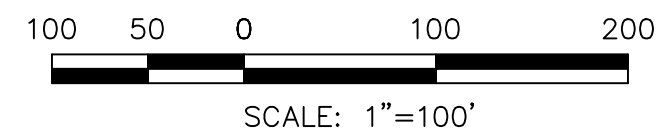
Base Surface	TOPO	August 14, 2024
Comparison Surface	TOPO	August 21, 2025

Cut Volume	26,160	Cu. Yd.
Fill Volume	5,933	Cu. Yd.
Net Cut	20,227	Cu. Yd.

Elevations Table

Number	Minimum Elevation	Maximum Elevation	Color
1	-20.000	-10.000	Red
2	-10.000	-5.000	Red
3	-5.000	-1.000	Orange
4	-1.000	0.000	Yellow
5	0.000	1.000	Light Green
6	1.000	5.000	Green
7	5.000	10.000	Cyan
8	10.000	20.000	Blue

- NOTES:
- THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON AUGUST 14, 2024 AND AUGUST 21, 2025 BY SCS ENGINEERS. POSITIVE VALUES (+) INDICATE AREAS OF FILL AND NEGATIVE VALUES (-) INDICATE AREAS OF CUT (SETTLEMENT). VALUES ARE ROUNDED TO THE NEAREST FOOT
 - 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.
 - THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011)
 - THE VERTICAL DATUM(S) IS BASED UPON NAVD-88.



AUGUST VOLUME CHANGE

AUGUST 2024 TO AUGUST 2025

SHEET TITLE

CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY

NO.

DATE

REVISION

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 TPK - MIDLOTHIAN, VA 23113

PH: (804) 378-7440 FAX: (804) 378-7433

PROJ. NO. 220208.05

DATE 9/4/2025

BY: C.J.W.

CHK: BY: C.J.W.

APP: BY: C.J.W.

Q/A: RW: BY: C.J.W.

CADD FILE:

SURF COMP

DATE:

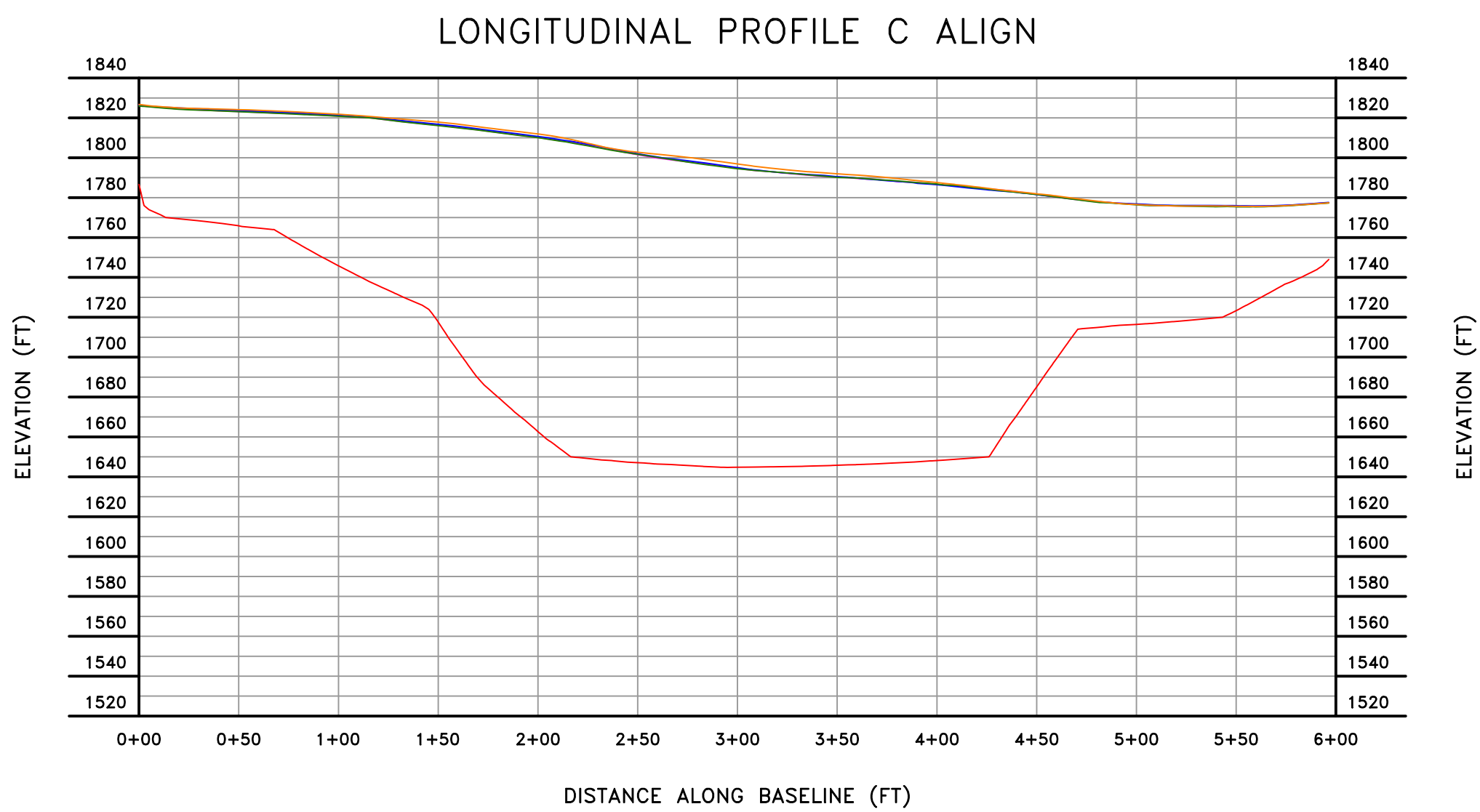
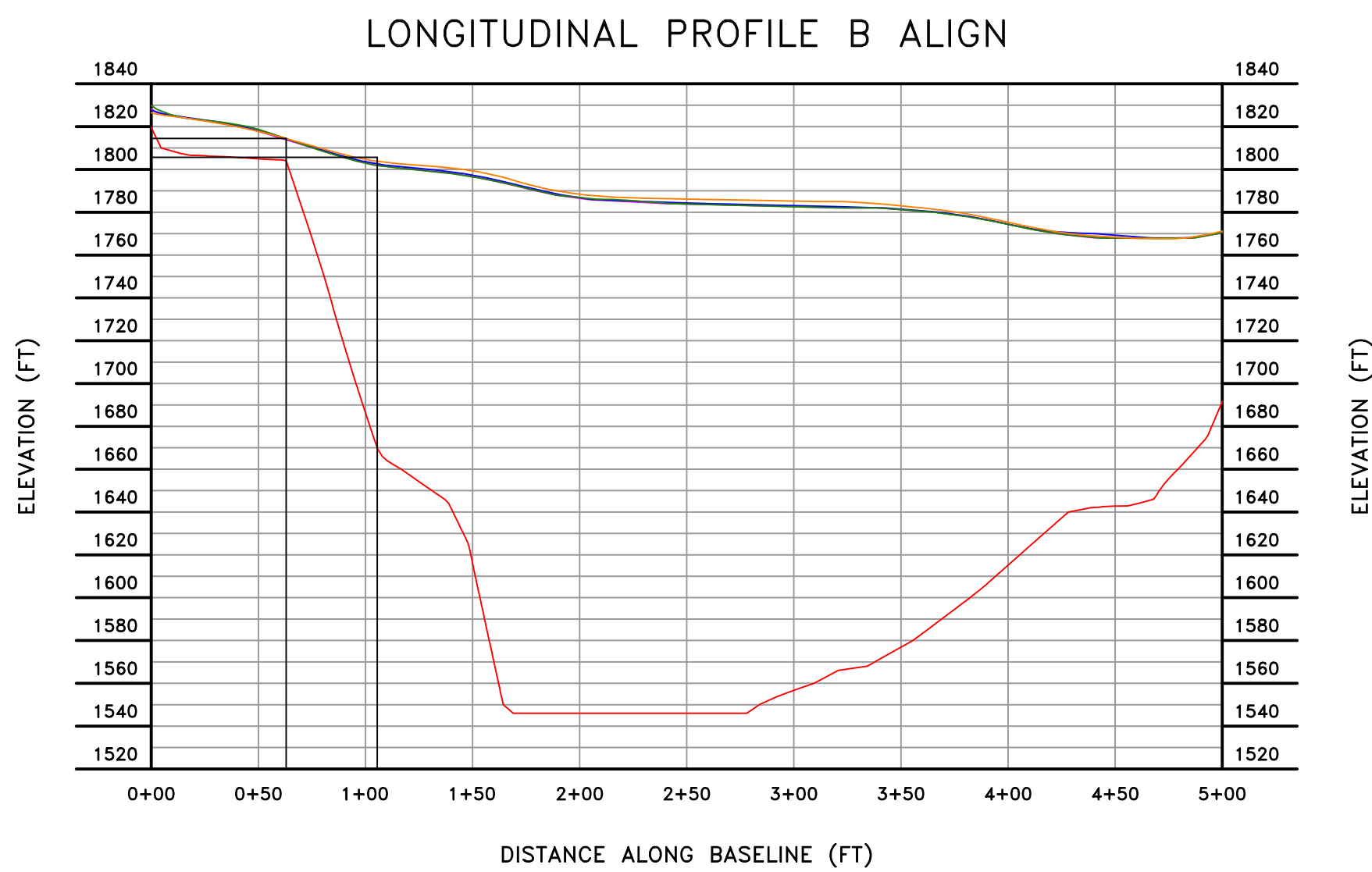
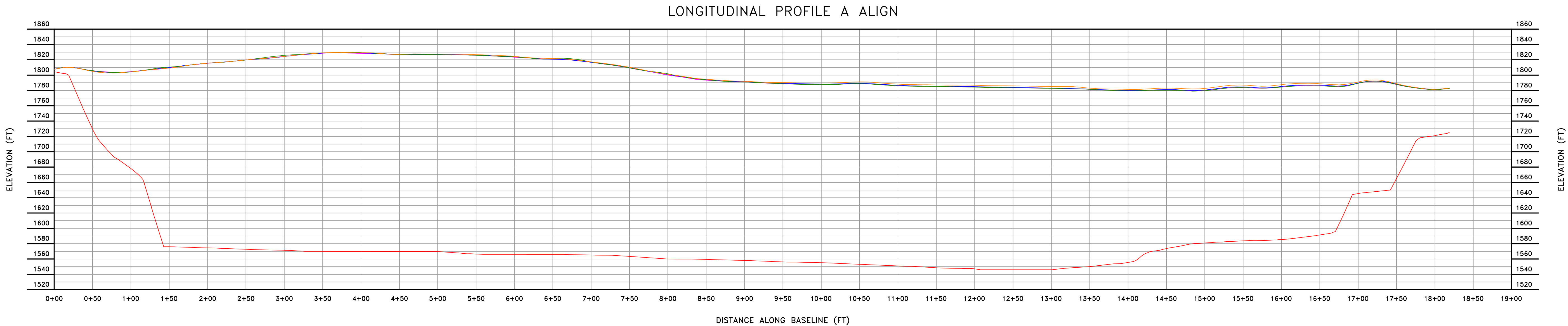
9/4/2025

SCALE:

DRAWING NO.

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- LEGEND**
- BOTTOM LINER ELEVATION
 - AUGUST 2024 TOPO
 - MAY 2025 TOPO
 - JULY 2025 TOPO
 - AUGUST 2025 TOPO

SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TPK - MIDLOTHIAN, VA 23113 PH: (804) 378-7440 FAX: (804) 378-7433		CADD FILE: SURF COMP	
PROJ. NO. 2208.05	DWG. BY: JMM	DATE: 9/4/2025	DRAWING NO.
CHK. BY: C.JW	APP. BY: C.JW	SCALE:	
CLIENT CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VIRGINIA 24201		SHEET TITLE PROFILES PROJECT TITLE MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588	
NO.		REVISION	
DATE			

Appendix F
Field Logs
Lab Report
Historical LFG-EW Leachate Monitoring Results Summary

Appendix F

Field Logs (August 2025)
Lab Report (July 2025)
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	8/26-28/2025													
SCS Personnel	Field Personnel:		L. Nelson & C.Kirby				Checked By: L. Howard and J. Robb							
Location ID	Date	Casing Stickup (ft)	Depth to Liquid (ft)	Prior Depth to Liquid (ft)	Cycle Count	Prior Cycle Count	Well Casing Depth (ft)	Pump Depth (ft)	Liquid Column Thickness	Pump (Y/N)	Pump PSI	Sample Collected	Check/Photo	Comments
PUMP INSTALLED														
EW-49	8/28/2025	---	---	---	---	79565	96.15	87	---	---	---	---	---	Wells not under vacuum, CO 134ppm, VOC 64ppm
EW-50	8/28/2025	---	---	---	---	1604584	77.70	83	---	---	---	---	---	
EW-53	8/27/2025	4.60	39.6	50.95	3294540	3294540	100.70	77	49.75	Y	0	N	Y	Air off
EW-55	8/27/2025	4.38	42.52	---	73387	73387	90.40	90	---	Y	0	N	Y	Air off
EW-59	8/26/2025	4.84	40.15	44.15	3684552	3681145	73.40	61	29.25	Y	110	N	Y	LEL 29%
EW-60	8/27/2025	4.46	41.86	69.25	299167	272869	81.80	72.5	12.55	Y	95	N	Y	
EW-61	8/28/2025	3.40	73.91	75.75	181617	135257	87.80	75	12.05	Y	100	N	Y	LEL 17%
EW-62	8/27/2025	---	83.8	84.61	---	214599	110.60	91.5	25.99	Y	0	N	Y	LEL 12%, O2 19.4%
EW-65	8/27/2025	3.28	49.32	46.05	13496	119158	88.40	70	42.35	Y	115	N	Y	
EW-68	8/27/2025	2.18	44.88	45.74	2662104	2662098	73.57	60	27.83	Y	120	N	Y	
EW-78	8/28/2025	3.70	46.04	46.66	185303	119520	57.00	47	10.34	N	95	N	Y	Air off
EW-81	8/28/2025	5.44	106.08	106.06	---	---	151.56	125	45.50	Y	0	N	Y	gauging device (PVC) lost in well, can't read cycle counter
EW-82	8/27/2025	3.93	118.37	122.25	631268	631288	163.26	145	41.01	Y	---	N	Y	O2 19.4%
EW-83	8/28/2025	5.04	82.97	84.64	2265	Too Tall	167.04	145	82.40	Y	---	N	Y	No pressure gauge, air leak heard prior to opening
EW-85	8/27/2025	4.98	60.18	61.91	347869	334195	91.00	78	29.09	Y	110	N	Y	Air disconnected
EW-87	8/27/2025	5.18	69.53	53.27	340749	346749	149.57	110	96.30	Y	0	N	Y	
EW-88	8/27/2025	---	---	60.81	---	438820	100.00	61	39.19	Y	95	N	Y	O2 19.0%

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

Date	8/26-28/2025													
SCS Personnel	Field Personnel:		L. Nelson & C.Kirby				Checked By: L. Howard and J. Robb							
Location ID	Date	Casing Stickup (ft)	Depth to Liquid (ft)	Prior Depth to Liquid (ft)	Cycle Count	Prior Cycle Count	Well Casing Depth (ft)	Pump Depth (ft)	Liquid Column Thickness	Pump (Y/N)	Pump PSI	Sample Collected	Check/Photo	Comments
PUMP INSTALLED														
EW-89	8/27/2025	4.50	65.16	34.84	471935	317018	84.57	70	49.73	Y	100	N	Y	VOC 59.5ppm
EW-96	8/26/2025	8.32	---	51.98	---	Too Tall	164.35	145	112.37	Y	0	N	Y	Air off, too tall
EW-98	8/27/2025	4.36	46.11	46.09	2497452	1886306	51.00	46	4.91	Y	110	N	Y	Air off, VOCs 33.7ppm
NO PUMP														
EW-54	8/27/2025	3.60	37	37.45	---	---	82.70	65	45.25	N	---	N	Y	
EW-56	8/26/2025	3.73	38.05	Dry	---	---	42.71	---	---	N	---	N	Y	
EW-67	8/27/2025	2.97	41.05	40.42	---	---	107.75	76	67.33	N	---	N	Y	
EW-69	8/27/2025	4.64	93.18	92.60	--	--	98.00	---	5.40	N	---	N	Y	LEL 22%
EW-70	8/27/2025	1.74	64.07	63.89	---	---	71.00	58	7.11	N	---	N	Y	
EW-73	8/27/2025	3.24	105.68	106.31	---	---	116.00	---	9.69	N	---	N	Y	
EW-80	8/28/2025	3.67	136.93	137.05	---	---	149.00	---	11.95	N	---	N	Y	O2 19.4%
EW-84	8/28/2025	4.24	78.24	78.49	---	---	130.56	---	52.07	N	---	N	Y	
EW-86	8/27/2025	3.45	---	76.54	---	---	153.00	---	76.46	N	---	N	Y	Obstruction 76.72 ft below top of casing
EW-91	8/26/2025	4.26	48.07	47.26	---	---	137.70	---	90.44	N	---	N	Y	
EW-92	8/27/2025	7.74	54.01	---	---	---	112.99	---	---	N	---	N	Y	Too Tall
EW-95	8/26/2025	3.03	57.13	59.45	---	---	68.00	---	---	N	---	N	Y	
EW-97	8/26/2025	8.84	---	---	---	---	144.50	---	---	N	---	N	Y	Too Tall
EW-99	8/26/2025	4.35	59.2	59.92	---	---	65.00	---	5.08	N	---	N	Y	LEL 20%

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

Date	8/26-28/2025													
SCS Personnel	Field Personnel:		L. Nelson & C.Kirby				Checked By: L. Howard and J. Robb							
Location ID	Date	Casing Stickup (ft)	Depth to Liquid (ft)	Prior Depth to Liquid (ft)	Cycle Count	Prior Cycle Count	Well Casing Depth (ft)	Pump Depth (ft)	Liquid Column Thickness	Pump (Y/N)	Pump PSI	Sample Collected	Check/Photo	Comments
MEASURE CASING STICKUP AND CYCLE COUNTER ONLY														
EW-36A ¹	8/27/2025	3.48	---	---	459999	459999	180.00	135	---	Y	0	N	Y	O2 19.5%
EW-52 ²	8/27/2025	3.44	---	---	1239706	1239186	98.70	80	---	Y	0	N	Y	
EW-66 ²	8/26/2025	3.65	---	32.91	39055	39018	---	---	---	Y	120	N	Y	
EW-76 ²	8/27/2025	3.76	---	---	---	---	127.00	108	---	N	---	N	Y	
EW-93 ²	8/27/2025	4.02	---	35.82	1409960	1409960	111.00	---	---	N	0	N	Y	Air disconnected
EW-94 ¹	8/27/2025	3.61	---	---	1814445	---	50.00	38	---	Y	100	N	Y	
DO NOT APPROACH														
EW-33B	---	---	---	---	---	---	---	---	---	---	---	---	---	SSO Concerns - Do not approach
EW-63	---	---	---	---	---	---	---	---	---	---	---	---	---	SSO Concerns - Do not approach
EW-64	---	---	---	---	---	---	---	---	---	---	---	---	---	SSO Concerns - Do not approach
EW-77	---	---	---	---	---	---	---	---	---	---	---	---	---	SSO Concerns - Do not approach
EW-79	---	---	---	---	---	---	---	---	---	---	---	---	---	SSO Concerns - Do not approach

--- = not applicable or available

CO = Carbon monoxide

ft = feet

LEL = Lower Explosive Limit

O2 = Oxygen

ppm = parts per million

SSO = Subsurface oxygen event

VOC = Total Volatile Organic Compounds

1 = Not Measured as gauging equipment has historically become stuck in well.

2 = Not Measured as pump is shut off and intended to be pulled for maintenance/replacement or has been removed for maintenance or replacement.

City of Bristol SWP 588 Landfill
Dual Phase LFG-EW Sample Collection Log

Location ID	Sample Date	Sample Time	Temperature (°C)	pH (s.u.)	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Observations
EW-89	8/28/2025	10:13	72.70	5.45	54.60	0.15	-78.60	15.02	dark amber
EW-98	8/28/2025	9:40	40.10	7.02	12.94	0.60	-75.20	25.09	black
SCS Personnel		Sampler:	L. Nelson & C.Kirby			Checked By:	L. Howard and J. Robb		
Samples Shipped By:		Courier				Laboratory:	Enthalpy Analytical		

°C = degrees Celsius

mg/L = milligrams per liter

mV = milliVolts

NTU = Nephelometric Turbidity Unit

s.u. = Standard Unit

mS/cm = milliSiemens per centimeter



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

Certificate of Analysis

Final Report

Laboratory Order ID 25G2252

Client Name: SCS Engineers - Winchester
296 Victory Road
Winchester, VA 22602

Date Received: July 23, 2025 8:00
Date Issued: August 5, 2025 16:31
Project Number: 02218208.15 Task 4
Purchase Order:

Submitted To: Jennifer Robb

Client Site I.D.: Bristol LFG-EW Monthly Monitoring

Enclosed are the results of analyses for samples received by the laboratory on 07/23/2025 08:00. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

Keith Sprouse
Laboratory 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.

This report shall not be reproduced except in full without the expressed and written approval of an authorized representative of Enthalpy Analytical.

Analysis Detects Report

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

Date Issued: 8/5/2025 4:31:19PM

Laboratory Sample ID: 25G2252-01

Client Sample ID: EW-98

Parameter	Samp ID	Reference Method	Sample Results	Qual	DL	LOQ	Dil. Factor	Units
Arsenic	01	SW6010D	0.190		0.0018	0.0200	1	mg/L
Barium	01	SW6010D	0.842		0.0005	0.0100	1	mg/L
Cadmium	01	SW6010D	0.0019	J	0.0002	0.0040	1	mg/L
Chromium	01	SW6010D	0.0899		0.0004	0.0100	1	mg/L
Copper	01	SW6010D	0.0076	J	0.0017	0.0100	1	mg/L
Lead	01	SW6010D	0.0233		0.0018	0.0100	1	mg/L
Mercury	01	SW6020B	0.641		0.0144	0.200	1	ug/L
Nickel	01	SW6010D	0.0145		0.0005	0.0100	1	mg/L
Silver	01	SW6010D	0.0009	J	0.0004	0.0100	1	mg/L
Zinc	01	SW6010D	0.0246		0.0032	0.0100	1	mg/L
2-Butanone (MEK)	01	SW8260D	20300		150	500	50	ug/L
Acetone	01RE1	SW8260D	31100		1400	2000	200	ug/L
Benzene	01	SW8260D	1930		20.0	50.0	50	ug/L
Ethylbenzene	01	SW8260D	124		20.0	50.0	50	ug/L
Tetrahydrofuran	01RE1	SW8260D	25300		2000	2000	200	ug/L
Toluene	01	SW8260D	118		25.0	50.0	50	ug/L
Xylenes, Total	01	SW8260D	280		50.0	150	50	ug/L
Acetic Acid	01	D3705	3890		71.4	500	1000	mg/L
Butyric Acid	01RE1	D3705	575		7.0	50.0	100	mg/L
Formic Acid	01RE1	D3705	57.4		6.4	50.0	100	mg/L
i-Pentanoic Acid	01RE1	D3705	189		10.2	50.0	100	mg/L
Lactic Acid	01RE1	D3705	74.7		5.6	50.0	100	mg/L
n-Hexanoic Acid	01RE1	D3705	121		6.0	50.0	100	mg/L
n-Pentanoic Acid	01RE1	D3705	66.9		5.6	50.0	100	mg/L
Propionic Acid	01	D3705	1210		57.3	500	1000	mg/L
Pyruvic Acid	01RE1	D3705	68.0		8.9	50.0	100	mg/L
Ammonia as N	01	EPA350.1 R2.0	1210		120	200	2000	mg/L

Analysis Detects Report

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

Date Issued: 8/5/2025 4:31:19PM

Laboratory Sample ID: 25G2252-01

Client Sample ID: EW-98

Parameter	Samp ID	Reference Method	Sample Results	Qual	DL	LOQ	Dil. Factor	Units
BOD	01	SM5210B-2016	12000		0.2	2.0	1	mg/L
COD	01	SM5220D-2011	19900		3150	5000	500	mg/L
TKN as N	01	EPA351.2 R2.0	1290		45.9	250	1	mg/L
Total Recoverable Phenolics	01	SW9065	37.4		1.54	2.50	1	mg/L

Laboratory Sample ID: 25G2252-02

Client Sample ID: Trip Blank

Parameter	Samp ID	Reference Method	Sample Results	Qual	DL	LOQ	Dil. Factor	Units
Acetone	02	SW8260D	14.3		7.00	10.0	1	ug/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".

Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EW-98	25G2252-01	Ground Water	07/22/2025 09:30	07/23/2025 08:00
Trip Blank	25G2252-02	Non-Potable Water	05/01/2025 11:00	07/23/2025 08:00

Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

Client Sample ID: EW-98

Laboratory Sample ID: 25G2252-01

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Metals (Total) by EPA 6000/7000 Series Methods												
Silver	01	7440-22-4	SW6010D	07/24/2025 17:00	07/25/2025 11:36	0.0009	J	0.0004	0.0100	1	mg/L	NBT
Arsenic	01	7440-38-2	SW6010D	07/24/2025 17:00	07/25/2025 11:36	0.190		0.0018	0.0200	1	mg/L	NBT
Barium	01	7440-39-3	SW6010D	07/24/2025 17:00	07/25/2025 11:36	0.842		0.0005	0.0100	1	mg/L	NBT
Cadmium	01	7440-43-9	SW6010D	07/24/2025 17:00	07/25/2025 11:36	0.0019	J	0.0002	0.0040	1	mg/L	NBT
Chromium	01	7440-47-3	SW6010D	07/24/2025 17:00	07/25/2025 11:36	0.0899		0.0004	0.0100	1	mg/L	NBT
Copper	01	7440-50-8	SW6010D	07/24/2025 17:00	07/25/2025 11:36	0.0076	J	0.0017	0.0100	1	mg/L	NBT
Mercury	01	7439-97-6	SW6020B	07/24/2025 17:00	07/28/2025 10:37	0.641		0.0144	0.200	1	ug/L	AB
Nickel	01	7440-02-0	SW6010D	07/24/2025 17:00	07/25/2025 11:36	0.0145		0.0005	0.0100	1	mg/L	NBT
Lead	01	7439-92-1	SW6010D	07/24/2025 17:00	07/25/2025 11:36	0.0233		0.0018	0.0100	1	mg/L	NBT
Selenium	01	7782-49-2	SW6010D	07/24/2025 17:00	07/25/2025 11:36	BLOD		0.0069	0.0500	1	mg/L	NBT
Zinc	01	7440-66-6	SW6010D	07/24/2025 17:00	07/25/2025 11:36	0.0246		0.0032	0.0100	1	mg/L	NBT
Volatile Organic Compounds by GCMS												
2-Butanone (MEK)	01	78-93-3	SW8260D	07/24/2025 16:43	07/24/2025 16:43	20300		150	500	50	ug/L	TLH
Acetone	01RE1	67-64-1	SW8260D	07/25/2025 16:13	07/25/2025 16:13	31100		1400	2000	200	ug/L	TLH
Benzene	01	71-43-2	SW8260D	07/24/2025 16:43	07/24/2025 16:43	1930		20.0	50.0	50	ug/L	TLH
Ethylbenzene	01	100-41-4	SW8260D	07/24/2025 16:43	07/24/2025 16:43	124		20.0	50.0	50	ug/L	TLH
Toluene	01	108-88-3	SW8260D	07/24/2025 16:43	07/24/2025 16:43	118		25.0	50.0	50	ug/L	TLH
Xylenes, Total	01	1330-20-7	SW8260D	07/24/2025 16:43	07/24/2025 16:43	280		50.0	150	50	ug/L	TLH
Tetrahydrofuran	01RE1	109-99-9	SW8260D	07/25/2025 16:13	07/25/2025 16:13	25300		2000	2000	200	ug/L	TLH
Surr: 1,2-Dichloroethane-d4 (Surr)	01	97.2 %	70-120	07/24/2025 16:43	07/24/2025 16:43							
Surr: 4-Bromofluorobenzene (Surr)	01	106 %	75-120	07/24/2025 16:43	07/24/2025 16:43							
Surr: Dibromofluoromethane (Surr)	01	93.6 %	70-130	07/24/2025 16:43	07/24/2025 16:43							
Surr: Toluene-d8 (Surr)	01	100 %	70-130	07/24/2025 16:43	07/24/2025 16:43							
Surr: 1,2-Dichloroethane-d4 (Surr)	01RE1	97.8 %	70-120	07/25/2025 16:13	07/25/2025 16:13							
Surr: 4-Bromofluorobenzene (Surr)	01RE1	104 %	75-120	07/25/2025 16:13	07/25/2025 16:13							

Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

Client Sample ID: EW-98

Laboratory Sample ID: 25G2252-01

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: Dibromofluoromethane (Surr)	01RE1	93.6 %	70-130	07/25/2025 16:13	07/25/2025 16:13							
Surr: Toluene-d8 (Surr)	01RE1	98.7 %	70-130	07/25/2025 16:13	07/25/2025 16:13							
Semivolatile Organic Compounds by GCMS												
Anthracene	01	120-12-7	SW8270E	07/29/2025 09:30	07/29/2025 20:36	BLOD		200	400	20	ug/L	HLY
Surr: 2,4,6-Tribromophenol (Surr)	01	87.4 %	5-136	07/29/2025 09:30	07/29/2025 20:36							
Surr: 2-Fluorobiphenyl (Surr)	01	52.8 %	9-117	07/29/2025 09:30	07/29/2025 20:36							
Surr: 2-Fluorophenol (Surr)	01	55.6 %	5-60	07/29/2025 09:30	07/29/2025 20:36							
Surr: Nitrobenzene-d5 (Surr)	01	111 %	5-151	07/29/2025 09:30	07/29/2025 20:36							
Surr: Phenol-d5 (Surr)	01	%	5-60	07/29/2025 09:30	07/29/2025 20:36							DS
Surr: p-Terphenyl-d14 (Surr)	01	42.4 %	5-141	07/29/2025 09:30	07/29/2025 20:36							

Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

Client Sample ID: EW-98

Laboratory Sample ID: 25G2252-01

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Ion Chromatography Analyses												
Acetic Acid	01	64-19-7	D3705	07/29/2025 17:52	07/29/2025 17:52	3890		71.4	500	1000	mg/L	MGC
Butyric Acid	01RE1	107-92-6	D3705	07/29/2025 19:49	07/29/2025 19:49	575		7.0	50.0	100	mg/L	MGC
Formic Acid	01RE1	64-18-6	D3705	07/29/2025 19:49	07/29/2025 19:49	57.4		6.4	50.0	100	mg/L	MGC
n-Hexanoic Acid	01RE1	142-62-1	D3705	07/29/2025 19:49	07/29/2025 19:49	121		6.0	50.0	100	mg/L	MGC
i-Hexanoic Acid	01RE1	646-07-1	D3705	07/29/2025 19:49	07/29/2025 19:49	BLOD		5.1	50.0	100	mg/L	MGC
Lactic Acid	01RE1	50-21-5	D3705	07/29/2025 19:49	07/29/2025 19:49	74.7		5.6	50.0	100	mg/L	MGC
n-Pentanoic Acid	01RE1	109-52-4	D3705	07/29/2025 19:49	07/29/2025 19:49	66.9		5.6	50.0	100	mg/L	MGC
i-Pentanoic Acid	01RE1	503-74-2	D3705	07/29/2025 19:49	07/29/2025 19:49	189		10.2	50.0	100	mg/L	MGC
Propionic Acid	01	79-09-4	D3705	07/29/2025 17:52	07/29/2025 17:52	1210		57.3	500	1000	mg/L	MGC
Pyruvic Acid	01RE1	127-17-3	D3705	07/29/2025 19:49	07/29/2025 19:49	68.0		8.9	50.0	100	mg/L	MGC
Wet Chemistry Analysis												
Ammonia as N	01	7664-41-7	EPA350.1 R2.0	08/04/2025 14:17	08/04/2025 14:17	1210		120	200	2000	mg/L	AAL
BOD	01	E1640606	SM5210B-20 16	07/23/2025 14:30	07/23/2025 14:30	12000		0.2	2.0	1	mg/L	CET
COD	01	NA	SM5220D-20 11	07/31/2025 15:00	07/31/2025 15:00	19900		3150	5000	500	mg/L	WGW
Nitrate as N	01	14797-55-8	SM4500-NO 3F-2019CAL C	07/31/2025 13:00	07/31/2025 15:21	BLOD		0.510	5.00	100	mg/L	KJM
Nitrate+Nitrite as N	01	E701177	SM4500-NO 3F-2019	07/31/2025 13:00	07/31/2025 15:21	BLOD		0.07	0.10	5	mg/L	MKS
Nitrite as N	01	14797-65-0	SM4500-NO 2B-2021	07/24/2025 08:50	07/24/2025 08:50	BLOD		0.51	5.00	100	mg/L	KJM
Total Recoverable Phenolics	01	NA	SW9065	07/31/2025 18:00	07/31/2025 18:00	37.4		1.54	2.50	1	mg/L	SPH
TKN as N	01	E17148461	EPA351.2 R2.0	07/31/2025 13:42	08/01/2025 10:00	1290		45.9	250	1	mg/L	HJB

Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

Client Sample ID: Trip Blank

Laboratory Sample ID: 25G2252-02

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												
2-Butanone (MEK)	02	78-93-3	SW8260D	07/24/2025 12:55	07/24/2025 12:55	BLOD		3.00	10.0	1	ug/L	TLH
Acetone	02	67-64-1	SW8260D	07/24/2025 12:55	07/24/2025 12:55	14.3		7.00	10.0	1	ug/L	TLH
Benzene	02	71-43-2	SW8260D	07/24/2025 12:55	07/24/2025 12:55	BLOD		0.40	1.00	1	ug/L	TLH
Ethylbenzene	02	100-41-4	SW8260D	07/24/2025 12:55	07/24/2025 12:55	BLOD		0.40	1.00	1	ug/L	TLH
Toluene	02	108-88-3	SW8260D	07/24/2025 12:55	07/24/2025 12:55	BLOD		0.50	1.00	1	ug/L	TLH
Xylenes, Total	02	1330-20-7	SW8260D	07/24/2025 12:55	07/24/2025 12:55	BLOD		1.00	3.00	1	ug/L	TLH
Tetrahydrofuran	02	109-99-9	SW8260D	07/24/2025 12:55	07/24/2025 12:55	BLOD		10.0	10.0	1	ug/L	TLH
Surr: 1,2-Dichloroethane-d4 (Surr)	02	98.9 %	70-120	07/24/2025 12:55	07/24/2025 12:55							
Surr: 4-Bromofluorobenzene (Surr)	02	102 %	75-120	07/24/2025 12:55	07/24/2025 12:55							
Surr: Dibromofluoromethane (Surr)	02	93.0 %	70-130	07/24/2025 12:55	07/24/2025 12:55							
Surr: Toluene-d8 (Surr)	02	98.7 %	70-130	07/24/2025 12:55	07/24/2025 12:55							

Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

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
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Batch BIG1225 - SW3005A-ICP

Blank (BIG1225-BLK1)

Prepared: 07/24/2025 Analyzed: 07/25/2025

Arsenic	ND	0.0200	mg/L
Barium	ND	0.0100	mg/L
Cadmium	ND	0.0040	mg/L
Chromium	ND	0.0100	mg/L
Copper	ND	0.0100	mg/L
Lead	ND	0.0100	mg/L
Nickel	ND	0.0100	mg/L
Selenium	ND	0.0500	mg/L
Silver	ND	0.0100	mg/L
Zinc	ND	0.0100	mg/L

LCS (BIG1225-BS1)

Prepared: 07/24/2025 Analyzed: 07/25/2025

Arsenic	0.488	0.0200	mg/L	0.500	97.7	80-120
Barium	0.490	0.0100	mg/L	0.500	98.0	80-120
Cadmium	0.500	0.0040	mg/L	0.500	100	80-120
Chromium	0.497	0.0100	mg/L	0.500	99.4	80-120
Copper	0.488	0.0100	mg/L	0.500	97.7	80-120
Lead	0.501	0.0100	mg/L	0.500	100	80-120
Nickel	0.5002	0.0100	mg/L	0.500	100	80-120
Selenium	0.490	0.0500	mg/L	0.500	98.1	80-120
Silver	0.0881	0.0100	mg/L	0.100	88.1	80-120
Zinc	0.496	0.0100	mg/L	0.500	99.2	80-120

Matrix Spike (BIG1225-MS1)

Source: 25G2252-01

Prepared: 07/24/2025 Analyzed: 07/25/2025

Arsenic	0.647	0.0200	mg/L	0.500	0.190	91.4	75-125
Barium	1.30	0.0100	mg/L	0.500	0.842	90.6	75-125

Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

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
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Batch BIG1225 - SW3005A-ICP

Matrix Spike (BIG1225-MS1)		Source: 25G2252-01		Prepared: 07/24/2025 Analyzed: 07/25/2025						
Cadmium	0.405	0.0040	mg/L	0.500	0.0019	80.6	75-125			
Chromium	0.518	0.0100	mg/L	0.500	0.0899	85.5	75-125			
Copper	0.532	0.0100	mg/L	0.500	0.0076	105	75-125			
Lead	0.426	0.0100	mg/L	0.500	0.0233	80.5	75-125			
Nickel	0.4156	0.0100	mg/L	0.500	0.0145	80.2	75-125			
Selenium	0.316	0.0500	mg/L	0.500	BLOD	63.3	75-125			M
Silver	0.0912	0.0100	mg/L	0.100	0.0009	90.3	75-125			
Zinc	0.493	0.0100	mg/L	0.500	0.0246	93.6	75-125			

Matrix Spike Dup (BIG1225-MSD1)		Source: 25G2252-01		Prepared: 07/24/2025 Analyzed: 07/25/2025						
Arsenic	0.650	0.0200	mg/L	0.500	0.190	91.9	75-125	0.432	20	
Barium	1.29	0.0100	mg/L	0.500	0.842	88.9	75-125	0.659	20	
Cadmium	0.411	0.0040	mg/L	0.500	0.0019	81.9	75-125	1.59	20	
Chromium	0.524	0.0100	mg/L	0.500	0.0899	86.9	75-125	1.34	20	
Copper	0.541	0.0100	mg/L	0.500	0.0076	107	75-125	1.77	20	
Lead	0.433	0.0100	mg/L	0.500	0.0233	82.0	75-125	1.79	20	
Nickel	0.4223	0.0100	mg/L	0.500	0.0145	81.6	75-125	1.60	20	
Selenium	0.330	0.0500	mg/L	0.500	BLOD	66.0	75-125	4.18	20	M
Silver	0.0927	0.0100	mg/L	0.100	0.0009	91.8	75-125	1.63	20	
Zinc	0.597	0.0100	mg/L	0.500	0.0246	114	75-125	19.1	20	

Batch BIG1227 - SW3005A-ICPMS

Blank (BIG1227-BLK1)		Prepared: 07/24/2025 Analyzed: 07/28/2025								
Mercury	ND	0.200	ug/L							

LCS (BIG1227-BS1)		Prepared: 07/24/2025 Analyzed: 07/28/2025								
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Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

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
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Batch BIG1227 - SW3005A-ICPMS

LCS (BIG1227-BS1)

Prepared: 07/24/2025 Analyzed: 07/28/2025

Mercury	1.02	0.200	ug/L	1.00		102	80-120			
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Matrix Spike (BIG1227-MS1)

Source: 25G2277-01

Prepared: 07/24/2025 Analyzed: 07/28/2025

Mercury	1.08	0.200	ug/L	1.00	0.0579	102	70-130			
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Matrix Spike Dup (BIG1227-MSD1)

Source: 25G2277-01

Prepared: 07/24/2025 Analyzed: 07/28/2025

Mercury	1.09	0.200	ug/L	1.00	0.0579	103	70-130	1.05	20	
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Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BIG1232 - SW5030B-MS

Blank (BIG1232-BLK1)

Prepared & Analyzed: 07/24/2025

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							
<i>Surr: 1,2-Dichloroethane-d4 (Surr)</i>	<i>48.6</i>		ug/L	<i>50.0</i>		<i>97.1</i>	<i>70-120</i>			
<i>Surr: 4-Bromofluorobenzene (Surr)</i>	<i>51.6</i>		ug/L	<i>50.0</i>		<i>103</i>	<i>75-120</i>			
<i>Surr: Dibromofluoromethane (Surr)</i>	<i>46.5</i>		ug/L	<i>50.0</i>		<i>92.9</i>	<i>70-130</i>			
<i>Surr: Toluene-d8 (Surr)</i>	<i>50.0</i>		ug/L	<i>50.0</i>		<i>100</i>	<i>70-130</i>			

LCS (BIG1232-BS1)

Prepared & Analyzed: 07/24/2025

1,1,1,2-Tetrachloroethane	49.2		ug/L	50.0		98.5	80-130			
1,1,1-Trichloroethane	46.4		ug/L	50.0		92.7	65-130			
1,1,2,2-Tetrachloroethane	55.0		ug/L	50.0		110	65-130			
1,1,2-Trichloroethane	48.3		ug/L	50.0		96.6	75-125			
1,1-Dichloroethane	47.3		ug/L	50.0		94.6	70-135			
1,1-Dichloroethylene	48.4		ug/L	50.0		96.8	70-130			
1,1-Dichloropropene	47.2		ug/L	50.0		94.4	75-135			
1,2,3-Trichlorobenzene	37.1		ug/L	50.0		74.3	55-140			
1,2,3-Trichloropropane	54.7		ug/L	50.0		109	75-125			
1,2,4-Trichlorobenzene	37.6		ug/L	50.0		75.3	65-135			
1,2,4-Trimethylbenzene	46.4		ug/L	50.0		92.9	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	50.8		ug/L	50.0		102	50-130			
1,2-Dibromoethane (EDB)	48.8		ug/L	50.0		97.5	80-120			

Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BIG1232 - SW5030B-MS

LCS (BIG1232-BS1)

Prepared & Analyzed: 07/24/2025

1,2-Dichlorobenzene	45.5		ug/L	50.0		90.9	70-120			
1,2-Dichloroethane	44.7		ug/L	50.0		89.5	70-130			
1,2-Dichloropropane	49.5		ug/L	50.0		99.0	75-125			
1,3,5-Trimethylbenzene	46.3		ug/L	50.0		92.6	75-125			
1,3-Dichlorobenzene	45.4		ug/L	50.0		90.7	75-125			
1,3-Dichloropropane	50.6		ug/L	50.0		101	75-125			
1,4-Dichlorobenzene	44.4		ug/L	50.0		88.8	75-125			
2,2-Dichloropropane	48.4		ug/L	50.0		96.7	70-135			
2-Butanone (MEK)	62.5		ug/L	50.0		125	30-150			
2-Chlorotoluene	43.8		ug/L	50.0		87.5	75-125			
2-Hexanone (MBK)	63.5		ug/L	50.0		127	55-130			
4-Chlorotoluene	44.8		ug/L	50.0		89.7	75-130			
4-Isopropyltoluene	46.4		ug/L	50.0		92.8	75-130			
4-Methyl-2-pentanone (MIBK)	57.9		ug/L	50.0		116	60-135			
Acetone	57.8		ug/L	50.0		116	40-140			
Benzene	49.7		ug/L	50.0		99.4	80-120			
Bromobenzene	48.6		ug/L	50.0		97.2	75-125			
Bromochloromethane	46.4		ug/L	50.0		92.7	65-130			
Bromodichloromethane	49.1		ug/L	50.0		98.3	75-120			
Bromoform	52.5		ug/L	50.0		105	70-130			
Bromomethane	52.0		ug/L	50.0		104	30-145			
Carbon disulfide	57.5		ug/L	50.0		115	35-160			
Carbon tetrachloride	47.6		ug/L	50.0		95.1	65-140			
Chlorobenzene	46.6		ug/L	50.0		93.3	80-120			
Chloroethane	46.2		ug/L	50.0		92.4	60-135			

Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BIG1232 - SW5030B-MS

LCS (BIG1232-BS1)

Prepared & Analyzed: 07/24/2025

Chloroform	44.8		ug/L	50.0		89.6	65-135			
Chloromethane	53.0		ug/L	50.0		106	40-125			
cis-1,2-Dichloroethylene	47.7		ug/L	50.0		95.3	70-125			
cis-1,3-Dichloropropene	51.4		ug/L	50.0		103	70-130			
Dibromochloromethane	41.6		ug/L	50.0		83.2	60-135			
Dibromomethane	49.3		ug/L	50.0		98.5	75-125			
Dichlorodifluoromethane	51.0		ug/L	50.0		102	30-155			
Ethylbenzene	48.3		ug/L	50.0		96.6	75-125			
Hexachlorobutadiene	38.9		ug/L	50.0		77.8	50-140			
Isopropylbenzene	49.6		ug/L	50.0		99.3	75-125			
m+p-Xylenes	98.8		ug/L	100		98.8	75-130			
Methylene chloride	52.3		ug/L	50.0		105	55-140			
Methyl-t-butyl ether (MTBE)	47.6		ug/L	50.0		95.2	65-125			
Naphthalene	39.6		ug/L	50.0		79.3	55-140			
n-Butylbenzene	46.7		ug/L	50.0		93.5	70-135			
n-Propylbenzene	44.2		ug/L	50.0		88.5	70-130			
o-Xylene	49.3		ug/L	50.0		98.6	80-120			
sec-Butylbenzene	46.3		ug/L	50.0		92.5	70-125			
Styrene	51.2		ug/L	50.0		102	65-135			
tert-Butylbenzene	44.9		ug/L	50.0		89.8	70-130			
Tetrachloroethylene (PCE)	45.8		ug/L	50.0		91.6	45-150			
Toluene	47.5		ug/L	50.0		95.0	75-120			
trans-1,2-Dichloroethylene	48.0		ug/L	50.0		96.1	60-140			
trans-1,3-Dichloropropene	51.2		ug/L	50.0		102	55-140			
Trichloroethylene	47.8		ug/L	50.0		95.7	70-125			

Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BIG1232 - SW5030B-MS

LCS (BIG1232-BS1)

Prepared & Analyzed: 07/24/2025

Trichlorofluoromethane	48.6		ug/L	50.0		97.2	60-145			
Vinyl chloride	53.5		ug/L	50.0		107	50-145			
<i>Surr: 1,2-Dichloroethane-d4 (Surr)</i>	<i>49.4</i>		<i>ug/L</i>	<i>50.0</i>		<i>98.7</i>	<i>70-120</i>			
<i>Surr: 4-Bromofluorobenzene (Surr)</i>	<i>53.8</i>		<i>ug/L</i>	<i>50.0</i>		<i>108</i>	<i>75-120</i>			
<i>Surr: Dibromofluoromethane (Surr)</i>	<i>47.6</i>		<i>ug/L</i>	<i>50.0</i>		<i>95.1</i>	<i>70-130</i>			
<i>Surr: Toluene-d8 (Surr)</i>	<i>49.5</i>		<i>ug/L</i>	<i>50.0</i>		<i>99.1</i>	<i>70-130</i>			

Matrix Spike (BIG1232-MS1)

Source: 25G2221-05

Prepared & Analyzed: 07/24/2025

1,1,1,2-Tetrachloroethane	51.1		ug/L	50.0	BLOD	102	80-130			
1,1,1-Trichloroethane	47.4		ug/L	50.0	BLOD	94.8	65-130			
1,1,2,2-Tetrachloroethane	59.0		ug/L	50.0	BLOD	118	65-130			
1,1,2-Trichloroethane	51.0		ug/L	50.0	BLOD	102	75-125			
1,1-Dichloroethane	49.7		ug/L	50.0	BLOD	99.5	70-135			
1,1-Dichloroethylene	50.2		ug/L	50.0	BLOD	100	50-145			
1,1-Dichloropropene	48.6		ug/L	50.0	BLOD	97.3	75-135			
1,2,3-Trichlorobenzene	38.9		ug/L	50.0	BLOD	77.8	55-140			
1,2,3-Trichloropropane	58.8		ug/L	50.0	BLOD	118	75-125			
1,2,4-Trichlorobenzene	39.3		ug/L	50.0	BLOD	78.6	65-135			
1,2,4-Trimethylbenzene	48.4		ug/L	50.0	BLOD	96.8	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	54.8		ug/L	50.0	BLOD	110	50-130			
1,2-Dibromoethane (EDB)	52.0		ug/L	50.0	BLOD	104	80-120			
1,2-Dichlorobenzene	47.3		ug/L	50.0	BLOD	94.6	70-120			
1,2-Dichloroethane	46.7		ug/L	50.0	BLOD	93.3	70-130			
1,2-Dichloropropane	50.0		ug/L	50.0	BLOD	99.9	75-125			
1,3,5-Trimethylbenzene	48.2		ug/L	50.0	BLOD	96.4	75-124			

Certificate of Analysis

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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
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Batch BIG1232 - SW5030B-MS

Matrix Spike (BIG1232-MS1)

Source: 25G2221-05

Prepared & Analyzed: 07/24/2025

1,3-Dichlorobenzene	47.6	ug/L	50.0	BLOD	95.3	75-125
1,3-Dichloropropane	52.6	ug/L	50.0	BLOD	105	75-125
1,4-Dichlorobenzene	46.6	ug/L	50.0	BLOD	93.3	75-125
2,2-Dichloropropane	49.6	ug/L	50.0	BLOD	99.3	70-135
2-Butanone (MEK)	60.5	ug/L	50.0	BLOD	121	30-150
2-Chlorotoluene	45.5	ug/L	50.0	BLOD	91.1	75-125
2-Hexanone (MBK)	64.2	ug/L	50.0	BLOD	128	55-130
4-Chlorotoluene	46.2	ug/L	50.0	BLOD	92.3	75-130
4-Isopropyltoluene	47.8	ug/L	50.0	BLOD	95.6	75-130
4-Methyl-2-pentanone (MIBK)	58.9	ug/L	50.0	BLOD	118	60-135
Acetone	60.2	ug/L	50.0	BLOD	120	40-140
Benzene	51.6	ug/L	50.0	BLOD	103	80-120
Bromobenzene	50.9	ug/L	50.0	BLOD	102	75-125
Bromochloromethane	48.4	ug/L	50.0	BLOD	96.8	65-130
Bromodichloromethane	51.4	ug/L	50.0	BLOD	103	75-136
Bromoform	56.1	ug/L	50.0	BLOD	112	70-130
Bromomethane	54.1	ug/L	50.0	BLOD	108	30-145
Carbon disulfide	61.0	ug/L	50.0	BLOD	122	35-160
Carbon tetrachloride	46.7	ug/L	50.0	BLOD	93.4	65-140
Chlorobenzene	48.3	ug/L	50.0	BLOD	96.6	80-120
Chloroethane	47.6	ug/L	50.0	BLOD	95.1	60-135
Chloroform	46.5	ug/L	50.0	BLOD	93.1	65-135
Chloromethane	55.1	ug/L	50.0	BLOD	110	40-125
cis-1,2-Dichloroethylene	49.1	ug/L	50.0	BLOD	98.2	70-125
cis-1,3-Dichloropropene	53.2	ug/L	50.0	BLOD	106	47-136

Certificate of Analysis

Client Name: SCS Engineers - Winchester
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Submitted To: Jennifer Robb

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BIG1232 - SW5030B-MS

Matrix Spike (BIG1232-MS1)		Source: 25G2221-05		Prepared & Analyzed: 07/24/2025						
Dibromochloromethane	42.8		ug/L	50.0	BLOD	85.5	60-135			
Dibromomethane	50.9		ug/L	50.0	BLOD	102	75-125			
Dichlorodifluoromethane	53.3		ug/L	50.0	BLOD	107	30-155			
Ethylbenzene	50.0		ug/L	50.0	BLOD	100	75-125			
Hexachlorobutadiene	40.2		ug/L	50.0	BLOD	80.4	50-140			
Isopropylbenzene	51.0		ug/L	50.0	BLOD	102	75-125			
m+p-Xylenes	101		ug/L	100	BLOD	101	75-130			
Methylene chloride	52.7		ug/L	50.0	BLOD	100	55-140			
Methyl-t-butyl ether (MTBE)	50.2		ug/L	50.0	BLOD	100	65-125			
Naphthalene	42.5		ug/L	50.0	BLOD	85.0	55-140			
n-Butylbenzene	48.5		ug/L	50.0	BLOD	97.0	70-135			
n-Propylbenzene	44.9		ug/L	50.0	BLOD	89.8	70-130			
o-Xylene	51.6		ug/L	50.0	BLOD	103	80-120			
sec-Butylbenzene	47.8		ug/L	50.0	BLOD	95.5	70-125			
Styrene	53.3		ug/L	50.0	BLOD	107	65-135			
tert-Butylbenzene	47.0		ug/L	50.0	BLOD	94.0	70-130			
Tetrachloroethylene (PCE)	46.0		ug/L	50.0	BLOD	92.0	51-231			
Toluene	49.0		ug/L	50.0	BLOD	98.1	75-120			
trans-1,2-Dichloroethylene	50.1		ug/L	50.0	BLOD	100	60-140			
trans-1,3-Dichloropropene	53.4		ug/L	50.0	BLOD	107	55-140			
Trichloroethylene	49.7		ug/L	50.0	BLOD	99.4	70-125			
Trichlorofluoromethane	50.2		ug/L	50.0	BLOD	100	60-145			
Vinyl chloride	55.5		ug/L	50.0	BLOD	111	50-145			
Surr: 1,2-Dichloroethane-d4 (Surr)	48.8		ug/L	50.0		97.5	70-120			

Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BIG1232 - SW5030B-MS

Matrix Spike (BIG1232-MS1)

Source: 25G2221-05

Prepared & Analyzed: 07/24/2025

<i>Surr: 4-Bromofluorobenzene (Surr)</i>	53.5		ug/L	50.0		107	75-120			
<i>Surr: Dibromofluoromethane (Surr)</i>	47.7		ug/L	50.0		95.3	70-130			
<i>Surr: Toluene-d8 (Surr)</i>	49.4		ug/L	50.0		98.8	70-130			

Matrix Spike Dup (BIG1232-MSD1)

Source: 25G2221-05

Prepared & Analyzed: 07/24/2025

1,1,1,2-Tetrachloroethane	51.2		ug/L	50.0	BLOD	102	80-130	0.196	30	
1,1,1-Trichloroethane	47.5		ug/L	50.0	BLOD	95.0	65-130	0.169	30	
1,1,2,2-Tetrachloroethane	56.5		ug/L	50.0	BLOD	113	65-130	4.43	30	
1,1,2-Trichloroethane	51.3		ug/L	50.0	BLOD	103	75-125	0.645	30	
1,1-Dichloroethane	48.2		ug/L	50.0	BLOD	96.5	70-135	3.08	30	
1,1-Dichloroethylene	48.3		ug/L	50.0	BLOD	96.6	50-145	3.88	30	
1,1-Dichloropropene	48.6		ug/L	50.0	BLOD	97.2	75-135	0.0617	30	
1,2,3-Trichlorobenzene	38.8		ug/L	50.0	BLOD	77.5	55-140	0.283	30	
1,2,3-Trichloropropane	57.9		ug/L	50.0	BLOD	116	75-125	1.56	30	
1,2,4-Trichlorobenzene	39.6		ug/L	50.0	BLOD	79.3	65-135	0.861	30	
1,2,4-Trimethylbenzene	48.0		ug/L	50.0	BLOD	95.9	75-130	0.872	30	
1,2-Dibromo-3-chloropropane (DBCP)	56.1		ug/L	50.0	BLOD	112	50-130	2.36	30	
1,2-Dibromoethane (EDB)	51.4		ug/L	50.0	BLOD	103	80-120	1.10	30	
1,2-Dichlorobenzene	47.1		ug/L	50.0	BLOD	94.2	70-120	0.445	30	
1,2-Dichloroethane	46.4		ug/L	50.0	BLOD	92.7	70-130	0.667	30	
1,2-Dichloropropane	51.2		ug/L	50.0	BLOD	102	75-125	2.39	30	
1,3,5-Trimethylbenzene	47.1		ug/L	50.0	BLOD	94.3	75-124	2.27	30	
1,3-Dichlorobenzene	47.1		ug/L	50.0	BLOD	94.2	75-125	1.12	30	
1,3-Dichloropropane	53.2		ug/L	50.0	BLOD	106	75-125	0.983	30	
1,4-Dichlorobenzene	46.6		ug/L	50.0	BLOD	93.2	75-125	0.0215	30	

Certificate of Analysis

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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
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Batch BIG1232 - SW5030B-MS

Matrix Spike Dup (BIG1232-MSD1)		Source: 25G2221-05		Prepared & Analyzed: 07/24/2025						
2,2-Dichloropropane	48.9		ug/L	50.0	BLOD	97.7	70-135	1.54	30	
2-Butanone (MEK)	58.6		ug/L	50.0	BLOD	117	30-150	3.16	30	
2-Chlorotoluene	44.8		ug/L	50.0	BLOD	89.7	75-125	1.53	30	
2-Hexanone (MBK)	63.1		ug/L	50.0	BLOD	126	55-130	1.81	30	
4-Chlorotoluene	46.1		ug/L	50.0	BLOD	92.3	75-130	0.0433	30	
4-Isopropyltoluene	47.5		ug/L	50.0	BLOD	95.0	75-130	0.609	30	
4-Methyl-2-pentanone (MIBK)	58.4		ug/L	50.0	BLOD	117	60-135	0.853	30	
Acetone	58.7		ug/L	50.0	BLOD	117	40-140	2.54	30	
Benzene	51.2		ug/L	50.0	BLOD	102	80-120	0.876	30	
Bromobenzene	50.1		ug/L	50.0	BLOD	100	75-125	1.47	30	
Bromochloromethane	47.6		ug/L	50.0	BLOD	95.2	65-130	1.65	30	
Bromodichloromethane	52.2		ug/L	50.0	BLOD	104	75-136	1.74	30	
Bromoform	54.9		ug/L	50.0	BLOD	110	70-130	2.24	30	
Bromomethane	53.4		ug/L	50.0	BLOD	107	30-145	1.28	30	
Carbon disulfide	61.2		ug/L	50.0	BLOD	122	35-160	0.393	30	
Carbon tetrachloride	47.3		ug/L	50.0	BLOD	94.6	65-140	1.30	30	
Chlorobenzene	47.7		ug/L	50.0	BLOD	95.3	80-120	1.38	30	
Chloroethane	46.4		ug/L	50.0	BLOD	92.8	60-135	2.43	30	
Chloroform	45.6		ug/L	50.0	BLOD	91.2	65-135	1.98	30	
Chloromethane	53.9		ug/L	50.0	BLOD	108	40-125	2.20	30	
cis-1,2-Dichloroethylene	48.3		ug/L	50.0	BLOD	96.7	70-125	1.60	30	
cis-1,3-Dichloropropene	53.7		ug/L	50.0	BLOD	107	47-136	1.03	30	
Dibromochloromethane	43.0		ug/L	50.0	BLOD	85.9	60-135	0.443	30	
Dibromomethane	50.8		ug/L	50.0	BLOD	102	75-125	0.138	30	
Dichlorodifluoromethane	51.0		ug/L	50.0	BLOD	102	30-155	4.39	30	

Certificate of Analysis

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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
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Batch BIG1232 - SW5030B-MS

Matrix Spike Dup (BIG1232-MSD1)		Source: 25G2221-05		Prepared & Analyzed: 07/24/2025						
Ethylbenzene	48.7		ug/L	50.0	BLOD	97.4	75-125	2.71	30	
Hexachlorobutadiene	39.7		ug/L	50.0	BLOD	79.4	50-140	1.18	30	
Isopropylbenzene	50.1		ug/L	50.0	BLOD	100	75-125	1.92	30	
m+p-Xylenes	98.7		ug/L	100	BLOD	98.7	75-130	2.41	30	
Methylene chloride	52.5		ug/L	50.0	BLOD	99.7	55-140	0.247	30	
Methyl-t-butyl ether (MTBE)	49.1		ug/L	50.0	BLOD	98.2	65-125	2.16	30	
Naphthalene	43.0		ug/L	50.0	BLOD	86.1	55-140	1.29	30	
n-Butylbenzene	48.6		ug/L	50.0	BLOD	97.3	70-135	0.247	30	
n-Propylbenzene	45.7		ug/L	50.0	BLOD	91.4	70-130	1.77	30	
o-Xylene	50.4		ug/L	50.0	BLOD	101	80-120	2.35	30	
sec-Butylbenzene	47.7		ug/L	50.0	BLOD	95.3	70-125	0.189	30	
Styrene	51.8		ug/L	50.0	BLOD	104	65-135	2.89	30	
tert-Butylbenzene	46.5		ug/L	50.0	BLOD	92.9	70-130	1.16	30	
Tetrachloroethylene (PCE)	45.2		ug/L	50.0	BLOD	90.5	51-231	1.73	30	
Toluene	49.6		ug/L	50.0	BLOD	99.1	75-120	1.10	30	
trans-1,2-Dichloroethylene	48.2		ug/L	50.0	BLOD	96.4	60-140	3.83	30	
trans-1,3-Dichloropropene	53.5		ug/L	50.0	BLOD	107	55-140	0.243	30	
Trichloroethylene	48.7		ug/L	50.0	BLOD	97.5	70-125	1.97	30	
Trichlorofluoromethane	47.6		ug/L	50.0	BLOD	95.2	60-145	5.32	30	
Vinyl chloride	54.9		ug/L	50.0	BLOD	110	50-145	0.942	30	
Surr: 1,2-Dichloroethane-d4 (Surr)	49.5		ug/L	50.0		99.1	70-120			
Surr: 4-Bromofluorobenzene (Surr)	52.5		ug/L	50.0		105	75-120			
Surr: Dibromofluoromethane (Surr)	47.9		ug/L	50.0		95.8	70-130			
Surr: Toluene-d8 (Surr)	49.8		ug/L	50.0		99.6	70-130			

Certificate of Analysis

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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 BIG1319 - SW5030B-MS										
Blank (BIG1319-BLK1)				Prepared & Analyzed: 07/25/2025						
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							
<i>Surr: 1,2-Dichloroethane-d4 (Surr)</i>	48.2		ug/L	50.0		96.3	70-120			
<i>Surr: 4-Bromofluorobenzene (Surr)</i>	52.2		ug/L	50.0		104	75-120			
<i>Surr: Dibromofluoromethane (Surr)</i>	45.6		ug/L	50.0		91.2	70-130			
<i>Surr: Toluene-d8 (Surr)</i>	49.3		ug/L	50.0		98.7	70-130			
LCS (BIG1319-BS1)				Prepared & Analyzed: 07/25/2025						
1,1,1,2-Tetrachloroethane	48.9		ug/L	50.0		97.9	80-130			
1,1,1-Trichloroethane	43.2		ug/L	50.0		86.5	65-130			
1,1,2,2-Tetrachloroethane	54.3		ug/L	50.0		109	65-130			
1,1,2-Trichloroethane	48.2		ug/L	50.0		96.3	75-125			
1,1-Dichloroethane	46.2		ug/L	50.0		92.4	70-135			
1,1-Dichloroethylene	45.2		ug/L	50.0		90.3	70-130			
1,1-Dichloropropene	44.1		ug/L	50.0		88.2	75-135			
1,2,3-Trichlorobenzene	36.4		ug/L	50.0		72.8	55-140			
1,2,3-Trichloropropane	54.8		ug/L	50.0		110	75-125			
1,2,4-Trichlorobenzene	36.9		ug/L	50.0		73.8	65-135			
1,2,4-Trimethylbenzene	45.3		ug/L	50.0		90.5	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	49.0		ug/L	50.0		98.0	50-130			
1,2-Dibromoethane (EDB)	48.1		ug/L	50.0		96.1	80-120			

Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BIG1319 - SW5030B-MS

LCS (BIG1319-BS1)

Prepared & Analyzed: 07/25/2025

1,2-Dichlorobenzene	44.6		ug/L	50.0		89.3	70-120			
1,2-Dichloroethane	43.8		ug/L	50.0		87.5	70-130			
1,2-Dichloropropane	48.9		ug/L	50.0		97.8	75-125			
1,3,5-Trimethylbenzene	44.9		ug/L	50.0		89.8	75-125			
1,3-Dichlorobenzene	44.7		ug/L	50.0		89.5	75-125			
1,3-Dichloropropane	50.5		ug/L	50.0		101	75-125			
1,4-Dichlorobenzene	44.3		ug/L	50.0		88.5	75-125			
2,2-Dichloropropane	45.6		ug/L	50.0		91.1	70-135			
2-Butanone (MEK)	53.4		ug/L	50.0		107	30-150			
2-Chlorotoluene	43.4		ug/L	50.0		86.7	75-125			
2-Hexanone (MBK)	55.4		ug/L	50.0		111	55-130			
4-Chlorotoluene	44.0		ug/L	50.0		87.9	75-130			
4-Isopropyltoluene	45.0		ug/L	50.0		89.9	75-130			
4-Methyl-2-pentanone (MIBK)	52.3		ug/L	50.0		105	60-135			
Acetone	53.8		ug/L	50.0		108	40-140			
Benzene	48.7		ug/L	50.0		97.3	80-120			
Bromobenzene	48.6		ug/L	50.0		97.3	75-125			
Bromochloromethane	45.3		ug/L	50.0		90.6	65-130			
Bromodichloromethane	50.4		ug/L	50.0		101	75-120			
Bromoform	52.9		ug/L	50.0		106	70-130			
Bromomethane	47.0		ug/L	50.0		93.9	30-145			
Carbon disulfide	34.9		ug/L	50.0		69.8	35-160			
Carbon tetrachloride	44.3		ug/L	50.0		88.6	65-140			
Chlorobenzene	45.8		ug/L	50.0		91.5	80-120			
Chloroethane	43.9		ug/L	50.0		87.7	60-135			

Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BIG1319 - SW5030B-MS

LCS (BIG1319-BS1)

Prepared & Analyzed: 07/25/2025

Chloroform	42.9		ug/L	50.0		85.8	65-135			
Chloromethane	52.4		ug/L	50.0		105	40-125			
cis-1,2-Dichloroethylene	45.1		ug/L	50.0		90.3	70-125			
cis-1,3-Dichloropropene	51.5		ug/L	50.0		103	70-130			
Dibromochloromethane	41.2		ug/L	50.0		82.4	60-135			
Dibromomethane	49.2		ug/L	50.0		98.5	75-125			
Dichlorodifluoromethane	48.2		ug/L	50.0		96.3	30-155			
Ethylbenzene	46.4		ug/L	50.0		92.9	75-125			
Hexachlorobutadiene	36.5		ug/L	50.0		73.1	50-140			
Isopropylbenzene	47.8		ug/L	50.0		95.5	75-125			
m+p-Xylenes	94.7		ug/L	100		94.7	75-130			
Methylene chloride	47.4		ug/L	50.0		94.8	55-140			
Methyl-t-butyl ether (MTBE)	47.8		ug/L	50.0		95.6	65-125			
Naphthalene	38.8		ug/L	50.0		77.5	55-140			
n-Butylbenzene	45.1		ug/L	50.0		90.1	70-135			
n-Propylbenzene	42.5		ug/L	50.0		85.1	70-130			
o-Xylene	48.3		ug/L	50.0		96.6	80-120			
sec-Butylbenzene	44.7		ug/L	50.0		89.4	70-125			
Styrene	50.2		ug/L	50.0		100	65-135			
tert-Butylbenzene	43.8		ug/L	50.0		87.7	70-130			
Tetrachloroethylene (PCE)	43.0		ug/L	50.0		86.1	45-150			
Toluene	46.3		ug/L	50.0		92.6	75-120			
trans-1,2-Dichloroethylene	46.0		ug/L	50.0		92.0	60-140			
trans-1,3-Dichloropropene	51.5		ug/L	50.0		103	55-140			
Trichloroethylene	46.3		ug/L	50.0		92.5	70-125			

Certificate of Analysis

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Work Order: 25G2252

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BIG1319 - SW5030B-MS

LCS (BIG1319-BS1)

Prepared & Analyzed: 07/25/2025

Trichlorofluoromethane	46.1		ug/L	50.0		92.2	60-145			
Vinyl chloride	51.1		ug/L	50.0		102	50-145			
<i>Surr: 1,2-Dichloroethane-d4 (Surr)</i>	<i>46.0</i>		<i>ug/L</i>	<i>50.0</i>		<i>92.0</i>	<i>70-120</i>			
<i>Surr: 4-Bromofluorobenzene (Surr)</i>	<i>54.7</i>		<i>ug/L</i>	<i>50.0</i>		<i>109</i>	<i>75-120</i>			
<i>Surr: Dibromofluoromethane (Surr)</i>	<i>46.8</i>		<i>ug/L</i>	<i>50.0</i>		<i>93.5</i>	<i>70-130</i>			
<i>Surr: Toluene-d8 (Surr)</i>	<i>49.7</i>		<i>ug/L</i>	<i>50.0</i>		<i>99.5</i>	<i>70-130</i>			

Duplicate (BIG1319-DUP1)

Source: 25G2269-06RE1

Prepared & Analyzed: 07/25/2025

1,1,1,2-Tetrachloroethane	ND	0.40	ug/L		BLOD			NA	30	
1,1,1-Trichloroethane	10.7	1.00	ug/L		10.7			0.187	30	
1,1,2,2-Tetrachloroethane	ND	0.40	ug/L		BLOD			NA	30	
1,1,2-Trichloroethane	ND	1.00	ug/L		BLOD			NA	30	
1,1-Dichloroethane	74.1	1.00	ug/L		74.8			0.900	30	
1,1-Dichloroethylene	96.1	1.00	ug/L		98.5			2.47	30	
1,1-Dichloropropene	ND	1.00	ug/L		BLOD			NA	30	
1,2,3-Trichlorobenzene	ND	1.00	ug/L		BLOD			NA	30	
1,2,3-Trichloropropane	ND	1.00	ug/L		BLOD			NA	30	
1,2,4-Trichlorobenzene	ND	1.00	ug/L		BLOD			NA	30	
1,2,4-Trimethylbenzene	ND	1.00	ug/L		BLOD			NA	30	
1,2-Dibromo-3-chloropropane (DBCP)	ND	1.00	ug/L		BLOD			NA	30	
1,2-Dibromoethane (EDB)	ND	1.00	ug/L		BLOD			NA	30	
1,2-Dichlorobenzene	ND	0.50	ug/L		BLOD			NA	30	
1,2-Dichloroethane	ND	1.00	ug/L		BLOD			NA	30	
1,2-Dichloropropane	ND	0.50	ug/L		BLOD			NA	30	
1,3,5-Trimethylbenzene	ND	1.00	ug/L		BLOD			NA	30	

Certificate of Analysis

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Work Order: 25G2252

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BIG1319 - SW5030B-MS

Duplicate (BIG1319-DUP1)

Source: 25G2269-06RE1

Prepared & Analyzed: 07/25/2025

1,3-Dichlorobenzene	ND	1.00	ug/L		BLOD			NA	30	
1,3-Dichloropropane	ND	1.00	ug/L		BLOD			NA	30	
1,4-Dichlorobenzene	ND	1.00	ug/L		BLOD			NA	30	
2,2-Dichloropropane	ND	1.00	ug/L		BLOD			NA	30	
2-Butanone (MEK)	ND	10.0	ug/L		BLOD			NA	30	
2-Chlorotoluene	ND	1.00	ug/L		BLOD			NA	30	
2-Hexanone (MBK)	ND	5.00	ug/L		BLOD			NA	30	
4-Chlorotoluene	ND	1.00	ug/L		BLOD			NA	30	
4-Isopropyltoluene	ND	1.00	ug/L		BLOD			NA	30	
4-Methyl-2-pentanone (MIBK)	ND	5.00	ug/L		BLOD			NA	30	
Acetone	ND	10.0	ug/L		BLOD			NA	30	
Benzene	ND	1.00	ug/L		BLOD			NA	30	
Bromobenzene	ND	1.00	ug/L		BLOD			NA	30	
Bromochloromethane	ND	1.00	ug/L		BLOD			NA	30	
Bromodichloromethane	ND	0.50	ug/L		BLOD			NA	30	
Bromoform	ND	1.00	ug/L		BLOD			NA	30	
Bromomethane	ND	1.00	ug/L		BLOD			NA	30	
Carbon disulfide	ND	10.0	ug/L		BLOD			NA	30	
Carbon tetrachloride	ND	1.00	ug/L		BLOD			NA	30	
Chlorobenzene	ND	1.00	ug/L		BLOD			NA	30	
Chloroethane	2.72	1.00	ug/L		2.76			1.46	30	
Chloroform	ND	0.50	ug/L		BLOD			NA	30	
Chloromethane	ND	1.00	ug/L		BLOD			NA	30	
cis-1,2-Dichloroethylene	ND	1.00	ug/L		BLOD			NA	30	
cis-1,3-Dichloropropene	ND	1.00	ug/L		BLOD			NA	30	

Certificate of Analysis

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Work Order: 25G2252

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BIG1319 - SW5030B-MS

Duplicate (BIG1319-DUP1)

Source: 25G2269-06RE1

Prepared & Analyzed: 07/25/2025

Dibromochloromethane	ND	0.50	ug/L		BLOD			NA	30	
Dibromomethane	ND	1.00	ug/L		BLOD			NA	30	
Dichlorodifluoromethane	ND	1.00	ug/L		BLOD			NA	30	
Di-isopropyl ether (DIPE)	ND	5.00	ug/L		BLOD			NA	30	
Ethylbenzene	ND	1.00	ug/L		BLOD			NA	30	
Hexachlorobutadiene	ND	0.80	ug/L		BLOD			NA	30	
Iodomethane	ND	10.0	ug/L		BLOD			NA	30	
Isopropylbenzene	ND	1.00	ug/L		BLOD			NA	30	
m+p-Xylenes	ND	2.00	ug/L		BLOD			NA	30	
Methylene chloride	ND	4.00	ug/L		BLOD			NA	30	
Methyl-t-butyl ether (MTBE)	ND	1.00	ug/L		BLOD			NA	30	
Naphthalene	ND	1.00	ug/L		BLOD			NA	30	
n-Butylbenzene	ND	1.00	ug/L		BLOD			NA	30	
n-Propylbenzene	ND	1.00	ug/L		BLOD			NA	30	
o-Xylene	ND	1.00	ug/L		BLOD			NA	30	
sec-Butylbenzene	ND	1.00	ug/L		BLOD			NA	30	
Styrene	ND	1.00	ug/L		BLOD			NA	30	
tert-Butylbenzene	ND	1.00	ug/L		BLOD			NA	30	
Tetrachloroethylene (PCE)	ND	1.00	ug/L		BLOD			NA	30	
Toluene	ND	1.00	ug/L		BLOD			NA	30	
trans-1,2-Dichloroethylene	ND	1.00	ug/L		BLOD			NA	30	
trans-1,3-Dichloropropene	ND	1.00	ug/L		BLOD			NA	30	
Trichloroethylene	ND	1.00	ug/L		BLOD			NA	30	
Trichlorofluoromethane	ND	1.00	ug/L		BLOD			NA	30	
Vinyl acetate	ND	10.0	ug/L		BLOD			NA	30	

Certificate of Analysis

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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
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Batch BIG1319 - SW5030B-MS

Duplicate (BIG1319-DUP1)

Source: 25G2269-06RE1

Prepared & Analyzed: 07/25/2025

Vinyl chloride	14.7	0.50	ug/L		14.9			1.89	30	
Xylenes, Total	ND	3.00	ug/L		BLOD			NA	30	
Tetrahydrofuran	ND	10.0	ug/L		BLOD			NA	30	
<i>Surr: 1,2-Dichloroethane-d4 (Surr)</i>	<i>50.4</i>		<i>ug/L</i>	<i>50.0</i>		<i>101</i>	<i>70-120</i>			
<i>Surr: 4-Bromofluorobenzene (Surr)</i>	<i>51.5</i>		<i>ug/L</i>	<i>50.0</i>		<i>103</i>	<i>75-120</i>			
<i>Surr: Dibromofluoromethane (Surr)</i>	<i>47.3</i>		<i>ug/L</i>	<i>50.0</i>		<i>94.6</i>	<i>70-130</i>			
<i>Surr: Toluene-d8 (Surr)</i>	<i>49.7</i>		<i>ug/L</i>	<i>50.0</i>		<i>99.4</i>	<i>70-130</i>			

Certificate of Analysis

Client Name: SCS Engineers - Winchester
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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
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Batch BIG1421 - SW3510C/EPA600-MS

Blank (BIG1421-BLK1)

Prepared & Analyzed: 07/29/2025

Anthracene	ND	10.0	ug/L							
<i>Surr: 2,4,6-Tribromophenol (Surr)</i>	85.3		ug/L	100		85.3	5-136			
<i>Surr: 2-Fluorobiphenyl (Surr)</i>	35.6		ug/L	50.0		71.2	9-117			
<i>Surr: 2-Fluorophenol (Surr)</i>	47.8		ug/L	100		47.8	5-60			
<i>Surr: Nitrobenzene-d5 (Surr)</i>	37.7		ug/L	50.0		75.4	5-151			
<i>Surr: Phenol-d5 (Surr)</i>	33.0		ug/L	100		33.0	5-60			
<i>Surr: p-Terphenyl-d14 (Surr)</i>	39.6		ug/L	50.0		79.1	5-141			

LCS (BIG1421-BS1)

Prepared & Analyzed: 07/29/2025

1,2,4-Trichlorobenzene	35.3	10.0	ug/L	50.0		70.5	57-130			
1,2-Dichlorobenzene	35.7	10.0	ug/L	50.0		71.3	22-115			
1,3-Dichlorobenzene	34.4	10.0	ug/L	50.0		68.9	22-112			
1,4-Dichlorobenzene	35.9	10.0	ug/L	50.0		71.8	13-112			
2,4,6-Trichlorophenol	39.0	10.0	ug/L	50.0		77.9	52-129			
2,4-Dichlorophenol	36.1	10.0	ug/L	50.0		72.1	53-122			
2,4-Dimethylphenol	35.3	5.00	ug/L	50.0		70.7	42-120			
2,4-Dinitrophenol	27.8	50.0	ug/L	50.0		55.5	48-127			
2,4-Dinitrotoluene	39.8	10.0	ug/L	50.0		79.6	10-173			
2,6-Dinitrotoluene	36.7	10.0	ug/L	50.0		73.4	68-137			
2-Chloronaphthalene	36.4	10.0	ug/L	50.0		72.8	65-120			
2-Chlorophenol	33.4	10.0	ug/L	50.0		66.8	36-120			
2-Nitrophenol	36.3	10.0	ug/L	50.0		72.5	45-167			
3,3'-Dichlorobenzidine	40.1	10.0	ug/L	50.0		80.2	10-213			
4,6-Dinitro-2-methylphenol	33.3	50.0	ug/L	50.0		66.6	53-130			
4-Bromophenyl phenyl ether	40.0	10.0	ug/L	50.0		80.0	65-120			

Certificate of Analysis

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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
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Batch BIG1421 - SW3510C/EPA600-MS

LCS (BIG1421-BS1)

Prepared & Analyzed: 07/29/2025

4-Chlorophenyl phenyl ether	42.1	10.0	ug/L	50.0		84.2	38-145			
4-Nitrophenol	14.9	50.0	ug/L	50.0		29.8	13-129			
Acenaphthene	37.6	10.0	ug/L	50.0		75.2	60-132			
Acenaphthylene	38.5	10.0	ug/L	50.0		77.0	54-126			
Acetophenone	34.1	20.0	ug/L	50.0		68.3	0-200			
Anthracene	34.3	10.0	ug/L	50.0		68.6	43-120			
Benzo (a) anthracene	40.1	10.0	ug/L	50.0		80.2	42-133			
Benzo (a) pyrene	41.1	10.0	ug/L	50.0		82.2	32-148			
Benzo (b) fluoranthene	42.2	10.0	ug/L	50.0		84.3	42-140			
Benzo (g,h,i) perylene	38.4	10.0	ug/L	50.0		76.8	10-195			
Benzo (k) fluoranthene	40.4	10.0	ug/L	50.0		80.8	25-146			
bis (2-Chloroethoxy) methane	36.2	10.0	ug/L	50.0		72.4	49-165			
bis (2-Chloroethyl) ether	36.3	10.0	ug/L	50.0		72.6	43-126			
2,2'-Oxybis (1-chloropropane)	36.0	10.0	ug/L	50.0		71.9	63-139			
bis (2-Ethylhexyl) phthalate	36.5	10.0	ug/L	50.0		73.0	29-137			
Butyl benzyl phthalate	38.7	10.0	ug/L	50.0		77.4	10-140			
Chrysene	39.3	10.0	ug/L	50.0		78.7	44-140			
Dibenz (a,h) anthracene	39.8	10.0	ug/L	50.0		79.6	10-200			
Diethyl phthalate	38.8	10.0	ug/L	50.0		77.6	10-120			
Dimethyl phthalate	37.9	10.0	ug/L	50.0		75.7	10-120			
Di-n-butyl phthalate	31.8	10.0	ug/L	50.0		63.6	10-120			
Di-n-octyl phthalate	39.2	10.0	ug/L	50.0		78.4	19-132			
Fluoranthene	35.0	10.0	ug/L	50.0		70.1	43-121			
Fluorene	38.0	10.0	ug/L	50.0		75.9	70-120			
Hexachlorobenzene	39.1	2.50	ug/L	50.0		78.2	10-142			

Certificate of Analysis

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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
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Batch BIG1421 - SW3510C/EPA600-MS

LCS (BIG1421-BS1)

Prepared & Analyzed: 07/29/2025

Hexachlorobutadiene	41.0	10.0	ug/L	50.0		82.0	38-120			
Hexachlorocyclopentadiene	ND	10.0	ug/L	50.0			10-76			L
Hexachloroethane	31.6	10.0	ug/L	50.0		63.2	55-120			
Indeno (1,2,3-cd) pyrene	37.0	10.0	ug/L	50.0		74.0	10-151			
Isophorone	32.6	10.0	ug/L	50.0		65.2	47-180			
Naphthalene	30.6	5.00	ug/L	50.0		61.3	36-120			
Nitrobenzene	34.7	10.0	ug/L	50.0		69.5	54-158			
n-Nitrosodimethylamine	22.8	10.0	ug/L	50.0		45.5	10-85			
n-Nitrosodi-n-propylamine	35.7	10.0	ug/L	50.0		71.3	14-198			
n-Nitrosodiphenylamine	31.5	10.0	ug/L	50.0		63.0	12-97			
p-Chloro-m-cresol	37.1	10.0	ug/L	50.0		74.2	10-142			
Pentachloronitrobenzene (quintozene)	ND	10.0	ug/L				0-200			
Pentachlorophenol	34.0	20.0	ug/L	50.0		68.0	38-152			
Phenanthrene	40.0	10.0	ug/L	50.0		80.1	65-120			
Phenol	16.7	10.0	ug/L	50.5		33.0	17-120			
Pyrene	34.1	10.0	ug/L	50.0		68.3	70-120			L
Pyridine	22.3	10.0	ug/L	50.0		44.6	10-103			
Surr: 2,4,6-Tribromophenol (Surr)	83.3		ug/L	100		83.3	5-136			
Surr: 2-Fluorobiphenyl (Surr)	35.5		ug/L	50.0		71.0	9-117			
Surr: 2-Fluorophenol (Surr)	47.2		ug/L	100		47.2	5-60			
Surr: Nitrobenzene-d5 (Surr)	36.9		ug/L	50.0		73.8	5-151			
Surr: Phenol-d5 (Surr)	32.6		ug/L	100		32.6	5-60			
Surr: p-Terphenyl-d14 (Surr)	38.1		ug/L	50.0		76.2	5-141			

Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

Ion Chromatography Analyses - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BIG1482 - No Prep IC

Blank (BIG1482-BLK1)

Prepared & Analyzed: 07/29/2025

Acetic Acid	ND	0.5	mg/L
Butyric Acid	ND	0.5	mg/L
Formic Acid	ND	0.5	mg/L
n-Hexanoic Acid	ND	0.5	mg/L
i-Hexanoic Acid	ND	0.5	mg/L
Lactic Acid	ND	0.5	mg/L
n-Pentanoic Acid	ND	0.5	mg/L
i-Pentanoic Acid	ND	0.5	mg/L
Propionic Acid	ND	0.5	mg/L
Pyruvic Acid	ND	0.5	mg/L

LCS (BIG1482-BS1)

Prepared & Analyzed: 07/29/2025

Acetic Acid	6.2		mg/L	5.00	125	70-130
Butyric Acid	5.7		mg/L	5.00	115	70-130
Formic Acid	5.8		mg/L	4.99	116	70-130
n-Hexanoic Acid	4.9		mg/L	5.00	97.2	70-130
i-Hexanoic Acid	5.5		mg/L	5.00	111	70-130
Lactic Acid	6.4		mg/L	5.00	128	70-130
n-Pentanoic Acid	5.6		mg/L	5.00	112	70-130
i-Pentanoic Acid	5.1		mg/L	5.00	103	70-130
Propionic Acid	5.7		mg/L	5.00	113	70-130
Pyruvic Acid	6.2		mg/L	5.00	125	70-130

Matrix Spike (BIG1482-MS1)

Source: 25G2252-01

Prepared & Analyzed: 07/29/2025

Acetic Acid	9580	500	mg/L	5000	3890	114	70-130
Butyric Acid	6320	500	mg/L	5000	521	116	70-130

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Ion Chromatography Analyses - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BIG1482 - No Prep IC

Matrix Spike (BIG1482-MS1)

Source: 25G2252-01

Prepared & Analyzed: 07/29/2025

Formic Acid	5760	500	mg/L	5000	BLOD	115	70-130
n-Hexanoic Acid	5520	500	mg/L	5000	BLOD	110	70-130
i-Hexanoic Acid	5440	500	mg/L	5000	BLOD	109	70-130
Lactic Acid	5430	500	mg/L	5000	BLOD	109	70-130
n-Pentanoic Acid	5560	500	mg/L	5000	BLOD	111	70-130
i-Pentanoic Acid	5430	500	mg/L	5000	149	106	70-130
Propionic Acid	7250	500	mg/L	5000	1210	121	70-130
Pyruvic Acid	5770	500	mg/L	5000	103	113	70-130

Matrix Spike Dup (BIG1482-MSD1)

Source: 25G2252-01

Prepared & Analyzed: 07/29/2025

Acetic Acid	9620	500	mg/L	5000	3890	114	70-130	0.380	20
Butyric Acid	6030	500	mg/L	5000	521	110	70-130	4.68	20
Formic Acid	5790	500	mg/L	5000	BLOD	116	70-130	0.448	20
n-Hexanoic Acid	5800	500	mg/L	5000	BLOD	116	70-130	4.90	20
i-Hexanoic Acid	5710	500	mg/L	5000	BLOD	114	70-130	4.75	20
Lactic Acid	5680	500	mg/L	5000	BLOD	114	70-130	4.56	20
n-Pentanoic Acid	5680	500	mg/L	5000	BLOD	114	70-130	2.10	20
i-Pentanoic Acid	5490	500	mg/L	5000	149	107	70-130	1.11	20
Propionic Acid	7320	500	mg/L	5000	1210	122	70-130	0.948	20
Pyruvic Acid	5770	500	mg/L	5000	103	113	70-130	0.102	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 BIG1118 - No Prep Wet Chem										
Blank (BIG1118-BLK1)				Prepared & Analyzed: 07/23/2025						
BOD	ND	2.0	mg/L							
LCS (BIG1118-BS1)				Prepared & Analyzed: 07/23/2025						
BOD	220		mg/L	198		111	84.6-115.4			
Duplicate (BIG1118-DUP1)				Source: 25G2198-01 Prepared & Analyzed: 07/23/2025						
BOD	2.9	2.0	mg/L		2.8			3.88	20	
Batch BIG1205 - No Prep Wet Chem										
Blank (BIG1205-BLK1)				Prepared & Analyzed: 07/24/2025						
Nitrite as N	ND	0.05	mg/L							
LCS (BIG1205-BS1)				Prepared & Analyzed: 07/24/2025						
Nitrite as N	0.10	0.05	mg/L	0.100		100	80-120			
Matrix Spike (BIG1205-MS1)				Source: 25G2278-01 Prepared & Analyzed: 07/24/2025						
Nitrite as N	0.80	0.25	mg/L	0.500	0.32	95.0	80-120			
Matrix Spike Dup (BIG1205-MSD1)				Source: 25G2278-01 Prepared & Analyzed: 07/24/2025						
Nitrite as N	0.80	0.25	mg/L	0.500	0.32	95.0	80-120	0.00	20	
Batch BIG1565 - No Prep Wet Chem										
Blank (BIG1565-BLK1)				Prepared & Analyzed: 07/31/2025						
COD	ND	10.0	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 BIG1565 - No Prep Wet Chem										
LCS (BIG1565-BS1)				Prepared & Analyzed: 07/31/2025						
COD	51.9	10.0	mg/L	50.0		104	88-119			
Matrix Spike (BIG1565-MS1)				Source: 25G3026-01		Prepared & Analyzed: 07/31/2025				
COD	56.8	10.0	mg/L	50.0	BLOD	114	72.4-130			
Matrix Spike Dup (BIG1565-MSD1)				Source: 25G3026-01		Prepared & Analyzed: 07/31/2025				
COD	55.2	10.0	mg/L	50.0	BLOD	110	72.4-130	2.91	20	
Batch BIG1586 - No Prep Wet Chem										
Blank (BIG1586-BLK1)				Prepared: 07/31/2025 Analyzed: 08/01/2025						
TKN as N	ND	0.50	mg/L							
LCS (BIG1586-BS1)				Prepared: 07/31/2025 Analyzed: 08/01/2025						
TKN as N	4.75		mg/L	5.00		95.1	90-110			
Matrix Spike (BIG1586-MS1)				Source: 25G2274-01		Prepared: 07/31/2025 Analyzed: 08/01/2025				
TKN as N	5.26	0.50	mg/L	5.00	0.57	93.6	90-110			
Matrix Spike (BIG1586-MS2)				Source: 25G2274-02		Prepared: 07/31/2025 Analyzed: 08/01/2025				
TKN as N	5.61	0.50	mg/L	5.00	0.68	98.5	90-110			
Matrix Spike Dup (BIG1586-MSD1)				Source: 25G2274-01		Prepared: 07/31/2025 Analyzed: 08/01/2025				
TKN as N	5.12	0.50	mg/L	5.00	0.57	91.0	90-110	2.52	20	
Matrix Spike Dup (BIG1586-MSD2)				Source: 25G2274-02		Prepared: 07/31/2025 Analyzed: 08/01/2025				
TKN as N	5.93	0.50	mg/L	5.00	0.68	105	90-110	5.60	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 BIH0017 - No Prep Wet Chem										
Blank (BIH0017-BLK1)				Prepared & Analyzed: 07/31/2025						
Nitrate+Nitrite as N	ND	0.10	mg/L							
LCS (BIH0017-BS1)				Prepared & Analyzed: 07/31/2025						
Nitrate+Nitrite as N	1.00		mg/L	1.00		99.9	90-110			
Matrix Spike (BIH0017-MS1)				Source: 25G2253-05 Prepared & Analyzed: 07/31/2025						
Nitrate+Nitrite as N	1.26	0.10	mg/L	1.00	0.09	117	90-120			
Matrix Spike Dup (BIH0017-MSD1)				Source: 25G2253-05 Prepared & Analyzed: 07/31/2025						
Nitrate+Nitrite as N	1.26	0.10	mg/L	1.00	0.09	117	90-120	0.0795	20	
Batch BIH0047 - No Prep Wet Chem										
Blank (BIH0047-BLK1)				Prepared & Analyzed: 07/31/2025						
Total Recoverable Phenolics	ND	0.050	mg/L							
LCS (BIH0047-BS1)				Prepared & Analyzed: 07/31/2025						
Total Recoverable Phenolics	0.46	0.050	mg/L	0.505		90.7	80-120			
Matrix Spike (BIH0047-MS1)				Source: 25G1975-01 Prepared & Analyzed: 07/31/2025						
Total Recoverable Phenolics	0.49	0.050	mg/L	0.500	BLOD	97.2	70-130			
Matrix Spike Dup (BIH0047-MSD1)				Source: 25G1975-01 Prepared & Analyzed: 07/31/2025						
Total Recoverable Phenolics	0.46	0.050	mg/L	0.500	BLOD	92.0	70-130	5.50	20	
Batch BIH0105 - No Prep Wet Chem										
Blank (BIH0105-BLK1)				Prepared & Analyzed: 08/04/2025						
Ammonia as N	ND	0.10	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 BIH0105 - No Prep Wet Chem										
LCS (BIH0105-BS1)				Prepared & Analyzed: 08/04/2025						
Ammonia as N	1.05		mg/L	1.00		105	90-110			
Matrix Spike (BIH0105-MS1)				Source: 25G2302-03 Prepared & Analyzed: 08/04/2025						
Ammonia as N	1.48	0.10	mg/L	1.00	0.18	130	89.3-131			
Matrix Spike (BIH0105-MS2)				Source: 25G2302-15 Prepared & Analyzed: 08/04/2025						
Ammonia as N	1.19	0.10	mg/L	1.00	0.16	104	89.3-131			
Matrix Spike Dup (BIH0105-MSD1)				Source: 25G2302-03 Prepared & Analyzed: 08/04/2025						
Ammonia as N	1.49	0.10	mg/L	1.00	0.18	131	89.3-131	0.941	20	M
Matrix Spike Dup (BIH0105-MSD2)				Source: 25G2302-15 Prepared & Analyzed: 08/04/2025						
Ammonia as N	1.24	0.10	mg/L	1.00	0.16	108	89.3-131	3.78	20	

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Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Ion Chromatography Analyses			Preparation Method:	No Prep IC	
25G2252-01	1.00 mL / 1.00 mL	D3705	BIG1482	SIG1260	AE50224
25G2252-01RE1	1.00 mL / 1.00 mL	D3705	BIG1482	SIG1260	AE50224

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis			Preparation Method:	No Prep Wet Chem	
25G2252-01	300 mL / 300 mL	SM5210B-2016	BIG1118	SIG1161	
25G2252-01	25.0 mL / 25.0 mL	SM4500-NO2B-2021	BIG1205	SIG1037	AD50358
25G2252-01	2.00 mL / 2.00 mL	SM5220D-2011	BIG1565	SIG1343	AG50211
25G2252-01	0.0500 mL / 25.0 mL	EPA351.2 R2.0	BIG1586	SIH0017	AH50158
25G2252-01	5.00 mL / 5.00 mL	SM4500-NO3F-2019	BIH0017	SIG1366	AH50164
25G2252-01	0.100 mL / 10.0 mL	SW9065	BIH0047	SIH0051	AH50170
25G2252-01	6.00 mL / 6.00 mL	EPA350.1 R2.0	BIH0105	SIH0109	AH50183

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods			Preparation Method:	SW3005A-ICP	
25G2252-01	50.0 mL / 50.0 mL	SW6010D	BIG1225	SIG1061	AG50337

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods			Preparation Method:	SW3005A-ICPMS	
25G2252-01	50.0 mL / 50.0 mL	SW6020B	BIG1227	SIG1139	AG50352

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
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Certificate of Analysis

Client Name: SCS Engineers - Winchester
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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		
25G2252-01	500 mL / 1.00 mL	SW8270E	BIG1421	SIG1273	AG50280
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Volatile Organic Compounds by GCMS			Preparation Method: SW5030B-MS		
25G2252-01	5.00 mL / 5.00 mL	SW8260D	BIG1232	SIG1032	AG50233
25G2252-02	5.00 mL / 5.00 mL	SW8260D	BIG1232	SIG1032	AG50233
25G2252-01RE1	5.00 mL / 5.00 mL	SW8260D	BIG1319	SIG1103	AG50233

Certificate of Analysis

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QC Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Ion Chromatography Analyses			Preparation Method:	No Prep IC	
BIG1482-BLK1	1.00 mL / 1.00 mL	D3705	BIG1482	SIG1260	AE50224
BIG1482-BS1	1.00 mL / 1.00 mL	D3705	BIG1482	SIG1260	AE50224
BIG1482-MS1	0.00500 mL / 5.00 mL	D3705	BIG1482	SIG1260	AE50224
BIG1482-MSD1	0.00500 mL / 5.00 mL	D3705	BIG1482	SIG1260	AE50224

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis			Preparation Method:	No Prep Wet Chem	
BIG1118-BLK1	300 mL / 300 mL	SM5210B-2016	BIG1118	SIG1161	
BIG1118-BS1	300 mL / 300 mL	SM5210B-2016	BIG1118	SIG1161	
BIG1118-DUP1	300 mL / 300 mL	SM5210B-2016	BIG1118	SIG1161	
BIG1205-BLK1	25.0 mL / 25.0 mL	SM4500-NO2B-2021	BIG1205	SIG1037	AD50358
BIG1205-BS1	25.0 mL / 25.0 mL	SM4500-NO2B-2021	BIG1205	SIG1037	AD50358
BIG1205-MRL1	25.0 mL / 25.0 mL	SM4500-NO2B-2021	BIG1205	SIG1037	AD50358
BIG1205-MS1	5.00 mL / 25.0 mL	SM4500-NO2B-2021	BIG1205	SIG1037	AD50358
BIG1205-MSD1	5.00 mL / 25.0 mL	SM4500-NO2B-2021	BIG1205	SIG1037	AD50358
BIG1565-BLK1	2.00 mL / 2.00 mL	SM5220D-2011	BIG1565	SIG1343	AG50211
BIG1565-BS1	2.00 mL / 2.00 mL	SM5220D-2011	BIG1565	SIG1343	AG50211
BIG1565-MRL1	2.00 mL / 2.00 mL	SM5220D-2011	BIG1565	SIG1343	AG50211
BIG1565-MS1	2.00 mL / 2.00 mL	SM5220D-2011	BIG1565	SIG1343	AG50211
BIG1565-MSD1	2.00 mL / 2.00 mL	SM5220D-2011	BIG1565	SIG1343	AG50211
BIG1586-BLK1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIG1586	SIH0017	AH50158
BIG1586-BS1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIG1586	SIH0017	AH50158
BIG1586-MRL1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIG1586	SIH0017	AH50158
BIG1586-MS1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIG1586	SIH0017	AH50158
BIG1586-MS2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIG1586	SIH0017	AH50158

Certificate of Analysis

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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	
BIG1586-MSD1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIG1586	SIH0017	AH50158
BIG1586-MSD2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIG1586	SIH0017	AH50158
BIH0017-BLK1	5.00 mL / 5.00 mL	SM4500-NO3F-2019	BIH0017	SIG1366	AH50164
BIH0017-BS1	5.00 mL / 5.00 mL	SM4500-NO3F-2019	BIH0017	SIG1366	AH50164
BIH0017-MS1	10.0 mL / 10.0 mL	SM4500-NO3F-2019	BIH0017	SIG1366	AH50164
BIH0017-MSD1	10.0 mL / 10.0 mL	SM4500-NO3F-2019	BIH0017	SIG1366	AH50164
BIH0047-BLK1	5.00 mL / 10.0 mL	SW9065	BIH0047	SIH0051	AH50170
BIH0047-BS1	5.00 mL / 10.0 mL	SW9065	BIH0047	SIH0051	AH50170
BIH0047-MRL1	5.00 mL / 10.0 mL	SW9065	BIH0047	SIH0051	AH50170
BIH0047-MS1	5.00 mL / 10.0 mL	SW9065	BIH0047	SIH0051	AH50170
BIH0047-MSD1	5.00 mL / 10.0 mL	SW9065	BIH0047	SIH0051	AH50170
BIH0105-BLK1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BIH0105	SIH0109	AH50183
BIH0105-BS1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BIH0105	SIH0109	AH50183
BIH0105-MS1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BIH0105	SIH0109	AH50183
BIH0105-MS2	6.00 mL / 6.00 mL	EPA350.1 R2.0	BIH0105	SIH0109	AH50183
BIH0105-MSD1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BIH0105	SIH0109	AH50183
BIH0105-MSD2	6.00 mL / 6.00 mL	EPA350.1 R2.0	BIH0105	SIH0109	AH50183

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods			Preparation Method:	SW3005A-ICP	
BIG1225-BLK1	50.0 mL / 50.0 mL	SW6010D	BIG1225	SIG1061	AG50337
BIG1225-BS1	50.0 mL / 50.0 mL	SW6010D	BIG1225	SIG1061	AG50337
BIG1225-MS1	50.0 mL / 50.0 mL	SW6010D	BIG1225	SIG1061	AG50337
BIG1225-MSD1	50.0 mL / 50.0 mL	SW6010D	BIG1225	SIG1061	AG50337

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods			Preparation Method:	SW3005A-ICPMS	

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Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods			Preparation Method: SW3005A-ICPMS		
BIG1227-BLK1	50.0 mL / 50.0 mL	SW6020B	BIG1227	SIG1139	AG50352
BIG1227-BS1	50.0 mL / 50.0 mL	SW6020B	BIG1227	SIG1139	AG50352
BIG1227-MS1	50.0 mL / 50.0 mL	SW6020B	BIG1227	SIG1139	AG50352
BIG1227-MSD1	50.0 mL / 50.0 mL	SW6020B	BIG1227	SIG1139	AG50352
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Semivolatile Organic Compounds by GCMS			Preparation Method: SW3510C/EPA600-MS		
BIG1421-BLK1	1000 mL / 1.00 mL	SW8270E	BIG1421	SIG1273	AG50280
BIG1421-BLK2		SW8270E	BIG1421	SIG1359	AD50293
BIG1421-BLK3		SW8270E	BIG1421	SIG1323	AC50301
BIG1421-BS1	1000 mL / 1.00 mL	SW8270E	BIG1421	SIG1273	AG50280
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Volatile Organic Compounds by GCMS			Preparation Method: SW5030B-MS		
BIG1232-BLK1	5.00 mL / 5.00 mL	SW8260D	BIG1232	SIG1032	AG50233
BIG1232-BS1	5.00 mL / 5.00 mL	SW8260D	BIG1232	SIG1032	AG50233
BIG1232-MS1	5.00 mL / 5.00 mL	SW8260D	BIG1232	SIG1032	AG50233
BIG1232-MSD1	5.00 mL / 5.00 mL	SW8260D	BIG1232	SIG1032	AG50233
BIG1319-BLK1	5.00 mL / 5.00 mL	SW8260D	BIG1319	SIG1103	AG50233
BIG1319-BS1	5.00 mL / 5.00 mL	SW8260D	BIG1319	SIG1103	AG50233
BIG1319-DUP1	5.00 mL / 5.00 mL	SW8260D	BIG1319	SIG1103	AG50233

Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

Certified Analyses included in this Report

Analyte	Certifications
<i>EPA350.1 R2.0 in Non-Potable Water</i>	
Ammonia as N	VELAP,NCDEQ,PADEP,WVDEP,SCDES,TXCEQ
<i>EPA351.2 R2.0 in Non-Potable Water</i>	
TKN as N	VELAP,NCDEQ,WVDEP,SCDES,PADEP
<i>SM4500-NO2B-2021 in Non-Potable Water</i>	
Nitrite as N	VELAP,WVDEP,NCDEQ,SCDES,PADEP
<i>SM4500-NO3F-2019 in Non-Potable Water</i>	
Nitrate+Nitrite as N	VELAP,WVDEP,NCDEQ,SCDES,PADEP
<i>SM5210B-2016 in Non-Potable Water</i>	
BOD	VELAP,NCDEQ,WVDEP,PADEP
<i>SM5220D-2011 in Non-Potable Water</i>	
COD	VELAP,NCDEQ,PADEP,WVDEP,SCDES,TXCEQ
<i>SW6010D in Non-Potable Water</i>	
Arsenic	VELAP,WVDEP,NCDEQ,SCDES,PADEP
Barium	VELAP,WVDEP,PADEP,NCDEQ,SCDES
Cadmium	VELAP,WVDEP,PADEP,NCDEQ,SCDES
Chromium	VELAP,WVDEP,NCDEQ,SCDES,TXCEQ,PADEP
Copper	VELAP,WVDEP,NCDEQ,SCDES,PADEP
Lead	VELAP,WVDEP,SCDES,NCDEQ,PADEP
Nickel	VELAP,WVDEP,SCDES,NCDEQ,PADEP
Selenium	VELAP,WVDEP,SCDES,NCDEQ,PADEP
Silver	VELAP,WVDEP,PADEP,SCDES,NCDEQ
Zinc	VELAP,WVDEP,SCDES,NCDEQ,PADEP
<i>SW6020B in Non-Potable Water</i>	
Mercury	VELAP,NCDEQ,PADEP,WVDEP

Certificate of Analysis

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Certified Analyses included in this Report

Analyte	Certifications
<i>SW8260D in Non-Potable Water</i>	
2-Butanone (MEK)	NCDEQ,PADEP,VELAP,WVDEP,TXCEQ
Acetone	NCDEQ,PADEP,VELAP,WVDEP,TXCEQ
Benzene	NCDEQ,PADEP,VELAP,WVDEP,TXCEQ
Ethylbenzene	NCDEQ,PADEP,VELAP,WVDEP,TXCEQ
Toluene	NCDEQ,PADEP,VELAP,WVDEP,TXCEQ
Xylenes, Total	NCDEQ,PADEP,VELAP,WVDEP,TXCEQ
Tetrahydrofuran	VELAP
<i>SW8270E in Non-Potable Water</i>	
Anthracene	NCDEQ,VELAP,PADEP,WVDEP,TXCEQ
<i>SW9065 in Non-Potable Water</i>	
Total Recoverable Phenolics	VELAP,WVDEP,PADEP

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Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

Code	Description	Laboratory ID	Expires
DURSC-NCDEQ	NCDEQ Durham Service Center	703	12/31/2025
DURSC-NCDHHS	NCDHHS Durham Service Center	37918	07/31/2026
MdDOE	Maryland DE Drinking Water	341	12/31/2025
NCDEQ	North Carolina DEQ	495	12/31/2025
NCDHHS	North Carolina Department of Health and Human Services	51714	07/31/2026
PADEP	NELAP-Pennsylvania Certificate #010	68-03503	10/31/2025
SCDES	South Carolina Dept of Environmental Services Certificate 93016001	93016	06/14/2026
TXCEQ	Texas Comm on Environmental Quality #TX-C25-00143	T104704576	05/31/2026
VELAP	NELAP-Virginia Certificate #13599	460021	06/14/2026
WVDEP	West Virginia DEP Cert ID: WV-C25-00105	350	11/30/2025

Certificate of Analysis

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Qualifiers and Definitions

DS	Surrogate concentration reflects a dilution factor.
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
RPD	Relative Percent Difference
Qual	Qualifiers
-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.



1941 REYMET ROAD
RICHMOND, VIRGINIA 23237
(804) 358-8295 PHONE
(804)358-8297 FAX

CHAIN OF CUSTODY

PAGE 1 OF 1

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 4															
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~~															
SAMPLER NAME (PRINT): Madison Myers, Catherine Kirby		SAMPLER SIGNATURE: <i>[Signature]</i>		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					COMMENTS 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 Note VOC 8260 no HCl PLEASE NOTE PRESERVATIVE(S), INTERFERENCE CHECKS or PUMP RATE (L/min)														
ANALYSIS / (PRESERVATIVE)																			
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	VOCs (Acetone, Benzene, EB, MEK, THF, Toluene, Xylene) Custom List	Mercury Method 6020	Metals 6010 (Ag, As, Ba, Cd, Cr, Cu, Ni, Pb, Se, Zn)	Phenolics	TKN, Nitrate (Cd), Nitrite	SVOC (Anthracene only)	COD, Ammonia	BOD	VFAs
1) EW-98	☒					072225	930		GW	16	☒	☒	☒	☒	☒	☒	☒	☒	☒
2)									GW										
3)									GW										
4)									GW										
5)									GW										
6)									GW										
7)									GW										
8)									GW										
9)									GW										
10) Tip Blank	☒					050125	1100		DI	2	☒								
RELINQUISHED: <i>[Signature]</i>		DATE / TIME: 072225 @ 1500		RECEIVED: <i>[Signature]</i>		DATE / TIME: 072225		QC Data Package		LAB USE ONLY		Therm ID: 271		COOLER TEMP 2.0 °C					
RELINQUISHED: LEN		DATE / TIME:		RECEIVED: 11/23/2023		DATE / TIME:		Level III ☐		Custody Seals used and intact? (Y/N)		Received on ice? (Y/N)							
RELINQUISHED:		DATE / TIME:		RECEIVED:		DATE / TIME:		Level IV ☐											

SCS-W
Bristol LFG-EW Monthly Monitor
Recd: 07/23/2025 Due: 08/06/2025

25G2252

Order ID 25G2252

Analyst Performing Check: HBF

NaOH ID: _____	HNO ₃ ID: <u>5F02189</u>	CrVI preserved date/time: _____	Analyst Initials: _____
H ₂ SO ₄ ID: <u>5F04512</u>	Na ₂ S ₂ O ₃ ID: _____	* pH must be adjusted between 9.3 - 9.7	
HCL ID: _____	Na ₂ SO ₃ ID: _____	Ammonia Buffer Sol'n ID: _____	
		5N NaOH ID: _____	Metals were received with HNO ₃ was added at 1300

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Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

Certificate of Analysis

Client Name: SCS Engineers - Winchester
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Submitted To: Jennifer Robb

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

Laboratory Order ID: 25G2252

Sample Conditions Checklist

Samples Received at:	2.00°C
How were samples received?	Logistics Courier
Were Custody Seals used?	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?	Yes
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? Metals (except Hg, B) do not require field preservation, but lab preservation may delay analysis. Field parameters performed by the lab are always received past holding time and will be noted as such.	Yes

Work Order Comments

Certificate of Analysis

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

Date Issued: 8/5/2025 4:31:19PM

Work Order: 25G2252

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-89	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		
	February-2023	---	---	---	---	---	---	---	---	---	2440	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	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		
	August-2023	---	1570	---	---	---	---	---	2260	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2350	310	146	200		
	September-2023	---	---	---	---	---	1600	---	1890	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2140	222	146	200		
	October-2023	---	---	---	1250	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1720	---	---	---	---	---	---	---	73.1	100	
	November-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146	200		
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146	200		
	January-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146	200		
	February-2024	---	---	2160	---	---	---	---	---	---	---	2400	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1610	146	200	
	March-2024	---	---	1900	---	2600	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1780	---	2380	---	---	---	146	200	
	April-2024	---	---	---	2290	---	---	---	---	---	---	---	---	---	928	---	---	---	2140	1800	---	---	---	---	---	---	---	146	200	
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	898	73.1	100	
	June-2024	---	---	---	---	---	---	---	---	---	---	2550	---	---	---	---	---	---	---	1620	---	1950	2660	---	---	---	---	146	200	
	July-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	73.1	100	
	August-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146	200	
	September-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	73.1	100	
	October-2024	343	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146	200	
	November-2024	934	1370	---	2180	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146	200
	December-2024	---	---	---	1510	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1560	146	200	
	January-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.68	---	---	---	---	---	0.005	0.01	
	February-2025	---	1300	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1400	---	---	---	---	---	73.1	100	
	March-2025	---	1240	---	---	---	---	---	---	---	---	---	1480	---	1160	---	---	---	---	---	---	---	---	---	---	---	---	199	199	
	April-2025	---	---	---	---	---	---	---	---	---	---	---	2440	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146	200	
May-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146	200		
June-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2160	---	---	---	---	---	---	---	120	200		
July-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1210	120	200		

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-89	EW-94	EW-98	LOD	LOQ	
Parameter	Monitoring Event	Concentration																											
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
	November-2024	4760	7360	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	2
	December-2024	---	---	---	42600	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20300	---	0.2	2
	January-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22900	---	---	---	---	---	0.2	2
	February-2025	---	4420	---	---	---	---	---	---	---	---	---	---	43418.4	---	---	---	---	---	---	---	16200	---	---	---	---	---	0.2	2
	March-2025	---	3490	---	---	---	---	---	---	---	---	20400	---	---	---	---	---	---	---	22000	---	---	---	---	---	---	---	0.2	2
	April-2025	---	---	---	---	---	---	---	---	---	---	33900	---	---	---	---	---	---	---	24600	---	---	---	---	---	---	---	0.2	2
	May-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	42196.44	42316.44	---	---	0.2	2
	June-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	230	---	---	---	---	---	---	---	0.2	2
	July-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12000	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-89	EW-94	EW-98	LOD	LOQ			
Parameter	Monitoring Event	Concentration																													
Chemical Oxygen Demand (mg/L)	November-2022	---	---	---	---	---	---	---	---	---	23500	---	9790	---	---	10800	---	---	---	---	---	---	---	---	---	---	1000	1000			
	December-2022	---	7440	---	---	---	---	---	---	---	---	13200	8000	---	---	---	---	20300	14100	---	---	---	---	---	---	---	---	2000	2000		
		---	---	---	---	---	---	---	---	22400	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2000	2000	
		---	---	---	86800	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5000	5000	
	January-2023	---	---	---	---	---	---	---	---	---	3630	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10000	10000	
		---	14900	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	500	
		---	---	---	---	---	---	---	---	---	---	47600	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2000	2000	
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9210	---	---	---	---	---	---	---	---	---	---	5000	5000	
	March-2023	---	---	---	---	---	---	---	---	1690	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000	1000	
	---	---	---	---	---	---	---	---	---	---	10600	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	500	
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	April-2023	---	---	---	---	---	---	---	---	---	---	7370	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000	1000	
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2000	2000	
	May-2023	---	7590	---	---	---	---	---	---	---	16800	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2000	2000
	---	---	---	---	---	---	---	---	---	---	18700	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4000	4000
	June-2023	---	---	---	---	---	---	---	---	---	---	44700	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5000	5000
	July-2023	---	---	---	---	---	---	---	---	---	---	---	41300	---	44800	---	55000	---	---	---	---	---	---	---	---	---	---	---	10000	10000	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	500
		---	6480	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2460	---	---	---	---	---	---	---	---	---	1000	1000
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5000	5000
	---	---	---	---	---	---	---	---	50100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	500
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5000	5000
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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-89	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	
	June-2023	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.2	5.2
		---	---	---	---	---	---	---	---	---	ND	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	1.1	5.1
		---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.2	5.2	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.355	---	---	---	---	---	---	---	---	---	1.1	5.1
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.2	5.2
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.15	0.35
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.55	0.75
		---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	3
	August-2023	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	1.5	5.5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	0.15	0.35
		---	---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.5	3.5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.3	1.1
	September-20																													

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-89	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	---	---	---	---	---	---	---	---	1	5	
	January-2023	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	1.25	
		---	ND	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	1	
	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
	August-2023	---	---	---	---	---	---	---	1.2 J	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	1	5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.05	0.25
	September-2023	---	---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.5	2.5
		October-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	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	1.25
	December-2023	---	---	---	ND	ND	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	1	5
		January-2024	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	1	5
	February-2024	---	---	1.7 J	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	5
		March-2024	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	---	1	5
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25 J	0.25	1.25
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	0.25
	April-2024	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2	10
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.05	0.25
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	1.25
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.5	2.5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	5
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.5	2.5
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July-2024	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.5	2.5	
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August-2024	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	1.25	
	September-2024	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	1.25	
September-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5	25	
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October-2024	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	5	
	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	50	
November-2024	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	1.25	
	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.5	2.5	
December-2024	---	1.35 J	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.5	2.5	
	January-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	1.25	
February-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	5	
	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	50	
March-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2	10	
	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	1.25	
April-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	5	
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May-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	5	
June-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	0.5	
July-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.51	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-89	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		
		---	---	---	---	---	---	---	---	---	3080	---	---	---	2750	---	---	---	---	---	---	---	---	---	---	---	100	250		
	June-2023	---	---	---	---	---	---	---	---	---	---	---	2650	---	---	---	---	---	---	---	---	---	---	---	---	---	200	500		
	July-2023	---	1670	---	---	---	---	---	2960	---	---	---	---	---	---	---	---	---	1670	---	---	---	---	---	---	2720	285	40	100	
	August-2023	---	---	---	---	---	2240	---	2820	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	279	10	25		
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2850	100	250		
	September-2023	---	---	---	3340	---	---	---	---	---	---	---	---	---	---	---	---	---	2680	---	---	---	---	---	---	---	100	250		
	October-2023	---	---	---	---	---	---	1050	---	---	---	---	---	---	---	---	---	---	---	---	1320	---	---	---	---	---	---	40	100	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4630	---	---	---	---	---	---	---	100	250		
	November-2023	---	1440	---	3290	2630	---	2240	---	---	---	2530	---	1120	---	---	---	---	---	2270	---	---	3170	---	---	---	2120	80	200	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250	
	December-2023	---	---	---	3130	---	---	---	---	---	---	---	---	---	---	---	---	---	1880	---	---	---	---	---	---	---	---	80	200	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250	
	January-2024	---	---	2450	---	---	---	---	---	---	---	3020	---	---	---	---	---	---	---	1890	---	---	---	---	---	---	---	1810	100	250
	February-2024	---	---	2540	---	2890	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2470	---	2970	---	---	---			

	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-89	EW-94	EW-98	LOD	LOQ		
Parameter	Monitoring Event	Concentration																												
Total Recoverable Phenolics (mg/L)	November-2022	---	---	---	---	---	---	---	---	---	---	28.8	---	5.68	---	---	3	---	---	---	---	---	---	---	---	---	0.3	0.5		
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.75	1.25		
	December-2022	---	24.9	---	54.6	---	---	---	28.3	---	32	---	---	---	---	---	---	20.2	36	---	---	---	---	---	---	---	0.3	0.5		
		---	27.2	---	---	---	---	---	---	1.3	---	---	---	---	---	---	20.2	---	---	---	---	---	---	---	---	---	1.5	2.5		
	January-2023	---	---	---	---	---	---	---	---	---	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	---	---	---	---	---	---	---	1.5	2.5		
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.15	0.25		
	August-2023	---	11.6	---	---	---	---	---	47.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.92	0.3	0.5	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.5	2.5	
	September-2023	---	---	---	---	28.6	---	31.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	40.4	---	1.46	0.15	0.25
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.5	2.5	
	October-2023	---	---	---	38.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4.58	---	---	---	---	---	---	---	0.3	0.5	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3	5	
	November-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4.13	---	---	---	---	---	---	---	0.15	0.25	
		---	---	---	---	---	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38.7	---	---	---	---	0.6	1	
	December-2023	---	7.88	---	---	36.4	---	---	---	---	---	---	---	4.76	---	---	---	---	---	3.65	---	---	---	---	---	---	---	0.6	1	
		---	---	---	38.8	---	47.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	47.1	---	---	---	---	0.75	1.25	
	January-2024	---	---	---	---	---																								

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-89	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	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	9.35	9.35		
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11.7	11.7		
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23.4	23.4		
		---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	485	971		
	January-2023	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	243	485	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	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	
		---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	490	980	
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	46.7	93.5
		---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	200	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	250	500	
		---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	1000	2000	
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19.6	39.2	
		---	---	---	---																									

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-89	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	---	---	---	---	---	---	0.32	---	0.43	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.15	0.0025	0.005
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	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	
November-2024	0.18	0.15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.01	
December-2024	---	---	---	0.28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.09	0.005	0.01		
January-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.88	---	---	---	---	0.01	0.05	
February-2025	---	0.17	---	---	---	---	---	---	---	---	---	---	0.774 J	---	---	---	---	---	---	---	0.73	---	---	---	---	---	0.005	0.01	
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.465	1	
March-2025	---	0.158	---	---	---	---	---	---	---	---	---	0.344	---	---	---	---	---	0.254	---	---	---	---	---	---	---	---	0.01	0.02	
April-2025	---	---	---	---	---	---	---	---	---	---	---	0.246	---	---	---	---	---	0.217	---	---	---	---	---	---	---	---	0.01	0.02	
May-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.15	0.2	---	---	0.0025	0.005	
June-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.322	---	---	---	---	---	---	---	0.003	0.02	
July-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.19	0.0018	0.02	

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-89	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		
	June-2023	---	---	---	---	---	---	---	---	---	1.2	1.83	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.05		
		---	---	---	---	---	---	---	---	---	---	1.69	---	---	---	1.65	---	---	---	---	---	---	---	---	---	---	0.005	0.025		
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.217	0.001	0.005	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.002	0.01	
		---	0.542	---	---	---	---	---	2.28	---	---	---	---	---	---	---	---	---	---	0.558	---	---	---	---	---	---	1.02	0.005	0.025	
	August-2023	---	---	---	---	---	1.61	---	1.58	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.48	0.005	0.025		
	September-2023	---	---	---	0.72	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.649	---	---	---	---	---	---	---	0.01	0.05	
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.664	---	---	---	---	---	---	---	0.002	0.01	
	November-2023	---	0.572	---	0.81	2.28	---	2.56	2.51	---	---	1.96	---	---	0.418	---	---	---	---	0.67	---	---	1.93	---	---	---	0.005	0.025		
	December-2023	---	---	---	0.68	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.36	---	---	---	---	---	---	---	0.005	0.025	
	January-2024	---	---	---	---	---	---	---	---	---	---	1.92	---	---	---	---	---	---	---	0.672	---	---	---	---	---	---	---	0.002	0.01	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.025	
	February-2024	---	---	3.27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.05	
	March-2024	---	---	3.03	---	4.41	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.65	---	0.925	---	---	---	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	
	November-2024	0.262	0.69	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.05	
	December-2024	---	---	---	2.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.21	0.01	0.05	
	January-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.05	
	February-2025	---	0.633	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.88	---	---	---	---	---	0.01	0.05	
	March-2025	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.465	0.5	
		---	0.516	---	---	---	---	---	---	---	---	---	1.05	---	---	---	---	---	---	2.93	---	---	---	---	---	---	---	0.005	0.01	
	April-2025	---	---	---	---	---	---	---	---	---	---	---	1.96	---	---	---	---	---	---	2.95	---	---	---	---	---	---	---	0.005	0.01	
	May-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.025	
	June-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.514	---	---	---	---	---	---	---	0.001	0.01	
	July-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.842	0.0005	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-89	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	ND	0.0005	0.005
	September-2023	---	---	---	ND	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	ND	---	0.001	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.000171 J	---	---	---	ND	---	---	---	---	0.0001	0.001
	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
	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
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	0.000204 J	---	---	---	---	---	0.000195 J	---	---	---	---	---	---	---	0.0001	0.001
	May-2024	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	0.001	0.004
	June-2024	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	---	---	0.0483	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	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.001	0.01
	November-2024	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.001	0.01
	December-2024	---	---	---	0.00661 J	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00304 J	---	0.001	0.01
	January-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.198	---	---	---	---	---	0.004	0.01
	February-2025	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0101	---	---	---	---	---	0.001	0.01
	March-2025	---	ND	---	---	---	---	---	---	---	---	---	0.0119	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	0.186	0.2
	April-2025	---	---	---	---	---	---	---	---	---	---	---	0.0284	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	0.002	0.004
May-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	---	---	0.0005	0.005	
June-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.0004	0.004	
July-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0019 J	0.0002	0.004		

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-89	EW-94	EW-98	LOD	LOQ		
Parameter	Monitoring Event	Concentration																											
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	
	May-2023	---	0.422	---	---	---	---	---	---	0.306	0.237	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.004	0.01	
	June-2023	---	---	---	---	---	---	---	---	0.281	0.237	---	---	---	---	0.251	---	0.191	---	0.272	---	---	---	---	---	---	0.002	0.005	
	July-2023	---	0.308	---	---	---	---	---	0.535	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.215	0.0265	0.0004	0.001	
	August-2023	---	---	---	---	---	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	
	November-2023	---	0.391	---	---	---	---	0.273	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0008	0.002	
	December-2023	---	---	---	---	0.51	---	---	---	---	---	---	---	---	---	---	---	---	0.251	---	---	0.403	---	---	---	---	0.003	0.003	
	January-2024	---	---	---	1.04	---	---	0.402	---	---	0.246	---	---	0.343	---	---	---	---	---	---	---	---	---	---	0.222	---	0.004	0.01	
	February-2024	---	---	---	1.34	---	---	---	---	---	---	---	---	---	---	---	---	---	0.259	---	---	---	---	---	---	---	---	0.002	0.005
	March-2024	---	---	0.17	---	---	---	---	---	---	0.193	---	---	---	---	---	---	---	0.219	---	---	---	---	---	---	---	---	0.0008	0.002
	April-2024	---	---	0.23	---	0.272	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.203	---	0.336	---	---	---	0.128	0.002	0.005
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0759	0.0008	0.002	
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	0.36	---	---	---	---	0.245	---	---	---	---	---	---	---	0.002	0.005	
	July-2024	---	---	---	0.836	---	---	---	---	---	---	---	---	---	---	---	---	0.228	---	---	---	---	---	---	---	---	0.004	0.01	
	August-2024	---	---	---	---	---	---	---	---	---	0.268	---	---	---	---	---	---	---	0.226	---	0.183	0.352	---	---	---	0.11	0.004	0.01	
	September-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.226	---	0.188	---	---	---	---	---	0.16	0.004	0.01
	October-2024	0.0873	0.246	---	0.929	---	0.549	---	---	---	0.252	0.246	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.002	0.005
	November-2024	0.0797	0.237	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.185	---	---	---	0.233	---	---	0.004	0.01
	December-2024	---	---	---	0.948	---	0.541	---	---	---	---	---	---	---	---	---	---	0.228	---	---	---	---	---	---	---	---	0.004	0.01	
	January-2025	---	---	---	0.929	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.349	---	---	---	---	---	---	---	0.004	0.01
	February-2025	---	---	---	0.773	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.184	0.004	0.01	
	March-2025	---	0.21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00941	---	---	---	---	---	---	0.003	0.01
	April-2025	---	0.248	---	---	---	---	---	---	---	---	---	0.0992	---	---	---	---	---	---	---	0.196	---	---	---	---	---	---	0.004	0.01
	May-2025	---	---	---	---	---	---	---	---	---	---	0.199	---	---	---	---	---	0.155	---	---	---	---	---	---	---	---	0.0465	0.05	
	June-2025	---	---	---	---	---	---	---	---	---	---	0.248	---	---	---	---	---	0.143	---	---	---	---	---	---	---	---	---	0.008	0.01
July-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.371	0.342	---	---	0.002	0.005		
August-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.178	---	---	---	---	---	---	---	---	0.001	0.01	
September-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0899	0.0004	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-89	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
	September-2023	---	---	---	---	---	0.00343 J	---	---	0.0176	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.003	0.01
	October-2023	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00407 J	---	---	---	---	---	---	---	0.003	0.01
	November-2023	---	---	---	---	---	---	---	0.00806	---	---	---	---	---	---	---	---	---	---	0.00361	---	---	0.000609 J	---	---	---	---	0.0003	0.001
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0006	0.002
	January-2024	---	0.00607	---	---	0.00352	0.0212	---	0.00756	---	---	ND	---	---	0.00341	---	---	---	---	0.00387	---	---	---	ND	---	---	---	0.003	0.003
	February-2024	---	---	---	---	0.00184	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.0015	0.0015
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0034	---	---	---	---	---	---	---	0.0006	0.002
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00184 J	---	---	---	0.0015	0.005
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	0.00443	---	---	---	---	---	0.004	---	---	---	---	---	---	---	0.0003	0.001
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.003	0.004
	July-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0015	0.005
	August-2024	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	0.003	0.01
	September-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.003	0.01
	October-2024	0.00612 J	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00306 J	---	---	---	---	---	0.003	0.01
	November-2024	0.00569 J	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.003	0.01
	December-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.003	0.01
	January-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.01
	February-2025	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00381 J	---	---	---	---	---	0.003	0.01
	March-2025	---	0.0087 J	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0465	0.05
	April-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0142	---	---	---	---	---	---	---	---	0.008	0.01
	May-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.009 J	---	---	---	---	---	---	---	---	0.008	0.01
	June-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0015	0.005
	July-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0082 J	---	---	---	---	---	---	---	0.002	0.01
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0076 J	0.0017	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-89	EW-94	EW-98	LOD	LOQ	
Parameter	Monitoring Event	Concentration																											
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	---	---	---	---	---	0.014	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.013	---	0.005	0.005	
	September-2023	---	---	---	0.12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.01	0.01	
	October-2023	---	---	---	---	---	---	0.0077	---	---	---	---	---	---	---	---	---	---	0.0036	---	---	0.0034	---	---	---	---	0.001	0.001	
	November-2023	---	ND	---	0.13	0.0046	---	0.014	---	---	ND	---	---	ND	---	---	---	---	---	0.0032	---	---	0.0043	---	---	---	ND	0.003	0.003
	December-2023	---	---	---	0.16	---	---	---	---	---	---	---	---	---	---	---	---	---	0.002	0.0043	---	---	---	---	---	---	0.002	0.002	
	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	0.002
	April-2024	---	---	---	0.13	---	---	---	---	---	---	---	---	0.0013	---	---	---	---	---	0.0025	---	---	---	---	---	---	---	0.001	0.001
	May-2024	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	---	0.11	ND	---	---	---	ND	0.01	0.01
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.024	---	---	---	---	---	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	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.01
	November-2024	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.01
	December-2024	---	---	---	0.18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.01
	January-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.002	0.002
	February-2025	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.02	---	---	---	---	---	0.01	0.01
	March-2025	---	0.0113	---	---	---	---	---	---	---	---	---	0.0816	0.0561	---	---	---	---	0.0229	---	---	---	---	---	---	---	---	0.0465	0.05
	April-2025	---	---	---	---	---	---	---	---	---	---	---	0.132	---	---	---	---	---	0.0207	---	---	---	---	---	---	---	---	0.006	0.01
	May-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.016	0.049	---	---	0.005	0.005
	June-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0079 J	---	---	---	---	---	---	---	0.003	0.01
	July-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0233	0.0018	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-89	EW-94	EW-98	LOD	LOQ		
Parameter	Monitoring Event	Concentration																								LOD	LOQ		
Mercury	November-2022	---	---	---	---	---	---	---	---	---	---	0.00169	---	---	0.00053	---	---	---	---	---	---	---	---	---	---	---	0.0004	0.0004	
		---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0008	0.0008	
		---	0.00051	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0004	0.0004	
	December-2022	---	---	---	---	---	---	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	---	---	---	---	---	0.0107	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	ND	0.0002	0.0002	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.001	0.001	
	August-2023	---	---	---	---	---	0.00312	---	0.00397	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.001	0.001	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	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	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0000004	0.0000004	
	December-2023	---	---	---	0.00576	0.00606	---	0.00578	---	---	ND	---	---	---	---	---	---	---	---	---	---	0.00954	---	---	---				

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-89	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	---	---	---	---	---	0.1457	---	0.09673	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0513	0.02029	0.005	0.005	
	September-2023	---	---	---	0.5152	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2387	---	---	---	---	---	---	---	0.01	0.01	
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2019	---	---	0.09206	---	---	---	---	0.001	0.001	
	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	
	January-2024	---	---	0.06308	---	---	---	---	---	---	0.04911	---	---	---	---	---	---	---	---	0.2127	---	---	---	---	---	---	0.0326	0.002	0.002	
	February-2024	---	---	0.07945	---	0.07013	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.09174	---	0.06183	---	---	---	0.005	0.005	
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.02232	0.002	0.002		
	April-2024	---	---	---	---	---	---	---	---	---	---	---	0.1319	---	---	---	---	---	---	0.196	---	---	---	0.08678	---	---	---	0.005	0.005	
	May-2024	---	---	---	0.3136	---	---	---	---	---	---	---	---	---	---	---	---	0.1139	---	---	---	---	---	---	---	---	---	0.001	0.01	
	June-2024	---	---	---	---	---	---	---	---	---	0.0538	---	---	---	---	---	---	---	---	0.2065	---	0.07835	0.09235	---	---	---	0.02884	0.01	0.01	
	July-2024	---	---	---	---	---	---	---	---	---	---	0.1917	0.03634	---	---	---	---	---	---	0.211	---	0.07664	---	---	---	---	0.03166	0.01	0.01	
	August-2024	---	---	---	---	---	0.1008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0822	---	---	---	0.02104	---	0.005	0.005	
	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	
	November-2024	0.03879	0.09665	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.01	
	December-2024	---	---	---	0.2964	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.03528	0.01	0.01		
	January-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.0085	0.01	
	February-2025	---	0.09275	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1021	---	---	---	---	---	---	0.01	0.01
	March-2025	---	0.0933	---	---	---	---	---	---	---	---	0.0375	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0465	0.05	
	April-2025	---	---	---	---	---	---	---	---	---	---	0.0161	---	---	---	---	---	---	0.0818	---	---	---	---	---	---	---	---	0.007	0.01	
	May-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0713	---	---	---	---	---	---	---	---	0.007	0.01	
	June-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.07897	0.03695	---	---	0.005	0.005	
	July-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1796	---	---	---	---	---	---	---	0.001	0.01	
																										0.0005	0.01			
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	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---														

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-89	EW-94	EW-98	LOD	LOQ	
Parameter	Monitoring Event	Concentration																											
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	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	0.0003	0.005
	September-2023	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.0006	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	---	---	---	---	0.00006	0.001
	November-2023	---	ND	---	ND	ND	---	---	ND	---	---	ND	---	---	ND	---	---	---	---	ND	---	---	---	ND	---	---	ND	0.0006	0.01
	December-2023	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	0.00025	0.001
	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
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	0.0003	0.005
	May-2024	---	---	---	ND	---	---	---	---	---	---	---	---	---	ND	---	---	---	ND	---	---	---	---	---	---	---	---	0.00006	0.001
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	0.0004	0.001
	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
	November-2024	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0006	0.01
	December-2024	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.0006	0.01
	January-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.789	---	---	---	---	---	0.025	0.05
	February-2025	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.0006	0.01
	March-2025	---	ND	---	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	ND	---	---	---	---	---	---	---	---	0.00232	0.0025
	April-2025	---	---	---	---	---	---	---	---	---	---	---	0.007 J	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	0.005	0.01
May-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	---	0.005	0.01	
June-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0003	0.005	
July-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0009 J	0.0004	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-89	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		
	May-2023	---	0.079	---	---	---	---	---	---	---	0.0635	0.0519	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.025	0.05		
	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
		---	---	---	---	---	5.92	---	---	1.71	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.914	---	0.025	0.05	
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.05	0.1	
		---	---	---	45	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0788	---	---	---	---	---	---	---	0.025	0.05	
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	0.5	
		---	---	---	---	---	---	---	0.203	---	---	---	---	---	---	---	---	---	---	0.0622	---	---	---	---	---	---	---	0.0025	0.005	
	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	
	January-2024	---	---	0.117	---	---	---	---	---	---	---	0.0974	---	---	---	---	---	---	0.0462	---	---	---	---	---	---	---	---	0.025	0.025	
	February-2024	---	---	0.0879	---	0.0554	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.475	---	0.809	---	---	0.0261	0.0125	0.025	
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0342	0.005	0.01		
		---	---	---	---	---	---	---	---	---	---	---	---	0.0565	---	---	---	---	---	0.0539	---	---	---	---	---	---	---	0.0125	0.025	
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0539	---	---	---	---	---	---	---	0.0025	0.005	
		---	---	---	24.7	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0394	---	---	---	---	---	---	---	---	0.02	0.02	
	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	
	November-2024	0.0325 J	0.0367 J	---	20.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	0.5	
	December-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.025	0.05	
		---	---	---	14.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	0.5	
	January-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.002	0.002	
	February-2025	---	0.0405 J	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.527	---	---	---	---	---	0.025	0.05	
		---	---	---	---	---	---	---	---	---	---	---	---	0.136	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0465	0.05	
	March-2025	---	0.0415	---	---	---	---	---	---	---	---	---	0.155	---	---	---	---	---	0.0277	---	---	---	---	---	---	---	---	0.01	0.01	
April-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0297	---	---	---	---	---	---	---	---	0.01	0.01		
	---	---	---	---	---	---	---	---	---	---	---	0.366	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.05	0.05		
May-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.1	1.55	---	---	0.0125	0.025		
June-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0455	---	---	---	---	---	---	---	0.007	0.01		
July-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0246	0.0032	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-89	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
	August-2023	---	---	---	---	---	---	---	---	6100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	750	---	750	1000
		---	---	---	---	---	3300	---	5300	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4200	ND	---	500
	September-2023	---	---	---	7400	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	370	500	
	October-2023	---	---	---	---	---	---	3200	---	---	---	---	---	---	---	---	---	---	---	---	720	---	---	4100	---	---	---	---	370	500
	November-2023	---	ND	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	4160	250	500	
		---	---	---	---	4950	---	6650	---	---	---	5350	---	---	---	---	---	---	---	---	---	---	---	7300	---	---	---	500	1000	
	December-2023	---	---	---	9900	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000	2000	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	660	---	---	---	---	---	---	---	---	---	100
	January-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250	
		---	---	---	11200	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	1000
	February-2024	---	---	4410	---	---	---	---	---	---	---	5290	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3080	---	250	
	March-2024	---	---	3130	---	3530	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3530	---	6770	---	---	---	500	
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	200	
		---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	1000	
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	
		---	---	---	9170	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250	
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1250	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	500	
	July-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1250	
	August-2024	---	---	---	---	---	5210	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250	
September-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500		
	---	---	---	---	---	5970	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1250		
October-2024	---	---	---	10400	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50	
	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100		
November-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250	
	---	---	---	9410	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4780	---	---	---	---	---	---	---	1250	
December-2024	960	230	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	200		
January-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	200	
May-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	400	
June-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	
July-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	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-89	EW-94	EW-98	LOD	LOQ			
Parameter	Monitoring Event	Concentration																												
Propionic Acid	November-2022									1600		620			73 J												11	100		
	December-2022		640																								27	250		
	January-2023		ND						ND	2000					ND													27	250	
	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	
	December-2023				2580																							500	1000	
																													100	
																		996											250	
	January-2024				2280																									1000
				1680							1970																1030		250	
		February-2024			1210		1510																						250	
	March-2024																				1980		2900						500	
																										570		20		
																										2100			200	
	April-2024													ND					ND										100	
	May-2024				2300													1150											250	
	June-2024										1730								ND			1640	2770				647		250	
	July-2024																													

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-89	EW-94	EW-98	LOD	LOQ			
Parameter	Monitoring Event	Concentration																												
VOLATILE ORGANIC COMPOUNDS (ug/L)																														
2-Butanone (MEK)	November-2022	---	---	---	---	---	---	---	---	3510	---	---	---	---	1140	---	---	---	---	---	---	---	---	---	---	---	30	100		
	December-2022	---	3140	---	---	---	---	---	---	---	---	3390	---	---	---	---	---	---	---	---	---	---	---	---	---	---	300	1000		
		---	---	---	26800	---	---	---	27700	---	5670	---	---	---	---	---	21700	7150	---	---	---	---	---	---	---	---	30	100		
	January-2023	---	3480	---	---	---	---	---	632	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	300	1000		
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	600	2000			
	March-2023	---	---	---	---	---	---	---	257	2770	---	---	---	---	---	---	14400	---	---	---	---	---	---	---	---	30	100			
	April-2023	---	---	---	---	---	---	---	3420	---	5530	---	---	---	---	---	---	---	---	---	---	---	---	---	---	750	2500			
	May-2023	---	5360	---	---	---	---	---	---	5970	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500		
	June-2023	---	---	---	---	---	---	---	---	---	13600	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	750	2500		
		---	---	---	---	---	---	---	---	---	13800	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	750	2500		
	July-2023	---	5860	---	---	---	---	---	---	---	---	---	20100	---	22600	---	---	---	ND	---	---	---	---	---	---	---	---	60	200	
		---	---	---	---	---	---	---	38400	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13500	750	2500	
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3000	10000	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	60	200		
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500	
		---	---	---	---	---	---	---	3000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	750	2500	
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1500	5000	
		---	---	---	17500	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	60	200	
	November-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	439	---	---	---	---	---	---	---	---	750	2500	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15	50	
	December-2023	---	---	---	---	---	---	17800	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1500	5000	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30	100	
	January-2024	---	---	---	---	---	---	---	---	---	10600	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500	
		---	3990	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	300	1000	
	February-2024	---	---	---	25700	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	750	2500	
		---	---	---	---	22300	---	---	---	---	---	---	---	17600	---	---	---	---	---	---	---	---	---	---	---	---	---	1500	5000	
	March-2024	---	---	---	13700	---	---	---	---	---	---	---	---	---	---	---	---	7060	ND	---	---	---	---	---	---	---	---	150	500	
		---	---	34700	---	---	---	---	---	---	10800	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500	
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1500	5000	
		---	---	---	37200	---	---	---	---	---	---	---	---	---	---	---	---	28700	---	---	---	---	---	---	---	---	---	750	2500	
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	60	200	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500	
	June-2024	---	---	---	---	---	---	---	---	---	25700	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1500	5000	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	60	200	
	July-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500	
		---	---	---	---	---	---	---	---	---	15600	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1500	5000	
	August-2024	---	---	---	---	---	17700	---	---	---	---	25400	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500	
	September-2024	---	---	---	19000	---	16600	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1500	5000	
	October-2024	28.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3	10	
		---	2770	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	60	200	
	November-2024	---	---	---	13000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10800	---	---	---	---	---	---	---	---	150	500
		---	4140	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	60	200	
	December-2024	28800	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	750	2500	
		---	---	---	658	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500	
January-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	600	2000		
February-2025	---	6930	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500	
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24500	24500		
March-2025	---	2540	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500	
	---	---	---	---	---	---	---	---	---	---	30600	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1500	5000		
April-2025	---	---	---	---	---	---	---	---	---	---	20800	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500	
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500		
May-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1500	5000		
June-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	60	200		
July-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20300	150	500

[illegible]

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-89	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		
	July-2023	---	---	---	---	---	---	---	---	---	---	98	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	666	4	10
		---	128	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	82	---	---	---	---	---	---	---	---	8	20	
		---	---	---	---	---	---	---	224	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	87.5	---	20	50	
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16.8 J	---	8	20		
	September-2023	---	---	---	---	---	80	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	50	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22.8	---	---	---	---	---	---	---	---	8	20	
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250		
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	34.8	---	---	---	---	---	---	---	---	2	5	
	November-2023	---	---	---	---	---	---	42.5 J	---	---	---	---	---	---	---	---	---	---	---	---	---	---	247	---	---	---	---	---	20	50
		---	26.3	---	---	---	---	---	---	---	---	---	---	45.4	---	---	---	---	---	---	---	---	---	---	---	---	---	2	5	
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26.9	---	---	---	---	---	---	---	---	4	10	
	December-2023	---	---	---	62	---	54	---	---	---	76.5	---	---	---	---	---	---	---	---	---	---	---	224	---	---	---	60.5	20	50	
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250	
		---	---	---	69.5	---	---	---	---	---	---	---	---	---	---	---	---	---	46	---	---	---	---	---	---	---	---	8	20	
	January-2024	---	---	99	---	---	---	---	---	28 J	---	---	---	---	---	---	---	---	44 J	---	---	---	---	---	---	---	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	
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	May-2024	---	---	---	---	---	---	---	---	---	146	---	---	---	---	---	---	---	35.4	---	---	---	---	---	---	---	---	20	50	
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23.6	---	---	---	---	---	---	---	---	8	20	
	July-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	50	
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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-89	EW-94	EW-98	LOD	LOQ		
Parameter	Monitoring Event	Concentration																												
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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-89	EW-94	EW-98	LOD	LOQ		
Parameter	Monitoring Event	Concentration																												
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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-89	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	
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	April-2023	---	---	---	---	---	---	---	---	329	---	97.4	---	---	---	---	---	---	---	---	---	---	---	---	---	10	30	
	May-2023	---	274	---	---	---	---	---	---	441	230	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50	150	
	June-2023	---	---	---	---	---	---	---	---	---	177	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	60	
	July-2023	---	---	---	---	---	---	---	---	---	---	---	92 J	---	136 J	---	---	---	---	---	---	---	---	---	---	---	50	150
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	30
		---	257	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	74.4	---	---	---	---	---	---	---	20	60
	August-2023	---	---	---	---	---	---	---	230	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50	150
		---	---	---	---	---	180	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	48.4 J	20
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	50	150
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	60
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250	750
		---	---	---	---	---	---	134 J	---	---	---	---	---	---	---	---	---	---	30.6	---	---	---	---	---	---	---	5	15
		---	56	---	---	---	---	---	---	---	---	---	---	48	---	---	---	---	---	---	---	---	---	---	---	---	5	15
	November-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	30
		---	---	---	---	116 J	---	104 J	---	---	132 J	---	---	---	---	---	---	---	25.3 J	---	---	---	---	---	---	---	50	150
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250	750
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	60
		---	---	---	224	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	50	150
	January-2024	---	---	142 J	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50	150
	February-2024	---	---	63 J	---	59 J	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	50	150
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	50	150
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	110	---	---	---	---	---	ND	---	---	---	---	---	---	10	30
		---	---	---	140 J	---	---	---	---	---	---	---	---	---	---	---	---	---	352	---	---	---	---	---	---	---	50	150
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	31.6 J	---	---	---	---	---	---	20	60
		---	---	---	---	---	---	---	---	---	223	---	---	---	---	---	---	---	---	---	---	ND	---	105 J	---	---	50	150
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	20	60
	July-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	50	150
August-2024	---	---	---	---	---	72.5 J	---	---	---	125 J	157	---	---	---	---	---	---	---	---	---	---	---	---	---	---	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	
November-2024	ND	223	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	60	
December-2024	---	---	---	98.5 J	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50	150	
January-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	82 J	---	---	---	---	50	150	
February-2025	---	267	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	60	
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50	150	
	---	---	---	---	---	---	---	---	---	---	---	4260000	---	---	---	---	---	---	---	---	354	---	---	---	---	24500	24500	
March-2025	---	108 J	---	---	---	---	---	---	---	---	386	---	---	---	---	---	200	---	---	---	---	---	---	---	---	50	150	
April-2025	---	---	---	---	---	---	---	---	---	---	87.5 J	---	---	---	---	---	144 J	---	---	---	---	---	---	---	---	50	150	
May-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	---	---	50	150	
June-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	29.6 J	---	---	---	---	---	---	20	60	
July-2025	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50	150	

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 Defection

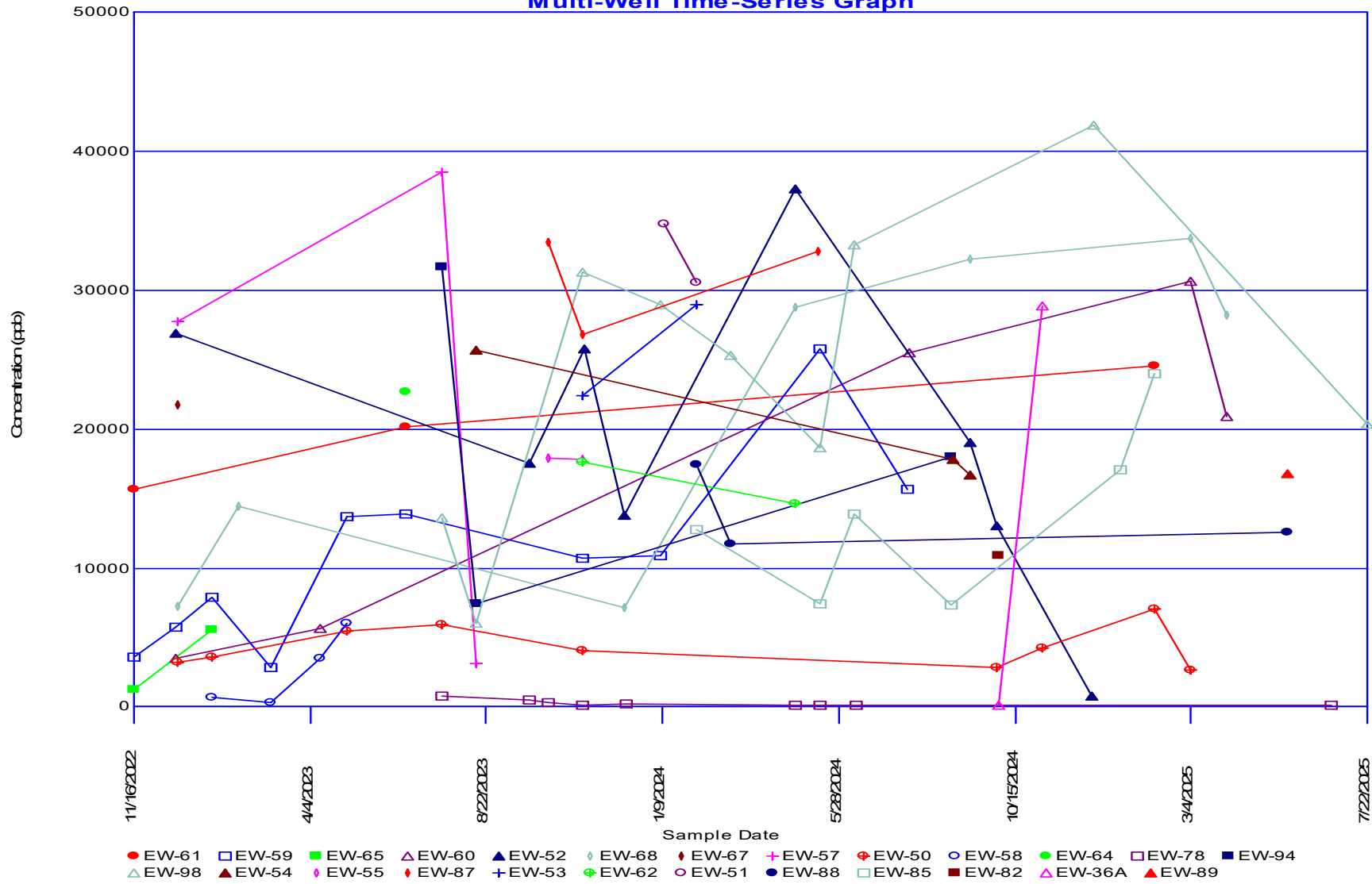
LOQ = laboratory's Limit of Quantitation

mg/L = milligrams per liter

ND = Not Detected

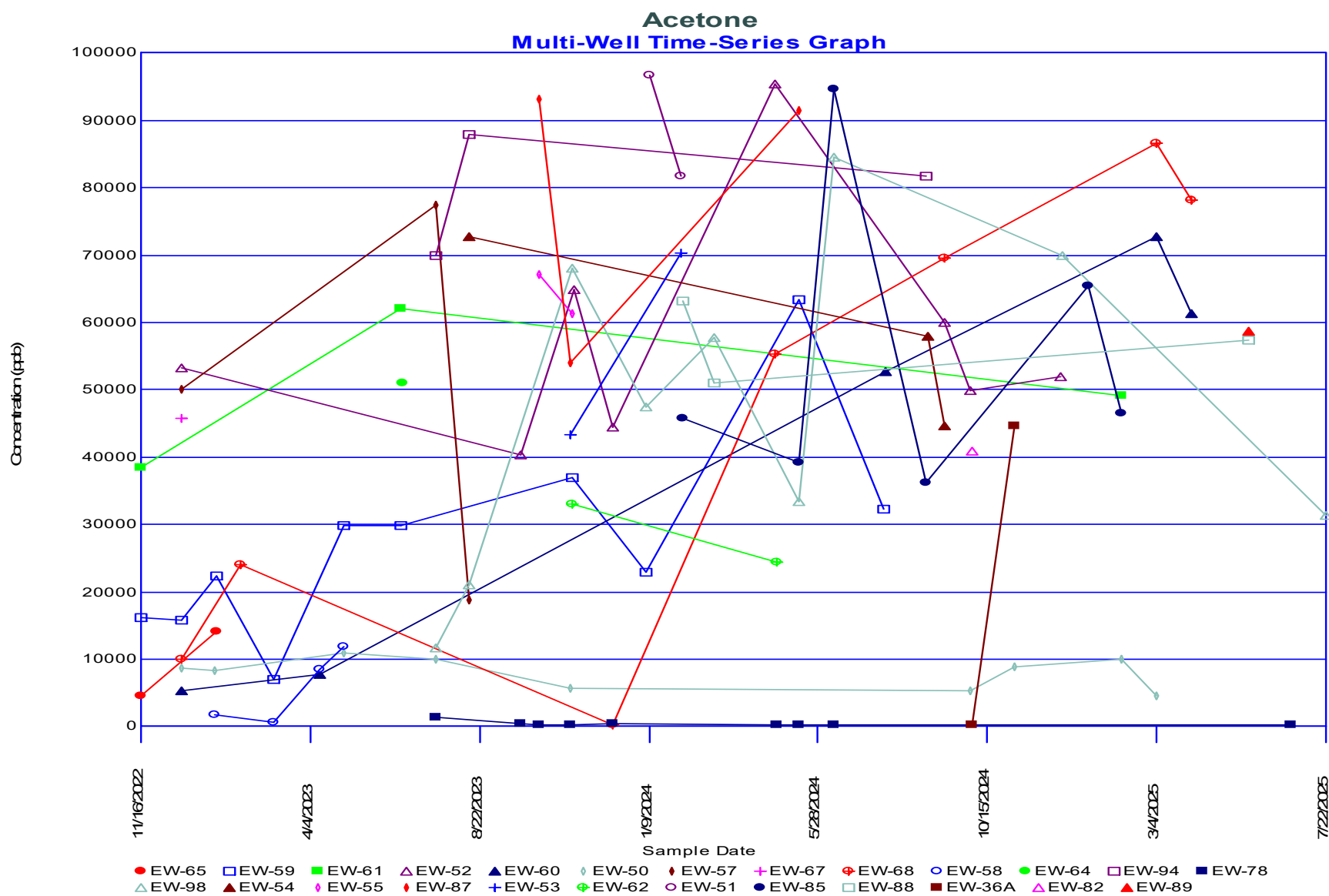
ug/L = micrograms per liter

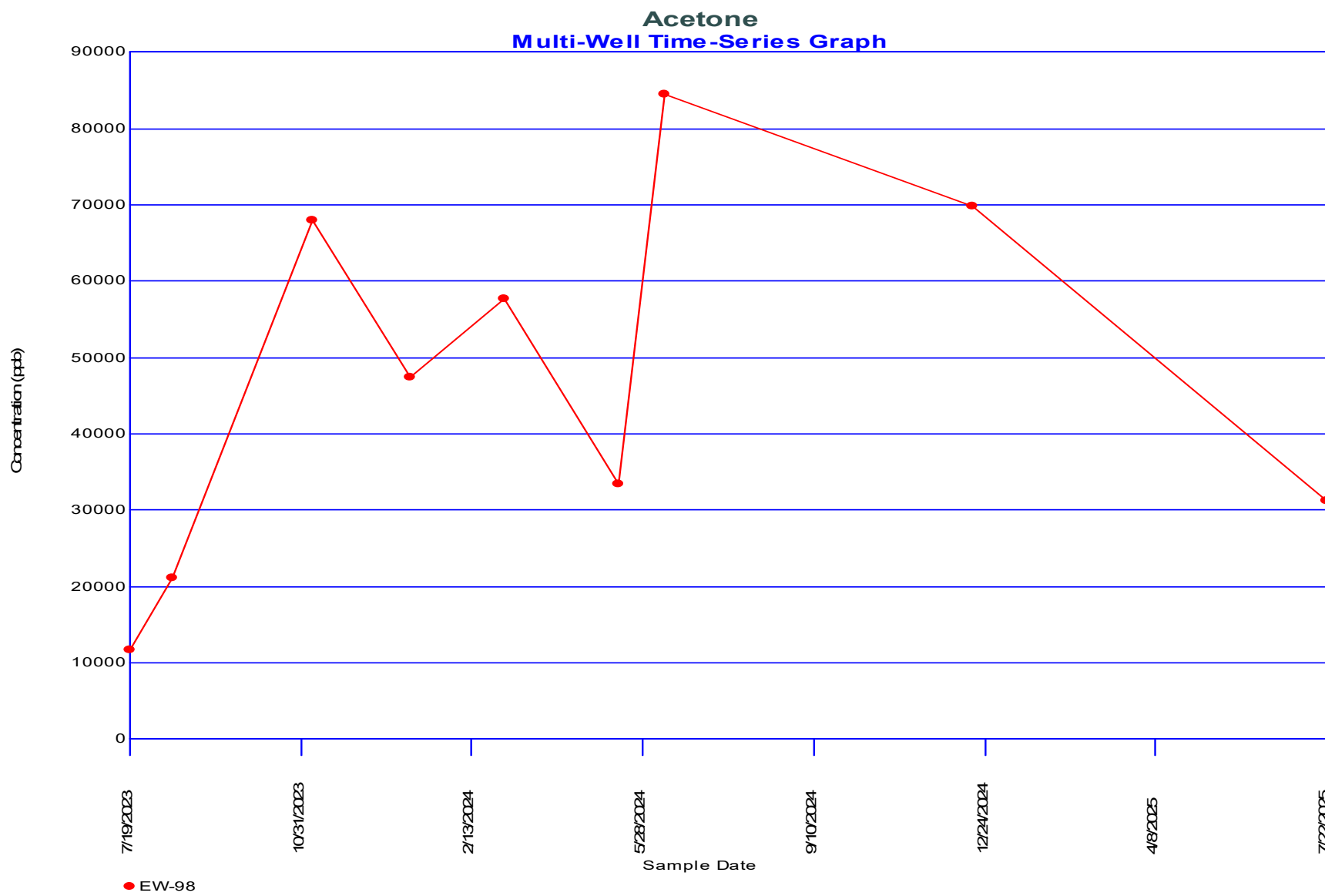
2-Butanone Multi-Well Time-Series Graph

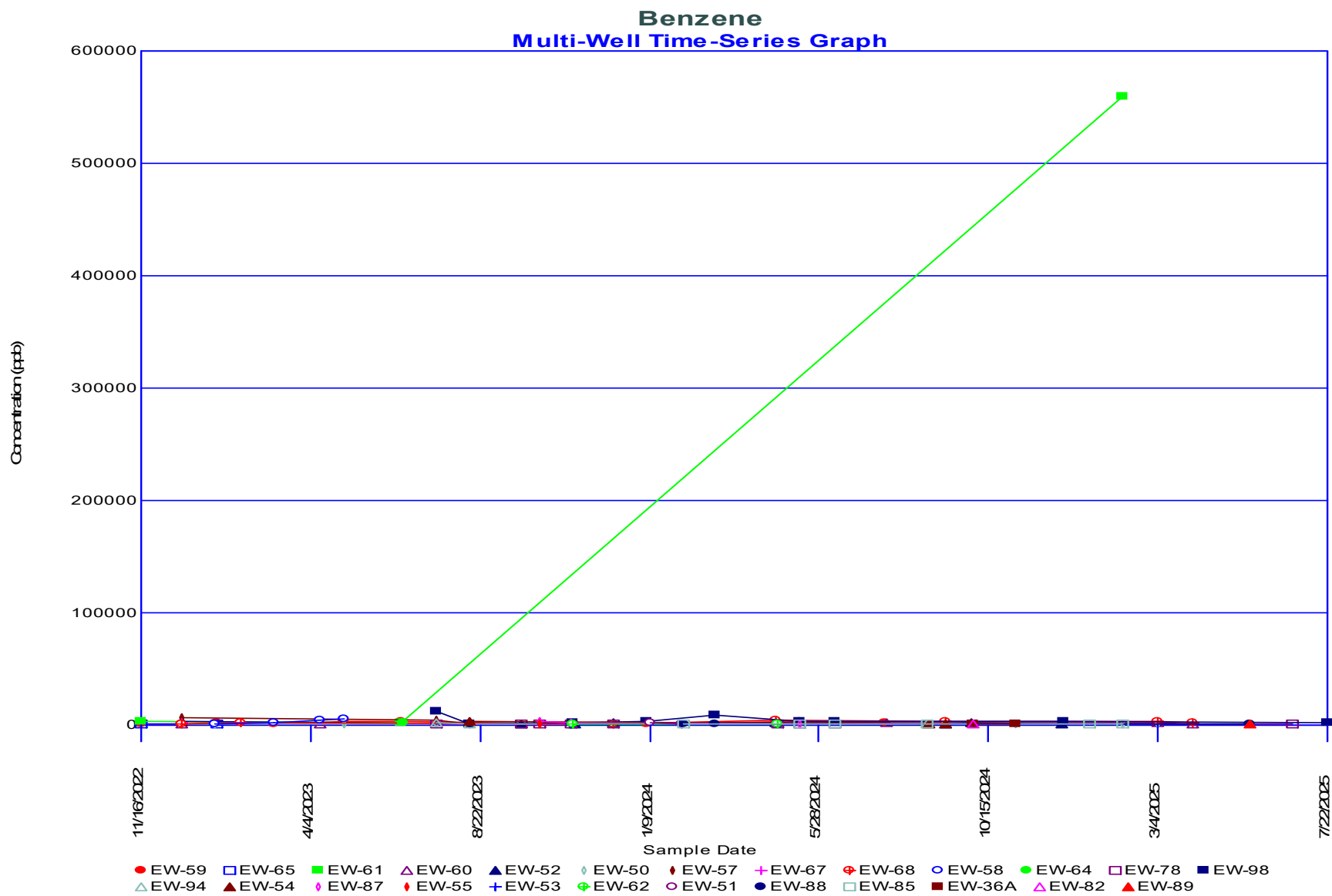


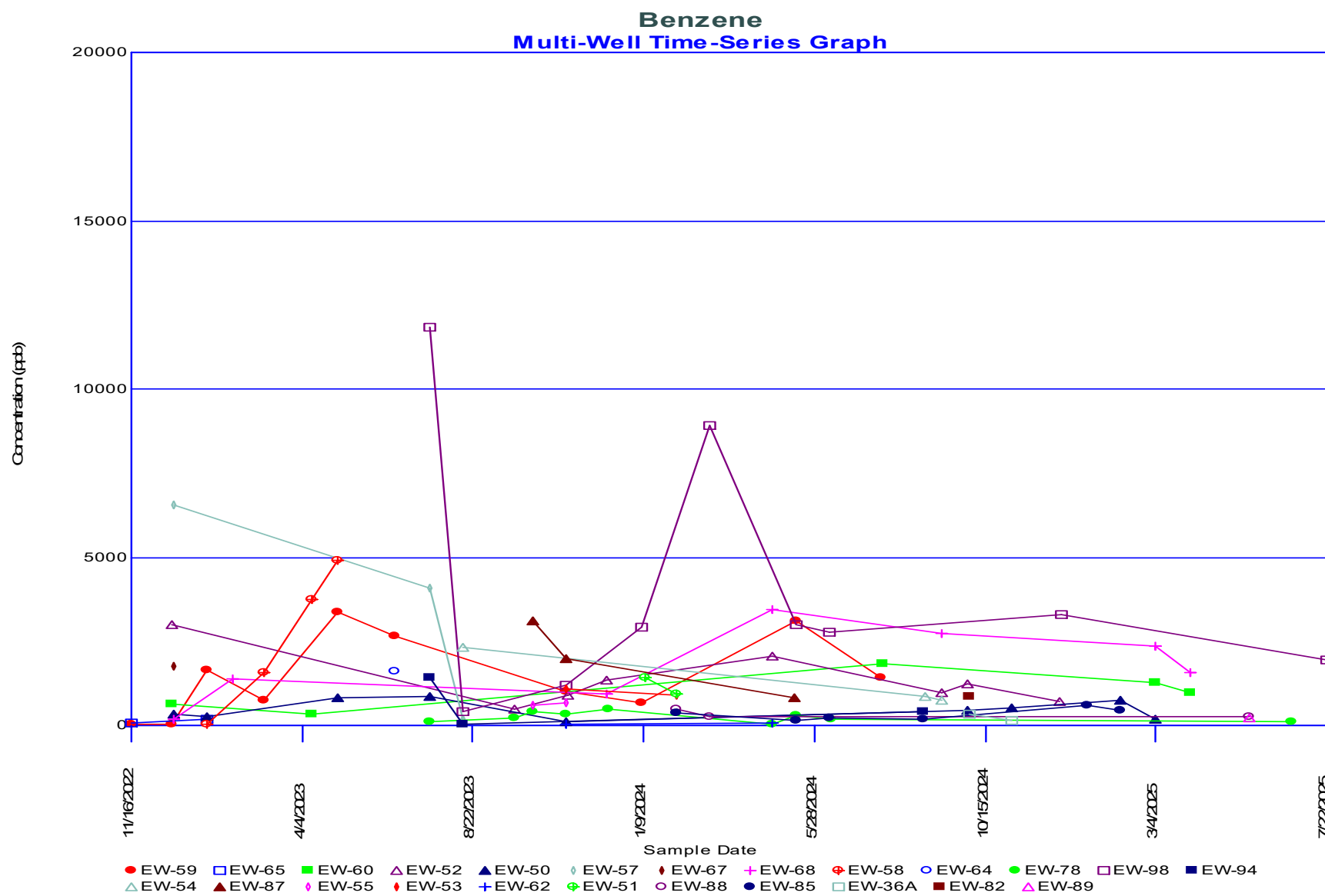
2-Butanone
Multi-Well Time-Series Graph

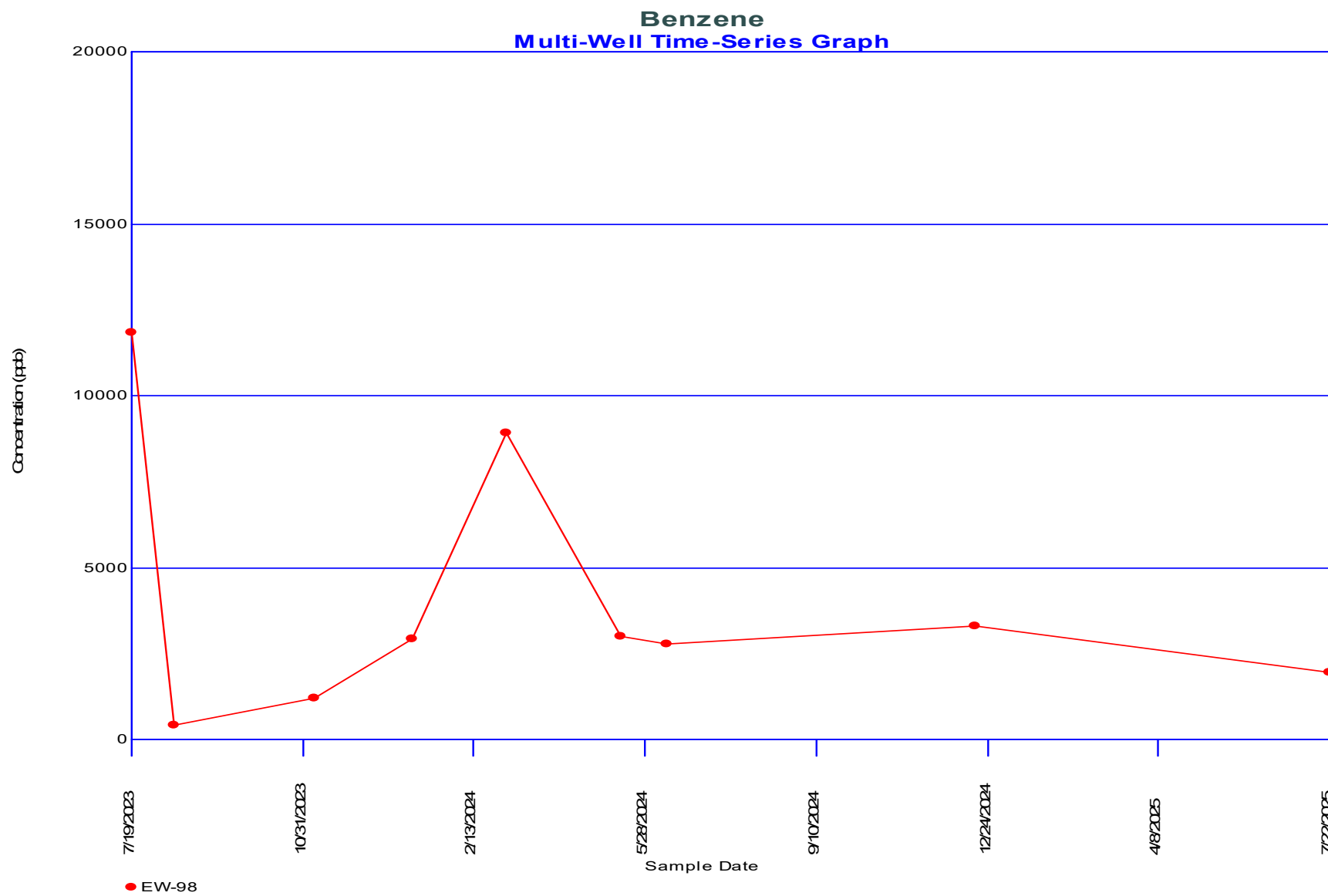




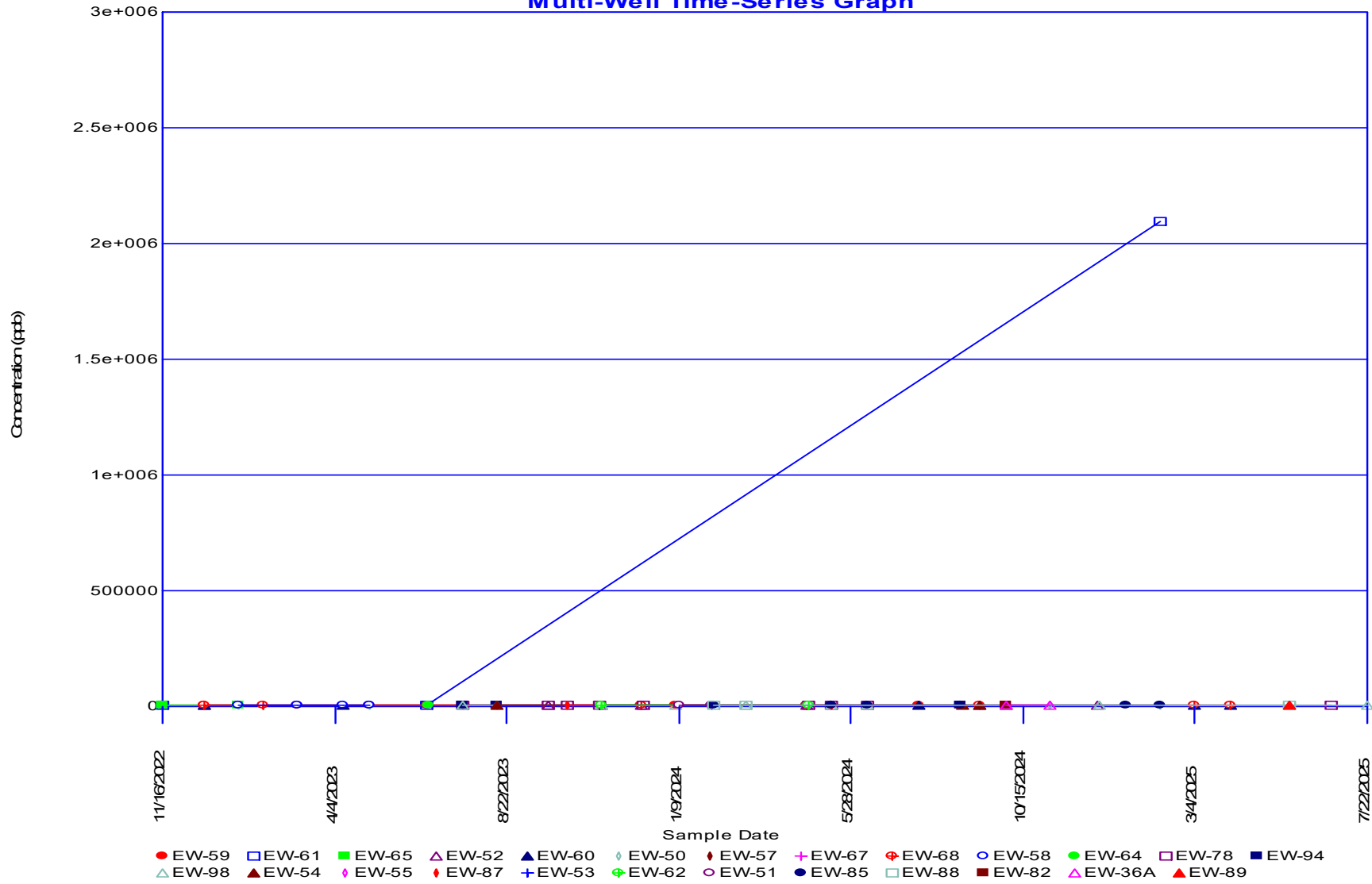




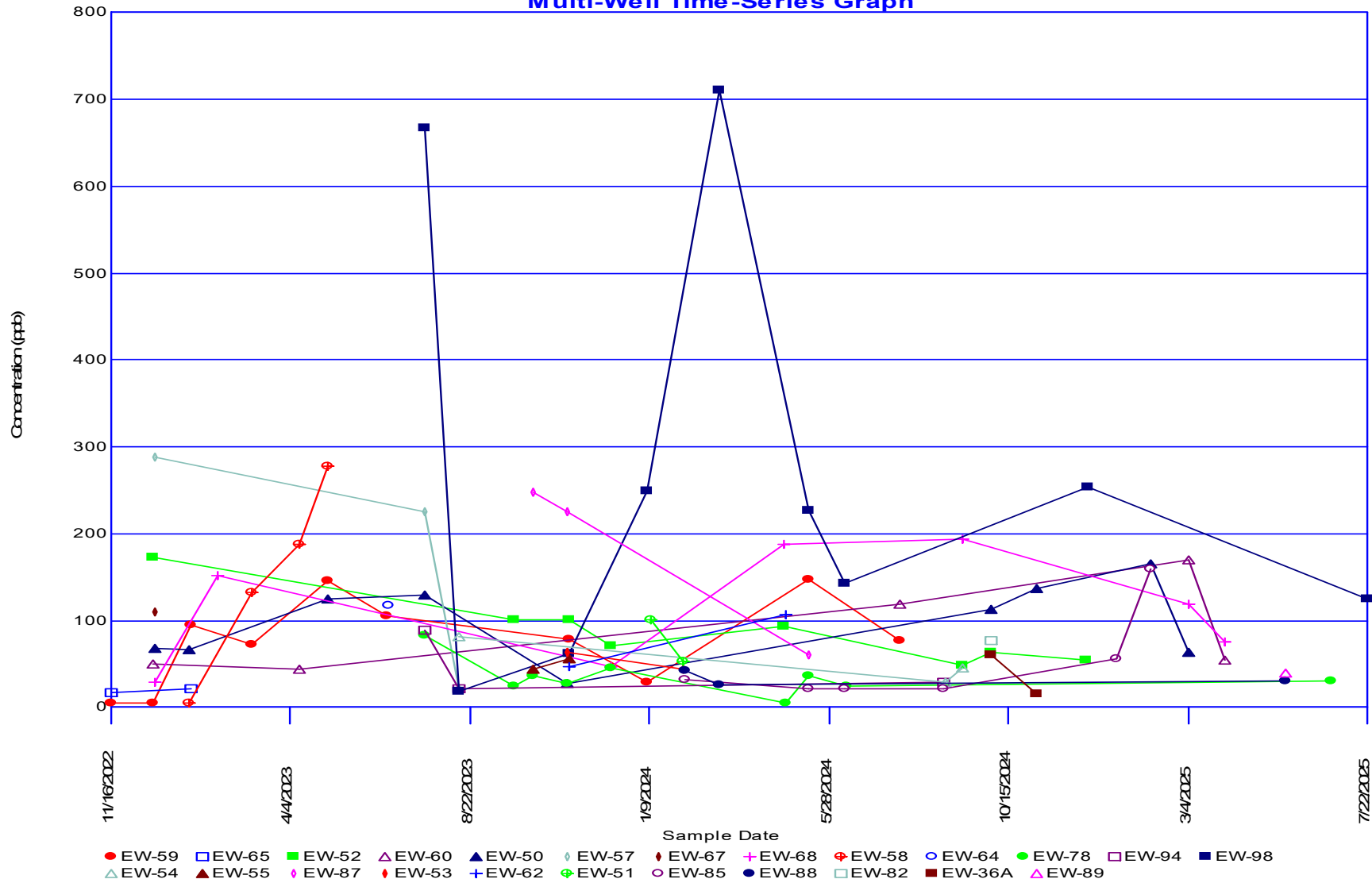




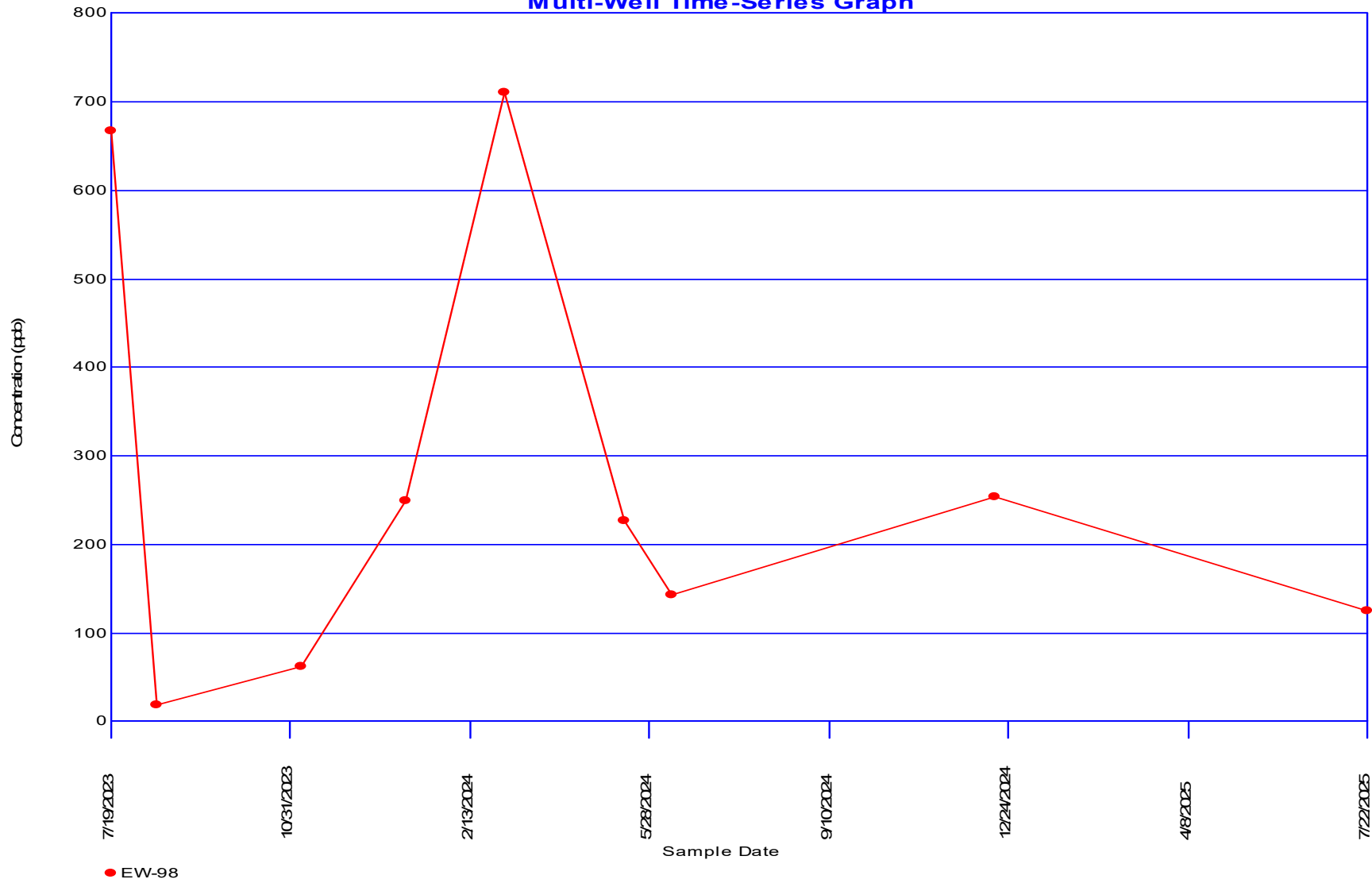
Ethylbenzene Multi-Well Time-Series Graph



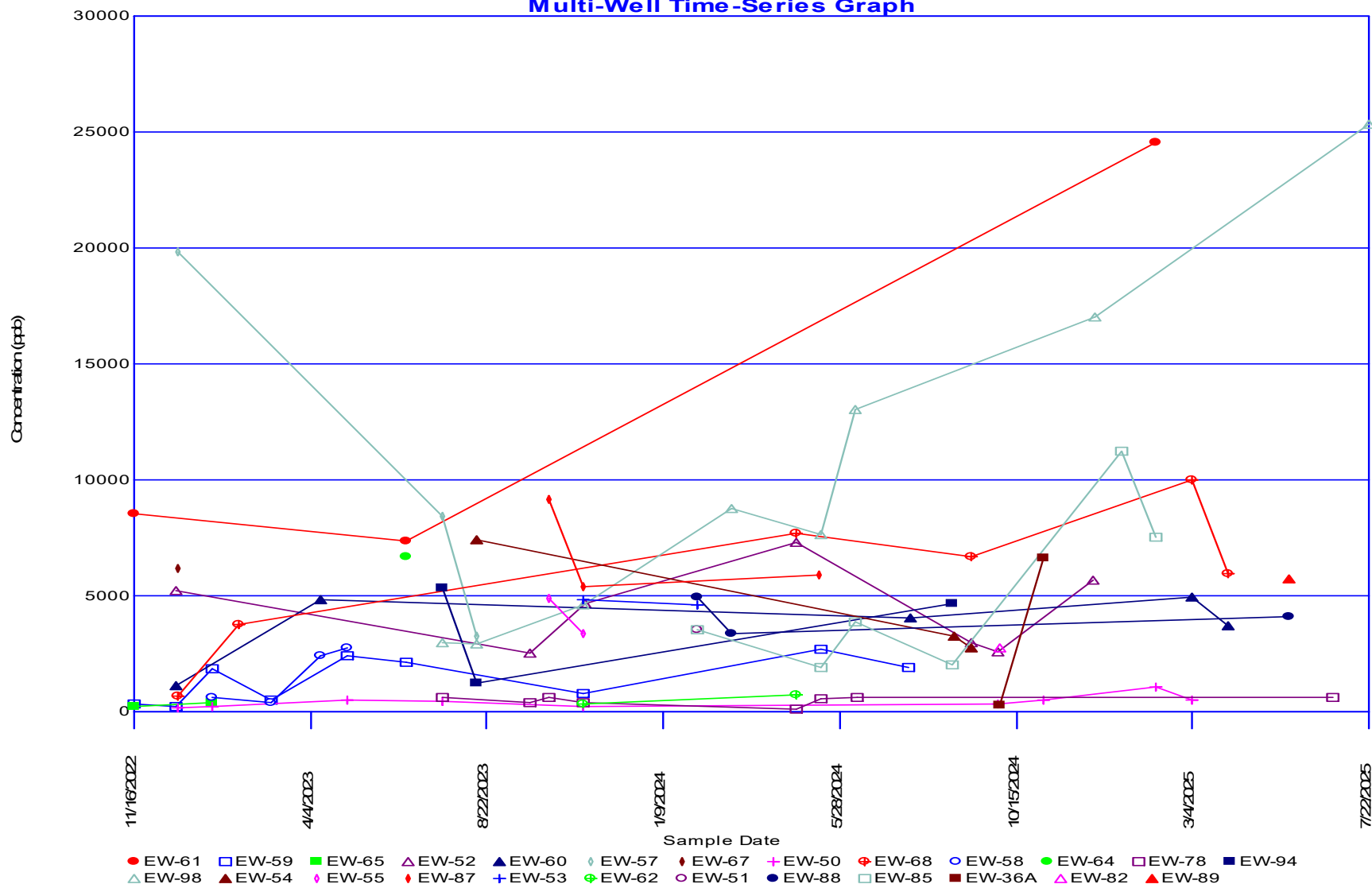
Ethylbenzene Multi-Well Time-Series Graph



Ethylbenzene
Multi-Well Time-Series Graph

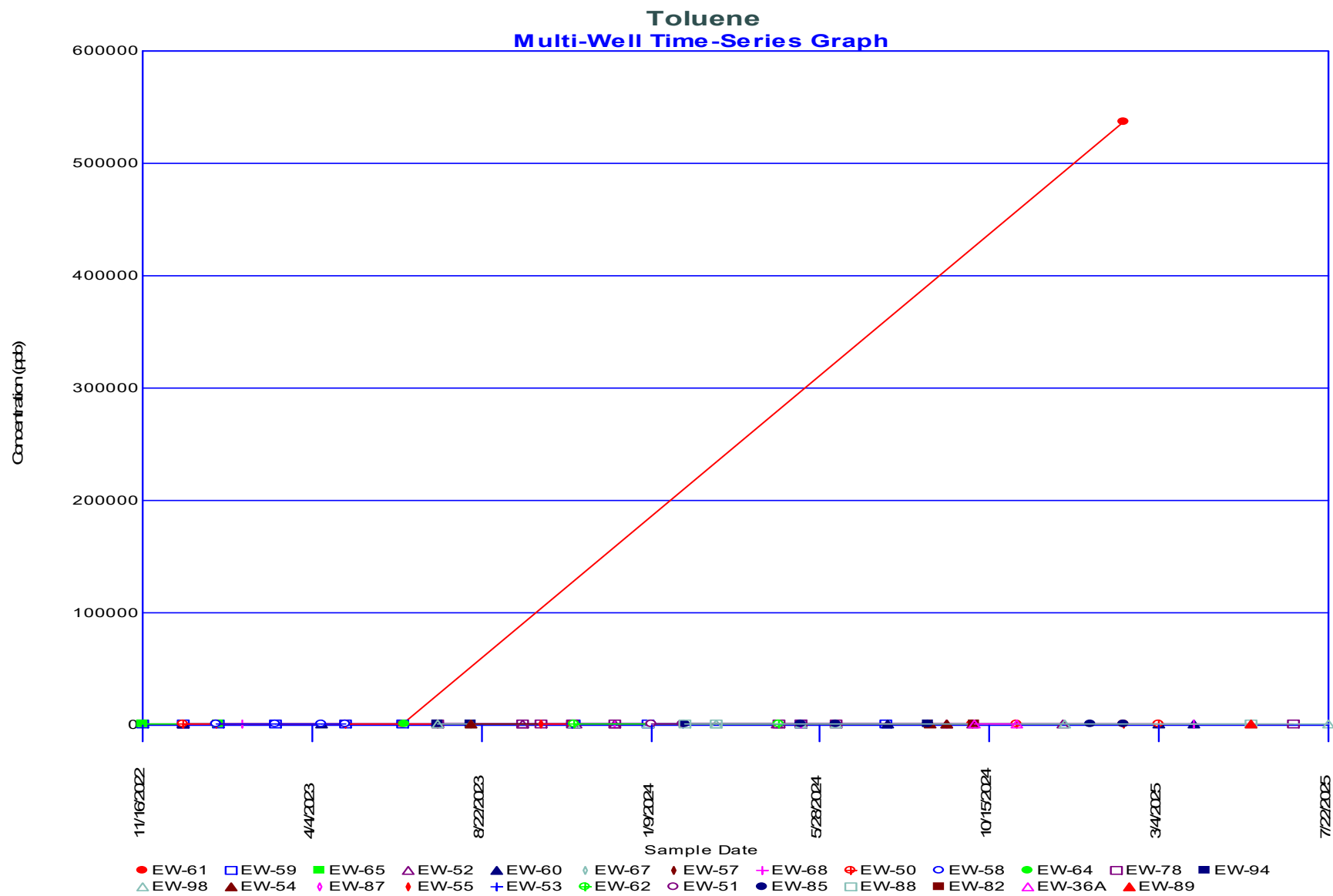


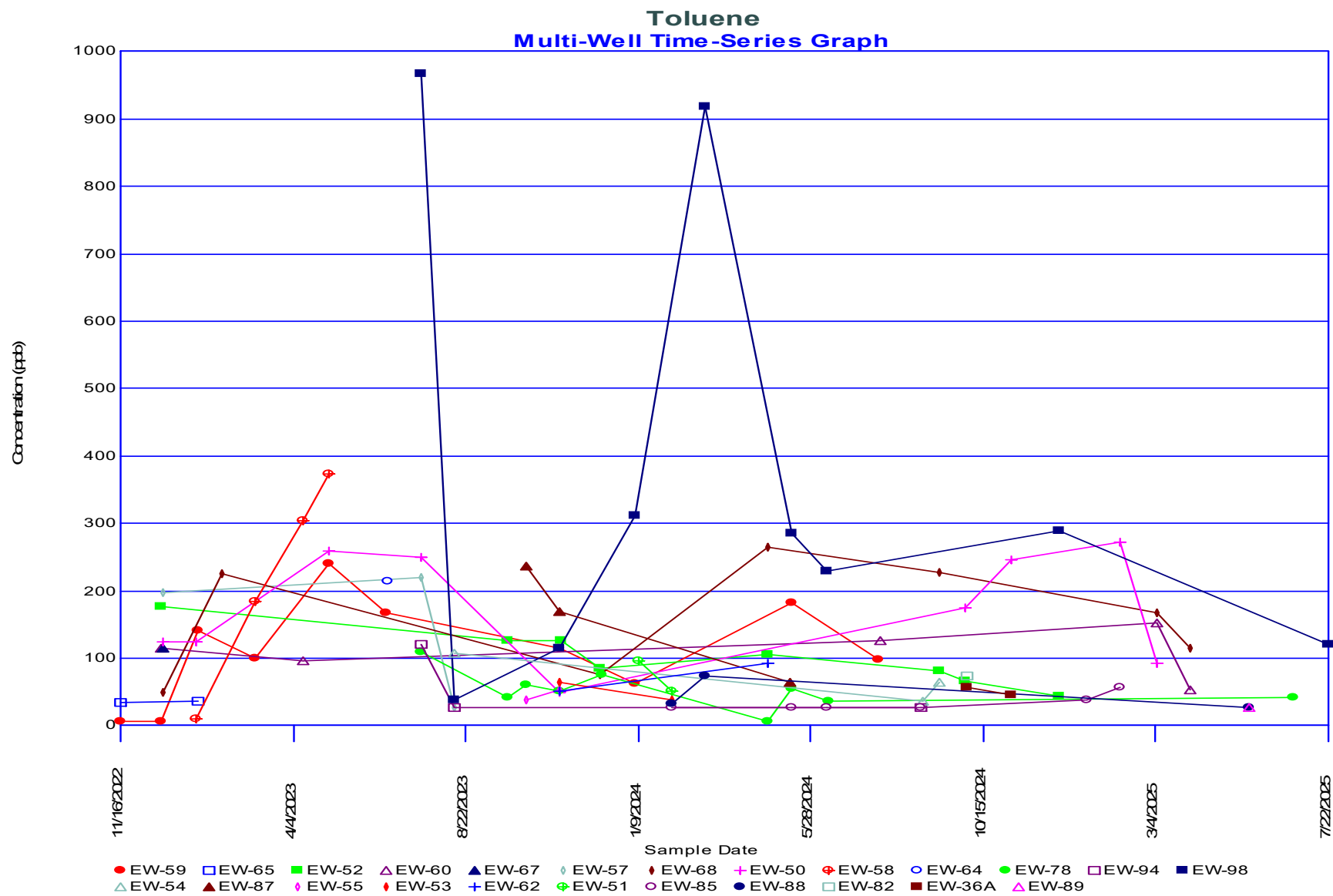
Tetrahydrofuran **Multi-Well Time-Series Graph**

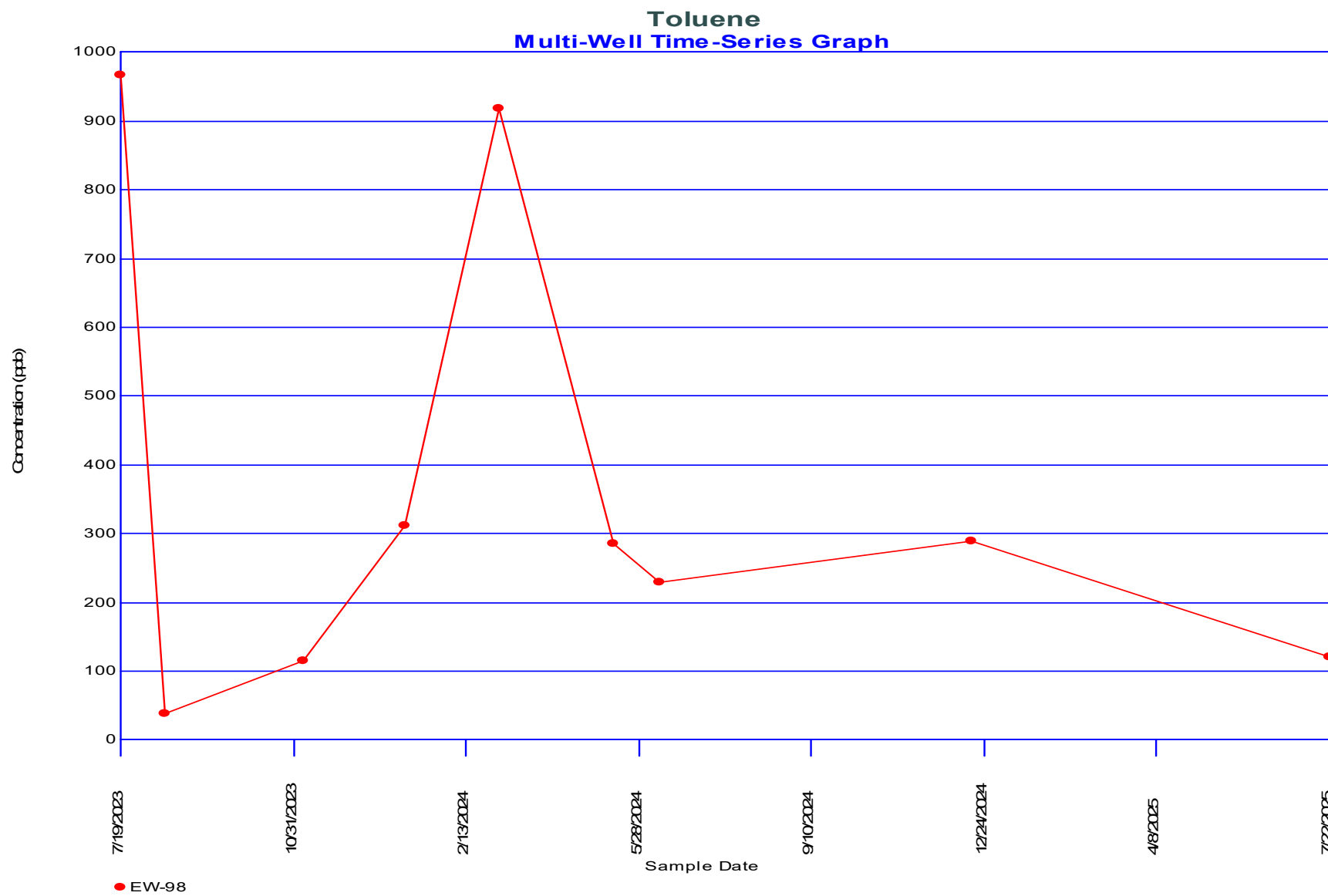


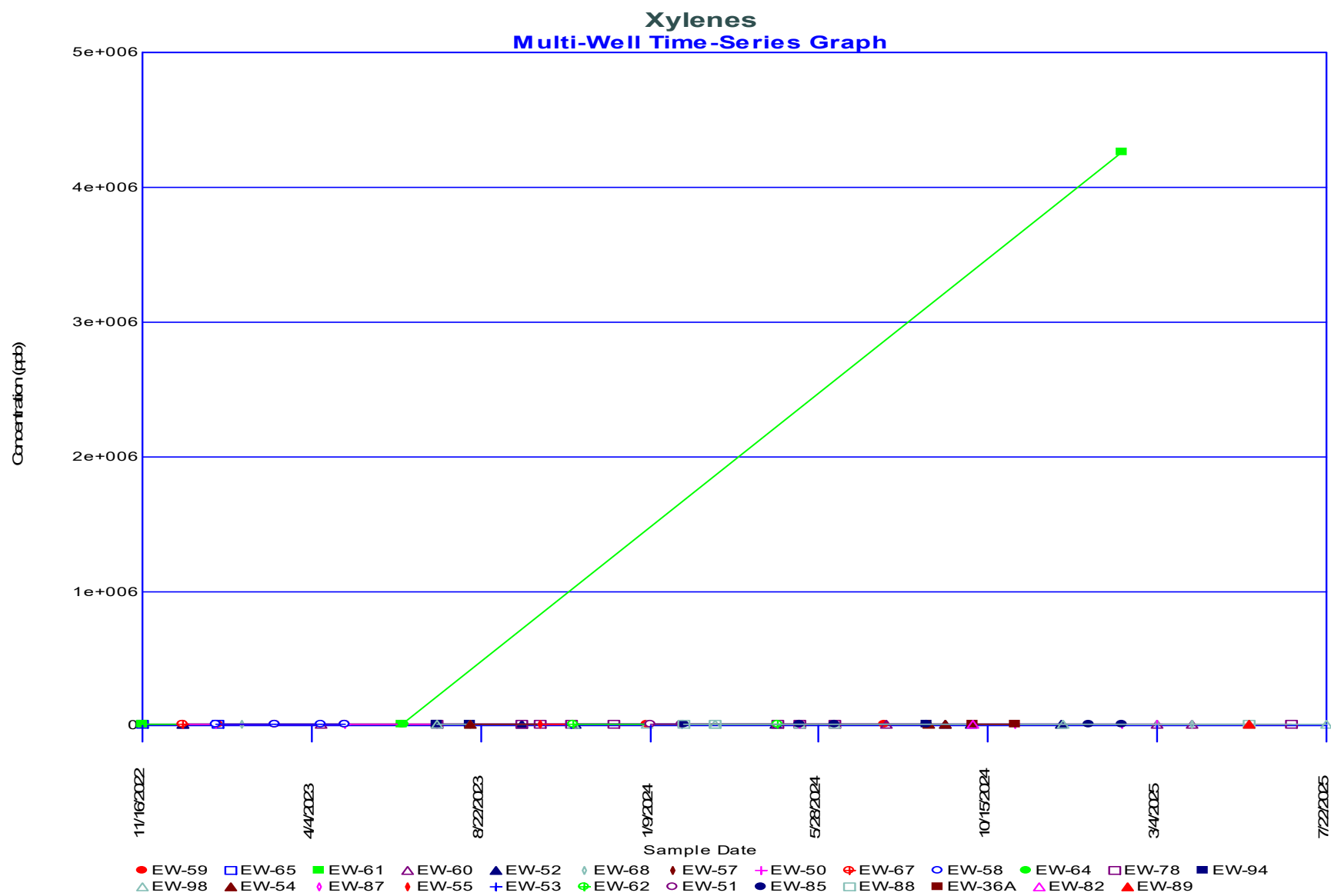
Tetrahydrofuran
Multi-Well Time-Series Graph

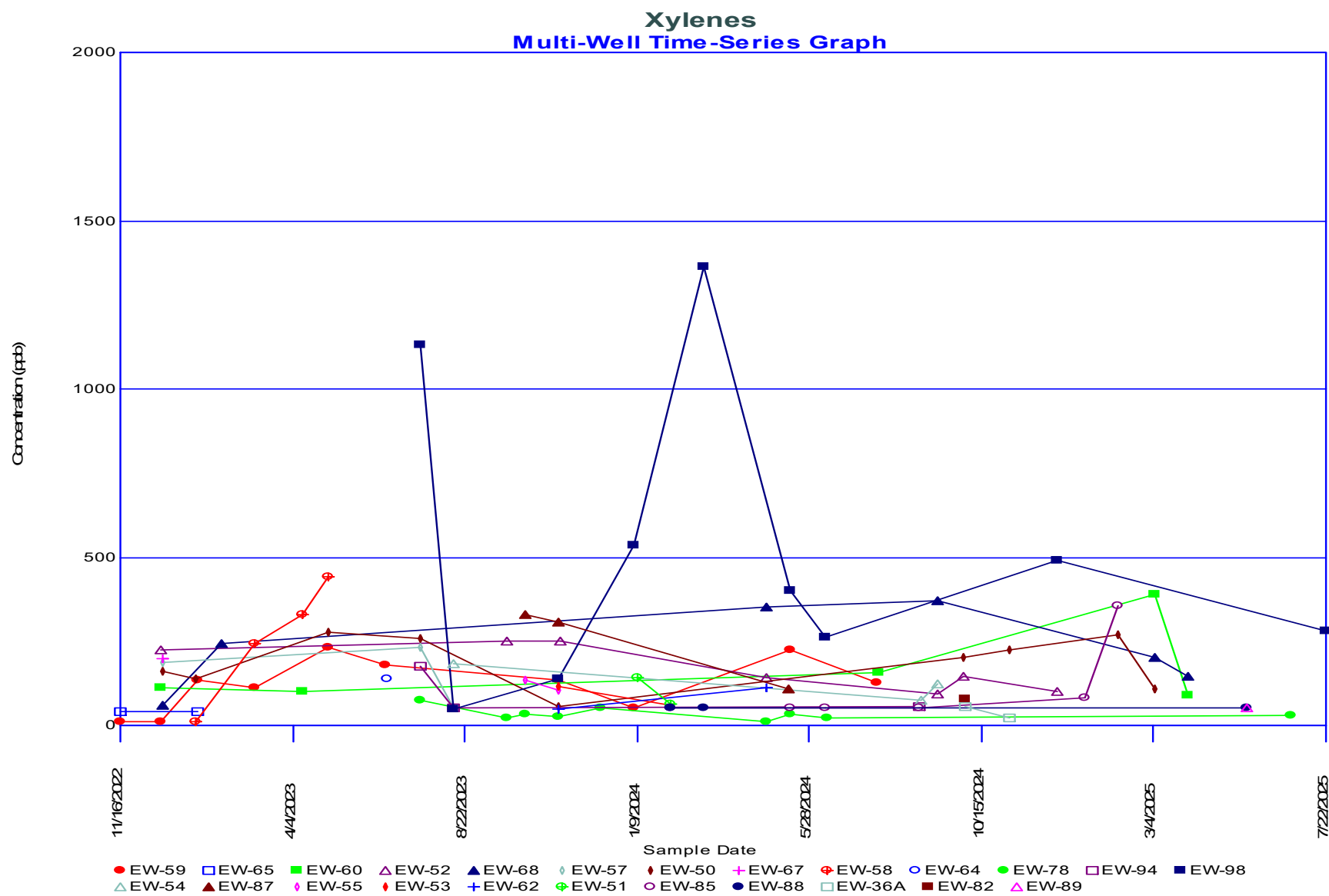


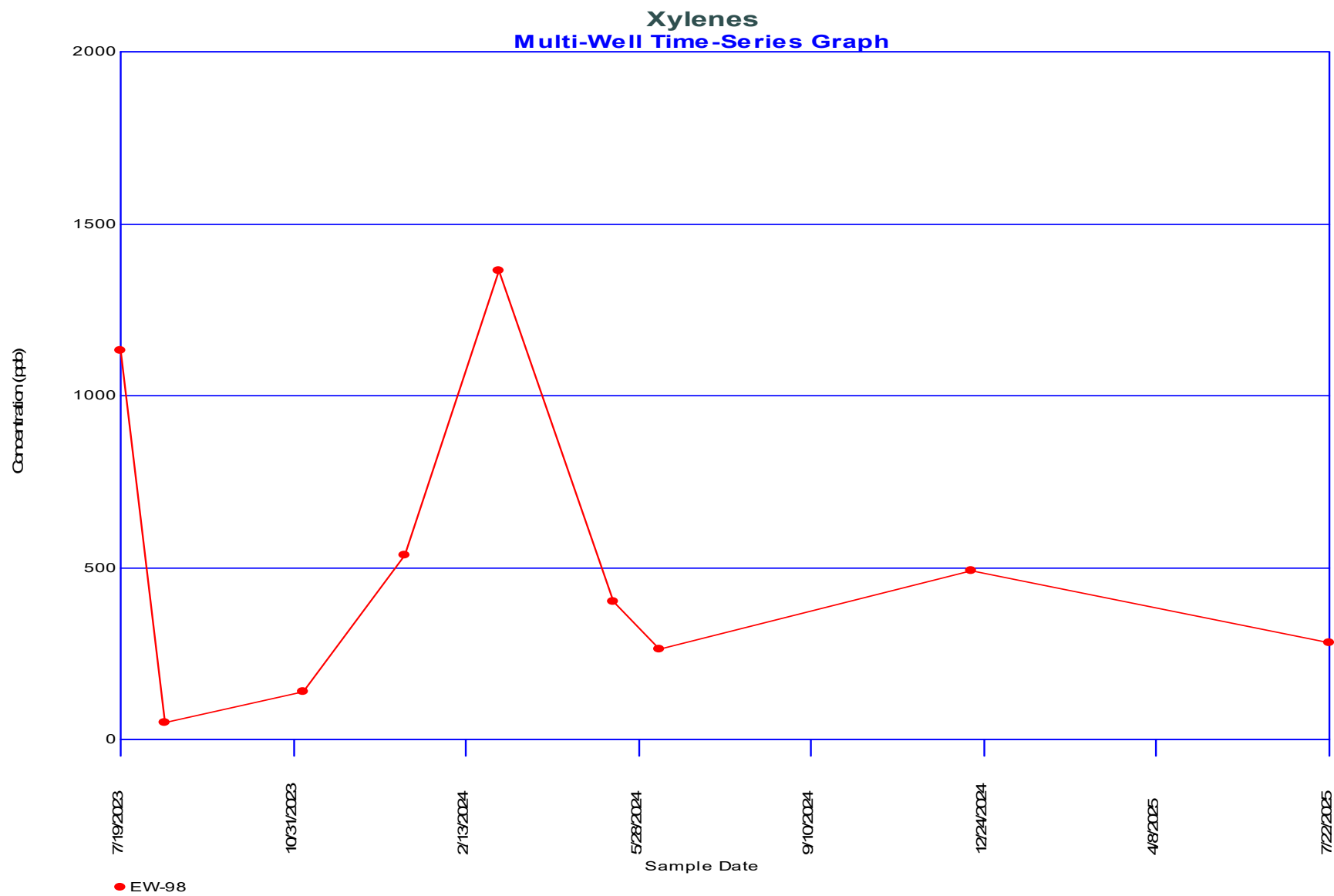












Appendix G

LFG Dewatering Pump Stroke Counter Data Analysis

Stroke Counter Data Analysis

During the monthly liquid depth measurement event and during LFG monitoring, SCS collected stroke counter data from the pumps installed in the GCCS extraction wells. These stroke counts were collected from 25 wells from July 22, 2025, to August 29, 2025. The recorded stroke count data from each well during August is included in Table G-1.

Based on the number of strokes in each well, SCS can estimate the number of gallons of liquid pumped from each well to assess pump performance. SCS assumed that each stroke from a float-style pneumatic pump correlates to approximately 0.3 gallons of liquid removed from the well. Blackhawk piston-style pumps remove approximately 0.11 gallons per stroke.

Table G - 1 Summary of Dual Extraction Well Pump Stroke Counter Data

Well	7/22/2025	8/29/2025	# of strokes between measurements	Estimated liquid removed (gallons)
EW33B			-	0
EW36A	459999		-	0
EW49	79565		-	0
EW50	1604584	1613002	8,418	2,525
EW52	1239186	1239179	-	0
EW53	3294540		-	0
EW55	73387	73387	-	0
EW59	3681145	3684657	3,512	1,054
EW60	272869	301079	28,210	8,463
EW61	135257	182811	47,554	14,266
EW62	214599		-	0
EW65	119158	137475	18,317	5,495
EW66	39018	39057	39	12
EW67				0
EW68	2662098	2662095	-	0
EW76			-	0
EW78	119520	188074	68,554	7,678
EW82	632188		-	0
EW85	334195	348642	14,447	1,618
EW87	346749	340749	-	0
EW88	438820	456751	17,931	2,008
EW89	317018	482183	165,165	49,550
EW93	1409960	1409957	-	0
EW94	1642543 (6/24/2025)	1824096	181,553	20,334
EW98	2091590 (7/17/2025)	2507681	416,111	124,833
Total Estimated Liquid Removal				237,836