March 2025 Monthly Compliance Report

Solid Waste Permit No. 588 Bristol Integrated Solid Waste Management Facility 2655 Valley Drive Bristol, VA 24201 (276) 645-7233

SCS ENGINEERS

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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 March 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 March 7, 2025; March 11, 2025; March 17, 2025; and March 27, 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 March Surface Emissions Monitoring

Description	March 7, 2025	March 11, 2025	March 17, 2025	March 27, 2025
Number of Points Sampled	167	167	167	167
Number of Points in Serpentine Route	100	100	100	100
Number of Points at Surface Cover Penetrations	67	67	67	67
Number of Exceedances	2	2	4	6
Number of Serpentine Exceedances	0	0	0	0
Number of Pipe Penetration Exceedances	2	2	4	6

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 EW-49, SCS-FS increased the vacuum at EW-49. 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-85, SCS-FS increased the vacuum at EW-85. Monitoring of this well during a follow-up event did not result in an exceedance.
- Pipe penetration exceedances occurred on March 27, 2025 at EW-52, EW-53, EW-54, EW-66, EW-75, and EW-82. SCS-FS increased the vacuum at EW-54, EW-66, and EW-82. In addition, SCS-FS plans to conduct field investigations into the low available vacuum at wells EW-52, EW-53, and EW-75. These investigations are scheduled for the week of April 7, 2025.

1.1.2 Monitoring of Leachate Collection Components

SCS Field Services (SCS-FS) visited the Bristol Landfill on March 31, 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	3/31/2025 8:51:36 AM	29.7	29.7	5.7	34.9	64.3	64.3	-6.04	-6.04	-16.28
Southern Cleanouts Gradient East	LC02	3/31/2025 8:53:49 AM	41.0	40.3	0.0	18.7	64.4	64.5	-6.58	-6.60	-16.54
Southern Cleanouts Leachate Center	LC03	3/31/2025 8:55:57 AM	7.5	6.3	16.9	69.2	57.8	57.7	-15.93	-15.93	-16.39
Southern Cleanouts Witness East	LC04	3/31/2025 9:00:06 AM	2.2	1.0	19.9	76.9	57.2	57.2	-8.13	-8.03	-16.46
Southern Cleanouts Leachate West	LC05	3/31/2025 9:02:12 AM	19.5	28.4	1.0	51.2	76.3	76.3	-8.81	-8.83	-16.33
Southern Cleanouts Gradient Center West	LC06	3/31/2025 9:05:34 AM	35.7	15.8	9.3	39.2	58.5	58.4	-13.90	-13.90	-16.76
Southern Cleanouts Leachate East	LC08	3/31/2025 9:08:12 AM	35.3	37.4	0.0	27.3	60.8	60.9	-6.80	-6.80	-17.00
Southern Cleanouts Gradient Center East	LC09	3/31/2025 9:10:51 AM	43.2	31.0	3.4	22.4	58.3	58.3	-16.45	-16.43	-16.95
Southern Cleanouts Leachate West	LC10	3/31/2025 9:13:22 AM	19.3	13.1	14.5	53.1	58.8	58.8	-16.31	-16.29	-16.41
Northern Cleanouts Leachate East	NC01	3/31/2025 7:23:24 AM	0.0	0.0	21.9	78.1	60.1	60.1	-2.15	-2.14	0.00
Northern Cleanouts Leachate Center	NC02	3/31/2025 7:24:41 AM	0.0	0.0	22.0	78.0	58.8	58.8	-2.17	-2.16	0.00
Northern Cleanouts Leachate West	NC03	3/31/2025 7:26:05 AM	0.0	0.0	22.0	78.0	58.5	58.3	-2.18	-2.19	0.00
Northern Cleanouts Witness East	NC04	3/31/2025 7:28:08 AM	16.7	21.3	1.2	60.7	59.8	59.9	-2.18	-2.16	0.00

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 Witness Center	NC05	3/31/2025 7:29:46 AM	0.2	0.5	21.7	77.6	58.5	58.6	-2.11	-2.10	0.00
Northern Cleanouts Witness West	NC06	3/31/2025 7:31:13 AM	0.0	0.1	22.0	78.0	57.6	57.7	-2.08	-2.06	0.00
Northern Cleanouts Gradient East	NC07	3/31/2025 7:32:46 AM	4.6	15.5	1.1	78.8	58.8	59.0	-1.23	-1.22	0.00
Northern Cleanouts Gradient Center East	NC08	3/31/2025 7:34:17 AM	6.9	19.5	0.0	73.6	58.0	58.0	-1.26	-1.23	0.00
Northern Cleanouts Gradient Center West	NC09	3/31/2025 7:36:03 AM	0.0	0.2	22.0	77.8	58.1	57.9	-2.26	-2.26	0.00
Northern Cleanouts Gradient West	NC10	3/31/2025 7:38:22 AM	0.2	0.7	21.0	78.0	57.2	57.4	-1.80	-1.81	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 February 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 March 2025.

1.3.1 Automated Wellhead Temperature Measurements

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

• Wells with recently installed sensors: The City contracted with SCS to increase the number of wells with automated wellhead temperature sensors in November of 2024. Many of these wells on which sensors were added were located in portions of the landfill known to exhibit higher temperatures. The higher temperatures in this region of the landfill are reflected in higher monthly average temperatures. The wells with sensors installed in November 2024 are shown in green in Figure 1, while wells with older sensors are shown in blue.

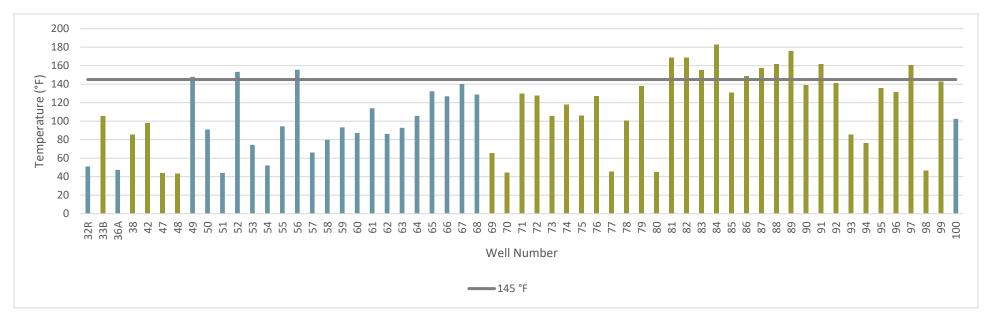


Figure 1. Monthly Average Automated Wellhead Temperatures¹

¹ 145°F is the NESHAP 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 3, with the $\pm 8\,^{\circ}$ F deviation thresholds as prescribed in the VDEQ approval.

Temperatures outside the ±8°F deviation lines were observed at seven wells during this reporting period: EW-58, EW-60, EW-64, EW-79, EW-82, EW-92, and EW-100. Automated temperatures at wells EW-79, EW-82, and EW-92 were greater than the manually measured temperatures, whereas automated temperatures at wells EW- 58, EW-60, and EW-64 were less than the manually measured temperatures.

Actions at Wells with Automated Temperatures greater than Manual Temperatures

Stainless steel wells have sample ports that are more difficult to use and prevent manual sampling probes from reaching fully into the gas stream. This causes the manual reading to be influenced by ambient temperatures and results in a lower temperature than the automated reading. Stainless steel wellheads are challenging to modify, which has delayed modifications to address the discrepancies noted in the January and February Monthly Compliance Reports. SCS-FS has been modifying stainless steel wellheads at several wells in February and March 2025, which resulted in a decrease from 13 wells with this type of manual/automated temperature discrepancy in January, to four wells in February, and three in March.

EW-92 is a stainless steel well that may also need a modification.

The temperatures at EW-79 and EW-82 were very close to the threshold and may simply be an anomaly. Further investigation may be merited if these discrepancies worsen.

Actions at Wells with Automated Temperatures less than Manual Temperatures

A potential cause of manual temperatures falling below automated temperatures is low LFG flowrates. Because the automated temperature recording device is further from the well casing than the manual temperature measurement sampling port at a typical wellhead (see Figure 2), low LFG flow may cause the automated temperature probe to record a temperature more influenced by ambient temperature outside the pipe. The LFG flowrates at EW-58, EW-60, and EW-64 were less than 10 cfm during manual temperature measurements in March. Regardless, SCS-FS and the City are planning ice bucket tests for the accuracy of these sensors, including EW-100.

Figure 2. Typical LFG Extraction Wellhead with Automated Temperature Probe



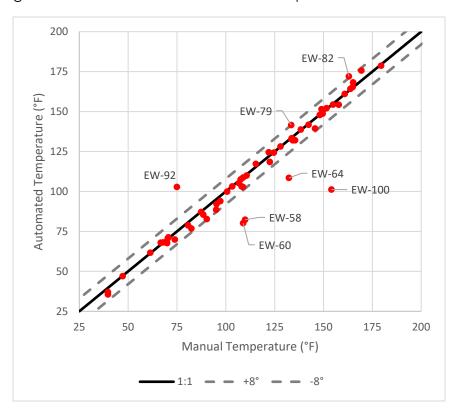


Figure 3. Automated vs. Manual Temperature Measurements

1.3.3 Monthly Regulatory Wellhead Temperature Measurements

Routine monthly temperature monitoring was conducted on March 10, 2025 to comply with 40 CFR 60.36f(a)(5). Table 3 provides the status of exceedances recorded during this monitoring period.

Well ID	Initial Exceedance Date	Compliant Reading	Most Recent Reading	Duration of Exceedance	Status as of 2/1/2025
EW-84	2/3/25	3/21/25 179.8°F	3/21/25 179.8°F	47 days	Resolved within 60- day timeline
EW-87	2/25/25	3/25/25 140.5°F	3/25/25 140.5°F	29 days	Resolved within 60- day timeline

Table 3. March Temperature Exceedance Summary

1.3.4 LFG Sampling

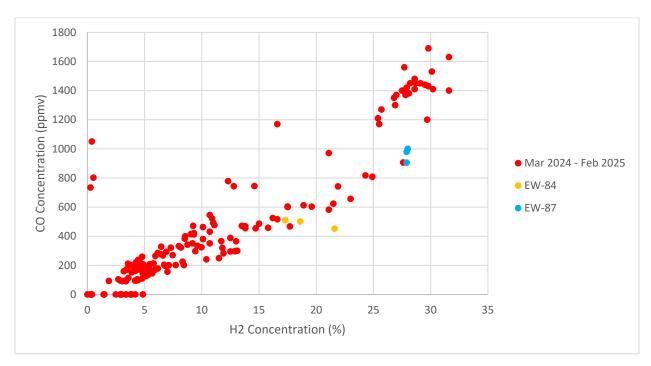
SCS collected weekly LFG samples from wells with temperature exceedances lasting more than seven days using 1.5-L Summa canisters. The samples were sent to Enthalpy Analytical for laboratory analysis of carbon monoxide (CO) and hydrogen (H₂) content. As of April 1, 2025, the City has received lab results for sampling on February 27, 2025 and March 4, 2025, and March 13, 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		2/27/25	3/4/25	3/13/25
FW 0.4	CO (ppmv)	501	510	452
EW-84	H2 (Vol. %)	18.6	17.3	21.3
EW-87	CO (ppmv)	905	979	1000
	H2 (Vol. %)	27.9	27.9	28.0

The presence of hydrogen in the samples collected during this monitoring period indicates that combustion reactions are unlikely. As shown in Figure 4, the carbon monoxide and hydrogen data collected during this period appear to be generally consistent with the data collected previously in 2024, but exhibit slightly higher levels of hydrogen when compared to the overall trend.

Figure 4. CO vs H₂ Concentration from gas wells in March 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. During the month of March 2025, SCS-FS reconnected the western LFG header pipe serving the SOMS to the active extraction system, and reconnected wellheads 2L, 3U, 46U and 46L. Additional flex hose piping was ordered to reconnect more wellheads to the SOMS.

SCS-FS collected monitoring data at each wellhead under vacuum in March. A summary of system averages during the month is shown in Table 5.

Record Dates	Average CH4 [%]	Average CO ₂ [%]	Average O ₂ [%]	Average Bal Gas [%]
3/3/2025,	4.6	6.5	17.9	71.0

Table 5. Average SOMS Gas Composition

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 5.

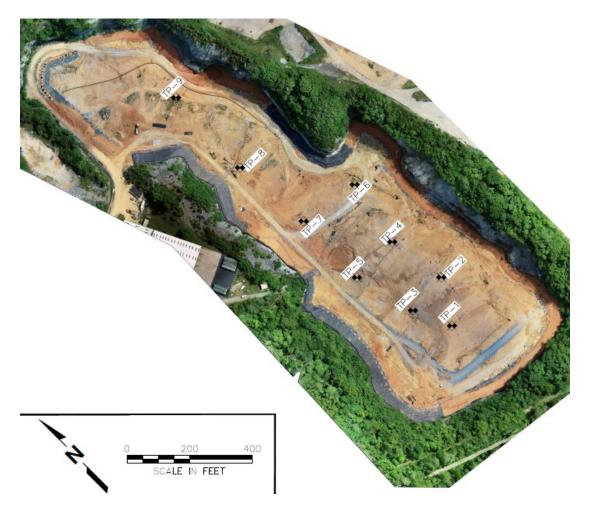


Figure 5. Temperature Monitoring Probe Locations

SCS began collecting temperature data daily on February 15, 2023.

Average daily temperatures recorded by the sensors for the month of March 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 March are shown in Appendix B. The average temperatures recorded for March 2023, March 2024, February 2025, and March 2025 are shown in Figures 6 through 12 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

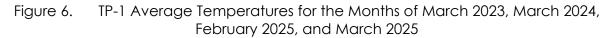
TP-3 began having sensor reading issues at the 150-foot depth at the end of October 2024. These issues continued through December 2024. Sensor readings resumed at the 25-foot depth in early December; however, sensor reading issues arose at the 125-foot and 175-foot depths in the latter half of December.

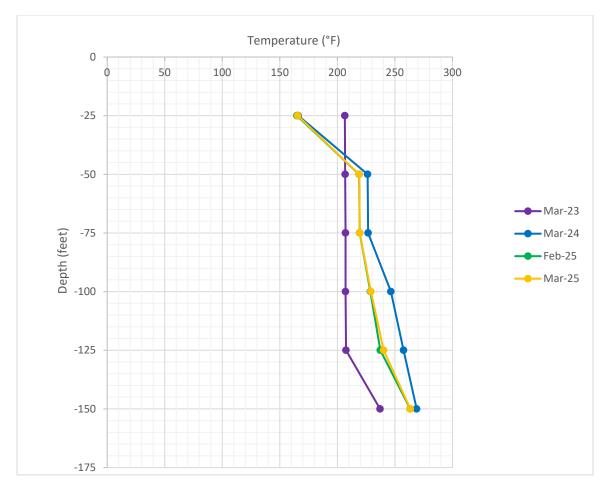
In January 2025, all sensors in TP-3 below the 75-foot level appeared to record erroneous temperatures intermittently. There was no improvement to the temperature signals after replacing the thermocouple interface card at TP-3 in January. This may indicate that the thermocouples are damaged. TP-2 stopped recording on 2/14/25, indicating thermocouple failure. Measurements at the 75-foot level and 150-foot level appeared erroneous in January as well.

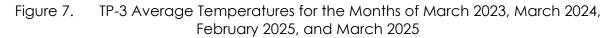
SCS coordinated with the City in March to pull the string of thermocouples from TP-2 and TP-3 but were unable to remove the strings in either probe due to suspected pinching of the casings. The City is considering alternative methods to record temperatures to replace the loss of TP-2 and TP-3, such as utilizing nearby well casings as housing for the thermocouples.

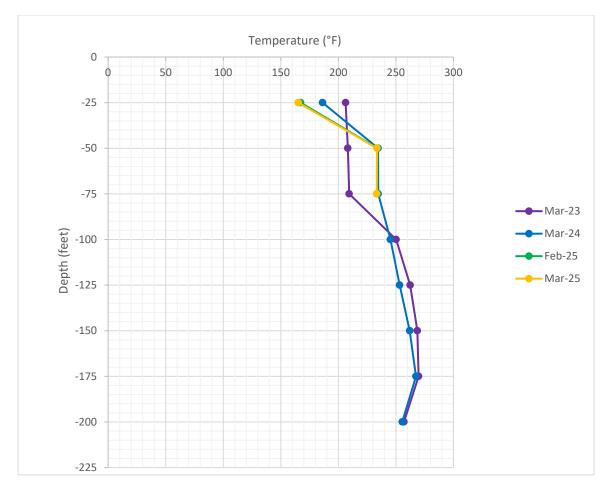
3.1.2 Probes with Consistent Temperatures over Time

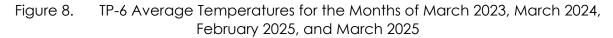
TP-1, TP-3, TP-6, TP-8, and TP-9 have exhibited relatively consistent monthly average temperatures over time (as shown in Figures 6, 7, 8, 9, and 10).

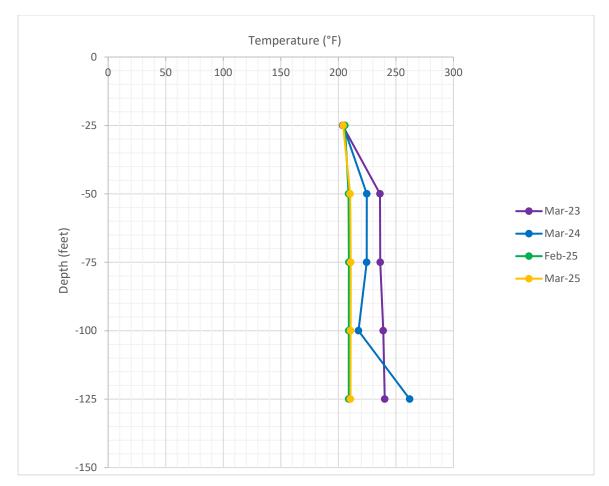


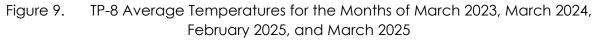


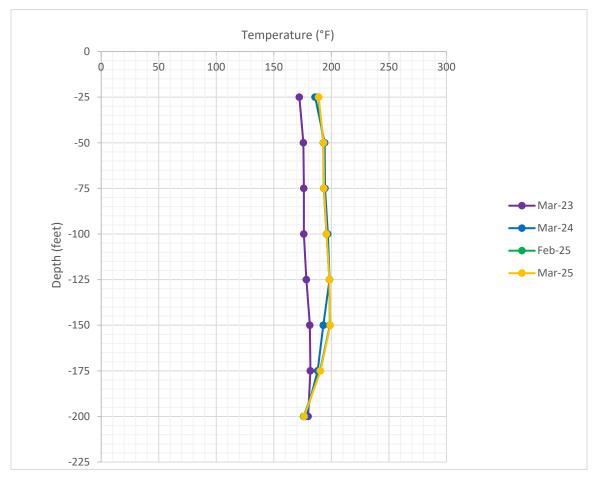












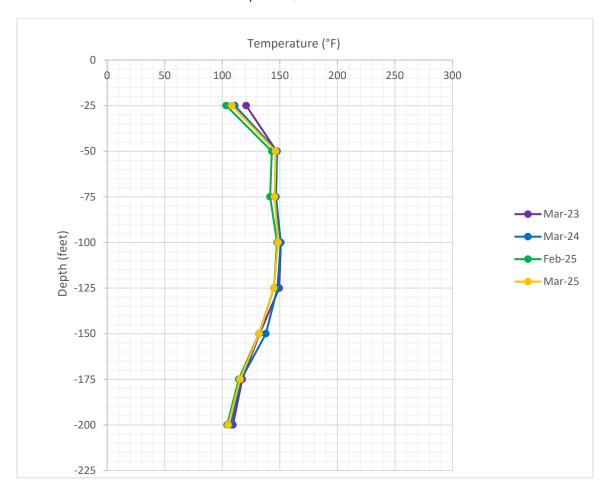
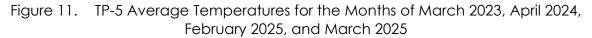


Figure 10. TP-9 Average Temperatures for the Months of March 2023, March 2024, February 2025, and March 2025

3.1.3 Probes with Changing Temperatures over Time

The temperatures at probes TP-5 and TP-7 are more varied over time.

- TP-5: The curve shape of the temperature averages with depth in Winter and Spring months
 are similar to one another while the Summer and Fall months follow a different pattern.
 Changes in temperature trends with depth at TP-5 have been observed since its installation.
 April 2024 is provided for this temperature probe instead due to recording issues in March
 2024 (see Figure 11).
- TP-7: There is no identifiable trend over time in the average temperatures in TP-7. Changes in temperature trends with depth at TP-7 have been observed since its installation. (see Figure 12).



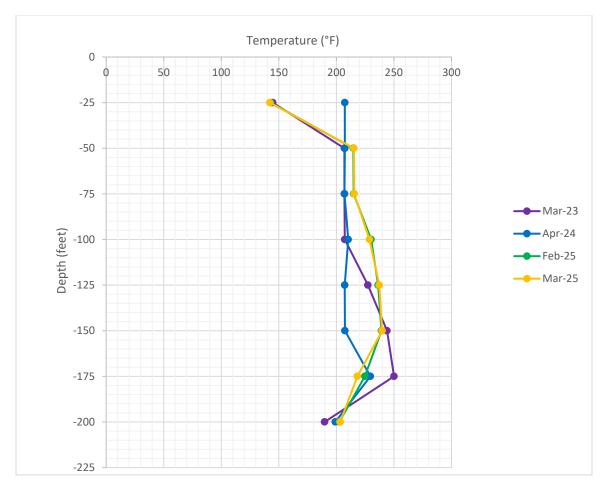
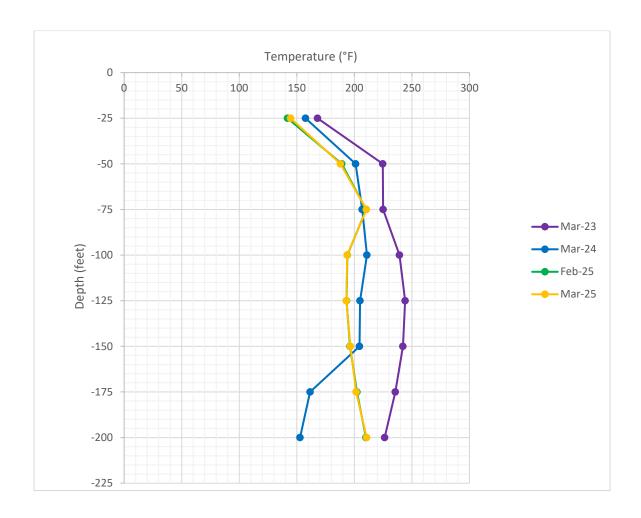


Figure 12. TP-7 Average Temperatures for the Months of March 2023, March 2024, February 2025, and March 2025



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

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

Figure 13 illustrates landfill gas liquids removal over the past year. During September, November, and December 2024 through March 2025, the liquids data recorded by the flowmeter were replaced with estimates from stroke counter data (colored in blue in Figure 13). These replacements were due to either the use of stormwater liquids for cleaning the dewatering forcemain or air intrusion in the dewatering forcemain, which caused the flowmeter readings to be nonrepresentative or erroneous.

SCS and the City continue to address the air intrusion into liquids force mains, which interferes with the LFG liquids flowmeter, by installing additional air release valves and cleanouts to decrease interruptions to its function. SCS will continue to use stroke count estimates to track total liquids removal in the meantime. Stroke counts indicate approximately 60,000 gallons of liquid were pumped out of the landfill in March.

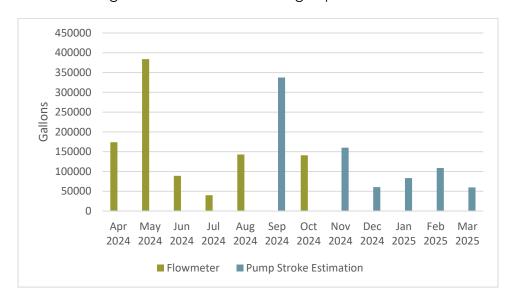


Figure 13. Total Dewatering Liquid Removal

4.1.2 Status of LFG Liquids Pumps

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. The City, along with SCS-FS, have found that the best pumps for the landfill's current conditions are QED pumps designed for high temperature operation. The City received eight additional QED pumps in October 2024; some were installed in new wells and others were reserved to swap/replace existing pumps for cleaning. The additional pumps will help with the rotation of field pumps needing maintenance and replacement going forward.

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

Wells with pumps working properly

- EW- 50, EW-52, EW-53, EW-59, EW-60, EW-68, EW-78, EW-85, EW-93, EW-94, EW-98
 - The pump in EW-53 was installed in March
 - The pump in EW-68 and EW-93 was swapped in March for cleaning and tri-tubing was replaced
 - The pump in EW-59 was swapped in March
 - The pump in EW-85 was put back in service in March.

Inaccessible Pumps/Wells

- 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 well casing at EW-49 needs to be cut down to perform maintenance on the pump. SCS-FS disconnected this pump in March 2025.
- SCS-FS used heavy equipment to attempt to extract and replace the pump in EW-51. The
 pump was unable to be removed and is now considered to be permanently lodged in the
 well, rendering it unable to be fixed.
- The casings of EW-36A, EW-49, EW-81, EW-83, EW-91, EW-92, 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. Figure 14 shows a technician attempting to access EW-96 for liquid level measurement.



Figure 14. Technician Attempting to Access EW-96

Other circumstances

- Based on a review of the stroke counter data, the pump in EW-52 pumped approximately 1,254 gallons of liquid during the month of March 2025. The airline was unable to be disconnected to de-energize the pump in March 2025.
- The pumps in EW-54, EW-55 and EW-67 were unable to be operated in February due to a clogged forcemain line. All were disconnected. SCS-FS and the City are coordinating efforts to clean the forcemain.
- The pump in EW-59 was disconnected during most of the month of March 2025, but was replaced during the week of March 24, 2025.

- The pump in EW-85 did operate in March 2025, but appeared to pump low volumes. SCS and the City will continue to monitor this pump.
- The pump in EW-61 was removed for servicing during the month of March.
- The pump in EW-62 is offline due to a damaged airline. SCS-FS will evaluate the extent of damage and will coordinate with the City to procure materials needed for the repair.
- Multiple pumps have been installed in EW-74 and EW-75 and all pump types experience buildup on the intake screens preventing pump operation. EW-82, EW-87, EW-88, and EW-89 are scheduled to be removed and inspected by SCS-FS in April.

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. An example of solids build-up within the forcemain is shown in Figure 15. This results in SCS-FS dedicating substantial amounts of time to relieving air pressure on the system. The City issued a solicitation for bids for installation of additional cleanouts and air release valves in the wellfield to address the issue on February 18, 2025.



Figure 15. Solids in Landfill Gas Liquids Forcemain

4.2 SAMPLING AND ANALYSIS PLAN

4.2.1 Sample Collection

On March 5, 2025, SCS collected a leachate sample from three Dual Phase LFG extraction wells (EW-50, EW-60, and EW-68). 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 March 2025, SCS' field staff were not able to collect samples from the wells summarized 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-52, EW-53, EW-64, EW-78, EW-93, and EW-98. 	 There was no pump at the time of the monitoring for the following wells: EW- 66, EW-69, EW-70, EW-71, EW-72, EW-73, EW-74, EW-77, EW-79, EW-80, EW-84, EW-86, EW-91, and EW-99.
 Pump was disconnected or off at the time of monitoring for EW-36A, EW-49, EW-54, EW-55, EW-59, EW-61, EW-65, EW-67, EW-81, EW-82, EW-83, EW-85, and 	There is no pump and the well appeared dry at the time of monitoring for EW-56.
 EW-96. Pump was not running and the liquid depth was not measured at the time of monitoring for EW-76 and EW-94. 	 There was no pump at the time of the monitoring and well was too tall to safely measure the liquid level for EW-92 and EW-97.
Pump was disconnected or off at the time of monitoring and the liquid depth was not measured at the time of	There is no pump and the liquid depth was not measured at the time of monitoring for EW-33B, EW-75.
monitoring for EW-87, EW-88, and EW-89.	There was no pump at the time of the monitoring and liquid level could not be
 Pump was disconnected or off at the time of monitoring and liquid level could not be safely measured for EW-62 and EW-63. 	safely measured for EW-95.

The samples were delivered to Enthalpy Analytical (Enthalpy) in Richmond, Virginia for analysis. Enthalpy's Virginia Division of Consolidated Laboratory Services (VELAP) certification is provided on the certificate of analysis (COA) included in **Appendix F**. The samples were analyzed for the parameters utilizing the analytical methods described in the Dual Phase Landfill Gas Extraction Well Leachate Monitoring Plan, December 1, 2022, prepared by SCS Engineers, except for volatile fatty acids (VFAs) as this analysis was inadvertently omitted from the sampling plan. Future lab analysis will include VFA analysis.

4.2.1 Quality Assurance and Quality Control

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

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

- Method Blank The method blank is deionized water subjected to the same reagents and manipulations to which site samples are subjected. Positive results in the method blanks may indicate either contamination of the chemical reagents or the glassware and implements used to store or prepare the sample and resulting solutions.
- MS/MSD A MS is an aliquot of a field sample with a known concentration of target parameter added to it. An MSD is an intra-laboratory split sample spiked with a known concentration of target parameter. Spiking for each occurs prior to sample analysis. MS/MSD samples are collected for every batch of twenty or fewer samples. Matrix spike recoveries are used to indicate what effect the sample matrix may have on the reported concentration and/or the performance of the sample preparation and analysis.
- LCS These samples consist of distilled/deionized water injected with the parameters of
 interest for single parameter methods and selected parameters for multi-parameter
 methods according to the appropriate analytical method. LCS samples are prepared and
 analyzed for each batch containing twenty or fewer samples. LCS recoveries are used to
 monitor analytical accuracy.

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

No QC blank detects were identified for the March 2025 monitoring event. The laboratory analysis report for the March 2025 monitoring event trip blank is included in **Appendix F**. The March 2025 monitoring event laboratory QA/QC report, including the method blank results, is included in the COA in **Appendix F**.

4.2.2 Data Validation

To identify analytical data that may not represent valid results, data from the monitoring events were validated by the Laboratory and SCS in accordance with United States Environmental Protection

Agency (EPA) 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 parameter detections less than five times that of the trip blank, field blank, and/or method blank detection but greater than the laboratory's LOD are flagged with a "B" qualifier. Samples with common laboratory contaminant parameter detections less than 10 times that of the trip blank, field blank, and/or method/laboratory blank detection but greater than the laboratory's LOD are flagged with a "B" qualifier. Data with a "B" qualifier are considered not validated as the detection may be anomalous due to cross-contamination during sampling, transportation of samples, or laboratory analysis.

No leachate results were flagged with a "B" qualifier for the March 2025 monitoring event as there were no QC blank detections. The March 2025 detections flagged with a "J" qualifier are shown on **Table 7**.

4.2.3 Laboratory Analytical Results

The analytical results for the March 2025 leachate samples collected from extraction wells EW-50, EW-60, and EW-68 are summarized in **Table 7**. The associated COA is included in **Appendix F**. Parameter results from March 2025 and previous monitoring events (November 2022 – February 2025) are presented on a table in **Appendix F**. Time-series plots of each VOC for the wells that have historically been sampled are included in **Appendix F**.

Table 7. Monthly LFG-EW Leachate Monitoring Event Summary

Well ID	EW-50	EW-60	EW-68	LOD	100
Parameter	March 2	025 Conce	ntration	LOD	LOQ
Ammonia as N (mg/L)	1240	1480	2110	146	200
Biological Oxygen Demand (mg/L)	3490	20400	22000	0.2	2
	8700			1000	1000
Chemical Oxygen Demand			51500	5000	5000
(mg/L)		74600		10000	10000
Nitrate as N (mg/L)	ND	ND	ND	2	10
Nitrite as N (mg/L)	ND	ND	ND	2	10
Total Recoverable Phenolics	3.88			0.3	0.5
(mg/L)		21.4	25.9	0.75	1.25
Total Kieldeld Nitrogen (meg./l)	1230			40	100
Total Kjeldahl Nitrogen (mg/L)		1920	2700	100	250
SEMI-VOLATILE ORGANIC COMPOUND (ug/L)					
Anthropono	ND		ND	100	200
Anthracene		ND		200	400

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-50	EW-60	EW-68	LOD	100					
Parameter	March 20	025 Conce	LOD	LOQ						
TOTAL METALS (mg/L)	TOTAL METALS (mg/L)									
Arsenic	0.158	0.344	0.254	0.01	0.02					
Barium	0.516	1.05	2.93	0.005	0.01					
Cadmium	ND	0.0119	ND	0.002	0.004					
Chromium	0.248	0.199	0.155	0.008	0.01					
Copper	0.0087 J	ND	0.0142	0.008	0.01					
Lead	0.0113	0.0816	0.0229	0.006	0.01					
Marcuni	ND		ND	0.001	0.001					
Mercury		0.0146		0.002	0.002					
Nickel	0.0933	0.0375	0.0818	0.007	0.01					
Selenium	ND	ND	ND	0.04	0.05					
Silver	ND	ND	ND	0.005	0.01					
Zinc	0.0415	0.155	0.0277	0.01	0.01					
VOLATILE ORGANIC COMPOUNDS (L	ıg/L)									
2-Butanone	2540			150	500					
		30600	33700	1500	5000					
Acatono	4460			350	500					
Acetone		72600	86400	3500	5000					
Benzene	157	1260	2350	20	50					
Ethylbenzene	61.5	168	117	20	50					
Tetrahydrofuran	ND	4890	10000	500	500					
Toluene	90.5	150	166	25	50					
Xylenes	108 J	386	200	50	150					

^{--- =} not available

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.

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

5.2 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 March 11, 2025. Aerial imagery collected on March 11, 2025, is depicted in Figure 16. The topographic data collected is shown on Sheet 4 in Appendix E.



Figure 16. 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 February 18, 2025. A drawing depicting the February 18, 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 1,400 cubic yards across the site. Fill may have been placed on the site to address differential settlement, surface emissions, and to provide access to LFG collection vertical wells. During that

same time period, calculations indicate a "cut" volume of approximately 3,200 cubic yards. Cut volumes are typically attributed to settlement. This resulted in a net volume decrease of approximately 1,800 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in Figure 17. Areas in yellow, orange, and red indicate where elevations decreased and areas in green indicate areas where elevations have increased. Darker colors indicate greater changes in elevation. This drawing is also included as Sheet 5 in Appendix E.

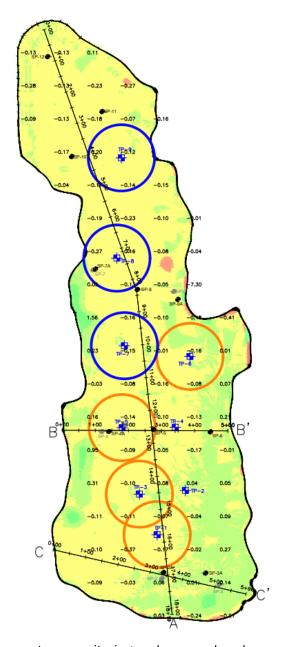


Figure 17. 1-Month Elevation Change Map

The locations of in-waste temperature monitoring probes are also shown on Figure 17, Figure 18, and Figure 19. 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 and less than 300°F during the month of February 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 0.1 feet.

SCS also compared the topographic data collected in February to the topographic data collected on December 13, 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 10,900 cubic yards. During that same time period calculations indicate approximately 1,100 cubic yards of fill were placed on the landfill, for a net decrease in waste volume of 9,800 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in Figure 18. 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.

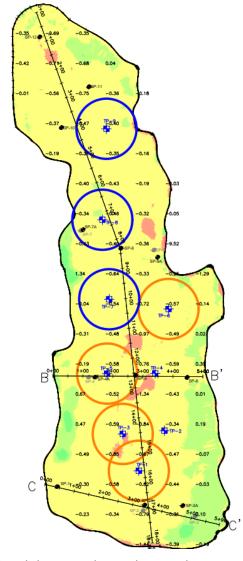


Figure 18. 3-Month Elevation Change Map

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 March 2025 to the drone topographic data collected on March 13, 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 38,600 cubic yards. During that same time period approximately 3,300 cubic yards of construction-related fill were placed on the landfill. This fill was primarily soil placed as part of the sidewall odor mitigation system construction and ongoing maintenance (i.e. filling to compensate for settlement). This resulted in a net volume decrease of approximately 35,300 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in Figure 19. 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.

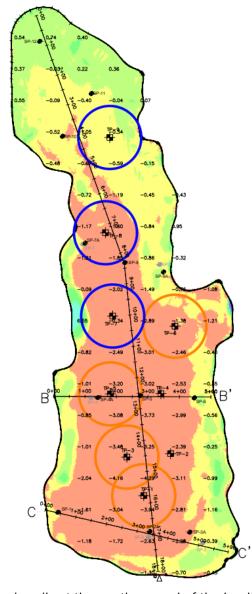


Figure 19. 1-Year Elevation Change Map

The largest settlement occurred primarily at the southern end of the landfill where the waste settled by 4 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 1.2 feet.

SCS will collect topographic data covering the landfill surface again in April using photogrammetric methods via UAV. This data will be compared to the data collected in April 2024, January 2025, and March 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 20 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 20. 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 Mar. 18, 2025	Elevation Change Since Feb. 14, 2025	Strain ³ Since Feb. 14, 2024	Elevation Change Since Installation
SP-1	3,397,887.6	10,412,080.7	1,829.0	-0.04	-0.1%	-5.5
SP-2A	3,397,823.1	10,412,370.6	1,793.4	-0.04	0.0%	-2.3
SP-3A	3,397,820.2	10,412,498.3	1,779.3	0.01	0.0%	-0.9
SP-4A	3,398,247.1	10,412,207.0	1,803.2	-0.10	-0.1%	-2.0
SP-5	3,398,255.8	10,412,339.5	1,788.8	-0.11	0.0%	-11.9
SP-6	3,398,248.9	10,412,509.9	1,773.1	-0.05	0.0%	-4.6
SP-7A	3,398,731.8	10,412,158.0	1,822.5	-0.03	0.0%	-0.9
SP-8	3,398,678.2	10,412,290.9	1,800.0	-0.09	0.0%	-7.3
SP-9A	3,398,644.3	10,412,416.2	1,788.2	-0.04	0.0%	-0.5
SP-10	3,399,080.3	10,412,093.3	1,837.0	-0.04	0.0%	-3.2
SP-11	3,399,216.4	10,412,183.8	1,814.6	0.00	0.0%	-1.7
SP-12	3,399,381.8	10,412,019.6	1,809.8	0.05	0.0%	-0.9

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

Settlement Plates 1 and 4A demonstrated larger strains due to settlement than at other locations. Settlement Plates 1 and 4A are located in the middle/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 strain values at the other Settlement Plates were lower during this monthly measurement period.

Figure 21 shows the changes in elevation of select settlement plates over time. For the purposes of recording data in this figure, times are reported in days since the landfill was required to stop accepting waste.

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

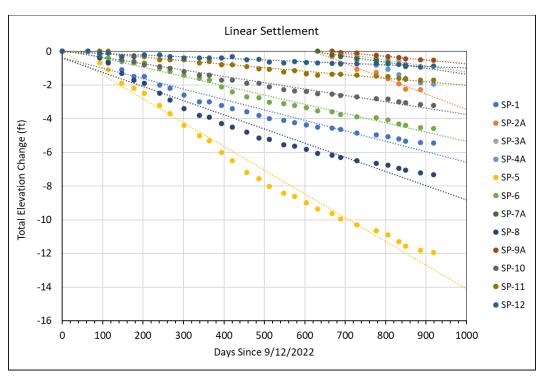


Figure 21. Elevation Change of Select Settlement Plates Over Time

The settlement plates will be surveyed again during April 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 section below outline the steps taken by the City and future plans related to temporary 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 January 13, 2025. The next assessment will be submitted on or before April 10, 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 March 2025, those actions include:

- Ongoing basis: Four (4) posts on each the BristalVALandfill.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, which included moving up to 360 tons of soil to address settlement issues.

- Updates at the Quarry Landfill included troubleshooting faulty temperature probes in the southern regions of the landfill, which included removing and replacing affected sensors; replacing section to piping that leads to the stormwater flow meter due to clogging issues; working to realign the header pipe to the Sidewall Odor Mitigation System (SOMS) to help create efficiencies by reducing condensation and maximizing flow (this work is now 90 percent complete on both the east and west sides of the landfill); removed and replaced one of the dual phase extraction pumps to increase liquid removal from the site.
- The City held a pre-bid meeting with four potential contractors in the second week of March for a new permanent flare and emergency generator at the landfill. The new permanent flare, which will require a new air permit, would double the capacity of the previous flare, and matches the capacity of current temporary flare.
- SWP 221 and SWP 588 compliance reports are now up to date and can be found here.
- 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 February 23, 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 First Quarter surface emissions monitoring event on March 7, 2025. The surface emission monitoring route included the entire waste footprint of the Permit No. 588 landfill. Sampling was conducted with a Thermo Scientific TVA-2020 Flame Ionization Detector (FID) at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint outside of the active filling area.

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 March 12, 2025.

Weekly SEM

In addition to the standard regulatory quarterly surface emissions monitoring, the monitoring in March 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 March monitoring events on March 12, 2025; March 19, 2025; March 26, 2025; and April 2, 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.

SCS ENGINEERS

March 12, 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 - March 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 March 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	167
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	67
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 retests

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

Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	3/7/25 Event	3/7/25 Event Result	Comments
EW-53	2/24/25	10-Day Retest	Passed	Requires 1-Month Retest
EW-54	2/24/25	10-Day Retest	Failed	Requires 2 nd 10-Day Retest
EW-66	2/24/25	10-Day Retest	Failed	Requires 2 nd 10-Day Retest

Mr. Jonathan Chapman March 12, 2025 Page 3

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

Sincerely,

William J. Fabrie Staff Professional SCS Engineers

William of the

Senior Project Professional SCS Engineers

Lucus D. Nachman

Lucas S. Nachman

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

	Methane		GPS Co	ordinates	
ID#	Concentration	Compliance	Lat.	Long.	Comments
1	3.7 PPM	OK			Start Serpentine Route
2	5.2 PPM	OK			
3	6.3 PPM	OK			
4	2.8 PPM	OK			
5	1.5 PPM	OK			
6	1.3 PPM	OK			
7	1.2 PPM	OK			
8	1.2 PPM	OK			
9	1.1 PPM	OK			
10	1.3 PPM	OK			
11	1.2 PPM	OK			
12	1.2 PPM	OK			
13	1.5 PPM	OK			
14	3.4 PPM	OK			
15	3.6 PPM	OK			
16	4.3 PPM	OK			
17	5.9 PPM	OK			
18	3.0 PPM	OK			
19	3.2 PPM	OK			
20	1.8 PPM	OK			
21	2.1 PPM	OK			
22	2.7 PPM	OK			
23	8.9 PPM	OK			
24	1.6 PPM	OK			
25	1.4 PPM	OK			
26	3.1 PPM	OK OK			
27	3.0 PPM	OK			
28	1.6 PPM	OK			
29	1.6 PPM	OK OK			
30	10.8 PPM	OK			
31	36.1 PPM	OK			
32	39.4 PPM	OK OK			
33	19.3 PPM	OK OK			
34	188.0 PPM	OK OK			
35	37.6 PPM	OK OK			
36	249.0 PPM	OK OK			
37	101.0 PPM	OK OK			
38	23.1 PPM	OK OK			
39	24.1 PPM	OK OK			
40	5.0 PPM	OK OK			
41	32.6 PPM	OK OK			
42	71.1 PPM	OK OK			
43	3.9 PPM	OK OK			
44	7.8 PPM	OK OK			
45		OK OK			
46	5.5 PPM 3.2 PPM	OK OK			
46 47	2.2 PPM	OK OK			

	Methane		GPS Co	ordinates	
ID#	Concentration	Compliance	Lat.	Long.	Comments
48	3.9 PPM	OK			
49	3.2 PPM	OK			
50	2.6 PPM	OK			
51	4.8 PPM	OK			
52	1.8 PPM	OK			
53	0.9 PPM	OK			
54	2.7 PPM	OK			
55	1.0 PPM	OK			
56	1.0 PPM	OK			
57	4.0 PPM	OK			
58	2.9 PPM	OK			
59	4.2 PPM	OK			
60	11.7 PPM	OK			
61	18.2 PPM	OK			
62	4.2 PPM	OK			
63	2.4 PPM	OK			
64	2.9 PPM	OK			
65	1.6 PPM	OK			
66	1.3 PPM	OK			
67	33.6 PPM	OK			
68	1.1 PPM	OK			
69	1.0 PPM	OK			
70	1.3 PPM	OK			
<i>7</i> 1	0.7 PPM	OK			
72	3.3 PPM	OK			
73	4.5 PPM	OK			
74	25.8 PPM	OK			
	9.8 PPM	OK			
76	51.6 PPM	OK			
77	19.8 PPM	OK			
78	8.8 PPM	OK			
79	1.7 PPM	OK			
80	2.3 PPM	OK			
81	2.6 PPM	OK			
82	3.9 PPM	OK			
83	7.7 PPM	OK			
84	1.2 PPM	OK			
85	0.3 PPM	OK			
86	0.1 PPM	OK			
87	0.1 PPM	OK			
88	0.0 PPM	OK			
89	0.2 PPM	OK			
90	0.0 PPM	OK			
91	0.7 PPM	OK			
92	0.5 PPM	OK OK			
93	2.5 PPM	OK OK			
94	1.0 PPM	OK OK			

	Metha	ne	GPS C	oordinates	
ID#	Concentr	ation Compliance	e Lat.	Long.	Comments
95	5.0 PF	PM OK			
96	1.7 PF	PM OK			
97	7.1 PF	PM OK			
98	6.8 PF	PM OK			
99	2.3 PF	PM OK			
100	3.0 PF	PM OK			End Serpentine Route
101	208.0 PF	PM OK			EW-52
102	5.2 PF	PM OK			TP-4
103	205.0 PF	PM OK			EW-60
104	5.8 PF	PM OK			EW-48
105	1.8 PF	PM OK			TP-6
106	25.8 PF				EW-61
107	1.2 PF				EW-50
108	17.2 PF				EW-67
109	2.0 PF				EW-47
110	2896.0 PF		A 36.59859	-82.14738	EW-54
111	3.4 PF				EW-55
112	4.1 PF				EW-92
113	19.5 PF				EW-91
114	6.0 PF				EW-96
115	9.6 PF				TP-2
116	2334.0 PF		A 36.59842	-82.14736	EW-66
11 <i>7</i>	362.0 PF	-			EW-58
118	20.9 PF				EW-57
119	6.5 PF				TP-1
120	18.0 PF				EW-59
121	37.8 PF				EW-100
122	4.2 PF				EW-56
123	6.1 PF				EW-97
124	15.3 PF	PM OK			EW-53
125	3.8 PF				TP-3
126	8.1 PF				EW-51
127	2.5 PF				TP-5
128	1.8 PF	PM OK			EW-68
129	54.6 PF	PM OK			EW-87
130	1.7 PF	PM OK			EW-38
131	37.9 PF				TP-7
132	4.8 PF				EW-49
133	44.5 PF				EW-83
134	3.6 PF				EW-65
135	3.2 PF				EW-81
136	2.0 PF				TP-8
137	3.0 PF				EW-64
138	1.7 PF				EW-63
139	12.6 PF				EW-42
140	155.0 PF				EW-76

	Methane		GPS Co		
ID#	Concentration	Compliance	Lat.	Long.	Comments
141	48.9 PPM	OK			TP-9
142	2.6 PPM	OK			EW-62
143	1.6 PPM	OK			EW-74
144	1.0 PPM	OK			EW-32R
145	1.4 PPM	OK			EW-69
146	0.7 PPM	OK			EW-71
147	0.8 PPM	OK			EW-72
148	0.8 PPM	OK			EW-73
149	0.8 PPM	OK			EW-78
150	2.8 PPM	OK			EW-82
151	1.2 PPM	OK			EW-36A
152	269.0 PPM	OK			EW-85
153	242.0 PPM	OK			EW-88
154	59.8 PPM	OK			EW-89
155	4.1 PPM	OK			EW-93
156	3.6 PPM	OK			EW-94
1 <i>57</i>	2.7 PPM	OK			EW-98
158	4.1 PPM	OK			EW-99
159	92.1 PPM	OK			EW-95
160	1.8 PPM	OK			EW-90
161	233.0 PPM	OK			EW-86
162	3.7 PPM	OK			EW-84
163	16.0 PPM	OK			EW-80
164	4.2 PPM	OK			EW-79
165	6.5 PPM	OK			EW-77
166	0.9 PPM	OK			EW-33B
167	0.9 PPM	OK			EW-75
	Number of loc	ations sampled:	167]	
	Number of exceed	•	2		

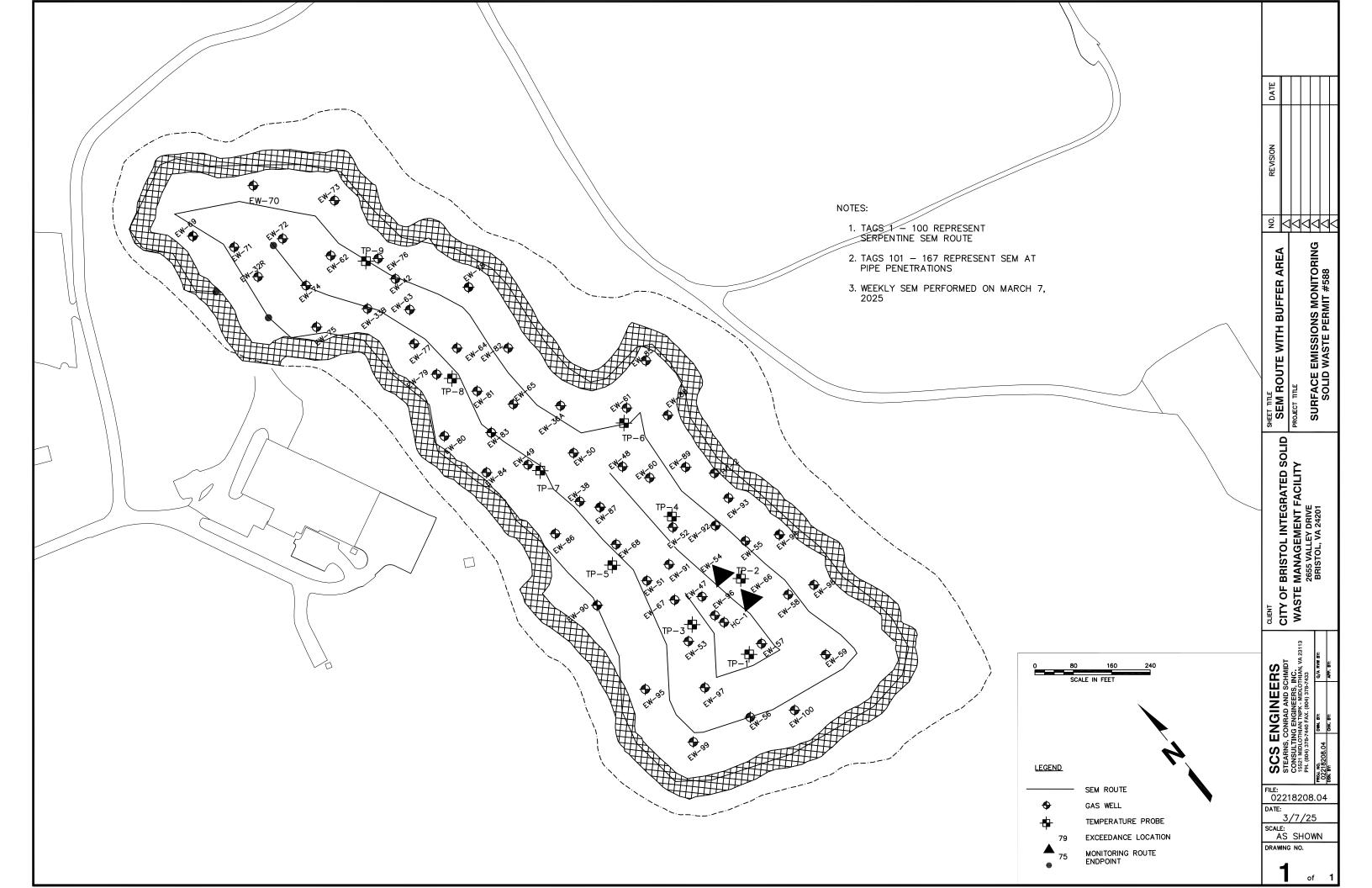
NOTES:

Points 1 through 100 represent serpentine SEM route.

Points 101 through 167 represent SEM at Pipe Penetrations

Weather Conditions: Sunny, 35°F Wind: 3 MPH SW

Sampling Calib	ration: Meth	nane - 500 ppm,	Zero Air - 0.0	<u>ppm</u>
3/7/2025	10:38	ZERO	0.1	PPM
3/7/2025	10:39	SPAN	502.0	PPM
Background Red	ading:			
3/7/2025	10:42	Upwind	2.5	PPM
3/7/2025	10:46	Downwind	6.3	PPM



SCS ENGINEERS

March 19, 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 – March 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 March 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	167
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	67
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 retests

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

Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	3/11/25 Event	3/11/25 Event Result	Comments
EW-53	2/24/25	N/A	Passed	Requires 1-Month Retest
EW-54	2/24/25	2 nd 10-Day Retest	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-66	2/24/25	2 nd 10-Day Retest	Passed	Requires 1-Month Retest

Mr. Jonathan Chapman March 19, 2025 Page 3

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

Sincerely,

William J. Fabrie Staff Professional SCS Engineers

William of the

Lucas S. Nachman Senior Project Professional SCS Engineers

Lucus D. Nachman

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

	Methane		GPS Co	ordinates	
ID#	Concentration	Compliance	Lat.	Long.	Comments
1	2.6 PPM	ОК			Start Serpentine Route
2	1.8 PPM	OK			
3	1.0 PPM	OK			
4	1.0 PPM	OK			
5	1.0 PPM	OK			
6	1.1 PPM	OK			
7	0.9 PPM	OK			
8	0.9 PPM	OK			
9	0.9 PPM	OK			
10	0.8 PPM	OK			
11	0.8 PPM	OK			
12	0.7 PPM	OK			
13	0.9 PPM	OK			
14	1.2 PPM	OK			
15	0.9 PPM	OK			
16	1.0 PPM	OK			
17	1.0 PPM	OK			
18	1.1 PPM	OK			
19	11.2 PPM	OK			
20	1.0 PPM	OK			
21	1.2 PPM	OK			
22	12.7 PPM	OK			
23	3.8 PPM	OK			
24	1.2 PPM	OK			
25	3.0 PPM	OK			
26	1.2 PPM	OK			
27	1.3 PPM	OK			
28	2.0 PPM	OK			
29	2.5 PPM	OK			
30	19.5 PPM	OK			
31	6.2 PPM	OK			
32	28.2 PPM	OK			
33	98.6 PPM	OK			
34	15.3 PPM	OK			
35	3.3 PPM	OK			
36	3.4 PPM	OK			
37	12.7 PPM	OK			
38	1.7 PPM	OK			
39	3.2 PPM	OK OK			
40	3.4 PPM	OK OK			
41	1.4 PPM	OK OK			
42	2.4 PPM	OK OK			
43	1.1 PPM	OK OK			
43	1.0 PPM	OK OK			
45	1.4 PPM	OK OK			
46	0.8 PPM	OK OK			
46 47	1.0 PPM	OK OK			

	Methane		GPS Co	ordinates	
ID#	Concentration	Compliance	Lat.	Long.	Comments
48	1.3 PPM	OK			
49	1.1 PPM	OK			
50	0.9 PPM	OK			
51	0.5 PPM	OK			
52	1.9 PPM	OK			
53	0.6 PPM	OK			
54	0.6 PPM	OK			
55	6.8 PPM	OK			
56	1.0 PPM	OK			
57	0.5 PPM	OK			
58	1.3 PPM	OK			
59	1.4 PPM	OK			
60	0.6 PPM	OK			
61	0.5 PPM	OK			
62	3.1 PPM	OK			
63	0.4 PPM	OK			
64	0.7 PPM	OK			
65	0.7 PPM	OK			
66	0.5 PPM	OK			
67	1.3 PPM	OK			
68	10.3 PPM	OK			
69	9.0 PPM	OK			
70	7.6 PPM	OK			
71	1.0 PPM	OK			
72	1.1 PPM	OK			
73	31.9 PPM	OK			
74	1.9 PPM	OK			
75	1.1 PPM	OK			
76	1.3 PPM	OK			
77	1.2 PPM	OK			
78	1.3 PPM	OK			
79	0.6 PPM	OK			
80	0.6 PPM	OK			
81	1.7 PPM	OK			
82	0.8 PPM	OK			
83	O.1 PPM	OK			
84	0.9 PPM	OK			
85	1.5 PPM	OK			
86	0.9 PPM	OK			
87	1.1 PPM	OK			
88	0.4 PPM	OK			
89	0.0 PPM	OK			
90	0.9 PPM	OK			
91	O.1 PPM	OK			
92	0.1 PPM	OK			
93	0.2 PPM	OK			
94	10.0 PPM	OK			

	Methane		GPS Co	ordinates	
ID#	Concentration	Compliance	Lat.	Long.	Comments
95	7.0 PPM	OK			
96	0.8 PPM	OK			
97	1.6 PPM	OK			
98	10.4 PPM	OK			
99	1.1 PPM	OK			
100	0.7 PPM	OK			End Serpentine Route
101	191.0 PPM	OK			EW-52
102	19.2 PPM	OK			TP-4
103	310.0 PPM	OK			EW-60
104	1.7 PPM	OK			EW-48
105	47.8 PPM	OK			TP-6
106	4.7 PPM	OK			EW-61
107	0.4 PPM	OK			EW-50
108	844.0 PPM	HIGH_ALRM	36.59866	-82.14775	EW-67
109	1.3 PPM	OK			EW-47
110	2730.0 PPM	HIGH_ALRM	36.59859	-82.14738	EW-54
111	1.2 PPM	OK			EW-55
112	0.8 PPM	OK			EW-92
113	15.3 PPM	OK			EW-91
114	1.0 PPM	OK			EW-96
115	0.4 PPM	OK			TP-2
116	74.8 PPM	OK			EW-66
117	2.2 PPM	OK			EW-58
118	29.7 PPM	OK			EW-57
119	0.9 PPM	OK			TP-1
120	23.1 PPM	OK			EW-59
121	1.8 PPM	OK			EW-100
122	10.6 PPM	OK			EW-56
123	0.7 PPM	OK			EW-97
124	95.7 PPM	OK			EW-53
125	2.6 PPM	OK			TP-3
126	22.9 PPM	OK			EW-51
127	2.2 PPM	OK			TP-5
128	1.7 PPM	OK			EW-68
129	5.1 PPM	OK			EW-87
130	1.4 PPM	OK			EW-38
131	4.1 PPM	OK			TP-7
132	0.6 PPM	OK			EW-49
133	0.7 PPM	OK			EW-83
134	0.6 PPM	OK			EW-65
135	0.3 PPM	OK			EW-81
136	4.2 PPM	OK			TP-8
137	1.0 PPM	OK			EW-64
138	3.5 PPM	OK			EW-63
139	67.4 PPM	OK			EW-42
140	1.8 PPM	OK OK			EW-76

	Methane		GPS Co		
ID#	Concentration	Compliance	Lat.	Long.	Comment
141	3.2 PPM	OK			TP-9
142	0.7 PPM	OK			EW-62
143	0.7 PPM	OK			EW-74
144	0.0 PPM	OK			EW-32R
145	0.0 PPM	OK			EW-69
146	0.0 PPM	OK			EW-71
147	0.0 PPM	OK			EW-72
148	0.0 PPM	OK			EW-73
149	0.1 PPM	OK			EW-78
150	69.1 PPM	OK			EW-82
151	0.4 PPM	OK			EW-36A
152	10.2 PPM	OK			EW-85
153	18.9 PPM	OK			EW-88
154	282.0 PPM	OK			EW-89
155	4.3 PPM	OK			EW-93
156	1.6 PPM	OK			EW-94
1 <i>57</i>	0.2 PPM	OK			EW-98
158	0.5 PPM	OK			EW-99
159	20.4 PPM	OK			EW-95
160	20.3 PPM	OK			EW-90
161	0.8 PPM	OK			EW-86
162	128.0 PPM	OK			EW-84
163	1.6 PPM	OK			EW-80
164	0.0 PPM	OK			EW-79
165	0.0 PPM	OK			EW-77
166	0.7 PPM	OK			EW-33B
167	6.7 PPM	OK			EW-75
	Number of loc	ations sampled:	167		
	Number of exceedance locations:		2		

NOTES:

3/11/2025

Points 1 through 100 represent serpentine SEM route.

Points 101 through 167 represent SEM at Pipe Penetrations

Weather Conditions: Sunny, 62°F Wind: 5 MPH SW

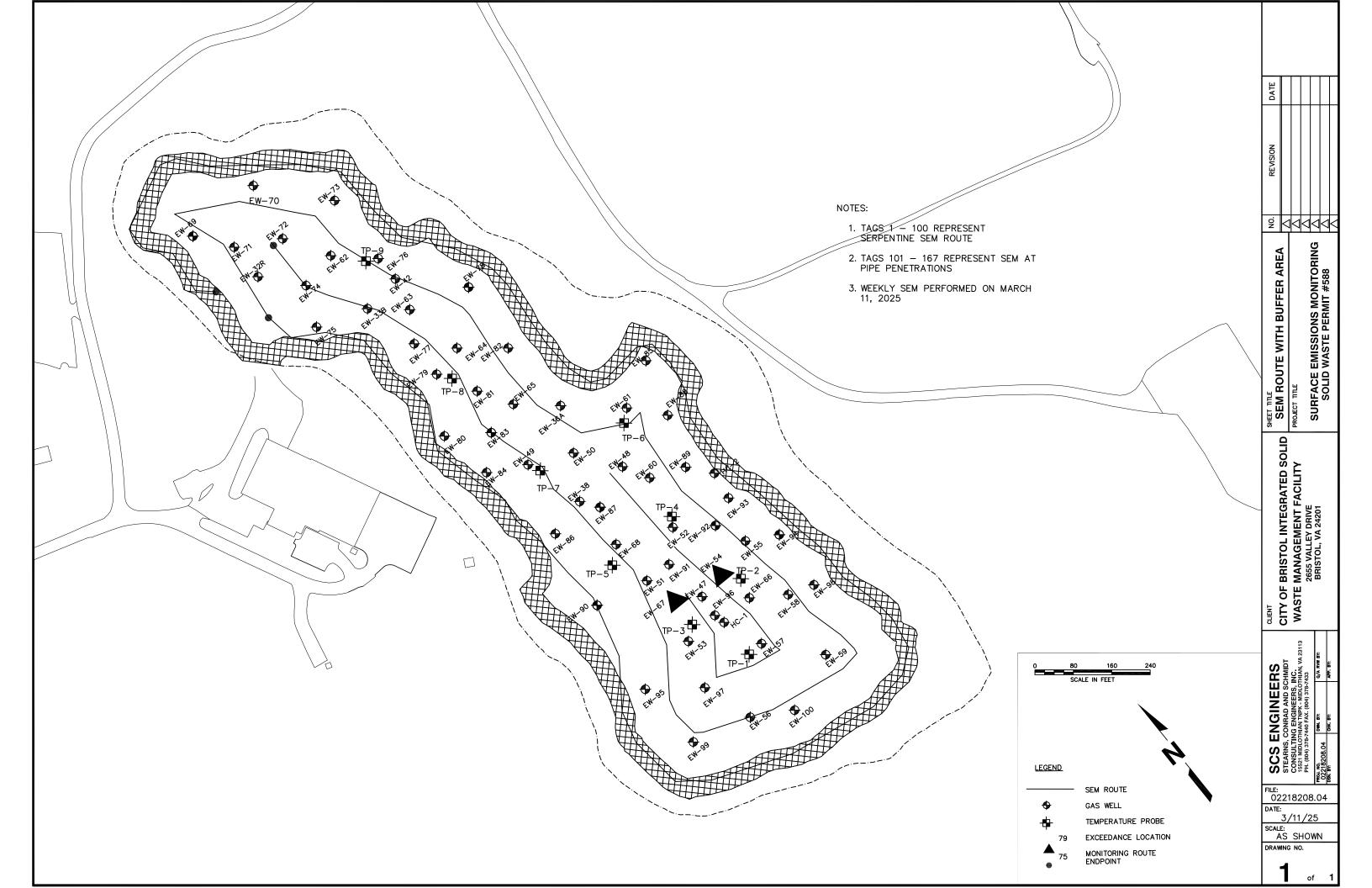
11:05

Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm 3/11/2025 10:51 ZERO 0.0 PPM 3/11/2025 10:53 SPAN 500.0 PPM**Background Reading:** 3/11/2025 10:55 Upwind 1.9 PPM

Downwind

 PPM

8.5



SCS ENGINEERS

March 26, 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 - March 17, 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 March 17, 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	167
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	67
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	3/17/25 Event	3/17/25 Event Result	Comments
EW-54	2/24/25	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-66	2/24/25	2 nd 10-Day Retest	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-53	2/24/25	N/A	Passed	Requires 1-Month Retest
EW-67	3/11/25	10-Day Retest	Passed	Requires 1-Month Retest

Mr. Jonathan Chapman March 26, 2025 Page 3

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

Sincerely,

Wylie R Hicklin Associate Professional SCS Engineers

Wylin R Hickin

SCS Engineers

Lucas S. Nachman

Senior Project Professional

Lucus D. Nachman

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

	Methane		GPS Co		
ID#	Concentration	Compliance	Lat.	Long.	Comments
1	2.7 PPM	OK			Start Serpentine Route
2	2.7 PPM	OK			
3	11.8 PPM	OK			
4	2.6 PPM	OK			
5	2.3 PPM	OK			
6	2.4 PPM	OK			
7	2.5 PPM	OK			
8	2.1 PPM	OK			
9	2.0 PPM	OK			
10	6.9 PPM	OK			
11	1.9 PPM	OK			
12	3.2 PPM	OK			
13	1.8 PPM	OK			
14	1.7 PPM	OK			
15	2.6 PPM	OK			
16	1.8 PPM	OK			
17	1.6 PPM	OK			
18	1.7 PPM	OK			
19	1.8 PPM	OK			
20	1.8 PPM	OK			
21	2.6 PPM	OK			
22	60.6 PPM	OK			
23	2.1 PPM	OK			
24	2.2 PPM	OK			
25	60.8 PPM	OK			
26	2.5 PPM	OK			
27	1.8 PPM	OK			
28	2.9 PPM	OK			
29	4.4 PPM	OK			
30	1.7 PPM	OK			
31	1.7 PPM	OK			
32	1.2 PPM	OK			
33	1.9 PPM	OK OK			
34	37.1 PPM	OK OK			
35	3.3 PPM	OK			
36	7.3 PPM	OK			
37	49.9 PPM	OK OK			
38	22.1 PPM	OK OK			
39	179.0 PPM	OK OK			
40	163.0 PPM	OK OK			
41	148.0 PPM	OK OK			
42	28.4 PPM	OK OK			
		OK OK			
43 44	16.3 PPM 2.9 PPM	OK OK			
		OK OK			
45 46	29.9 PPM 5.3 PPM				
46 47	2.6 PPM	OK OK			

	Methane		GPS Co	oordinates	
ID#	Concentration	Compliance	Lat.	Long.	Comments
48	2.0 PPM	OK			
49	1.1 PPM	OK			
50	1.1 PPM	OK			
51	4.5 PPM	OK			
52	2.0 PPM	OK			
53	0.7 PPM	OK			
54	2.3 PPM	OK			
55	0.5 PPM	OK			
56	0.4 PPM	OK			
57	0.4 PPM	OK			
58	0.4 PPM	OK			
59	0.4 PPM	OK			
60	0.3 PPM	OK			
61	0.3 PPM	OK			
62	0.3 PPM	OK			
63	0.3 PPM	OK			
64	0.3 PPM	OK			
65	0.2 PPM	OK			
66	0.2 PPM	OK			
67	0.2 PPM	OK			
68	0.4 PPM	OK			
69	5.6 PPM	OK			
70	1.0 PPM	OK			
<i>7</i> 1	7.2 PPM	OK			
72	2.6 PPM	OK			
<i>7</i> 3	2.4 PPM	OK			
74	1.8 PPM	OK			
<i>7</i> 5	25.2 PPM	OK			
76	7.9 PPM	OK			
77	3.3 PPM	OK			
78	5.7 PPM	OK			
79	13.9 PPM	OK			
80	7.3 PPM	OK			
81	14.5 PPM	OK			
82	4.7 PPM	OK			
83	10.5 PPM	OK			
84	1.9 PPM	OK			
85	4.1 PPM	OK			
86	1.1 PPM	OK			
87	1.3 PPM	OK			
88	2.4 PPM	OK			
89	2.5 PPM	OK			
90	0.6 PPM	OK			
91	0.8 PPM	OK			
92	3.5 PPM	OK			
93	0.9 PPM	OK			
94	2.5 PPM	OK			

	Methane GPS Coordinates					
ID#	Concentration	Compliance	Lat.	Long.	Comments	
95	96.5 PPM	OK				
96	5.2 PPM	OK				
97	16.8 PPM	OK				
98	12.4 PPM	OK				
99	4.8 PPM	OK				
100	10.8 PPM	OK			End Serpentine Route	
101	71.1 PPM	OK			EW-52	
102	8.8 PPM	OK			TP-4	
103	86.9 PPM	OK			EW-60	
104	6.8 PPM	OK			EW-48	
105	10.9 PPM	OK			TP-6	
106	3.7 PPM	OK			EW-61	
107	0.8 PPM	OK			EW-50	
108	65.3 PPM	OK			EW-67	
109	8.2 PPM	OK			EW-47	
110	634.0 PPM	HIGH_ALRM	36.59859	-82.14738	EW-54	
111	6.5 PPM	OK			EW-55	
112	5.8 PPM	OK			EW-92	
113	180.0 PPM	OK			EW-91	
114	4.3 PPM	OK			EW-96	
115	12.6 PPM	OK			TP-2	
116	3382.0 PPM	HIGH_ALRM	36.59842	-82.14736	EW-66	
117	216.0 PPM	OK	00.57042	-02:1-7 00	EW-58	
118	17.1 PPM	OK			EW-57	
119	3.6 PPM	OK			TP-1	
120	41.1 PPM	OK			EW-59	
121	22.6 PPM	OK			EW-100	
122	1.7 PPM	OK			EW-56	
123	6.2 PPM	OK			EW-97	
124	181.0 PPM	OK			EW-53	
125	1.5 PPM	OK			TP-3	
126	2.5 PPM	OK			EW-51	
127	1.7 PPM	OK			TP-5	
128	1.7 PPM	OK			EW-68	
129	2.2 PPM	OK			EW-87	
130	39.8 PPM	OK OK			EW-38	
131	1.9 PPM	OK OK			TP-7	
132	1122.0 PPM	HIGH_ALRM	26 50079	-82.14805	EW-49	
			36.59978	-02.14003		
133	28.9 PPM	OK			EW-83	
134	268.0 PPM	OK			EW-65	
135	1.1 PPM	OK			EW-81	
136	0.7 PPM	OK OK			TP-8	
137	0.8 PPM	OK			EW-64	
138	0.5 PPM	OK			EW-63	
139 140	0.1 PPM 251.0 PPM	OK OK			EW-42 EW-76	

	Methane		GPS Co	ordinates	
ID#	Concentration	Compliance	Lat.	Long.	Comments
141	1.3 PPM	ОК			TP-9
142	0.4 PPM	OK			EW-62
143	0.4 PPM	OK			EW-74
144	0.2 PPM	OK			EW-32R
145	0.1 PPM	OK			EW-69
146	0.0 PPM	OK			EW-71
147	0.0 PPM	OK			EW-72
148	1.2 PPM	OK			EW-73
149	0.1 PPM	OK			EW-78
150	104.0 PPM	OK			EW-82
151	0.1 PPM	OK			EW-36A
152	733.0 PPM	HIGH_ALRM	36.59986	-82.14694	EW-85
153	87.5 PPM	OK			EW-88
154	209.0 PPM	OK			EW-89
155	2.2 PPM	OK			EW-93
156	1.2 PPM	OK			EW-94
1 <i>57</i>	1.6 PPM	OK			EW-98
158	27.1 PPM	OK			EW-99
159	25.6 PPM	OK			EW-95
160	1.6 PPM	OK			EW-90
161	94.4 PPM	OK			EW-86
162	13.6 PPM	OK			EW-84
163	1.9 PPM	OK			EW-80
164	1.1 PPM	OK			EW-79
165	2.5 PPM	OK			EW-77
166	1.0 PPM	OK			EW-33B
167	7.7 PPM	OK			EW-75

Number of locations sampled: 167
Number of exceedance locations: 4

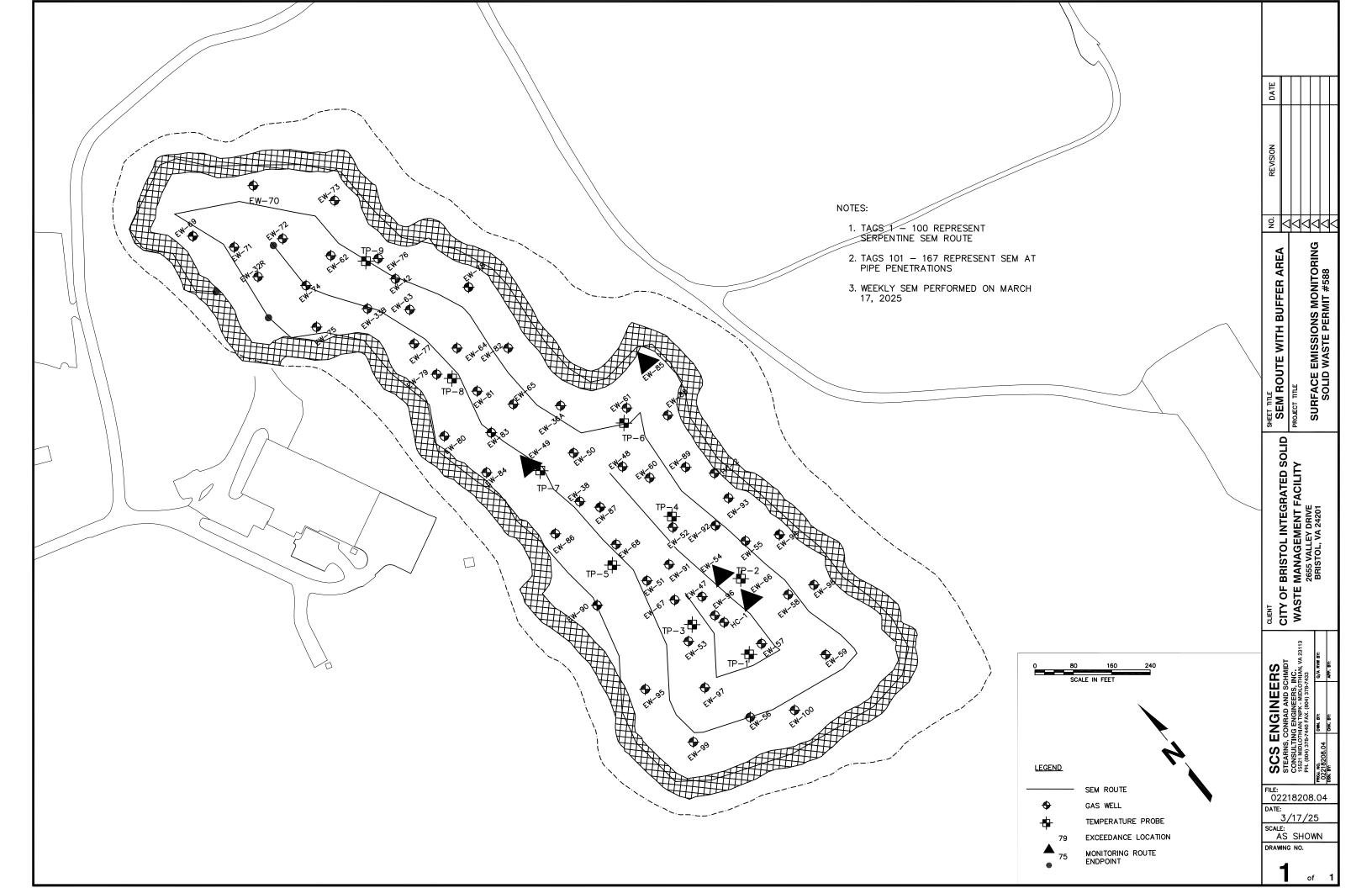
NOTES:

Points 1 through 100 represent serpentine SEM route.

Points 101 through 167 represent SEM at Pipe Penetrations

Weather Conditions: Overcast, 41 $^{\circ}\text{F}$ Wind: 8 MPH S

Sampling Calibr	ation: Meth	nane - 500 ppm,	Zero Air - 0.0) ppm
3/17/2025	9:42	ZERO	0.3	PPM
3/17/2025	9:43	SPAN	501.0	PPM
Background Rea	ding:			
3/17/2025	9:56	Upwind	2.5	PPM
3/17/2025	9:57	Downwind	8.3	PPM



SCS ENGINEERS

April 2, 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 - March 27, 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 March 27, 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	167
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	67
Number of Exceedances	6
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	6

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	3/27/25 Event	3/27/25 Event Result	Comments
EW-54	2/24/25	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-66	2/24/25	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-53	2/24/25	1-Month Retest	Failed	Requires 1-Month Retest Follow-Up
EW-67	3/11/25	N/A	Passed	Requires 1-Month Retest
EW-49	3/17/25	10-Day Retest	Passed	Requires 1-Month Retest
EW-85	3/17/25	10-Day Retest	Passed	Requires 1-Month Retest

Mr. Jonathan Chapman April 2, 2025 Page 3

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

Lucus D. Nachman

Lucas S. Nachman

Sincerely,

Wylie R Hicklin **Associate Professional**

Wylin R Hickin

Senior Project Professional SCS Engineers SCS Engineers

LSN/WRH

Randall Eads, City of Bristol cc:

Jonathan Hayes, City of Bristol Laura Socia, City of Bristol Susan "Tracey" Blalock, VDEQ

Surface Emissions Monitoring Results Encl.

Bristol SEM Route Drawing

	Methane		GPS Co	ordinates	
ID#	Concentration	Compliance	Lat.	Long.	Comments
1	2.6 PPM	OK			Start Serpentine Route
2	12.3 PPM	OK			
3	1.3 PPM	OK			
4	1.6 PPM	OK			
5	1.8 PPM	OK			
6	6.6 PPM	OK			
7	4.0 PPM	OK			
8	1.6 PPM	OK			
9	5.2 PPM	OK			
10	1.4 PPM	OK			
11	14.4 PPM	OK			
12	2.6 PPM	OK			
13	3.3 PPM	OK			
14	5.1 PPM	OK			
15	1.2 PPM	OK			
16	1.0 PPM	OK			
17	2.8 PPM	OK			
18	1.3 PPM	OK			
19	7.3 PPM	OK			
20	18.0 PPM	OK			
21	1.3 PPM	OK			
22	1.2 PPM	OK			
23	0.9 PPM	OK OK			
24	0.8 PPM	OK OK			
25	1.1 PPM	OK OK			
26	2.0 PPM	OK OK			
27	94.8 PPM	OK OK			
28	33.4 PPM	OK OK			
29	33.3 PPM	OK OK			
	231.0 PPM	OK OK			
30 31	231.0 PPM 22.4 PPM	OK OK			
32	22.4 PPM 2.1 PPM	OK OK			
33	1.5 PPM	OK OK			
33 34	2.0 PPM	OK OK			
35	1.5 PPM	OK OK			
36	3.5 PPM	OK OK			
36 37		OK OK			
38	1.5 PPM 1.8 PPM	OK OK			
36 39		OK OK			
	4.2 PPM	OK OK			
40	2.2 PPM	OK OK			
41	1.3 PPM				
42	1.2 PPM	OK OK			
43	1.3 PPM	OK OK			
44	0.6 PPM	OK OK			
45 46	1.4 PPM	OK OK			
46 47	0.6 PPM 0.9 PPM	OK OK			

	Methane	GPS Coordinates			
ID#	Concentration	Compliance	Lat.	Long.	Comments
48	0.5 PPM	OK			
49	0.7 PPM	OK			
50	0.6 PPM	OK			
51	0.7 PPM	OK			
52	0.6 PPM	OK			
53	0.5 PPM	OK			
54	0.4 PPM	OK			
55	3.7 PPM	OK			
56	2.5 PPM	OK			
57	0.6 PPM	OK			
58	0.7 PPM	OK			
59	0.8 PPM	OK			
60	1.5 PPM	OK			
61	9.1 PPM	OK			
62	21.3 PPM	OK			
63	11.6 PPM	OK			
64	10.2 PPM	OK			
65	13.7 PPM	OK			
66	5.0 PPM	OK			
67	1.0 PPM	OK			
68	0.5 PPM	OK			
69	0.7 PPM	OK			
70	14.1 PPM	OK OK			
70 71	13.8 PPM	OK OK			
71	0.6 PPM	OK OK			
72 73		OK OK			
	5.8 PPM	OK OK			
74 75	1.3 PPM				
75 74	1.7 PPM	OK OK			
76	2.0 PPM	OK			
77 70	0.6 PPM	OK			
78 70	1.0 PPM	OK			
79	0.9 PPM	OK			
80	0.5 PPM	OK			
81	0.7 PPM	OK			
82	0.5 PPM	OK			
83	0.5 PPM	OK			
84	0.2 PPM	OK			
85	0.5 PPM	OK			
86	0.6 PPM	OK			
87	0.4 PPM	OK			
88	0.3 PPM	OK			
89	1.6 PPM	OK			
90	3.9 PPM	OK			
91	1.5 PPM	OK			
92	8.5 PPM	OK			
93	5.3 PPM	OK			
94	1.3 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - MARCH 27, 2025 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

Methane			GPS Coordinates		
ID#	Concentration	Compliance	Lat.	Long.	Comments
95	1.6 PPM	OK			
96	0.3 PPM	OK			
97	0.6 PPM	OK			
98	0.9 PPM	OK			
99	0.5 PPM	OK			
100	0.1 PPM	OK			End Serpentine Route
101	0.2 PPM	OK			EW-69
102	0.2 PPM	OK			EW-71
103	0.1 PPM	OK			EW-72
104	0.3 PPM	OK			EW-32R
105	2.2 PPM	OK			EW-74
106	1.0 PPM	OK			EW-62
107	0.1 PPM	OK			EW-33B
108	0.5 PPM	OK			EW-63
109	0.1 PPM	OK			EW-77
110	1.0 PPM	OK			EW-64
111	1.6 PPM	OK			EW-79
112	1.8 PPM	OK			TP-8
113	0.0 PPM	OK			EW-81
114	0.9 PPM	OK			EW-80
115	0.8 PPM	OK			EW-84
116	0.3 PPM	OK			EW-83
11 <i>7</i>	0.0 PPM	OK			EW-65
118	0.0 PPM	OK			EW-49
119	11.1 PPM	OK			TP-7
120	0.1 PPM	OK			EW-50
121	58.7 PPM	OK			TP-6
122	9.8 PPM	OK			EW-61
123	22.1 PPM	OK			EW-85
124	237.0 PPM	OK			EW-88
125	0.2 PPM	OK			EW-48
126	0.6 PPM	OK			EW-87
127	0.0 PPM	OK			EW-38
128	9.5 PPM	OK			EW-86
129	0.0 PPM	OK			TP-5
130	0.0 PPM	OK			EW-68
131	4.3 PPM	OK			EW-90
132	4.5 PPM	OK			EW-51
133	2.9 PPM	OK			EW-91
134	730.0 PPM	HIGH_ALRM	36.59900	-82.14749	EW-52
135	1.1 PPM	OK			TP-4
136	195.0 PPM	OK			EW-89
137	2.6 PPM	OK			EW-93
138	16.8 PPM	OK			EW-92
139	3.9 PPM	OK			EW-94
140	1.1 PPM	OK			EW-55

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - MARCH 27, 2025 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

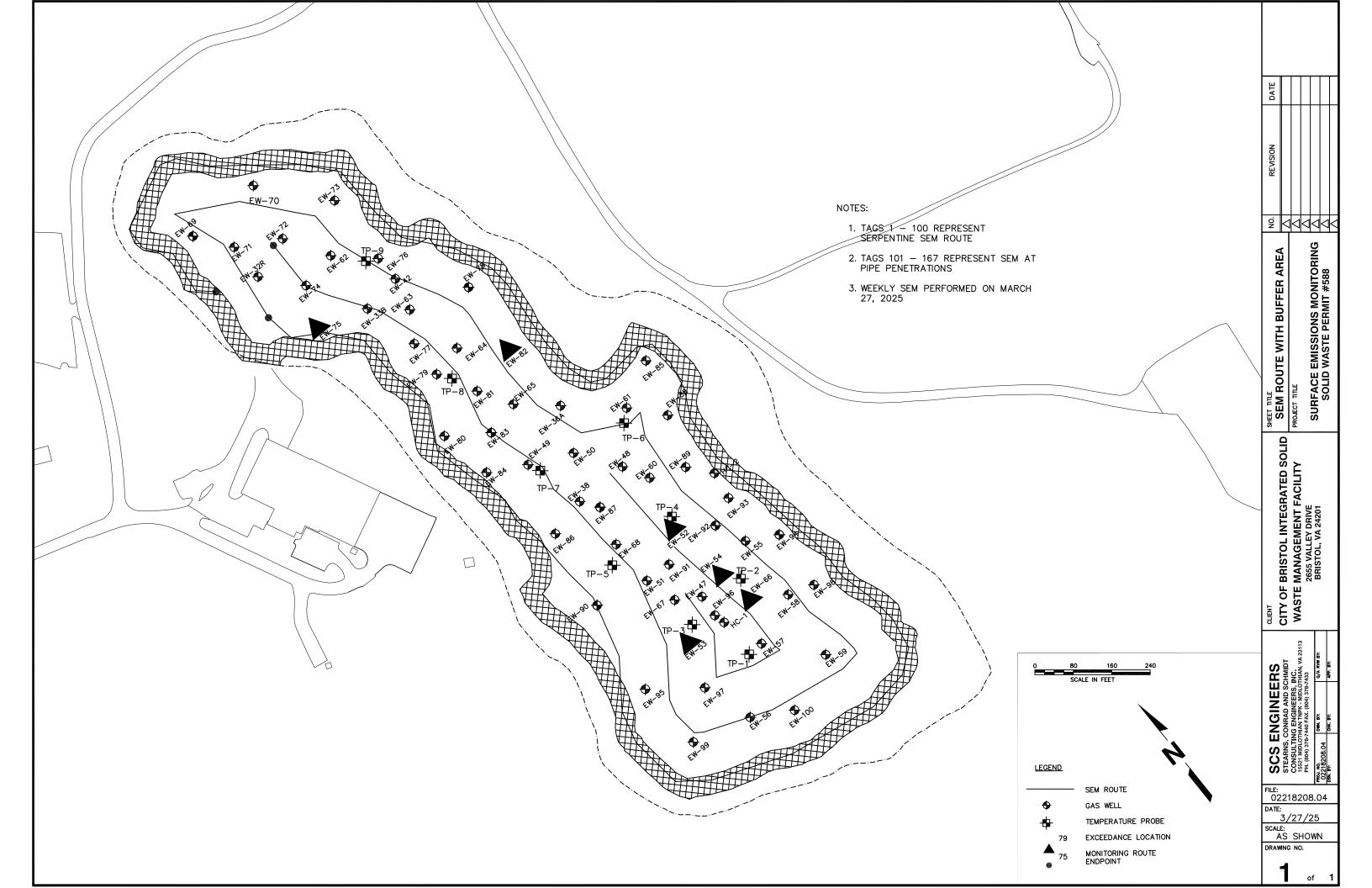
	Methane		GPS Co	ordinates	
ID#	Concentration	Compliance	Lat.	Long.	Comments
141	865.0 PPM	HIGH_ALRM	36.59859	-82.14738	EW-54
142	24.7 PPM	OK			TP-2
143	0.6 PPM	OK			EW-47
144	73.8 PPM	OK			EW-67
145	0.8 PPM	OK			TP-3
146	2270.0 PPM	HIGH_ALRM	36.59842	-82.14789	EW-53
147	3.7 PPM	OK			EW-96
148	1662.0 PPM	HIGH_ALRM	36.59842	-82.14736	EW-66
149	2.0 PPM	OK			EW-58
150	5.9 PPM	OK			EW-98
151	36.5 PPM	OK			EW-57
152	5.8 PPM	OK			TP-1
153	80.7 PPM	OK			EW-95
154	1.3 PPM	OK			EW-99
155	0.7 PPM	OK			EW-97
156	1.9 PPM	OK			EW-56
1 <i>57</i>	1.0 PPM	OK			EW-100
158	7.3 PPM	OK			EW-59
159	0.8 PPM	OK			EW-36A
160	4353.0 PPM	HIGH_ALRM	36.60038	-82.14767	EW-82
161	9.5 PPM	OK			EW-78
162	1.9 PPM	OK			EW-42
163	52.5 PPM	OK			EW-76
164	39.4 PPM	OK			TP-9
165	1.1 PPM	OK			EW-73
166	0.3 PPM	OK			EW-70
167	1240.0 PPM	HIGH_ALRM	36.60113	-82.14867	EW-75
	Number of loc	ations sampled:	1 <i>67</i> 6		

NOTES:

Points 1 through 100 represent serpentine SEM route. Points 101 through 167 represent SEM at Pipe Penetrations

Weather Conditions: Sunny, 54°F Wind: 3 MPH E

Sampling Calibr	ation: Met	<u>hane - 500 ppm,</u>	Zero Air - 0.0	<u>ppm</u>
3/27/2025	9:30	ZERO	0.1	PPM
3/27/2025	9:32	SPAN	499.0	PPM
Background Rec	ıding:			
3/27/2025	9:38	Upwind	1 <i>.7</i>	PPM
3/27/2025	9:41	Downwind	1.6	PPM



Appendix B

In-Waste Temperatures on Select Days in February

Appendix B Figures

Figure B - 1 Average Temperatures Recorded by TP-1 on March 5, 2025	B-3
Figure B - 2 Average Temperatures Recorded by TP-1 on March 12, 2025	B-3
Figure B - 3 Average Temperatures Recorded by TP-1 on March 19, 2025	B-4
Figure B - 4 Average Temperatures Recorded by TP-1 on March 26, 2025	B-4
Figure B - 5 Average Temperatures Recorded by TP-3 on March 5, 2025	B-5
Figure B - 6 Average Temperatures Recorded by TP-3 on March 12, 2025	B-5
Figure B - 7 Average Temperatures Recorded by TP-3 on March 19, 2025	B-6
Figure B - 8 Average Temperatures Recorded by TP-3 on March 26, 2025	B-6
Figure B - 9 Average Temperatures Recorded by TP-5 on March 5, 2025	B-7
Figure B - 10 Average Temperatures Recorded by TP-5 on March 12, 2025	B-7
Figure B - 11 Average Temperatures Recorded by TP-5 on March 19, 2025	B-8
Figure B - 12 Average Temperatures Recorded by TP-5 on March 26, 2025	B-8
Figure B - 13 Average Temperatures Recorded by TP-6 on March 5, 2025	B-9
Figure B - 14 Average Temperatures Recorded by TP-6 on March 12, 2025	B-9
Figure B - 15 Average Temperatures Recorded by TP-6 on March 19, 2025	B-10
Figure B - 16 Average Temperatures Recorded by TP-6 on March 26, 2025	B-10
Figure B - 17 Average Temperatures Recorded by TP-7 on March 5, 2025	B-11
Figure B - 18 Average Temperatures Recorded by TP-7 on March 12, 2025	B-11
Figure B - 19 Average Temperatures Recorded by TP-7 on March 19, 2025	B-12
Figure B - 20 Average Temperatures Recorded by TP-7 on March 26, 2025	B-12
Figure B - 21 Average Temperatures Recorded by TP-8 on March 5, 2025	B-13
Figure B - 22 Average Temperatures Recorded by TP-8 on March 12, 2025	B-13
Figure B - 23 Average Temperatures Recorded by TP-8 on March 19, 2025	B-14
Figure B - 24 Average Temperatures Recorded by TP-8 on March 26, 2025	B-14
Figure B - 25 Average Temperatures Recorded by TP-9 on March 5, 2025	B-15
Figure B - 26 Average Temperatures Recorded by TP-9 on March 12, 2025	B-15
Figure B - 27 Average Temperatures Recorded by TP-9 on March 19, 2025	B-16
Figure B - 28 Average Temperatures Recorded by TP-9 on March 26, 2025	B-16

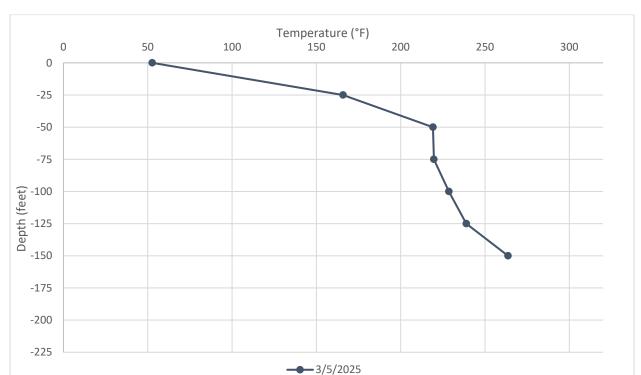
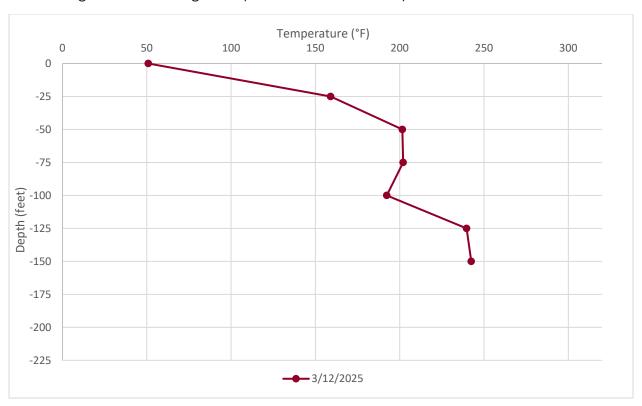


Figure B - 1 Average Temperatures Recorded by TP-1 on March 5, 2025





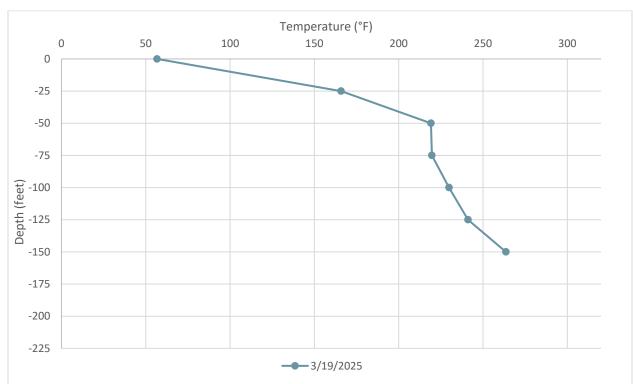
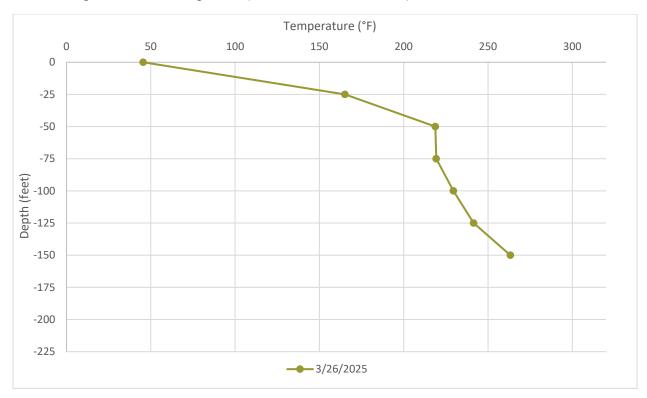


Figure B - 3 Average Temperatures Recorded by TP-1 on March 19, 2025

Figure B - 4 Average Temperatures Recorded by TP-1 on March 26, 2025



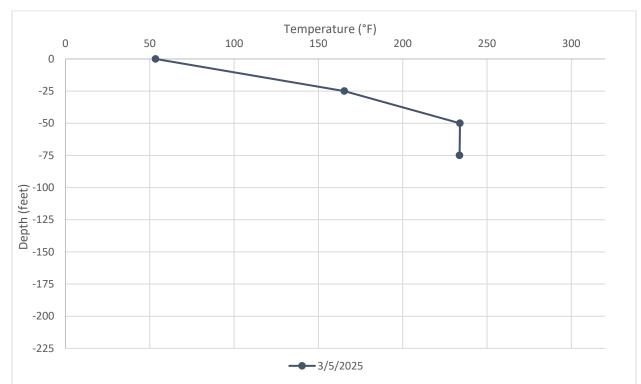
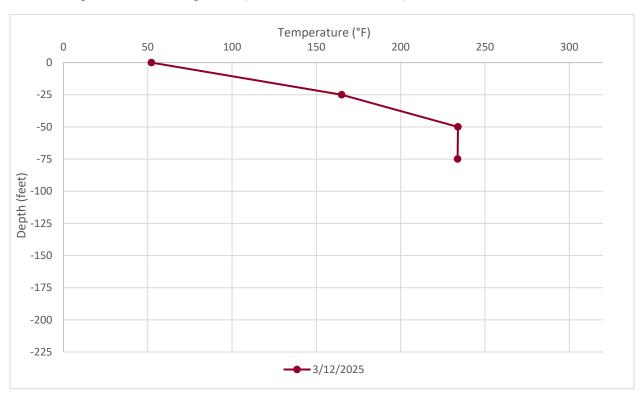


Figure B - 5 Average Temperatures Recorded by TP-3 on March 5, 2025





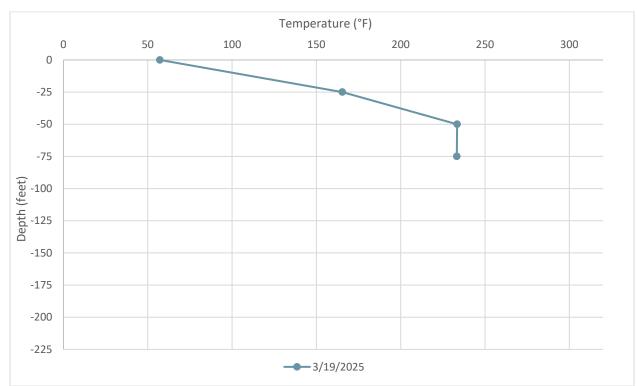
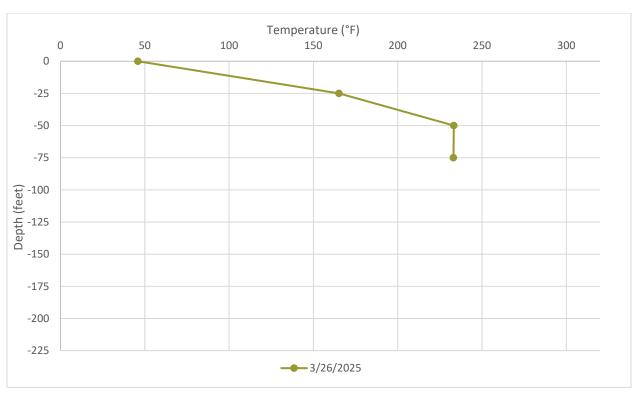


Figure B - 7 Average Temperatures Recorded by TP-3 on March 19, 2025





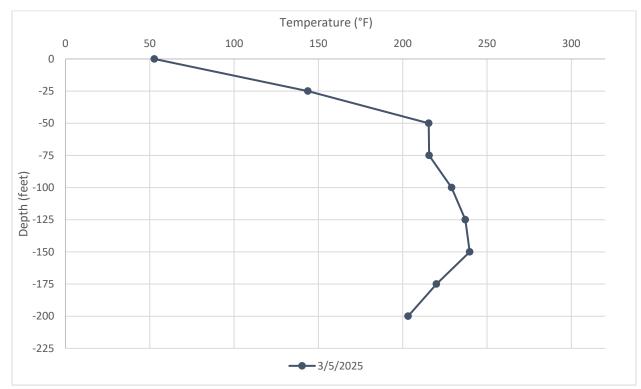
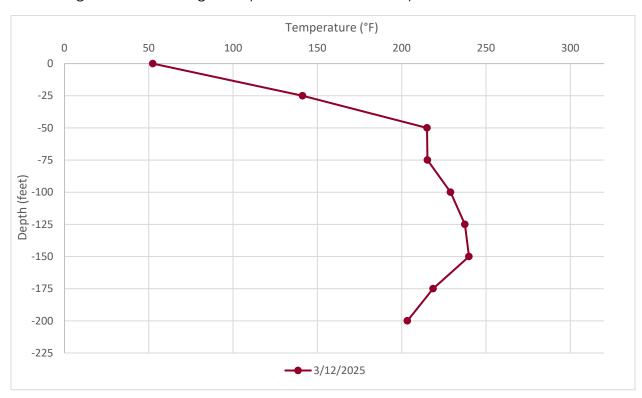


Figure B - 9 Average Temperatures Recorded by TP-5 on March 5, 2025





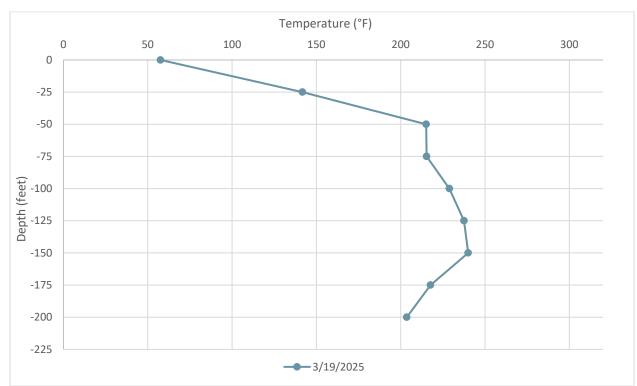
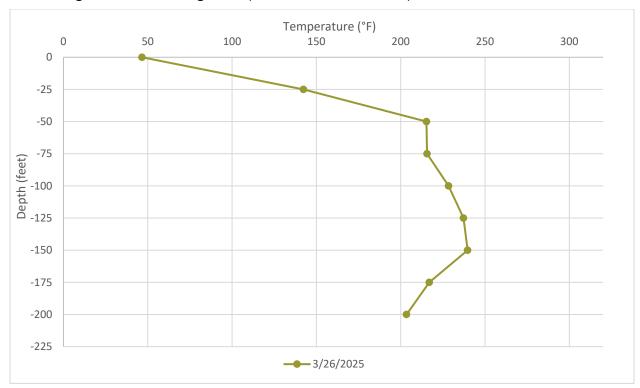


Figure B - 11 Average Temperatures Recorded by TP-5 on March 19, 2025





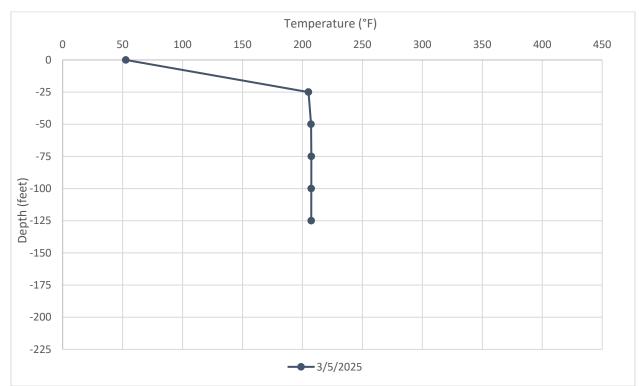
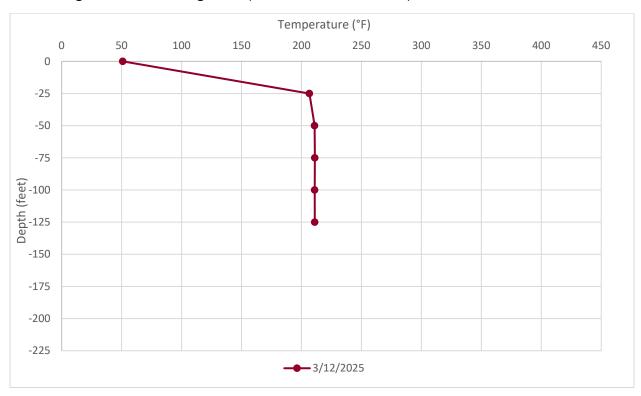


Figure B - 13 Average Temperatures Recorded by TP-6 on March 5, 2025





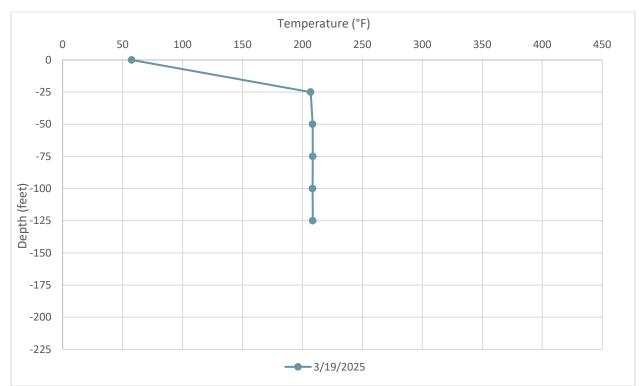


Figure B - 15 Average Temperatures Recorded by TP-6 on March 19, 2025





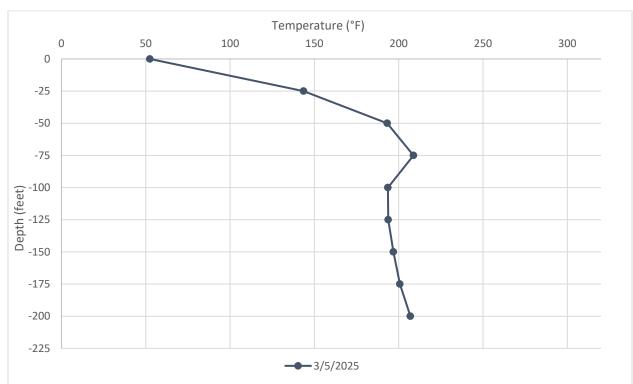
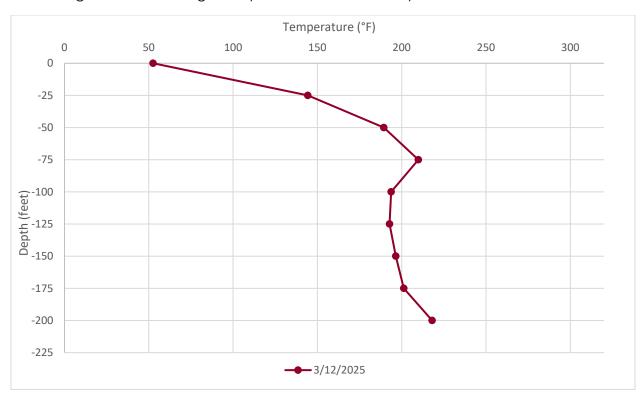


Figure B - 17 Average Temperatures Recorded by TP-7 on March 5, 2025

Figure B - 18 Average Temperatures Recorded by TP-7 on March 12, 2025



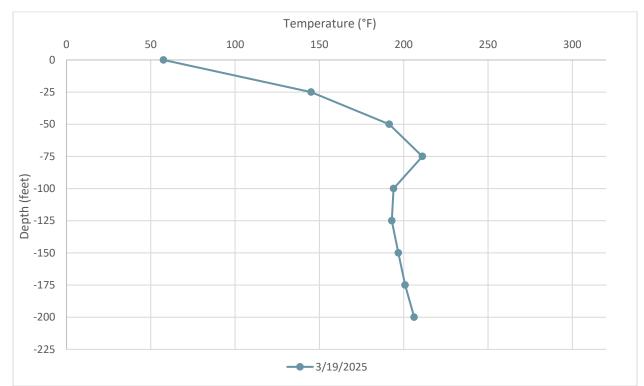
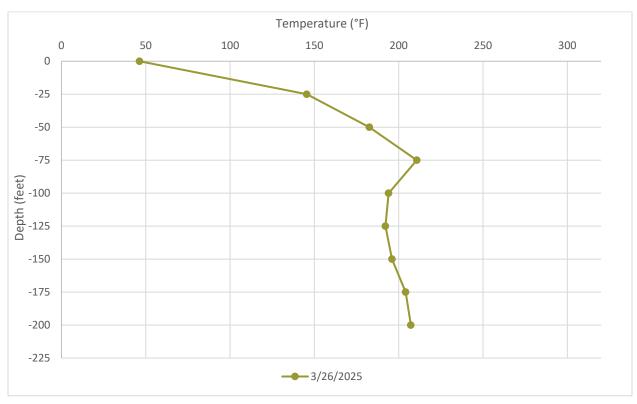


Figure B - 19 Average Temperatures Recorded by TP-7 on March 19, 2025





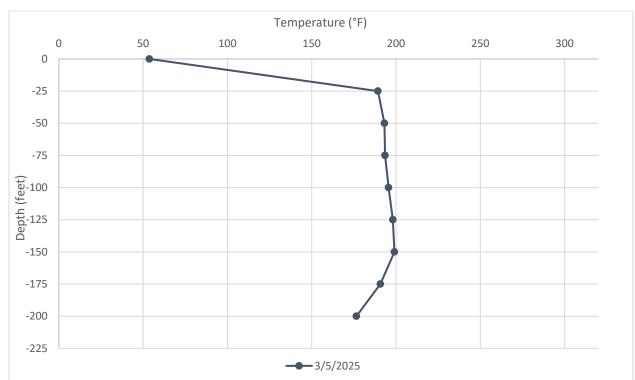
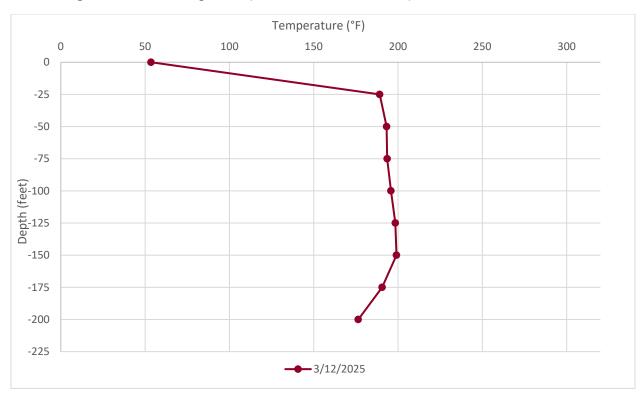


Figure B - 21 Average Temperatures Recorded by TP-8 on March 5, 2025





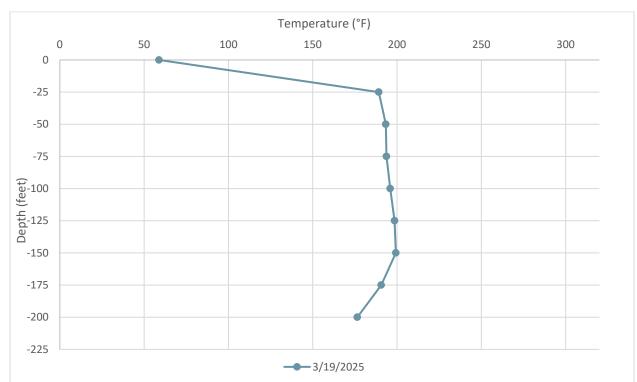
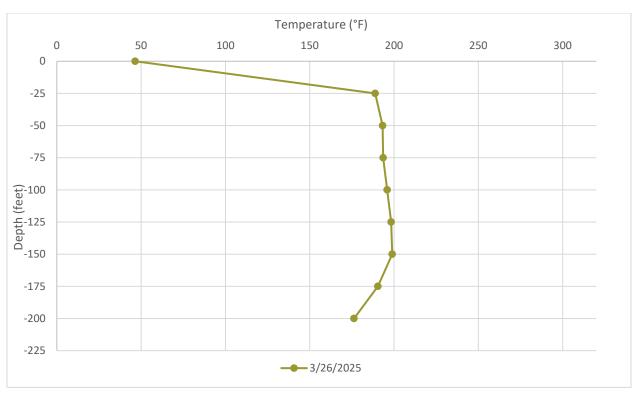


Figure B - 23 Average Temperatures Recorded by TP-8 on March 19, 2025





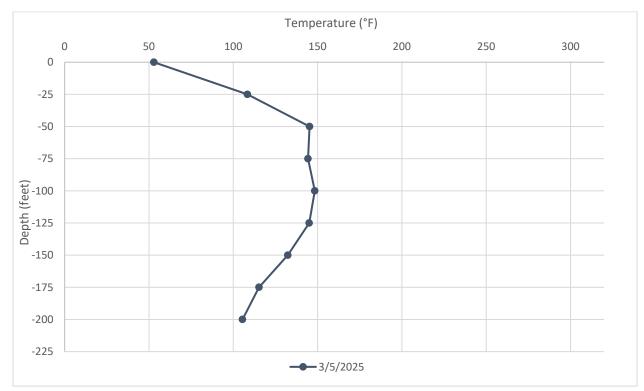
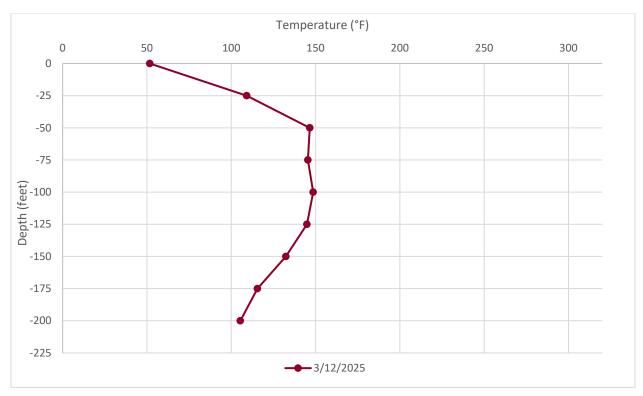


Figure B - 25 Average Temperatures Recorded by TP-9 on March 5, 2025





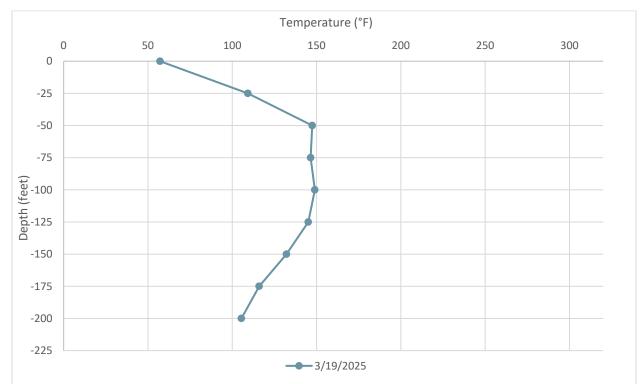
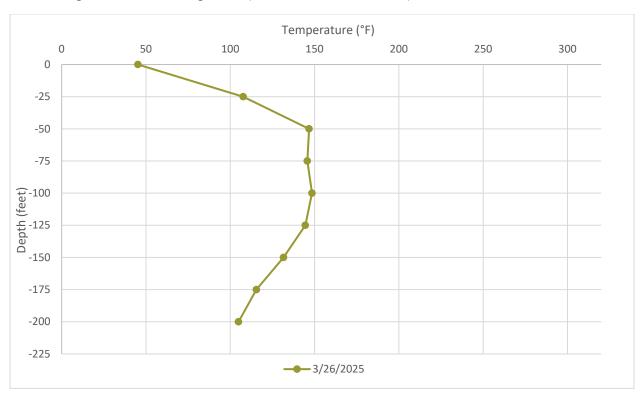


Figure B - 27 Average Temperatures Recorded by TP-9 on March 19, 2025





Appendix C

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 | April 10, 2025

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

		.,	
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	93.0	81.8	100.0
Mar 2	88.6	82.1	97.1
Mar 3	94.0	86.5	102.8
Mar 4	97.9	92.3	105.6
Mar 5	99.5	88.0	107.4
Mar 6	86.9	84.0	89.3
Mar 7	94.7	88.6	101.7
Mar 8	95.5	91.9	99.8
Mar 9	97.5	91.5	104.7
Mar 10	97.3	92.5	103.8
Mar 11	95.7	87.6	105.9
Mar 12	97.3	87.6	108.5
Mar 13	96.4	89.8	104.6
Mar 14	98.3	91.1	109.6
Mar 15	98.5	95.6	102.1
Mar 16	98.2	91.0	105.8
Mar 17	87.8	79.9	96.2
Mar 18	96.1	85.5	107.5
Mar 19	102.2	93.0	112.8
Mar 20	95.0	86.5	103.9
Mar 21	91.6	83.3	100.5
Mar 22	96.3	91.9	103.9
Mar 23	98.8	88.3	107.8
Mar 24	96.8	91.6	101.8
Mar 25	99.2	92.2	110.4
Mar 26	103.4	99.7	108.7
Mar 27	105.3	99.7	111.0
Mar 28	108.8	104.3	114.2
Mar 29	108.6	104.7	115.0
Mar 30	110.1	107.1	112.8
Mar 31	107.4	102.0	112.0
Summary	98.0	86.9	110.1
-			

D - 4 -		Minimum (OF)	Marine (OF)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	116.5	110.5	120.1
Mar 2	115.2	111.3	117.6
Mar 3	117.2	114.5	120.0
Mar 4	116.0	111.6	118.3
Mar 5	113.7	110.1	118.3
Mar 6	111.5	110.0	115.0
Mar 7	116.0	114.3	117.6
Mar 8	115.4	111.6	117.5
Mar 9	116.2	114.1	118.4
Mar 10	115.5	113.5	116.6
Mar 11	116.2	113.9	119.5
Mar 12	116.5	113.2	119.4
Mar 13	116.0	113.4	119.1
Mar 14	114.8	109.6	120.3
Mar 15	112.1	106.8	116.2
Mar 16	110.6	101.4	115.9
Mar 17	106.2	91.0	116.4
Mar 18	116.4	112.8	120.4
Mar 19	117.7	113.1	122.0
Mar 20	110.6	105.8	117.9
Mar 21	109.2	102.7	114.4
Mar 22	111.6	109.7	113.2
Mar 23	113.4	109.7	117.3
Mar 24	109.6	105.0	113.7
Mar 25	108.3	100.5	113.7
Mar 26	105.5	102.1	108.5
Mar 27	108.2	102.7	112.9
Mar 28	110.1	106.3	115.4
Mar 29	108.2	91.6	112.7
Mar 30	107.8	103.3	109.8
Mar 31	101.2	89.8	107.7
Summary	112.4	101.2	117.7

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	47.9	36.8	64.7
Mar 2	41.2	32.1	61.6
Mar 3	47.4	32.1	74.3
Mar 4	53.5	35.0	74.7
Mar 5	57.2	41.0	69.3
Mar 6	36.0	32.1	40.3
Mar 7	41.5	32.1	55.1
Mar 8	48.5	38.5	65.3
Mar 9	50.8	37.3	73.3
Mar 10	51.5	37.2	74.9
Mar 11	54.9	35.0	82.9
Mar 12	59.2	38.5	86.9
Mar 13	59.6	42.9	82.0
Mar 14	64.1	46.2	86.9
Mar 15	64.0	52.8	73.1
Mar 16	65.7	56.7	77.8
Mar 17	48.5	40.7	62.0
Mar 18	54.3	34.6	81.1
Mar 19	64.3	42.7	91.7
Mar 20	54.3	41.1	64.5
Mar 21	49.5	37.5	68.2
Mar 22	53.6	36.3	73.1
Mar 23	59.7	37.4	83.6
Mar 24	58.7	49.8	67.6
Mar 25	55.7	43.7	70.9
Mar 26	53.4	44.6	69.3
Mar 27	56.0	36.3	78.5
Mar 28	67.3	52.3	89.0
Mar 29	65.5	53.1	83.1
Mar 30	65.2	58.3	75.9
Mar 31	60.4	54.2	67.1
Summary	55.1	36.0	67.3

D /		., vii gii ia	B.4: (OF)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	87.4	81.7	91.4
Mar 2	85.5	80.8	92.9
Mar 3	88.0	82.9	95.9
Mar 4	89.2	84.8	96.8
Mar 5	87.6	82.4	91.6
Mar 6	82.0	80.2	84.3
Mar 7	86.7	82.9	89.7
Mar 8	87.9	86.3	93.1
Mar 9	89.5	85.9	95.2
Mar 10	88.6	84.6	94.5
Mar 11	88.7	83.0	97.5
Mar 12	87.7	79.0	96.3
Mar 13	86.1	80.0	91.9
Mar 14	87.7	81.0	97.7
Mar 15	88.9	86.4	92.2
Mar 16	89.0	80.5	94.2
Mar 17	81.8	75.7	91.0
Mar 18	87.7	79.4	98.2
Mar 19	93.2	86.8	101.2
Mar 20	87.3	80.7	92.1
Mar 21	84.0	77.5	91.8
Mar 22	86.5	80.9	92.8
Mar 23	89.8	81.3	99.0
Mar 24	90.2	87.2	93.3
Mar 25	89.5	85.8	93.8
Mar 26	89.0	85.7	93.7
Mar 27	91.2	84.5	97.4
Mar 28	93.9	89.6	100.3
Mar 29	93.2	88.6	97.8
Mar 30	93.7	90.8	96.6
Mar 31	91.1	82.8	94.9
Summary	88.5	81.8	93.9

D		., v.i.g.i.i (05)	B4 (OT)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	95.4	88.6	100.7
Mar 2	92.7	88.1	99.1
Mar 3	95.9	89.8	103.1
Mar 4	97.0	93.2	103.6
Mar 5	95.6	90.8	101.2
Mar 6	90.1	88.3	91.7
Mar 7	94.5	91.2	98.6
Mar 8	96.5	93.9	101.7
Mar 9	97.3	93.8	103.4
Mar 10	97.2	92.5	104.1
Mar 11	99.1	94.0	106.7
Mar 12	99.4	93.3	105.9
Mar 13	98.4	93.8	104.1
Mar 14	99.7	94.0	107.9
Mar 15	98.6	97.0	100.9
Mar 16	98.5	94.0	103.1
Mar 17	93.5	87.1	100.1
Mar 18	98.3	92.1	105.3
Mar 19	101.3	95.7	108.2
Mar 20	96.1	91.8	100.1
Mar 21	95.3	90.1	100.2
Mar 22	97.3	93.9	102.1
Mar 23	99.2	92.8	104.8
Mar 24	97.3	93.8	100.7
Mar 25	97.9	95.4	103.1
Mar 26	98.3	95.0	102.6
Mar 27	99.6	94.5	104.6
Mar 28	102.1	98.6	106.7
Mar 29	101.0	96.4	105.7
Mar 30	101.3	99.4	104.7
Mar 31	98.9	92.3	102.3
Summary	97.5	90.1	102.1

<u> </u>		.,	
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	48.8	34.2	68.9
Mar 2	39.5	29.9	60.7
Mar 3	45.6	29.9	72.5
Mar 4	55.2	34.5	77.0
Mar 5	57.7	39.7	71.5
Mar 6	35.6	30.3	41.4
Mar 7	41.0	29.9	54.9
Mar 8	47.3	37.1	64.7
Mar 9	50.0	36.2	70.7
Mar 10	49.7	35.1	73.6
Mar 11	52.3	31.1	81.5
Mar 12	57.4	34.4	83.9
Mar 13	56.6	38.9	77.2
Mar 14	62.5	42.6	87.1
Mar 15	63.0	49.9	75.1
Mar 16	64.8	54.2	77.4
Mar 17	45.7	36.7	59.6
Mar 18	50.5	29.9	80.1
Mar 19	61.1	37.5	86.3
Mar 20	52.6	38.5	62.6
Mar 21	46.2	34.7	65.5
Mar 22	50.4	30.9	72.5
Mar 23	56.4	31.9	81.6
Mar 24	57.4	49.1	68.0
Mar 25	53.0	38.4	71.9
Mar 26	51.2	40.3	66.5
Mar 27	53.3	31.4	75.8
Mar 28	64.1	50.6	83.1
Mar 29	63.8	51.0	81.2
Mar 30	64.7	57.8	75.1
Mar 31	59.9	55.4	68.4
Summary	53.5	35.6	64.8
-			

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	43.0	30.5	62.9
Mar 2	35.4	29.9	48.9
Mar 3	42.0	29.9	62.6
Mar 4	50.7	29.9	70.8
Mar 5	55.5	37.3	67.4
Mar 6	32.6	29.9	37.0
Mar 7	38.6	29.9	51.1
Mar 8	43.3	32.9	56.3
Mar 9	46.9	31.9	65.8
Mar 10	46.1	31.9	69.1
Mar 11	49.5	29.9	74.3
Mar 12	54.2	33.0	79.5
Mar 13	55.6	37.7	75.4
Mar 14	61.0	41.0	85.3
Mar 15	62.9	48.9	71.7
Mar 16	64.0	50.0	72.9
Mar 17	44.0	33.7	54.6
Mar 18	48.2	29.9	73.1
Mar 19	60.4	35.3	84.0
Mar 20	52.1	36.9	65.0
Mar 21	43.2	33.1	60.8
Mar 22	48.9	29.9	68.6
Mar 23	55.1	30.1	77.7
Mar 24	56.8	48.1	64.7
Mar 25	51.7	36.7	69.9
Mar 26	48.7	37.5	62.2
Mar 27	50.8	29.9	71.6
Mar 28	63.7	47.8	82.1
Mar 29	62.5	48.3	81.1
Mar 30	63.3	55.6	75.8
Mar 31	57.9	52.8	67.1
Summary	51.2	32.6	64.0

		., (a-1)	
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	147.2	139.1	153.9
Mar 2	147.6	142.0	150.8
Mar 3	150.1	145.5	152.9
Mar 4	148.6	142.5	153.0
Mar 5	145.0	140.0	151.6
Mar 6	141.3	138.7	147.9
Mar 7	149.6	146.9	151.6
Mar 8	149.1	142.5	152.5
Mar 9	150.1	148.0	152.9
Mar 10	149.5	146.4	152.7
Mar 11	149.9	147.2	153.0
Mar 12	147.4	138.9	152.7
Mar 13	112.8	87.1	141.6
Mar 14	106.8	65.9	156.0
Mar 15	115.2	86.5	138.5
Mar 16	89.4	68.5	120.3
Mar 17	89.5	39.6	154.8
Mar 18	153.7	148.1	156.9
Mar 19	153.8	148.8	157.7
Mar 20	145.4	137.7	154.9
Mar 21	145.3	137.4	151.2
Mar 22	145.9	142.5	150.7
Mar 23	148.8	143.6	154.2
Mar 24	145.0	141.6	150.4
Mar 25	146.8	139.1	152.6
Mar 26	146.7	143.3	150.0
Mar 27	148.7	144.5	151.8
Mar 28	150.1	146.5	153.7
Mar 29	112.1	77.6	143.2
Mar 30	85.5	77.9	93.2
Mar 31	112.2	59.4	159.4
Summary	136.4	85.5	153.8
-			

Dete		Minimum (OF)	Marriage (OF)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	92.1	87.4	95.4
Mar 2	89.8	86.2	95.1
Mar 3	92.3	87.0	98.5
Mar 4	93.0	88.6	101.5
Mar 5	92.9	88.1	102.5
Mar 6	88.1	85.6	92.5
Mar 7	91.2	87.8	94.6
Mar 8	91.9	90.2	95.8
Mar 9	92.5	89.7	97.0
Mar 10	92.5	87.2	100.6
Mar 11	92.7	85.9	100.4
Mar 12	89.6	75.4	100.3
Mar 13	65.9	50.6	79.2
Mar 14	70.2	41.8	103.1
Mar 15	71.2	62.5	85.9
Mar 16	65.0	56.2	78.6
Mar 17	63.3	39.0	99.4
Mar 18	96.6	90.2	103.3
Mar 19	97.8	91.2	104.3
Mar 20	93.0	88.1	99.3
Mar 21	91.4	86.3	95.9
Mar 22	92.3	88.5	97.1
Mar 23	93.6	86.4	100.0
Mar 24	93.0	90.0	96.5
Mar 25	92.9	88.7	102.8
Mar 26	91.8	88.3	96.2
Mar 27	93.3	86.4	99.1
Mar 28	94.8	82.3	101.7
Mar 29	69.2	57.5	82.2
Mar 30	63.1	55.5	74.7
Mar 31	76.6	54.2	102.0
Summary	86.2	63.1	97.8

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	44.5	31.6	65.5
Mar 2	34.4	25.9	55.1
Mar 3	41.4	25.9	68.3
Mar 4	50.8	29.0	73.5
Mar 5	55.8	37.1	68.3
Mar 6	32.4	26.0	37.7
Mar 7	37.0	25.9	51.9
Mar 8	43.8	32.6	59.2
Mar 9	46.3	32.1	69.5
Mar 10	46.7	31.2	70.8
Mar 11	49.9	28.9	78.2
Mar 12	54.2	33.1	81.1
Mar 13	55.4	37.5	75.4
Mar 14	61.9	41.4	86.5
Mar 15	62.1	48.7	72.9
Mar 16	63.6	54.8	76.3
Mar 17	43.3	33.2	54.2
Mar 18	48.1	27.3	75.1
Mar 19	59.6	36.0	85.6
Mar 20	50.5	36.4	61.6
Mar 21	43.4	32.9	60.7
Mar 22	47.9	28.3	69.7
Mar 23	54.4	30.0	78.6
Mar 24	55.4	46.1	65.6
Mar 25	50.9	35.5	71.4
Mar 26	47.9	37.8	64.4
Mar 27	49.9	29.3	73.6
Mar 28	63.7	47.8	85.8
Mar 29	63.4	49.3	83.2
Mar 30	64.6	56.5	77.6
Mar 31	59.3	54.7	67.9
Summary	51.1	32.4	64.6

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	154.0	151.4	155.0
Mar 2	151.2	149.5	152.7
Mar 3	152.8	149.7	155.2
Mar 4	156.1	153.1	162.6
Mar 5	158.0	153.3	163.9
Mar 6	151.2	149.7	152.9
Mar 7	152.7	151.0	155.0
Mar 8	154.3	152.4	155.9
Mar 9	155.2	153.2	157.6
Mar 10	154.8	152.6	157.0
Mar 11	156.8	153.1	160.7
Mar 12	160.7	156.6	165.4
Mar 13	162.8	160.5	165.4
Mar 14	165.3	160.7	173.4
Mar 15	162.5	160.3	166.0
Mar 16	161.1	159.7	162.6
Mar 17	155.4	141.4	161.3
Mar 18	156.8	153.3	158.2
Mar 19	158.5	155.4	162.8
Mar 20	156.1	153.6	159.1
Mar 21	154.8	152.7	156.8
Mar 22	156.0	155.1	157.4
Mar 23	157.4	143.5	170.2
Mar 24	157.5	135.0	160.7
Mar 25	157.3	150.7	158.9
Mar 26	156.3	154.9	157.4
Mar 27	156.3	154.5	158.2
Mar 28	157.5	156.0	158.7
Mar 29	157.8	155.7	159.2
Mar 30	158.1	156.9	159.3
Mar 31	150.6	132.1	159.1
Summary	156.6	150.6	165.3

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	88.5	66.0	104.6
Mar 2	78.4	63.8	99.6
Mar 3	86.7	66.8	109.6
Mar 4	92.6	78.1	111.9
Mar 5	92.8	75.0	108.7
Mar 6	76.3	60.5	84.1
Mar 7	78.6	60.5	93.4
Mar 8	86.2	78.6	98.1
Mar 9	89.4	75.6	108.3
Mar 10	88.8	75.3	111.1
Mar 11	93.9	75.3	116.1
Mar 12	96.7	75.7	117.7
Mar 13	96.7	81.8	110.9
Mar 14	99.0	82.0	120.6
Mar 15	99.3	93.5	107.1
Mar 16	99.6	87.7	112.2
Mar 17	79.6	72.8	93.0
Mar 18	91.6	71.2	115.5
Mar 19	100.4	81.2	120.4
Mar 20	89.1	73.7	100.2
Mar 21	83.4	65.5	103.4
Mar 22	89.8	74.3	107.8
Mar 23	96.0	75.1	117.1
Mar 24	93.8	81.9	107.5
Mar 25	91.6	81.0	107.9
Mar 26	87.4	80.2	101.8
Mar 27	90.4	68.5	111.6
Mar 28	99.2	86.7	116.9
Mar 29	97.6	84.7	112.3
Mar 30	101.5	95.0	110.3
Mar 31	89.8	77.9	101.8
Summary	91.1	76.3	101.5

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	57.3	38.3	73.2
Mar 2	42.6	29.1	63.0
Mar 3	50.7	29.2	77.0
Mar 4	60.4	40.5	78.2
Mar 5	67.1	46.2	79.5
Mar 6	38.4	32.2	43.1
Mar 7	43.7	29.6	59.0
Mar 8	51.6	40.3	65.0
Mar 9	54.7	40.0	77.7
Mar 10	57.0	41.1	81.4
Mar 11	58.4	38.0	85.8
Mar 12	61.1	39.6	89.6
Mar 13	61.2	43.4	82.9
Mar 14	65.7	45.9	89.6
Mar 15	66.8	55.0	77.0
Mar 16	67.5	57.6	80.1
Mar 17	46.4	37.2	58.6
Mar 18	52.6	30.7	80.3
Mar 19	65.0	41.2	91.6
Mar 20	55.6	40.1	67.8
Mar 21	47.7	36.1	64.8
Mar 22	52.9	34.7	74.1
Mar 23	59.0	33.8	82.8
Mar 24	59.2	49.8	69.1
Mar 25	54.9	41.8	74.8
Mar 26	51.4	41.6	66.9
Mar 27	54.6	32.3	75.7
Mar 28	66.7	50.8	87.3
Mar 29	65.9	52.3	84.3
Mar 30	67.5	59.5	79.1
Mar 31	62.1	57.0	70.2
Summary	57.0	38.4	67.5

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	77.0	67.2	86.3
Mar 2	74.3	65.2	87.1
Mar 3	79.0	70.0	90.5
Mar 4	84.7	74.8	96.6
Mar 5	86.7	76.0	95.6
Mar 6	75.8	72.4	81.1
Mar 7	86.1	80.9	91.0
Mar 8	88.9	84.8	95.5
Mar 9	91.4	85.3	101.7
Mar 10	91.1	84.7	102.2
Mar 11	91.9	83.1	105.2
Mar 12	92.1	78.4	105.8
Mar 13	93.7	84.6	108.2
Mar 14	97.1	87.7	112.1
Mar 15	96.0	93.6	99.5
Mar 16	96.5	86.2	104.3
Mar 17	87.7	78.1	96.6
Mar 18	95.7	83.9	108.4
Mar 19	101.8	90.8	113.5
Mar 20	90.7	78.2	103.5
Mar 21	89.1	74.3	99.6
Mar 22	93.2	88.6	99.6
Mar 23	100.4	90.0	110.9
Mar 24	97.7	91.3	103.9
Mar 25	100.0	91.3	107.6
Mar 26	102.7	99.5	106.2
Mar 27	106.8	99.3	114.1
Mar 28	112.5	107.3	118.2
Mar 29	112.6	98.5	117.2
Mar 30	114.1	111.2	117.4
Mar 31	109.6	99.2	115.6
Summary	94.1	74.3	114.1
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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	147.3	139.8	152.1
Mar 2	144.3	140.1	149.8
Mar 3	146.8	144.8	151.4
Mar 4	148.1	145.3	153.3
Mar 5	146.4	141.3	150.1
Mar 6	141.7	138.7	144.6
Mar 7	146.2	143.3	148.8
Mar 8	146.2	143.0	149.4
Mar 9	147.0	144.7	151.4
Mar 10	146.2	143.3	150.2
Mar 11	147.4	144.0	153.1
Mar 12	147.6	141.1	154.2
Mar 13	147.2	144.6	151.0
Mar 14	147.8	140.9	154.6
Mar 15	147.7	145.0	150.0
Mar 16	146.7	141.5	152.1
Mar 17	143.2	137.0	149.2
Mar 18	150.0	146.0	155.7
Mar 19	151.7	147.7	156.8
Mar 20	147.3	143.0	151.3
Mar 21	147.4	140.9	153.4
Mar 22	150.8	149.1	154.1
Mar 23	152.5	149.1	157.0
Mar 24	151.1	148.3	153.8
Mar 25	151.3	147.4	155.2
Mar 26	150.6	148.8	154.5
Mar 27	151.2	149.2	154.5
Mar 28	152.8	150.7	156.3
Mar 29	153.0	148.0	155.7
Mar 30	154.2	152.4	155.7
Mar 31	152.7	146.7	155.8
Summary	148.5	141.7	154.2

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	69.1	49.6	86.8
Mar 2	58.2	43.6	79.8
Mar 3	64.5	42.0	90.4
Mar 4	71.7	52.8	93.6
Mar 5	71.5	52.6	87.1
Mar 6	48.5	45.0	52.9
Mar 7	57.2	42.8	69.6
Mar 8	63.3	53.7	78.5
Mar 9	66.0	51.2	87.4
Mar 10	65.8	50.5	89.2
Mar 11	69.6	46.9	96.8
Mar 12	73.1	47.7	99.1
Mar 13	73.4	53.6	91.8
Mar 14	76.9	57.9	102.1
Mar 15	77.4	67.3	89.2
Mar 16	77.8	68.7	90.6
Mar 17	56.9	50.1	69.9
Mar 18	65.2	41.9	92.8
Mar 19	76.7	52.1	102.3
Mar 20	64.7	48.4	74.6
Mar 21	57.7	43.5	78.0
Mar 22	63.1	43.4	87.0
Mar 23	69.7	44.3	95.8
Mar 24	69.2	59.8	81.0
Mar 25	65.1	52.8	84.0
Mar 26	62.3	51.8	77.1
Mar 27	65.3	41.0	88.5
Mar 28	78.5	62.9	99.8
Mar 29	76.7	62.1	95.2
Mar 30	78.2	69.6	88.8
Mar 31	70.6	64.5	79.3
Summary	67.9	48.5	78.5

D-4-	A (0.5)	BALLETING (OF)	Mandan (05)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	78.6	71.2	84.8
Mar 2	73.6	68.7	80.5
Mar 3	77.6	68.4	87.0
Mar 4	81.9	74.2	88.5
Mar 5	80.7	70.4	84.8
Mar 6	68.4	65.6	73.0
Mar 7	75.2	68.0	80.5
Mar 8	78.2	76.0	80.4
Mar 9	79.6	73.7	86.0
Mar 10	80.1	72.6	88.1
Mar 11	80.9	72.8	90.4
Mar 12	81.6	71.1	91.8
Mar 13	81.3	73.8	90.6
Mar 14	83.4	73.6	94.5
Mar 15	84.5	79.9	88.8
Mar 16	83.9	78.5	88.3
Mar 17	72.5	67.7	78.1
Mar 18	78.7	68.5	89.6
Mar 19	85.2	74.8	96.2
Mar 20	78.4	69.7	85.5
Mar 21	73.8	67.1	81.1
Mar 22	78.0	70.8	85.2
Mar 23	82.5	70.0	91.1
Mar 24	80.8	75.3	86.2
Mar 25	80.2	74.6	86.0
Mar 26	77.6	74.4	80.9
Mar 27	78.9	68.1	86.7
Mar 28	86.4	79.6	93.8
Mar 29	86.5	79.3	92.7
Mar 30	87.1	82.8	91.0
Mar 31	82.2	76.8	86.4
Summary	80.0	68.4	87.1

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	44.5	30.6	65.3
Mar 2	34.0	26.1	48.2
Mar 3	40.1	26.1	64.2
Mar 4	49.8	29.0	70.9
Mar 5	55.6	37.5	67.4
Mar 6	32.5	26.9	36.6
Mar 7	36.2	26.1	49.6
Mar 8	42.9	33.0	55.8
Mar 9	45.8	32.3	66.7
Mar 10	75.6	31.2	120.5
Mar 11	111.3	109.1	113.6
Mar 12	107.7	103.0	111.2
Mar 13	105.9	102.8	109.2
Mar 14	106.3	102.5	111.2
Mar 15	105.9	104.7	107.8
Mar 16	105.6	103.6	107.6
Mar 17	102.9	99.8	106.5
Mar 18	105.2	101.7	108.4
Mar 19	106.1	102.8	109.5
Mar 20	103.4	100.5	105.5
Mar 21	102.7	99.9	104.9
Mar 22	103.1	100.6	105.7
Mar 23	104.1	100.1	107.5
Mar 24	103.7	102.4	105.0
Mar 25	104.7	101.4	108.3
Mar 26	104.5	103.6	105.7
Mar 27	104.1	101.7	106.1
Mar 28	104.9	93.5	108.4
Mar 29	105.9	104.1	107.5
Mar 30	105.8	104.8	106.7
Mar 31	105.3	102.4	107.0
Summary	86.0	32.5	111.3

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	92.8	80.4	98.5
Mar 2	86.8	78.8	98.0
Mar 3	111.5	82.7	153.3
Mar 4	98.3	87.3	127.1
Mar 5	91.2	74.9	127.2
Mar 6	83.0	68.2	109.1
Mar 7	88.1	78.3	116.3
Mar 8	84.1	80.4	92.2
Mar 9	86.6	78.9	98.2
Mar 10	102.3	76.4	149.0
Mar 11	113.0	102.2	138.1
Mar 12	111.2	99.6	138.4
Mar 13	110.9	100.4	139.7
Mar 14	113.3	101.2	146.1
Mar 15	106.9	104.0	108.9
Mar 16	106.8	93.7	112.4
Mar 17	107.2	93.3	139.0
Mar 18	110.7	98.0	136.5
Mar 19	118.4	104.4	147.7
Mar 20	106.4	92.3	131.3
Mar 21	100.8	87.2	124.8
Mar 22	103.7	98.4	111.3
Mar 23	109.4	99.5	118.5
Mar 24	108.5	100.3	132.6
Mar 25	119.6	102.1	147.7
Mar 26	120.8	115.6	144.1
Mar 27	123.4	114.3	150.4
Mar 28	126.1	119.6	147.3
Mar 29	123.2	118.5	127.4
Mar 30	123.2	121.0	125.3
Mar 31	123.6	110.5	151.4
Summary	106.8	83.0	126.1

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	43.9	30.9	63.5
Mar 2	34.6	26.3	52.8
Mar 3	41.1	26.3	70.6
Mar 4	51.0	30.6	70.6
Mar 5	55.4	37.5	65.8
Mar 6	32.4	29.6	36.7
Mar 7	36.9	26.3	49.4
Mar 8	44.1	33.6	60.1
Mar 9	47.2	32.7	66.3
Mar 10	47.6	32.5	71.9
Mar 11	49.5	30.8	77.2
Mar 12	54.1	33.5	83.2
Mar 13	55.2	38.2	78.1
Mar 14	61.0	41.9	84.9
Mar 15	62.6	49.4	71.2
Mar 16	64.2	56.2	74.0
Mar 17	44.6	35.8	56.6
Mar 18	48.5	30.5	75.4
Mar 19	60.3	36.3	86.4
Mar 20	52.7	37.0	65.3
Mar 21	43.8	33.2	62.5
Mar 22	49.0	31.0	69.5
Mar 23	54.7	31.1	78.7
Mar 24	56.8	46.7	64.6
Mar 25	51.6	38.0	69.4
Mar 26	48.5	38.7	61.9
Mar 27	92.0	31.0	139.6
Mar 28	138.0	134.1	144.1
Mar 29	136.2	121.9	142.3
Mar 30	136.2	133.2	140.3
Mar 31	123.8	106.0	137.5
Summary	61.9	32.4	138.0

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	77.5	61.3	86.7
Mar 2	69.3	57.0	86.0
Mar 3	76.4	61.6	92.5
Mar 4	81.1	73.0	91.7
Mar 5	81.1	71.1	90.1
Mar 6	66.9	63.3	70.3
Mar 7	74.8	66.3	83.1
Mar 8	79.7	75.3	89.3
Mar 9	80.9	74.3	92.0
Mar 10	86.4	72.8	104.6
Mar 11	97.6	92.6	104.4
Mar 12	97.0	90.9	104.2
Mar 13	95.5	90.4	102.2
Mar 14	96.4	90.8	105.5
Mar 15	95.4	93.5	97.7
Mar 16	95.6	90.8	101.3
Mar 17	88.7	81.7	96.3
Mar 18	94.1	86.9	103.1
Mar 19	98.0	90.5	106.3
Mar 20	92.1	86.2	98.0
Mar 21	90.1	82.2	97.5
Mar 22	93.3	88.6	99.9
Mar 23	95.4	86.9	103.1
Mar 24	93.7	89.7	98.0
Mar 25	90.2	78.4	99.9
Mar 26	82.8	76.9	91.9
Mar 27	86.2	75.1	96.7
Mar 28	92.9	85.3	102.5
Mar 29	91.5	85.5	100.0
Mar 30	91.9	88.0	98.0
Mar 31	87.0	77.6	92.8
Summary	87.7	66.9	98.0

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	86.2	76.6	92.9
Mar 2	82.1	75.2	91.3
Mar 3	86.2	77.0	95.7
Mar 4	88.0	82.2	98.0
Mar 5	87.0	79.0	94.5
Mar 6	77.1	74.2	78.5
Mar 7	83.2	78.2	89.3
Mar 8	85.4	82.1	92.0
Mar 9	86.8	81.5	96.3
Mar 10	84.6	78.9	93.9
Mar 11	83.5	73.2	96.7
Mar 12	84.9	72.5	97.0
Mar 13	83.4	73.9	94.1
Mar 14	85.2	74.2	100.2
Mar 15	84.2	80.4	88.0
Mar 16	83.9	77.0	92.4
Mar 17	70.3	58.1	83.4
Mar 18	79.7	65.2	94.8
Mar 19	86.1	72.7	100.7
Mar 20	75.7	65.2	84.2
Mar 21	72.1	61.2	84.1
Mar 22	75.8	65.2	87.7
Mar 23	79.7	63.0	94.1
Mar 24	76.5	69.0	84.5
Mar 25	73.5	64.3	87.1
Mar 26	69.7	62.7	81.8
Mar 27	70.6	54.9	85.6
Mar 28	78.7	66.7	93.2
Mar 29	77.1	67.4	90.6
Mar 30	77.4	70.6	85.7
Mar 31	71.5	64.0	82.0
Summary	80.2	69.7	88.0

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	98.6	87.0	106.8
Mar 2	92.6	85.9	98.6
Mar 3	97.7	85.9	105.4
Mar 4	100.3	94.2	107.0
Mar 5	99.8	90.1	108.1
Mar 6	89.1	86.2	93.3
Mar 7	97.0	91.0	102.1
Mar 8	99.2	95.7	102.2
Mar 9	101.0	94.9	107.6
Mar 10	101.4	93.7	109.0
Mar 11	103.2	96.4	110.6
Mar 12	104.8	95.7	113.4
Mar 13	104.9	96.4	113.4
Mar 14	105.7	98.7	116.8
Mar 15	105.1	103.2	107.6
Mar 16	104.7	98.1	109.6
Mar 17	94.7	87.6	100.6
Mar 18	101.8	90.1	109.8
Mar 19	107.6	97.2	116.4
Mar 20	99.2	90.6	108.4
Mar 21	95.2	86.7	103.9
Mar 22	100.2	93.4	105.7
Mar 23	103.9	93.1	113.1
Mar 24	101.4	96.9	106.7
Mar 25	102.8	96.0	108.7
Mar 26	104.8	100.9	107.8
Mar 27	106.4	97.6	113.3
Mar 28	111.7	105.6	117.6
Mar 29	110.8	102.5	115.5
Mar 30	111.3	107.3	114.5
Mar 31	108.2	102.8	113.0
Summary	102.1	89.1	111.7
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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	122.7	109.2	129.6
Mar 2	114.8	107.0	122.5
Mar 3	116.9	103.2	126.9
Mar 4	121.0	115.2	129.3
Mar 5	120.3	115.5	126.8
Mar 6	105.4	96.9	116.4
Mar 7	112.7	105.6	119.4
Mar 8	117.4	111.1	122.6
Mar 9	113.3	107.8	119.8
Mar 10	120.3	66.9	140.8
Mar 11	139.8	137.6	143.0
Mar 12	101.5	49.6	139.0
Mar 13	56.9	39.0	77.7
Mar 14	63.4	42.5	93.8
Mar 15	62.9	50.3	71.2
Mar 16	64.8	56.5	76.2
Mar 17	80.9	39.2	139.2
Mar 18	138.6	135.7	141.5
Mar 19	133.0	128.9	136.8
Mar 20	134.3	129.2	137.5
Mar 21	138.7	135.5	141.3
Mar 22	139.7	138.6	141.3
Mar 23	140.8	138.4	143.2
Mar 24	138.4	136.5	140.4
Mar 25	139.1	136.7	142.5
Mar 26	139.8	139.0	140.8
Mar 27	140.0	137.9	141.4
Mar 28	140.1	139.0	141.2
Mar 29	137.7	135.3	139.0
Mar 30	136.0	135.3	136.9
Mar 31	136.1	133.7	138.6
Summary	118.3	56.9	140.8

D		Adiation (OF)	B4(0F)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	112.4	95.6	129.2
Mar 2	108.5	95.2	120.0
Mar 3	115.0	103.2	127.0
Mar 4	113.6	104.2	127.6
Mar 5	106.1	89.9	125.7
Mar 6	94.3	87.8	105.8
Mar 7	111.8	103.8	119.7
Mar 8	113.9	104.0	121.0
Mar 9	116.3	108.4	125.6
Mar 10	114.5	104.4	126.0
Mar 11	116.7	107.3	126.7
Mar 12	112.9	96.6	125.9
Mar 13	110.8	101.5	123.8
Mar 14	111.8	99.4	129.3
Mar 15	111.9	104.2	118.3
Mar 16	108.8	91.9	122.2
Mar 17	98.8	81.8	111.6
Mar 18	114.8	98.3	128.5
Mar 19	123.0	110.3	136.9
Mar 20	108.9	93.7	125.8
Mar 21	106.3	89.1	118.3
Mar 22	112.2	105.3	117.1
Mar 23	116.2	105.6	133.3
Mar 24	92.5	81.2	105.3
Mar 25	97.4	71.9	120.6
Mar 26	114.9	106.9	119.8
Mar 27	117.3	102.0	126.8
Mar 28	123.4	117.4	130.1
Mar 29	120.8	96.2	130.4
Mar 30	123.8	118.0	129.7
Mar 31	114.2	96.9	128.3
Summary	111.7	92.5	123.8
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D-4-		Minimum (OF)	Manimon (OF)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	134.6	121.4	143.9
Mar 2	129.8	121.0	136.1
Mar 3	134.3	128.0	139.7
Mar 4	135.0	132.1	141.4
Mar 5	131.1	116.8	139.4
Mar 6	119.2	116.0	125.6
Mar 7	128.9	123.5	134.5
Mar 8	129.5	123.3	134.5
Mar 9	130.3	126.7	134.9
Mar 10	130.3	123.9	136.7
Mar 11	132.6	125.9	138.1
Mar 12	135.4	127.6	141.9
Mar 13	137.6	131.1	142.8
Mar 14	136.6	127.8	144.5
Mar 15	137.3	130.8	141.4
Mar 16	133.8	123.9	145.0
Mar 17	118.0	111.0	125.2
Mar 18	129.4	118.3	136.8
Mar 19	134.6	125.0	142.1
Mar 20	124.4	110.8	137.9
Mar 21	119.4	105.5	129.7
Mar 22	125.1	120.7	129.2
Mar 23	130.6	118.6	137.6
Mar 24	128.1	121.6	134.3
Mar 25	126.9	117.9	134.3
Mar 26	123.9	117.5	127.9
Mar 27	128.3	118.0	135.4
Mar 28	134.6	129.0	138.0
Mar 29	135.6	130.3	140.3
Mar 30	138.0	135.1	140.2
Mar 31	112.1	81.9	139.0
Summary	129.8	112.1	138.0
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D. /		., vii gii ia	NA (OF)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	130.3	126.3	132.4
Mar 2	131.9	128.3	134.7
Mar 3	131.9	114.0	136.9
Mar 4	133.6	129.4	137.6
Mar 5	131.7	127.7	138.2
Mar 6	129.9	126.6	133.0
Mar 7	131.0	129.5	133.7
Mar 8	130.1	128.0	131.9
Mar 9	130.7	128.2	132.5
Mar 10	131.7	129.0	136.1
Mar 11	131.2	128.6	134.8
Mar 12	125.8	116.4	133.6
Mar 13	124.8	112.1	134.9
Mar 14	130.4	124.6	137.9
Mar 15	132.0	128.2	135.2
Mar 16	129.6	126.0	132.9
Mar 17	125.4	117.5	131.7
Mar 18	132.1	128.9	137.5
Mar 19	136.2	130.2	143.3
Mar 20	132.3	128.6	135.9
Mar 21	130.4	126.4	134.6
Mar 22	131.0	129.1	132.7
Mar 23	132.6	129.4	135.0
Mar 24	131.5	128.4	135.3
Mar 25	130.7	126.0	135.3
Mar 26	130.1	127.9	132.2
Mar 27	131.7	127.6	135.0
Mar 28	133.7	130.4	136.8
Mar 29	133.0	128.9	135.3
Mar 30	133.4	132.2	134.7
Mar 31	137.4	124.4	154.0
Summary	131.2	124.8	137.4
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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	68.8	57.5	84.0
Mar 2	62.5	51.8	78.4
Mar 3	67.4	54.4	85.1
Mar 4	72.5	61.4	86.9
Mar 5	73.1	62.6	85.3
Mar 6	59.7	57.3	63.6
Mar 7	64.6	56.8	72.9
Mar 8	69.0	62.6	80.6
Mar 9	70.3	62.3	84.9
Mar 10	73.7	60.2	91.0
Mar 11	85.3	78.6	94.5
Mar 12	87.1	79.3	95.9
Mar 13	86.3	80.7	93.1
Mar 14	87.9	81.4	97.1
Mar 15	87.8	85.2	91.7
Mar 16	88.2	84.7	93.4
Mar 17	82.6	77.8	91.5
Mar 18	86.4	79.5	95.8
Mar 19	89.8	82.7	100.0
Mar 20	85.6	80.4	89.9
Mar 21	83.8	78.4	91.3
Mar 22	85.6	79.8	94.5
Mar 23	87.2	78.4	95.7
Mar 24	85.5	82.0	91.1
Mar 25	87.9	79.6	97.3
Mar 26	96.8	94.8	99.6
Mar 27	99.6	96.5	103.0
Mar 28	102.5	100.3	105.7
Mar 29	102.5	101.0	105.1
Mar 30	102.3	101.3	103.6
Mar 31	100.9	98.3	103.0
Summary	83.3	59.7	102.5

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	45.0	33.4	63.3
Mar 2	38.2	29.8	57.3
Mar 3	43.0	29.8	67.4
Mar 4	50.0	31.9	71.5
Mar 5	55.0	40.0	66.9
Mar 6	35.4	29.8	40.0
Mar 7	39.0	29.8	51.7
Mar 8	45.3	34.0	61.9
Mar 9	46.8	34.0	68.5
Mar 10	47.1	33.0	72.1
Mar 11	49.9	30.4	79.1
Mar 12	52.8	33.4	83.6
Mar 13	54.8	37.3	77.6
Mar 14	59.6	39.7	87.9
Mar 15	60.7	47.8	74.7
Mar 16	62.5	50.7	74.8
Mar 17	46.8	35.8	62.1
Mar 18	50.2	31.1	79.5
Mar 19	58.5	36.1	87.9
Mar 20	51.0	39.4	58.8
Mar 21	46.6	34.5	66.7
Mar 22	49.4	30.7	74.7
Mar 23	54.3	31.8	80.9
Mar 24	56.2	49.2	67.6
Mar 25	51.9	37.2	74.4
Mar 26	50.8	38.4	70.5
Mar 27	52.2	31.4	78.1
Mar 28	64.1	47.0	88.2
Mar 29	62.6	47.3	84.2
Mar 30	62.8	54.7	75.4
Mar 31	58.3	53.3	67.5
Summary	51.6	35.4	64.1

D. /		., vii gii ia	NA (OF)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	129.4	125.1	131.7
Mar 2	129.2	126.3	131.3
Mar 3	131.1	129.1	133.1
Mar 4	130.4	127.4	132.4
Mar 5	128.4	124.6	132.0
Mar 6	127.3	125.7	129.9
Mar 7	130.7	129.1	132.0
Mar 8	130.9	128.4	132.2
Mar 9	131.5	130.1	133.2
Mar 10	131.1	129.4	132.8
Mar 11	131.7	130.0	134.3
Mar 12	131.7	129.7	134.3
Mar 13	131.0	130.0	133.0
Mar 14	131.2	128.5	134.1
Mar 15	130.1	127.1	131.8
Mar 16	129.5	122.2	133.3
Mar 17	128.6	125.0	131.5
Mar 18	131.8	129.8	134.7
Mar 19	133.1	131.5	136.0
Mar 20	129.4	126.6	133.2
Mar 21	129.7	126.9	132.0
Mar 22	131.1	129.4	131.7
Mar 23	132.1	130.7	133.8
Mar 24	130.4	128.4	131.8
Mar 25	131.4	129.8	132.8
Mar 26	132.0	130.4	133.3
Mar 27	132.9	131.4	134.1
Mar 28	133.6	132.1	135.3
Mar 29	133.2	131.4	134.8
Mar 30	133.4	132.4	134.3
Mar 31	131.5	125.7	133.7
Summary	131.0	127.3	133.6

D		Minimum (OF)	B. G
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	127.6	120.2	130.9
Mar 2	126.9	122.5	131.0
Mar 3	130.2	127.6	134.0
Mar 4	130.3	127.3	133.2
Mar 5	128.3	123.5	133.1
Mar 6	124.0	121.0	127.7
Mar 7	129.9	127.7	132.1
Mar 8	129.6	124.9	131.7
Mar 9	130.8	128.8	133.4
Mar 10	130.9	127.5	133.6
Mar 11	131.3	128.7	135.5
Mar 12	131.5	128.2	134.9
Mar 13	131.1	128.9	134.8
Mar 14	131.3	128.2	135.6
Mar 15	130.3	127.2	131.9
Mar 16	129.5	125.9	134.1
Mar 17	126.0	119.9	129.8
Mar 18	131.6	127.6	135.5
Mar 19	133.5	131.0	137.3
Mar 20	128.8	124.5	134.1
Mar 21	128.2	121.6	132.0
Mar 22	130.2	128.2	131.5
Mar 23	131.8	128.8	135.2
Mar 24	130.1	128.0	132.6
Mar 25	130.1	126.1	133.4
Mar 26	129.8	128.1	131.3
Mar 27	131.8	129.4	133.9
Mar 28	133.5	131.0	135.8
Mar 29	132.8	123.7	135.5
Mar 30	133.7	132.2	135.1
Mar 31	130.1	124.8	134.5
Summary	130.2	124.0	133.7

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	107.7	106.5	108.8
Mar 2	107.8	106.6	109.7
Mar 3	108.9	107.4	110.7
Mar 4	108.9	107.7	110.5
Mar 5	106.8	105.0	108.2
Mar 6	105.4	104.7	106.7
Mar 7	106.6	106.0	107.4
Mar 8	106.8	106.1	108.4
Mar 9	107.9	106.7	109.7
Mar 10	107.7	106.8	109.7
Mar 11	107.5	105.9	110.0
Mar 12	107.0	105.3	109.1
Mar 13	105.7	104.3	107.6
Mar 14	105.7	104.0	108.4
Mar 15	105.4	104.9	106.3
Mar 16	105.1	103.8	106.5
Mar 17	103.6	101.9	105.6
Mar 18	104.8	103.0	107.2
Mar 19	105.5	103.8	108.0
Mar 20	103.5	102.3	104.7
Mar 21	103.3	101.6	105.1
Mar 22	103.7	102.5	105.4
Mar 23	104.1	102.2	106.1
Mar 24	103.6	102.8	104.8
Mar 25	103.9	102.7	105.6
Mar 26	104.6	103.7	105.6
Mar 27	104.9	103.5	106.6
Mar 28	105.5	104.4	107.2
Mar 29	104.9	103.4	106.5
Mar 30	104.9	104.2	105.7
Mar 31	104.3	102.0	105.3
Summary	105.7	103.3	108.9

D :		, vii gii i a	B.E
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	117.3	105.4	123.5
Mar 2	114.2	105.8	121.3
Mar 3	119.0	113.6	123.7
Mar 4	119.2	113.4	124.5
Mar 5	119.8	111.7	128.8
Mar 6	111.8	107.9	116.4
Mar 7	120.2	116.1	125.1
Mar 8	119.7	112.3	124.7
Mar 9	120.9	117.8	124.8
Mar 10	122.5	118.6	127.5
Mar 11	123.9	121.1	128.5
Mar 12	124.7	120.8	130.4
Mar 13	124.8	121.9	129.6
Mar 14	123.7	117.7	130.0
Mar 15	121.9	116.3	127.2
Mar 16	121.4	115.3	129.8
Mar 17	114.4	106.0	120.7
Mar 18	122.8	115.2	129.3
Mar 19	127.3	122.1	133.7
Mar 20	120.6	113.8	131.0
Mar 21	117.2	109.5	124.3
Mar 22	122.0	118.8	124.3
Mar 23	123.7	117.8	128.6
Mar 24	121.1	115.6	126.2
Mar 25	121.1	114.0	125.6
Mar 26	118.7	115.5	121.1
Mar 27	121.7	118.1	125.2
Mar 28	125.7	122.2	129.8
Mar 29	125.9	114.3	130.9
Mar 30	127.8	125.4	130.7
Mar 31	125.0	114.3	130.6
Summary	121.3	111.8	127.8

D. C.		., vii gii ia	B# (OF)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	113.7	103.9	118.6
Mar 2	112.8	107.2	116.9
Mar 3	115.8	111.5	119.5
Mar 4	115.1	109.9	119.6
Mar 5	112.3	106.4	118.3
Mar 6	107.2	104.5	112.7
Mar 7	114.4	111.5	116.6
Mar 8	113.5	107.3	116.3
Mar 9	115.2	111.4	118.8
Mar 10	116.7	110.7	123.3
Mar 11	120.8	118.4	123.4
Mar 12	120.9	117.8	123.9
Mar 13	120.4	118.3	123.6
Mar 14	119.6	116.3	124.6
Mar 15	118.5	115.4	120.8
Mar 16	117.9	111.7	121.8
Mar 17	115.1	110.3	118.4
Mar 18	120.0	116.5	123.6
Mar 19	121.6	118.6	125.1
Mar 20	117.1	112.0	122.5
Mar 21	116.4	109.4	120.9
Mar 22	118.3	116.0	120.2
Mar 23	120.2	117.2	123.7
Mar 24	118.1	116.0	120.9
Mar 25	117.7	112.8	120.9
Mar 26	117.3	114.7	119.2
Mar 27	119.3	117.1	122.0
Mar 28	120.9	118.1	123.6
Mar 29	120.6	114.4	123.1
Mar 30	121.1	119.6	122.3
Mar 31	118.6	114.8	122.1
Summary	117.3	107.2	121.6

D-4-		Minimum (OF)	Marrison (OF)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	127.7	127.3	127.9
Mar 2	127.8	127.3	128.4
Mar 3	128.2	127.8	128.7
Mar 4	128.0	127.6	128.6
Mar 5	127.4	127.0	127.8
Mar 6	127.2	126.9	127.7
Mar 7	127.9	127.7	128.3
Mar 8	127.8	127.6	128.1
Mar 9	128.0	127.6	128.4
Mar 10	127.9	127.6	128.5
Mar 11	127.8	127.3	128.4
Mar 12	127.5	127.0	128.2
Mar 13	127.1	126.8	127.6
Mar 14	127.2	126.7	128.2
Mar 15	127.0	126.8	127.3
Mar 16	126.9	126.6	127.3
Mar 17	126.7	126.1	127.2
Mar 18	127.2	126.7	127.8
Mar 19	127.3	126.8	127.9
Mar 20	126.8	126.4	127.3
Mar 21	126.7	126.3	127.1
Mar 22	126.8	126.5	127.2
Mar 23	126.9	126.5	127.5
Mar 24	126.7	126.5	127.0
Mar 25	126.7	126.4	127.0
Mar 26	126.6	126.3	127.1
Mar 27	126.8	126.4	127.2
Mar 28	127.0	126.7	127.5
Mar 29	126.8	126.4	127.3
Mar 30	126.9	126.7	127.2
Mar 31	126.7	125.9	127.1
Summary	127.2	126.6	128.2

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	47.8	34.2	68.9
Mar 2	38.7	29.9	57.0
Mar 3	45.8	29.9	69.6
Mar 4	53.0	31.5	75.6
Mar 5	57.2	39.1	72.4
Mar 6	33.5	29.9	38.6
Mar 7	39.6	29.9	55.0
Mar 8	46.3	37.3	61.4
Mar 9	49.6	34.1	72.4
Mar 10	50.2	34.0	73.0
Mar 11	54.6	30.9	82.5
Mar 12	59.7	35.9	86.0
Mar 13	60.5	40.4	80.6
Mar 14	64.9	44.4	91.8
Mar 15	64.5	52.3	73.0
Mar 16	65.8	55.8	78.4
Mar 17	45.8	37.2	58.7
Mar 18	52.7	29.9	78.7
Mar 19	64.0	39.2	89.6
Mar 20	53.1	37.2	65.0
Mar 21	48.0	33.8	65.1
Mar 22	50.8	30.8	73.4
Mar 23	58.3	32.9	81.9
Mar 24	57.7	46.8	68.4
Mar 25	54.6	40.5	73.4
Mar 26	51.4	41.4	69.1
Mar 27	54.2	31.9	76.8
Mar 28	67.1	49.4	87.9
Mar 29	65.6	50.8	84.0
Mar 30	64.8	56.2	79.2
Mar 31	59.1	51.9	68.4
Summary	54.2	33.5	67.1

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	94.7	85.6	99.9
Mar 2	93.6	82.8	106.8
Mar 3	101.9	94.4	112.0
Mar 4	102.5	97.9	109.0
Mar 5	101.6	94.8	107.9
Mar 6	94.1	91.2	99.9
Mar 7	100.0	95.5	102.6
Mar 8	98.7	95.4	104.4
Mar 9	98.8	94.7	106.1
Mar 10	101.8	93.8	112.0
Mar 11	103.2	97.8	110.6
Mar 12	104.4	97.2	111.6
Mar 13	104.8	99.9	110.4
Mar 14	106.1	101.0	114.0
Mar 15	104.8	103.6	107.2
Mar 16	102.2	98.3	105.9
Mar 17	99.4	91.2	105.8
Mar 18	105.0	99.5	113.7
Mar 19	107.2	102.3	113.9
Mar 20	102.0	95.6	105.9
Mar 21	101.0	95.0	106.7
Mar 22	102.4	99.8	106.9
Mar 23	103.8	98.6	109.8
Mar 24	103.2	98.9	107.3
Mar 25	104.1	99.7	109.7
Mar 26	103.1	100.8	107.1
Mar 27	105.0	100.0	111.1
Mar 28	107.1	104.2	112.4
Mar 29	107.8	103.9	112.5
Mar 30	108.3	105.5	112.3
Mar 31	106.0	101.1	109.1
Summary	102.5	93.6	108.3

D. /		Minimum (OF)	NA (OE)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	135.5	123.8	143.3
Mar 2	136.2	128.5	141.3
Mar 3	140.1	135.9	144.0
Mar 4	136.6	127.7	144.2
Mar 5	130.7	68.8	141.7
Mar 6	131.2	128.0	138.2
Mar 7	139.6	135.6	142.3
Mar 8	138.2	130.2	142.8
Mar 9	140.1	135.9	142.9
Mar 10	139.6	136.8	142.0
Mar 11	141.7	139.0	145.6
Mar 12	142.3	139.2	145.3
Mar 13	141.3	138.2	144.8
Mar 14	139.7	132.3	145.3
Mar 15	136.5	127.8	143.1
Mar 16	136.0	129.3	143.8
Mar 17	133.4	123.3	140.9
Mar 18	141.3	135.2	146.2
Mar 19	143.2	137.3	147.9
Mar 20	135.8	128.5	145.3
Mar 21	135.7	127.3	142.5
Mar 22	138.7	134.3	141.9
Mar 23	141.2	137.1	144.4
Mar 24	137.5	132.4	141.8
Mar 25	138.7	131.3	143.3
Mar 26	139.5	135.9	143.6
Mar 27	142.4	138.4	145.3
Mar 28	144.2	141.7	146.4
Mar 29	143.9	131.5	146.6
Mar 30	145.2	142.6	147.0
Mar 31	141.5	133.7	146.4
Summary	139.0	130.7	145.2
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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	46.0	32.1	68.7
Mar 2	37.9	29.8	56.1
Mar 3	45.3	29.8	69.9
Mar 4	52.1	29.8	74.3
Mar 5	56.1	37.5	72.0
Mar 6	32.7	29.8	38.4
Mar 7	39.4	29.8	53.3
Mar 8	45.0	33.3	59.7
Mar 9	48.2	32.1	73.1
Mar 10	48.4	32.1	77.2
Mar 11	52.1	29.8	80.3
Mar 12	58.1	33.0	85.8
Mar 13	57.1	38.2	80.1
Mar 14	64.5	42.3	92.7
Mar 15	63.4	49.9	72.7
Mar 16	65.3	51.6	78.0
Mar 17	45.5	34.4	58.4
Mar 18	50.3	29.8	77.7
Mar 19	62.4	35.6	89.2
Mar 20	52.9	36.9	64.3
Mar 21	45.3	32.9	64.2
Mar 22	51.4	29.8	73.7
Mar 23	57.2	30.4	82.5
Mar 24	57.9	48.2	69.1
Mar 25	53.6	37.1	75.1
Mar 26	50.7	37.3	66.9
Mar 27	53.7	29.8	78.9
Mar 28	65.5	48.3	88.6
Mar 29	64.0	48.9	84.8
Mar 30	64.5	55.7	78.6
Mar 31	58.6	52.9	70.1
Summary	53.1	32.7	65.5

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	165.3	158.8	168.9
Mar 2	164.9	161.5	167.4
Mar 3	166.9	164.9	168.4
Mar 4	165.8	161.1	168.6
Mar 5	164.2	159.4	169.8
Mar 6	162.4	160.1	166.0
Mar 7	167.1	165.3	169.0
Mar 8	166.4	162.1	169.2
Mar 9	167.3	164.0	169.0
Mar 10	167.6	165.6	169.2
Mar 11	168.6	167.3	169.5
Mar 12	169.4	167.3	171.0
Mar 13	170.1	168.1	171.9
Mar 14	168.7	163.9	171.5
Mar 15	166.4	160.8	170.5
Mar 16	165.4	158.3	171.6
Mar 17	164.3	159.6	167.5
Mar 18	167.5	164.5	169.8
Mar 19	168.9	166.2	170.8
Mar 20	165.0	160.1	170.7
Mar 21	164.7	160.3	168.6
Mar 22	166.2	163.0	168.5
Mar 23	167.9	165.9	169.8
Mar 24	166.1	163.6	168.9
Mar 25	166.6	163.6	169.3
Mar 26	165.0	163.2	166.9
Mar 27	165.3	163.9	166.5
Mar 28	166.1	164.3	167.3
Mar 29	166.6	162.5	167.9
Mar 30	167.1	165.7	168.0
Mar 31	165.7	161.1	167.9
Summary	166.4	162.4	170.1

D. 1		Adinima (OF)	NA (OF)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	168.7	163.4	173.1
Mar 2	168.9	165.8	171.3
Mar 3	170.4	168.7	171.9
Mar 4	169.7	165.7	171.9
Mar 5	168.3	164.8	174.0
Mar 6	165.7	163.2	171.0
Mar 7	170.9	168.3	172.6
Mar 8	170.4	166.3	172.7
Mar 9	170.9	169.6	172.5
Mar 10	172.4	169.6	174.7
Mar 11	173.4	171.8	174.9
Mar 12	173.1	171.1	174.5
Mar 13	173.4	171.7	175.2
Mar 14	172.3	169.3	173.7
Mar 15	171.1	167.9	174.0
Mar 16	170.1	165.9	174.7
Mar 17	169.0	162.3	172.4
Mar 18	172.4	170.5	174.4
Mar 19	173.6	171.1	175.4
Mar 20	169.7	163.6	175.0
Mar 21	169.7	165.6	173.7
Mar 22	170.6	165.5	173.6
Mar 23	172.5	170.9	174.0
Mar 24	170.4	166.4	173.4
Mar 25	171.3	167.9	173.2
Mar 26	171.3	168.3	173.5
Mar 27	172.6	171.1	174.0
Mar 28	173.3	170.9	174.9
Mar 29	173.6	165.2	175.3
Mar 30	174.6	172.4	175.6
Mar 31	171.8	168.3	175.3
Summary	171.2	165.7	174.6

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	152.8	119.5	170.6
Mar 2	150.0	138.8	165.4
Mar 3	157.6	147.5	167.5
Mar 4	164.8	154.4	173.1
Mar 5	159.0	129.8	179.3
Mar 6	144.5	133.3	159.8
Mar 7	160.9	142.7	175.2
Mar 8	157.9	129.5	174.2
Mar 9	160.4	143.2	176.7
Mar 10	162.3	148.2	175.7
Mar 11	153.1	148.3	161.2
Mar 12	159.5	153.0	166.8
Mar 13	164.2	157.9	169.3
Mar 14	158.8	146.0	167.3
Mar 15	159.7	146.6	168.8
Mar 16	157.4	140.3	170.4
Mar 17	144.1	132.8	153.8
Mar 18	145.0	137.8	154.2
Mar 19	150.7	142.6	155.2
Mar 20	143.8	129.7	157.7
Mar 21	137.2	118.3	150.3
Mar 22	142.6	132.4	156.8
Mar 23	147.7	136.2	156.4
Mar 24	142.3	130.5	155.0
Mar 25	140.7	116.9	161.5
Mar 26	136.2	126.1	146.0
Mar 27	137.5	125.4	149.2
Mar 28	145.0	136.6	153.3
Mar 29	152.6	122.6	159.9
Mar 30	156.8	150.6	163.1
Mar 31	147.7	120.2	176.1
Summary	151.4	136.2	164.8
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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	182.9	181.6	183.8
Mar 2	182.3	181.5	183.0
Mar 3	182.6	181.9	183.4
Mar 4	182.7	182.3	183.6
Mar 5	183.0	182.0	184.1
Mar 6	181.6	181.2	182.3
Mar 7	182.3	181.8	182.9
Mar 8	182.3	181.7	182.9
Mar 9	182.2	181.7	182.8
Mar 10	182.3	180.3	183.5
Mar 11	183.0	182.3	183.9
Mar 12	183.4	182.3	184.7
Mar 13	183.3	182.5	185.5
Mar 14	182.1	181.4	182.7
Mar 15	181.6	181.3	182.0
Mar 16	181.3	180.3	181.9
Mar 17	180.3	179.9	180.7
Mar 18	180.2	179.7	180.5
Mar 19	180.1	179.8	180.5
Mar 20	179.5	178.8	180.1
Mar 21	178.8	178.2	179.3
Mar 22	178.8	178.3	179.2
Mar 23	178.8	178.3	179.3
Mar 24	178.5	177.8	178.9
Mar 25	178.2	177.7	178.9
Mar 26	177.8	177.4	178.1
Mar 27	177.7	177.3	178.1
Mar 28	177.9	177.5	178.2
Mar 29	177.8	177.4	178.3
Mar 30	177.9	177.7	178.3
Mar 31	177.6	173.7	183.1
Summary	180.6	177.6	183.4
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Data		Minimum (OF)	Maying (05)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	79.9	49.2	92.9
Mar 2	48.5	34.8	72.6
Mar 3	62.6	35.7	102.2
Mar 4	69.7	54.6	91.6
Mar 5	68.9	49.5	82.1
Mar 6	44.6	41.0	47.9
Mar 7	55.6	41.1	70.0
Mar 8	61.9	51.9	74.2
Mar 9	62.1	50.1	83.2
Mar 10	62.1	45.5	88.2
Mar 11	66.5	47.8	93.5
Mar 12	68.4	48.6	94.0
Mar 13	66.3	49.3	86.5
Mar 14	69.1	50.4	98.3
Mar 15	69.6	58.3	82.4
Mar 16	69.2	59.2	80.8
Mar 17	50.7	42.4	65.2
Mar 18	58.0	35.9	89.0
Mar 19	71.5	46.7	99.3
Mar 20	61.2	44.3	73.5
Mar 21	53.7	39.8	73.8
Mar 22	57.4	41.0	76.8
Mar 23	63.6	40.4	88.1
Mar 24	63.0	52.2	72.7
Mar 25	60.9	46.9	79.3
Mar 26	59.6	51.8	75.6
Mar 27	63.4	45.2	87.8
Mar 28	117.5	61.5	158.1
Mar 29	153.7	144.8	156.1
Mar 30	153.2	151.8	154.8
Mar 31	151.4	139.7	157.8
Summary	73.0	44.6	153.7
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Data		Minimum (95)	Marries (OF)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	148.6	147.2	149.6
Mar 2	147.8	147.1	148.5
Mar 3	148.1	147.2	148.9
Mar 4	148.5	147.7	149.4
Mar 5	149.2	148.1	150.2
Mar 6	147.4	147.0	148.0
Mar 7	148.1	147.4	148.8
Mar 8	148.1	147.4	148.8
Mar 9	148.0	147.5	148.7
Mar 10	148.3	147.4	149.4
Mar 11	148.5	147.7	149.4
Mar 12	148.9	147.7	150.1
Mar 13	149.4	148.6	150.2
Mar 14	149.4	148.5	150.7
Mar 15	149.4	149.1	149.6
Mar 16	149.3	147.6	150.4
Mar 17	147.6	147.0	148.6
Mar 18	147.9	146.8	148.7
Mar 19	148.5	147.5	149.5
Mar 20	147.9	146.8	149.0
Mar 21	147.1	146.1	147.9
Mar 22	147.6	146.9	148.3
Mar 23	147.9	146.8	148.7
Mar 24	147.7	147.0	148.5
Mar 25	147.5	146.7	148.3
Mar 26	147.0	146.3	147.4
Mar 27	147.2	146.1	147.9
Mar 28	147.8	147.1	148.5
Mar 29	148.1	147.4	148.8
Mar 30	148.3	147.8	148.7
Mar 31	147.3	127.7	150.6
Summary	148.1	147.0	149.4

D. /		, vii gii iia	NA (OE)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	152.6	137.5	164.3
Mar 2	155.0	143.3	161.8
Mar 3	159.9	155.7	163.3
Mar 4	156.7	147.9	163.1
Mar 5	148.1	133.5	162.2
Mar 6	143.2	136.0	158.6
Mar 7	159.4	156.9	162.8
Mar 8	156.8	145.0	162.9
Mar 9	159.6	151.2	162.6
Mar 10	158.7	153.9	163.3
Mar 11	160.5	155.1	164.0
Mar 12	161.2	157.3	164.7
Mar 13	162.4	158.3	165.8
Mar 14	160.1	152.8	166.1
Mar 15	157.4	146.1	164.6
Mar 16	154.0	145.7	166.6
Mar 17	149.9	134.8	160.5
Mar 18	159.8	156.2	163.9
Mar 19	160.7	155.7	165.6
Mar 20	149.1	132.7	163.4
Mar 21	149.9	133.8	162.0
Mar 22	152.3	141.6	161.2
Mar 23	158.2	154.5	162.9
Mar 24	151.0	141.3	158.7
Mar 25	152.2	139.4	161.6
Mar 26	151.3	142.3	159.5
Mar 27	156.3	152.5	160.5
Mar 28	157.2	152.8	161.0
Mar 29	156.8	138.6	162.7
Mar 30	158.0	154.2	160.7
Mar 31	150.2	141.6	159.4
Summary	155.4	143.2	162.4

D - 4 -		Minimum (OF)	Mariner (OF)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	163.4	162.2	164.1
Mar 2	163.0	162.2	163.8
Mar 3	163.7	162.9	164.8
Mar 4	164.5	163.7	165.5
Mar 5	165.0	163.4	166.2
Mar 6	163.0	162.4	163.7
Mar 7	164.1	163.3	165.0
Mar 8	164.0	163.3	164.7
Mar 9	164.1	163.3	165.1
Mar 10	164.9	163.7	165.8
Mar 11	165.0	164.3	166.0
Mar 12	166.1	165.0	167.0
Mar 13	167.6	167.1	168.7
Mar 14	167.1	165.5	167.9
Mar 15	167.2	166.3	167.6
Mar 16	166.8	165.0	167.8
Mar 17	165.3	164.0	166.3
Mar 18	164.4	163.6	165.6
Mar 19	165.0	164.4	165.7
Mar 20	164.7	163.4	166.3
Mar 21	164.2	163.0	165.1
Mar 22	164.3	163.8	165.0
Mar 23	164.9	164.4	165.7
Mar 24	164.8	164.3	165.5
Mar 25	165.2	164.3	166.3
Mar 26	164.6	164.2	165.1
Mar 27	164.5	163.6	165.4
Mar 28	165.3	164.8	166.2
Mar 29	165.9	165.1	166.4
Mar 30	166.5	165.7	167.1
Mar 31	166.3	164.6	168.4
Summary	165.0	163.0	167.6
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D-4-		Minima (OF)	Marrian (OF)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	165.0	152.0	172.0
Mar 2	160.9	152.5	167.0
Mar 3	164.3	159.0	169.9
Mar 4	161.9	156.1	170.3
Mar 5	157.1	144.2	167.9
Mar 6	137.3	132.0	149.9
Mar 7	154.5	149.5	160.3
Mar 8	155.2	145.7	161.2
Mar 9	157.7	152.3	164.9
Mar 10	158.9	152.0	167.0
Mar 11	159.8	154.0	168.4
Mar 12	161.1	154.9	167.1
Mar 13	163.2	158.6	171.3
Mar 14	163.8	157.4	171.4
Mar 15	162.3	157.4	166.0
Mar 16	160.2	143.1	167.8
Mar 17	151.2	143.4	157.6
Mar 18	160.4	152.3	169.0
Mar 19	165.7	159.9	171.9
Mar 20	155.6	143.2	170.0
Mar 21	152.4	139.2	163.6
Mar 22	157.7	152.7	161.1
Mar 23	163.3	156.7	169.9
Mar 24	158.7	153.1	164.9
Mar 25	163.1	155.8	169.3
Mar 26	162.2	158.1	165.1
Mar 27	165.2	159.3	169.7
Mar 28	169.4	166.9	172.3
Mar 29	170.9	161.7	174.3
Mar 30	172.3	170.1	174.8
Mar 31	169.2	159.8	174.1
Summary	160.7	137.3	172.3

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	138.4	137.6	139.3
Mar 2	138.1	137.5	138.6
Mar 3	138.5	138.0	139.2
Mar 4	138.6	137.9	139.4
Mar 5	138.8	138.1	139.6
Mar 6	138.0	137.8	138.3
Mar 7	138.5	138.1	138.9
Mar 8	138.4	137.9	138.9
Mar 9	138.5	138.0	139.0
Mar 10	138.5	137.7	139.5
Mar 11	138.8	138.1	139.8
Mar 12	138.8	137.2	140.0
Mar 13	138.7	137.8	139.7
Mar 14	139.0	137.8	140.5
Mar 15	139.2	138.9	139.6
Mar 16	139.3	138.8	140.3
Mar 17	138.2	137.2	138.9
Mar 18	139.1	138.3	140.0
Mar 19	139.6	138.7	140.5
Mar 20	139.0	138.3	139.9
Mar 21	138.6	137.6	139.3
Mar 22	139.1	138.6	139.9
Mar 23	139.3	138.5	140.1
Mar 24	139.1	138.6	139.6
Mar 25	138.9	138.2	139.8
Mar 26	138.7	138.1	139.0
Mar 27	139.0	138.3	139.7
Mar 28	139.4	138.8	140.0
Mar 29	139.5	139.0	140.2
Mar 30	139.7	139.3	140.1
Mar 31	139.3	137.3	140.1
Summary	138.9	138.0	139.7

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	158.0	152.5	162.5
Mar 2	158.3	155.0	160.8
Mar 3	159.5	158.3	161.1
Mar 4	158.5	156.3	160.9
Mar 5	157.0	153.4	161.8
Mar 6	154.5	151.3	158.7
Mar 7	158.9	157.7	160.3
Mar 8	157.9	154.1	160.2
Mar 9	158.3	157.4	159.7
Mar 10	158.2	155.8	160.3
Mar 11	158.9	157.3	160.5
Mar 12	159.8	158.0	162.3
Mar 13	160.8	159.1	162.7
Mar 14	159.7	156.9	162.0
Mar 15	158.6	153.9	161.9
Mar 16	156.8	153.0	162.2
Mar 17	154.2	143.5	158.8
Mar 18	157.6	155.5	159.5
Mar 19	158.3	156.2	160.9
Mar 20	153.8	147.7	159.6
Mar 21	153.7	149.1	158.3
Mar 22	154.6	150.6	157.3
Mar 23	156.8	154.7	158.8
Mar 24	154.5	150.0	157.3
Mar 25	155.1	150.8	158.5
Mar 26	154.2	150.8	157.1
Mar 27	155.9	154.4	157.7
Mar 28	157.0	155.7	158.8
Mar 29	157.5	155.4	159.3
Mar 30	157.9	156.5	159.2
Mar 31	155.9	149.5	158.8
Summary	157.1	153.7	160.8

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	107.7	72.5	141.4
Mar 2	104.0	81.6	122.2
Mar 3	119.4	104.8	135.1
Mar 4	112.2	92.0	139.9
Mar 5	90.9	70.4	130.0
Mar 6	81.3	69.9	113.2
Mar 7	110.2	96.4	125.6
Mar 8	110.1	83.8	130.1
Mar 9	117.1	110.0	130.9
Mar 10	115.5	104.5	128.9
Mar 11	119.9	107.1	132.1
Mar 12	121.3	112.4	132.3
Mar 13	125.9	111.2	139.7
Mar 14	117.4	97.3	139.1
Mar 15	110.0	89.4	130.7
Mar 16	98.2	81.2	128.1
Mar 17	85.7	63.7	106.7
Mar 18	110.4	95.9	129.1
Mar 19	120.6	107.7	145.5
Mar 20	87.8	65.0	130.0
Mar 21	91.2	68.0	114.1
Mar 22	94.8	80.0	105.1
Mar 23	112.0	101.6	134.3
Mar 24	91.8	76.9	109.6
Mar 25	103.0	81.7	129.4
Mar 26	102.0	84.8	120.4
Mar 27	114.8	101.2	134.5
Mar 28	124.4	112.1	142.6
Mar 29	128.0	82.1	145.2
Mar 30	130.2	116.0	144.6
Mar 31	112.7	87.7	142.0
Summary	108.7	81.3	130.2

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	45.0	31.4	66.1
Mar 2	37.7	29.9	62.5
Mar 3	58.6	29.9	93.0
Mar 4	128.2	94.6	153.7
Mar 5	104.2	41.0	168.2
Mar 6	34.3	29.9	38.8
Mar 7	39.0	29.9	53.9
Mar 8	45.7	32.4	66.9
Mar 9	48.3	32.5	74.3
Mar 10	48.8	31.8	78.2
Mar 11	49.9	29.9	86.0
Mar 12	55.1	32.2	90.3
Mar 13	56.5	36.9	81.9
Mar 14	62.3	40.8	94.4
Mar 15	63.0	48.6	75.5
Mar 16	65.1	56.3	80.6
Mar 17	46.8	35.5	65.2
Mar 18	50.6	29.9	84.6
Mar 19	61.0	36.1	93.3
Mar 20	52.3	37.8	63.2
Mar 21	45.0	33.5	69.5
Mar 22	49.4	29.9	75.8
Mar 23	54.9	30.3	85.0
Mar 24	58.3	47.5	71.4
Mar 25	52.8	36.2	76.2
Mar 26	50.3	38.1	71.8
Mar 27	52.4	30.5	82.6
Mar 28	65.5	48.3	91.9
Mar 29	63.1	48.3	86.1
Mar 30	64.0	55.9	77.7
Mar 31	58.4	53.1	67.7
Summary	57.0	34.3	128.2

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	51.7	41.2	67.8
Mar 2	44.5	33.8	63.1
Mar 3	58.3	34.5	81.1
Mar 4	82.9	68.6	102.6
Mar 5	64.5	50.0	73.7
Mar 6	72.5	43.4	103.5
Mar 7	94.0	75.7	118.6
Mar 8	71.3	59.4	82.7
Mar 9	65.4	57.1	78.8
Mar 10	92.2	54.3	129.8
Mar 11	114.4	79.2	145.4
Mar 12	98.3	86.2	109.3
Mar 13	112.6	78.7	148.4
Mar 14	123.5	98.6	157.2
Mar 15	103.0	93.8	112.4
Mar 16	89.9	82.4	96.4
Mar 17	106.3	70.1	146.0
Mar 18	125.6	99.5	156.4
Mar 19	130.6	107.2	161.3
Mar 20	124.4	101.2	156.5
Mar 21	130.0	115.8	160.0
Mar 22	114.9	107.8	122.1
Mar 23	110.7	104.9	116.4
Mar 24	133.5	96.1	162.6
Mar 25	142.4	132.0	164.3
Mar 26	142.9	127.9	164.3
Mar 27	148.5	129.8	167.4
Mar 28	151.9	139.2	167.8
Mar 29	140.1	131.5	146.1
Mar 30	135.4	134.2	136.9
Mar 31	140.9	122.3	168.2
Summary	107.0	44.5	151.9
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D. I		Minimum (OF)	NA (OF)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	136.4	133.5	138.8
Mar 2	135.5	134.2	136.7
Mar 3	136.1	135.2	137.7
Mar 4	134.7	127.8	138.4
Mar 5	133.8	129.1	137.1
Mar 6	133.5	132.8	134.3
Mar 7	134.7	134.2	135.3
Mar 8	134.5	132.8	136.3
Mar 9	135.0	133.4	136.7
Mar 10	133.3	129.9	135.4
Mar 11	130.0	108.6	136.0
Mar 12	96.2	72.0	118.1
Mar 13	86.4	70.1	102.5
Mar 14	88.4	70.3	112.9
Mar 15	89.5	81.6	100.4
Mar 16	88.2	72.9	103.3
Mar 17	82.6	54.5	135.8
Mar 18	75.7	45.2	103.6
Mar 19	65.5	38.6	103.0
Mar 20	51.7	37.2	60.7
Mar 21	45.8	33.0	70.1
Mar 22	51.4	29.8	78.2
Mar 23	57.3	30.5	86.2
Mar 24	57.3	47.1	71.7
Mar 25	52.8	37.4	78.2
Mar 26	49.8	38.7	72.5
Mar 27	53.0	29.9	80.1
Mar 28	66.1	48.1	91.8
Mar 29	64.7	49.5	86.2
Mar 30	64.2	56.0	79.3
Mar 31	58.9	53.5	67.9
Summary	91.1	45.8	136.4

D. /		., vii gii iia	NA (OF)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	121.7	116.5	125.4
Mar 2	122.5	118.3	125.0
Mar 3	124.5	121.6	127.3
Mar 4	124.1	119.8	127.7
Mar 5	121.3	115.3	126.7
Mar 6	120.1	116.7	124.5
Mar 7	124.7	122.4	126.2
Mar 8	124.2	120.3	127.3
Mar 9	125.7	123.5	127.5
Mar 10	124.7	120.8	127.0
Mar 11	126.2	123.8	129.1
Mar 12	126.5	120.3	129.3
Mar 13	127.2	124.2	130.9
Mar 14	127.3	121.3	133.1
Mar 15	127.1	121.8	130.3
Mar 16	125.7	120.1	131.6
Mar 17	123.0	117.6	128.7
Mar 18	128.5	124.7	131.1
Mar 19	129.7	127.0	133.3
Mar 20	125.5	119.0	131.1
Mar 21	125.2	118.6	129.2
Mar 22	127.1	124.8	130.8
Mar 23	129.9	126.8	133.1
Mar 24	128.4	125.0	131.7
Mar 25	128.9	123.6	133.2
Mar 26	128.7	124.8	131.5
Mar 27	130.7	126.9	133.4
Mar 28	132.9	130.7	135.7
Mar 29	133.2	124.4	136.0
Mar 30	134.7	133.0	136.3
Mar 31	132.4	127.4	135.8
Summary	126.9	120.1	134.7
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D. 1		Adiaira (OF)	NA (OF)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	153.6	146.1	158.1
Mar 2	152.0	148.8	154.5
Mar 3	154.1	151.9	155.9
Mar 4	154.2	151.4	156.0
Mar 5	153.4	149.7	157.0
Mar 6	150.4	147.8	152.6
Mar 7	154.0	152.5	156.0
Mar 8	153.2	148.4	156.4
Mar 9	154.1	151.5	155.5
Mar 10	154.3	150.4	156.3
Mar 11	155.8	153.5	157.4
Mar 12	157.2	153.1	159.2
Mar 13	159.1	157.0	161.2
Mar 14	158.8	153.2	161.9
Mar 15	158.5	154.1	161.0
Mar 16	157.4	148.6	163.1
Mar 17	152.4	146.8	157.5
Mar 18	156.2	153.9	158.5
Mar 19	157.0	154.3	159.1
Mar 20	153.7	148.9	158.7
Mar 21	151.8	145.8	156.2
Mar 22	154.5	151.6	157.1
Mar 23	155.7	152.9	157.6
Mar 24	154.4	149.6	156.9
Mar 25	154.1	149.1	157.5
Mar 26	152.2	148.8	155.2
Mar 27	154.4	152.3	156.3
Mar 28	156.3	154.6	157.4
Mar 29	156.7	148.5	158.8
Mar 30	157.8	156.4	158.9
Mar 31	155.8	149.5	158.9
Summary	154.9	150.4	159.1
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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	44.3	31.9	68.0
Mar 2	38.8	29.9	60.7
Mar 3	44.5	29.9	73.2
Mar 4	55.1	29.9	81.1
Mar 5	64.6	51.2	77.7
Mar 6	48.5	33.2	55.7
Mar 7	49.5	29.9	64.0
Mar 8	53.4	34.0	63.1
Mar 9	48.4	33.6	75.5
Mar 10	52.3	32.5	80.0
Mar 11	54.8	30.1	88.0
Mar 12	57.0	34.2	85.6
Mar 13	57.6	38.0	80.4
Mar 14	64.4	42.0	95.3
Mar 15	65.0	51.6	77.1
Mar 16	64.1	54.8	78.3
Mar 17	47.5	36.2	60.4
Mar 18	51.8	29.9	80.8
Mar 19	61.8	38.2	89.3
Mar 20	53.0	38.4	63.9
Mar 21	48.3	33.9	65.6
Mar 22	49.1	30.3	73.9
Mar 23	54.9	31.7	84.2
Mar 24	58.3	50.1	68.5
Mar 25	55.4	37.6	77.1
Mar 26	53.6	40.3	74.0
Mar 27	56.8	34.8	80.2
Mar 28	65.5	47.7	88.1
Mar 29	63.1	49.3	83.7
Mar 30	63.2	55.7	76.7
Mar 31	61.2	54.6	74.0
Summary	55.0	38.8	65.5

D-4-		Minimum (95)	Maximum (0F)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	143.1	141.2	144.5
Mar 2	142.3	141.2	143.2
Mar 3	142.8	141.9	144.0
Mar 4	142.8	141.8	144.6
Mar 5	143.0	141.7	144.5
Mar 6	141.5	141.1	141.8
Mar 7	142.1	141.5	142.7
Mar 8	141.9	141.1	143.1
Mar 9	142.0	141.2	142.9
Mar 10	141.6	140.6	143.1
Mar 11	142.2	141.1	143.8
Mar 12	141.5	138.6	143.6
Mar 13	140.8	139.5	142.2
Mar 14	141.6	138.0	145.5
Mar 15	141.9	140.8	143.2
Mar 16	142.3	140.7	144.1
Mar 17	140.2	136.0	142.9
Mar 18	142.3	141.1	144.0
Mar 19	142.6	141.0	144.3
Mar 20	141.1	139.7	142.4
Mar 21	140.2	138.8	141.7
Mar 22	141.0	140.2	142.0
Mar 23	141.2	139.9	142.8
Mar 24	140.7	139.8	141.6
Mar 25	140.8	139.9	143.0
Mar 26	140.4	139.7	141.4
Mar 27	140.6	139.6	141.8
Mar 28	141.1	140.1	142.4
Mar 29	140.9	140.2	142.0
Mar 30	140.9	140.2	141.7
Mar 31	140.2	135.2	142.3
Summary	141.5	140.2	143.1

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	100.6	91.1	108.7
Mar 2	131.9	128.3	134.7
Mar 3	100.0	93.5	106.2
Mar 4	133.6	129.4	137.6
Mar 5	101.9	91.2	108.1
Mar 6	129.9	126.6	133.0
Mar 7	97.5	93.7	101.6
Mar 8	130.1	128.0	131.9
Mar 9	100.5	95.1	107.1
Mar 10	131.7	129.0	136.1
Mar 11	101.9	94.8	110.0
Mar 12	125.8	116.4	133.6
Mar 13	102.9	96.1	111.1
Mar 14	130.4	124.6	137.9
Mar 15	105.3	102.0	108.8
Mar 16	129.6	126.0	132.9
Mar 17	91.8	87.1	97.9
Mar 18	132.1	128.9	137.5
Mar 19	106.5	96.8	116.4
Mar 20	132.3	128.6	135.9
Mar 21	92.8	84.5	102.3
Mar 22	131.0	129.1	132.7
Mar 23	103.2	93.9	111.7
Mar 24	131.5	128.4	135.3
Mar 25	98.8	92.1	104.1
Mar 26	130.1	127.9	132.2
Mar 27	98.4	88.1	105.9
Mar 28	133.7	130.4	136.8
Mar 29	105.8	97.3	112.9
Mar 30	133.4	132.2	134.7
Mar 31	102.3	97.1	107.0
Summary	100.5	91.2	107.1

Appendix D

Solid Waste Permit 588 Daily Borehole Temperature Averages

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	Depth from Surface						
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	
1-Mar	165.5	218.9	219.5	228.0	237.9	263.3	
2-Mar	165.0	218.7	219.3	227.4	237.8	263.0	
3-Mar	165.3	218.9	219.5	228.0	238.2	263.4	
4-Mar	165.7	219.2	219.7	228.4	238.8	263.6	
5-Mar	165.8	219.2	219.7	228.6	238.9	263.7	
6-Mar	164.8	218.3	218.9	227.9	238.5	262.9	
7-Mar	164.9	218.6	219.1	228.2	238.6	263.1	
8-Mar	165.2	218.8	219.3	228.5	238.7	263.1	
9-Mar	165.2	218.9	219.4	228.8	238.9	263.3	
10-Mar	165.2	218.8	219.4	228.6	239.0	263.2	
11-Mar	165.5	219.0	219.6	228.9	239.4	263.5	
12-Mar	165.7	219.1	219.7	229.0	239.7	263.5	
13-Mar	165.8	219.1	219.6	229.1	239.9	263.6	
14-Mar	165.8	219.2	219.7	229.3	240.3	263.7	
15-Mar	165.7	219.2	219.8	229.4	240.6	263.7	
16-Mar	166.1	219.4	219.9	229.6	240.8	263.8	
17-Mar	165.1	218.6	219.1	228.9	240.3	263.1	
18-Mar	165.4	218.9	219.6	229.3	240.8	263.5	
19-Mar	165.8	219.1	219.7	229.9	241.1	263.6	
20-Mar	165.5	218.8	219.3	229.3	240.9	263.3	
21-Mar	165.5	218.6	219.1	229.2	240.9	263.1	
22-Mar	165.9	218.8	219.3	229.4	241.2	263.3	
23-Mar	165.9	219.0	219.5	229.7	241.6	263.6	
24-Mar	165.7	218.9	219.5	229.7	241.5	263.5	
25-Mar	165.4	218.9	219.4	229.6	241.5	263.4	
26-Mar	165.2	218.8	219.3	229.5	241.5	263.3	
27-Mar	165.4	219.0	219.5	229.8	241.8	263.5	
28-Mar	165.8	219.2	219.8	230.1	242.0	263.7	
29-Mar	166.1	219.3	219.8	230.2	241.9	263.8	
30-Mar	166.2	219.3	219.9	230.3	241.9	263.8	
31-Mar	166.1	219.1	219.7	230.2	241.8	263.6	
Average	165.6	219.0	219.5	229.1	240.2	263.4	

	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Mar	165.7	234.1	233.8	*	*	*	*	*
2-Mar	165.6	234.0	233.8	*	*	*	*	*
3-Mar	165.4	234.1	233.9	*	*	*	*	*
4-Mar	165.4	234.1	233.8	*	*	*	*	*
5-Mar	165.4	234.0	233.7	*	*	*	*	*
6-Mar	165.0	233.5	233.3	*	*	*	*	*
7-Mar	164.9	233.5	233.3	*	*	*	*	*
8-Mar	164.9	233.5	233.3	*	*	*	*	*
9-Mar	165.0	233.7	233.5	*	*	*	*	*
10-Mar	164.8	233.6	233.4	*	*	*	*	*
11-Mar	165.0	233.9	233.6	*	*	*	*	*
12-Mar	165.0	234.0	233.8	*	*	*	*	*
13-Mar	165.0	233.7	233.6	*	*	*	*	*
14-Mar	165.1	234.0	233.9	*	*	*	*	*
15-Mar	165.1	233.9	233.7	*	*	*	*	*
16-Mar	165.5	233.9	233.2	*	*	*	*	*
17-Mar	165.0	233.0	232.6	*	*	*	*	*
18-Mar	165.4	233.3	233.2	*	*	*	*	*
19-Mar	165.4	233.5	233.3	*	*	*	*	*
20-Mar	165.1	233.2	233.0	*	*	*	*	*
21-Mar	165.2	233.3	233.0	*	*	*	*	*
22-Mar	165.2	233.3	233.1	*	*	*	*	*
23-Mar	165.2	233.4	233.2	*	*	*	*	*
24-Mar	165.2	233.3	233.0	*	*	*	*	*
25-Mar	165.1	233.3	233.0	*	*	*	*	*
26-Mar	165.2	233.3	233.1	*	*	*	*	*
27-Mar	165.2	233.4	233.3	*	*	*	*	*
28-Mar	165.4	233.5	233.3	*	*	*	*	*
29-Mar	165.4	233.4	233.2	*	*	*	*	*
30-Mar	165.4	233.4	233.1	*	*	*	*	*
31-Mar	165.5	233.2	232.9	*	*	*	*	*
Average	165.2	233.6	233.3	N/A	N/A	N/A	N/A	N/A

^{*} Indicates sensor reading issues

	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Mar	144.1	215.2	215.5	229.0	236.4	239.4	221.1	202.9
2-Mar	142.8	215.1	215.4	228.8	236.4	239.4	220.6	202.8
3-Mar	142.9	215.1	215.4	228.9	236.6	239.5	220.4	203.0
4-Mar	143.1	215.3	215.5	229.0	237.0	239.8	220.3	203.3
5-Mar	143.8	215.4	215.7	229.0	237.1	239.7	220.0	203.2
6-Mar	143.3	214.9	215.2	228.6	236.7	239.2	219.5	202.7
7-Mar	143.3	214.9	215.2	228.8	236.9	239.4	219.3	202.8
8-Mar	142.6	215.0	215.3	228.7	237.0	239.4	219.1	202.9
9-Mar	141.6	215.0	215.3	229.0	237.2	239.6	219.1	203.1
10-Mar	140.9	215.1	215.3	228.7	237.2	239.6	218.8	203.1
11-Mar	141.2	215.2	215.4	229.0	237.3	239.8	218.7	203.3
12-Mar	141.2	215.0	215.3	229.0	237.5	239.9	218.6	203.4
13-Mar	141.0	215.2	215.5	228.9	237.5	239.9	218.5	203.3
14-Mar	141.2	215.7	216.0	229.1	237.7	240.1	218.5	203.6
15-Mar	141.2	215.5	215.8	229.1	237.7	240.1	218.3	203.6
16-Mar	141.3	215.4	215.6	229.0	237.8	240.1	218.2	203.7
17-Mar	141.3	214.8	215.0	228.5	237.2	239.6	217.5	203.2
18-Mar	141.9	215.0	215.2	228.6	237.4	239.8	217.6	203.3
19-Mar	141.7	215.1	215.4	228.9	237.5	240.0	217.7	203.6
20-Mar	141.5	214.8	215.0	228.5	237.3	239.7	217.3	203.2
21-Mar	141.8	214.9	215.1	228.6	237.3	239.7	217.3	203.4
22-Mar	142.3	215.1	215.3	228.5	237.3	239.8	217.3	203.5
23-Mar	142.5	215.3	215.6	228.5	237.5	240.0	217.4	203.6
24-Mar	142.4	215.4	215.7	228.5	237.5	239.9	217.3	203.6
25-Mar	142.2	215.3	215.7	228.4	237.3	239.7	217.0	203.5
26-Mar	142.3	215.3	215.6	228.4	237.3	239.7	217.0	203.5
27-Mar	142.5	215.5	215.9	228.5	237.4	239.9	217.0	203.7
28-Mar	142.7	215.7	216.0	228.7	237.6	240.1	217.2	203.9
29-Mar	142.7	215.7	216.0	228.7	237.6	240.1	217.1	203.9
30-Mar	142.8	215.7	216.0	228.7	237.6	240.0	217.1	203.9
31-Mar	142.5	215.5	215.9	228.5	237.4	239.8	216.8	203.7
Average	142.2	215.2	215.5	228.7	237.3	239.8	218.3	203.4

		Dep	th from Su	rface	
Date	25 ft	50 ft	75 ft	100 ft	125 ft
1-Mar	206.1	209.0	209.2	209.2	209.1
2-Mar	203.5	209.5	209.8	209.6	209.6
3-Mar	207.0	209.1	209.3	209.2	209.3
4-Mar	206.8	207.2	207.5	207.3	207.4
5-Mar	205.3	207.1	207.4	207.3	207.3
6-Mar	178.3	207.9	213.0	211.1	209.9
7-Mar	165.3	209.8	217.7	217.0	213.5
8-Mar	200.0	217.1	217.4	217.3	217.4
9-Mar	206.7	216.2	216.3	216.2	216.4
10-Mar	206.4	211.4	211.5	211.3	211.5
11-Mar	206.6	211.8	212.0	212.0	211.9
12-Mar	206.7	211.0	211.2	211.0	211.1
13-Mar	206.6	211.2	211.4	211.3	211.3
14-Mar	206.9	211.2	211.3	211.3	211.3
15-Mar	206.6	210.8	211.0	210.9	210.9
16-Mar	206.5	210.1	210.1	210.3	210.1
17-Mar	206.2	209.8	209.9	210.0	209.8
18-Mar	207.1	210.3	210.3	210.3	210.3
19-Mar	206.8	208.4	208.6	208.4	208.6
20-Mar	206.3	209.5	209.6	209.6	209.5
21-Mar	206.9	209.5	209.8	209.7	209.6
22-Mar	206.6	209.4	209.6	209.6	209.6
23-Mar	206.9	210.2	210.2	210.2	210.3
24-Mar	206.7	209.0	209.0	209.0	209.0
25-Mar	206.7	208.9	209.0	209.1	209.0
26-Mar	207.0	209.9	210.0	210.0	210.0
27-Mar	207.3	210.4	210.5	210.5	210.5
28-Mar	207.5	210.8	211.0	211.0	210.9
29-Mar	207.3	210.7	210.7	210.8	210.7
30-Mar	207.0	210.7	210.7	210.8	210.7
31-Mar	206.6	208.8	208.8	208.8	208.8
Average	204.1	210.2	210.8	210.7	210.5

				Depth fro	m Surface			
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Mar	142.9	193.6	209.5	193.5	194.8	197.1	198.7	206.7
2-Mar	143.0	192.1	209.9	193.3	197.1	197.5	196.3	199.8
3-Mar	143.2	186.5	210.1	193.3	194.4	196.9	199.1	209.2
4-Mar	143.5	185.2	210.6	193.5	192.9	196.6	201.3	208.3
5-Mar	143.6	193.2	208.8	193.6	193.8	196.9	200.7	207.0
6-Mar	143.2	196.8	208.2	193.0	197.9	197.5	194.6	200.0
7-Mar	143.3	188.8	209.8	193.5	193.2	196.3	200.2	213.5
8-Mar	143.6	190.9	209.9	193.6	194.1	196.7	199.0	215.7
9-Mar	143.8	187.0	210.2	193.5	193.7	196.7	199.3	206.9
10-Mar	143.9	187.4	209.9	193.3	192.6	196.0	200.0	212.1
11-Mar	144.1	189.0	210.1	193.6	192.9	196.3	200.6	221.2
12-Mar	144.4	189.4	209.9	193.8	192.8	196.5	201.3	218.2
13-Mar	144.5	187.8	210.4	193.7	192.7	196.6	201.2	219.0
14-Mar	144.8	191.7	210.8	194.3	193.2	196.9	201.8	215.4
15-Mar	144.9	193.1	210.9	194.3	193.7	196.9	200.4	212.4
16-Mar	145.1	193.2	210.8	194.3	193.7	196.8	200.3	214.4
17-Mar	144.6	188.5	210.6	193.6	192.3	196.2	201.6	217.4
18-Mar	145.0	187.0	210.9	194.1	192.7	196.6	201.3	213.2
19-Mar	145.1	191.5	211.1	194.0	193.0	196.9	200.9	206.2
20-Mar	145.0	191.6	210.4	193.4	192.6	196.4	200.4	209.6
21-Mar	145.0	187.4	210.7	193.6	192.4	196.3	201.0	207.1
22-Mar	145.2	185.1	211.0	193.7	191.8	196.0	203.4	210.8
23-Mar	145.4	185.4	211.2	193.9	191.9	196.1	204.6	209.2
24-Mar	145.5	188.0	211.1	194.1	192.2	196.3	204.1	207.9
25-Mar	145.4	183.2	210.8	194.0	191.7	195.8	204.1	208.4
26-Mar	145.5	182.6	210.7	194.0	192.1	196.0	204.1	207.2
27-Mar	145.6	180.2	211.2	194.0	191.6	196.3	205.6	209.4
28-Mar	145.9	179.8	211.4	194.2	191.7	196.5	206.4	210.0
29-Mar	145.9	180.0	211.4	194.4	191.4	196.2	206.6	209.7
30-Mar	146.0	182.9	211.3	194.3	191.7	196.3	205.8	210.8
31-Mar	145.9	186.6	210.9	193.9	192.0	196.2	204.1	211.7
Average	144.6	187.9	210.5	193.8	193.0	196.5	201.6	210.6

				Depth fro	m Surface			
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Mar	188.9	193.0	193.3	195.4	198.0	198.8	190.4	176.1
2-Mar	188.5	193.0	193.3	195.7	198.1	198.8	190.4	176.2
3-Mar	188.6	193.1	193.4	195.7	198.3	198.9	190.4	176.2
4-Mar	188.9	193.2	193.6	195.9	198.4	199.1	190.6	176.4
5-Mar	189.3	193.1	193.5	195.6	198.1	199.1	190.7	176.5
6-Mar	188.5	192.7	193.0	195.3	197.7	198.5	190.3	176.0
7-Mar	188.6	192.8	193.2	195.5	197.9	198.6	190.3	176.1
8-Mar	188.7	192.9	193.3	195.5	198.1	198.8	190.4	176.2
9-Mar	188.8	193.1	193.5	195.7	198.2	198.9	190.5	176.2
10-Mar	188.9	193.1	193.4	195.6	198.3	199.0	190.5	176.2
11-Mar	189.0	193.1	193.5	195.7	198.3	199.0	190.5	176.3
12-Mar	189.1	193.2	193.6	195.8	198.4	199.1	190.6	176.4
13-Mar	189.3	193.3	193.6	195.9	198.4	199.1	190.6	176.4
14-Mar	189.3	193.4	193.7	196.0	198.6	199.3	190.7	176.6
15-Mar	189.4	193.4	193.7	196.0	198.6	199.4	190.8	176.7
16-Mar	189.5	193.4	193.7	195.9	198.5	199.4	190.8	176.7
17-Mar	188.7	193.0	193.4	195.7	198.2	198.9	190.4	176.3
18-Mar	188.8	193.2	193.5	195.9	198.4	199.0	190.4	176.3
19-Mar	189.2	193.3	193.7	195.9	198.5	199.3	190.6	176.4
20-Mar	189.2	193.2	193.5	195.7	198.2	199.1	190.6	176.3
21-Mar	188.7	193.1	193.5	195.8	198.2	199.0	190.5	176.3
22-Mar	189.0	193.2	193.5	195.8	198.2	199.0	190.5	176.4
23-Mar	189.1	193.3	193.7	196.0	198.3	199.1	190.6	176.4
24-Mar	189.2	193.4	193.7	196.0	198.3	199.2	190.8	176.6
25-Mar	189.0	193.3	193.6	195.8	198.2	199.0	190.6	176.4
26-Mar	188.8	193.2	193.6	195.9	198.3	198.9	190.4	176.3
27-Mar	188.9	193.4	193.8	196.2	198.5	199.1	190.6	176.4
28-Mar	189.2	193.7	194.0	196.4	198.8	199.4	190.8	176.6
29-Mar	189.3	193.7	194.0	196.3	198.7	199.3	190.8	176.5
30-Mar	189.4	193.6	193.9	196.2	198.7	199.4	190.7	176.5
31-Mar	189.2	193.3	193.6	195.9	198.3	199.2	190.5	176.2
Average	189.0	193.2	193.5	195.8	198.3	199.1	190.6	176.4

				Depth fro	m Surface			
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Mar	107.8	144.3	143.1	147.8	144.8	131.9	114.6	105.2
2-Mar	107.9	144.3	143.2	147.6	144.5	131.6	114.4	104.8
3-Mar	108.1	144.7	143.8	147.9	144.7	131.8	114.8	105.1
4-Mar	108.1	144.9	144.0	148.3	145.0	132.2	115.1	105.4
5-Mar	108.4	145.3	144.4	148.4	145.1	132.4	115.3	105.5
6-Mar	107.7	144.6	143.6	147.5	144.1	131.5	114.4	104.6
7-Mar	107.6	145.1	144.1	147.8	144.4	131.7	114.7	104.9
8-Mar	108.0	145.4	144.2	148.0	144.5	131.8	115.0	105.1
9-Mar	108.4	145.8	144.7	148.2	144.7	132.1	115.2	105.4
10-Mar	108.6	145.9	144.8	148.2	144.7	132.4	115.2	105.3
11-Mar	109.2	146.4	145.4	148.5	144.8	132.5	115.4	105.4
12-Mar	109.2	146.6	145.5	148.6	144.9	132.4	115.6	105.4
13-Mar	109.3	146.8	145.8	148.6	144.9	132.3	115.6	105.3
14-Mar	109.4	147.2	146.1	148.9	145.2	132.5	115.8	105.5
15-Mar	109.3	147.0	145.9	148.9	145.1	132.4	115.8	105.4
16-Mar	109.5	147.3	146.2	149.0	145.1	132.4	115.9	105.4
17-Mar	108.9	146.7	145.8	148.3	144.4	131.7	115.3	104.8
18-Mar	109.0	147.2	146.3	148.6	144.7	131.8	115.5	105.1
19-Mar	109.3	147.4	146.5	149.0	145.1	132.2	116.0	105.4
20-Mar	108.9	147.0	146.1	148.5	144.5	131.7	115.5	105.1
21-Mar	108.9	147.1	146.2	148.5	144.5	131.6	115.4	104.9
22-Mar	109.0	147.1	146.2	148.6	144.6	131.6	115.6	105.1
23-Mar	109.0	147.4	146.4	148.9	144.9	131.8	115.9	105.3
24-Mar	108.2	147.1	146.1	148.8	144.8	131.7	115.8	105.2
25-Mar	107.6	146.8	145.7	148.6	144.7	131.6	115.6	105.0
26-Mar	107.7	146.8	145.7	148.5	144.5	131.6	115.5	104.9
27-Mar	107.8	147.0	146.1	148.7	144.7	132.3	115.7	105.2
28-Mar	108.0	147.5	146.4	149.1	145.2	132.7	116.2	105.6
29-Mar	108.5	147.5	146.5	149.1	145.1	132.5	116.1	105.5
30-Mar	107.9	147.4	146.4	149.1	145.1	132.4	116.2	105.5
31-Mar	106.9	147.1	146.1	148.8	144.9	132.1	115.9	105.2
Average	108.5	146.4	145.4	148.5	144.8	132.0	115.5	105.2

Appendix E

Monthly Topography Analysis



LEGEND MAJOR CONTOURS (

---- MAJOR CONTOURS (EVERY 10')

MINOR CONTOURS (EVERY 2')

SETTLEMENT PLATE

DECOMMISSIONED SETTLEMENT PLATE

TP-3 TEMPERATURE MONITORING PROBE

NOTES:

- 1. GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON MARCH 13, 2024 BY SCS ENGINEERS.
- 2. ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FLOOD PLAIN DETERMINATION.
- 3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
- 4. THE VERTICAL DATUM IS BASED UPON NAVD-88.

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CLIENT	CITY OF BRISTOL INTEGRATED SOLID	WASTE MANAGEMENT FACILITY	2655 VALLEY DRIVE	BRISTOL, VIRGINIA 24201
C.	HMIDT	NC. HIAN, VA 23113	133	Q/A RVW BY: CJW
SCS FNGINFFRS	STEARNS, CONRAD AND SCHMIDT	CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113	PH. (804) 378-7440 FAX. (804) 378-7433	5 DWN. BY: VMM
S.C.S.	STEARNS, C	CONSULTIN 15521 MIDLOTH	PH. (804) 378-7	10J. NO. 02218208.05

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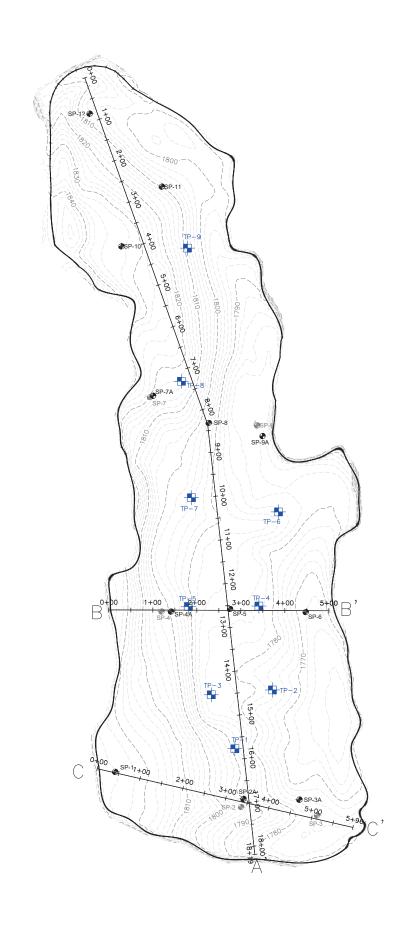
4/2/2025

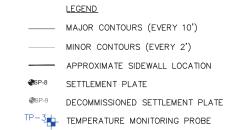
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MARCH 2024 LANDFILL TOPOGRAPHY MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588







NOTES:

- 1. GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON DECEMBER 13, 2024 BY SCS ENGINEERS.
- 2. ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FLOOD PLAIN DETERMINATION.
- 3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
- 4. THE VERTICAL DATUM IS BASED UPON NAVD-88.

CITY OF BRISTOL II WASTE MANAGEN 2655 VALLE	BRISTOL, VIRG	
FRS CHMIDT INC. THIAN, VA 23113	Q/A RVW BY: CJW	APP. BY:
SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15821 MIDCOTHAIN TNRC. MIDCOTHAIN, VA 23113 PH. (804) 378-7440 FAX. (804) 378-7433	DWN. BY: VMM	CHK. BY:
SCS E STEARNS, C CONSULTIN 1521 MIDLOTI PH. (804) 378-7	PROJ. NO. 02218208.05	DSN: BY:
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DATE: 4/2/202	25	
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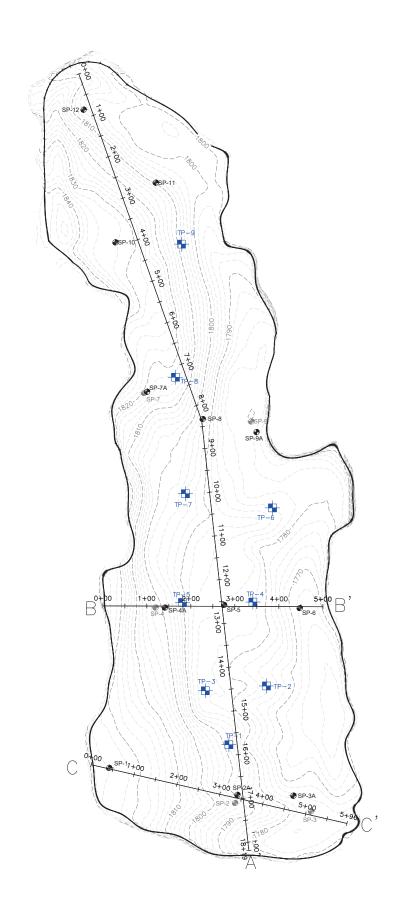


INTEGRATED SOLID
EMENT FACILITY
LEY DRIVE
RGINIA 24201

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DECEMBER 2024 LANDFILL TOPOGRAPHY

MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588



<u>LEGEND</u>

—— MAJOR CONTOURS (EVERY 10')

— MINOR CONTOURS (EVERY 2')

---- APPROXIMATE SIDEWALL LOCATION

SP-8 SETTLEMENT PLATE

DECOMMISSIONED SETTLEMENT PLATE

TP-3 TEMPERATURE MONITORING PROBE

NOTES:

- 1. GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON FEBRUARY 18, 2025 BY SCS ENGINEERS.
- 2. ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FLOOD PLAIN DETERMINATION.
- 3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
- 4. THE VERTICAL DATUM IS BASED UPON NAVD-88.

DATE

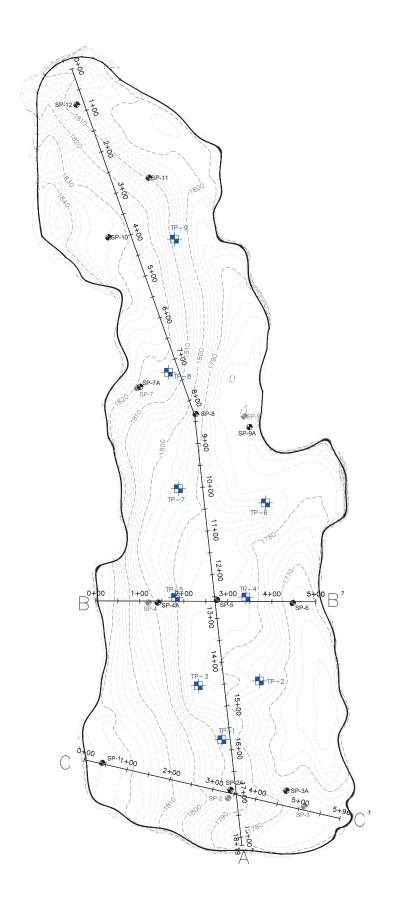
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CADD FILE: SURF COMP DATE: 4/2/2025

4/2/20 SCALE:

DRAWING NO.

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NOTES:

- 1. GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON MARCH 11, 2025 BY SCS ENGINEERS.
- 2. ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FLOOD PLAIN DETERMINATION.
- 3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
- 4. THE VERTICAL DATUM IS BASED UPON NAVD-88.

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MONTHLY TOPOGRAPHY ANALYSIS	\triangleleft			
SOLID WASTE PERMIT #588	\triangleleft			

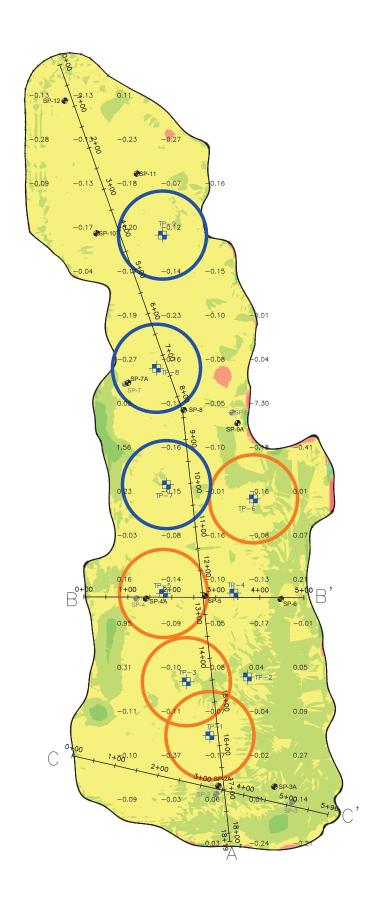
CLIENT	CITY OF BRISTOL INTEGRATED SOLID	WASTE MANAGEMENT FACILITY	2655 VALLEY DRIVE	BRISTOL, VIRGINIA 24201
	_	NC. HIAN, VA 23113	433	Q/A RVW BY: CJW
SCS ENGINEERS	STEARNS, CONRAD AND SCHMIDT	CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN, VA 23113	PH. (804) 378-7440 FAX. (804) 378-7433	DWN. BY: VMM
Д Д	STEARNS, C	CONSULTING 15521 MIDLOTH	PH. (804) 378-7	PROJ. NO. 02218208.05

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LEGEND ——— MAJOR CONTOURS (EVERY 10') MINOR CONTOURS (EVERY 2') APPROXIMATE WASTE BOUNDARY SETTLEMENT PLATE DECOMMISSIONED SETTLEMENT PLATE -0.39 SPOT ELEVATION ON 100' GRID

TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH LESS THAN 200 °F

TEMPERATURE MONITORING PROBE WITH

TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 200 F AND 250 F

AVERAGE TEMPERATURES AT DEPTH BETWEEN 250 °F AND 300 °F

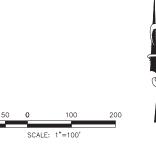
Volume Base Surface TOPO — February 18, 2025 Comparison Surface TOPO — March 11, 2025 3,206 1,413 1,793 Cut Volume Cu. Yd. Cu. Yd. Cu. Yd. Fill Volume Net Cut

Elevations Table

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 FEBRUARY 18, 2025 AND MARCH 11, 2025 BY SCS ENGINEERS. POSITIVE VALUES (+) INDICATE AREAS OF FILL AND NEGATIVE VALUES (-) INDICATE
- AREAS OF FILE AND NEGATIVE VALUES (+) INDICATE AREAS OF FILE AND NEGATIVE VALUES (-) INDICATE AREAS OF FULL 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.





MARCH VOLUME CHANGE FEBRUARY 2025 TO MARCH 2025		MONTHLY TOPOGRAPHY ANALYSI SOLID WASTE PERMIT #588
SHEET TITLE	PROJECT TITLE	MONTH SC

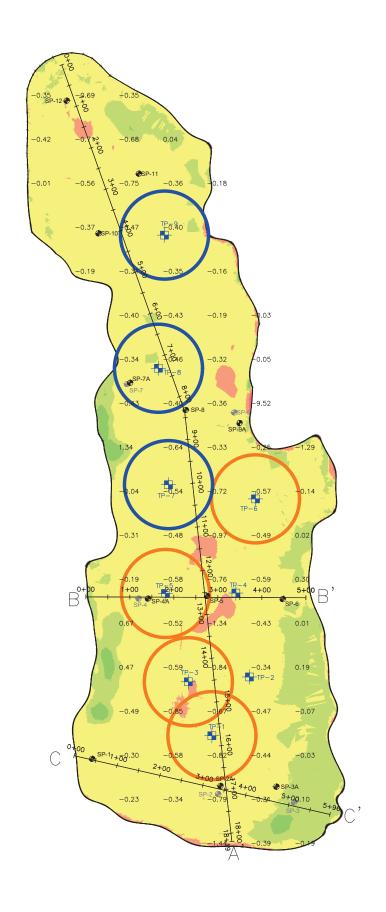
CITY OF BRISTOL INTEGRATED SOLID
WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15521 MIDLOTHAN THRY. MIDLOTHAN, VA 2.
PH. (804) 378-7440 FAX. (804) 378-7438

CADD FILE: SURF COMP

SCALE:

5



LEGEND MAJOR CONTOURS (EVERY 10') MINOR CONTOURS (EVERY 2') ----- APPROXIMATE WASTE BOUNDARY SETTLEMENT PLATE DECOMMISSIONED SETTLEMENT PLATE -0.39 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 me Base Surface TOPO — December 13, 2024 Comparison Surface TOPO — March 11, 2025

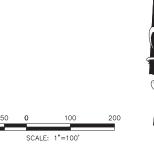
Cut Volume Fill Volume Net Cut Cu. Yd. Cu. Yd. Cu. Yd. 10,903 1,143 9,760

at	
	al

	Elevati	ons Table	
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:

- THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON DECEMBER 13, 2024 AND MARCH 11, 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.



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SHEET TITLE	PROJECT TITLE MONTH SC

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

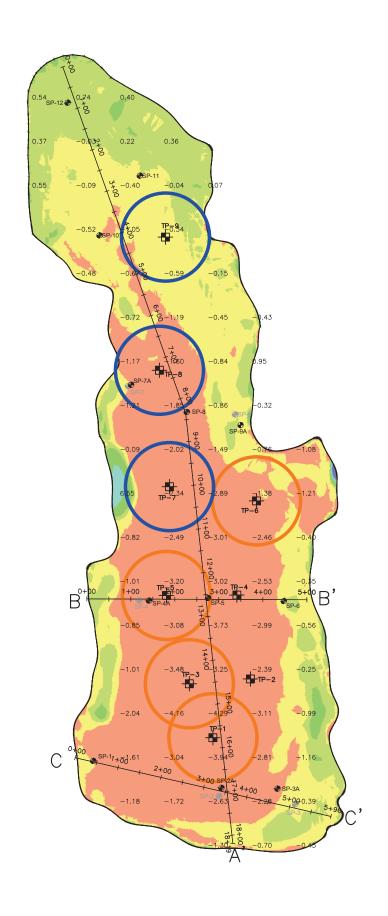
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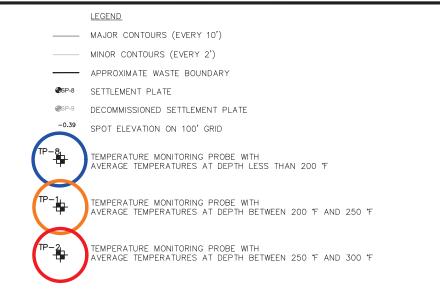
NS, CONRAD AND SCHMIDT
LTING BURDINERS, INC.
378-7440 FAX (804) 378-7433 SCS STEARNS, CONSULT 15521 MIDLC PH. (804) 37

CADD FILE: SURF COMP

SCALE:







Volume

Base Surface TOPO - March 13, 2024 Comparison Surface TOPO - March 11, 2025

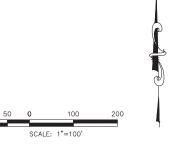
Cut Volume Fill Volume Net Cut 38,571 3,256 35,315 Cu. Yd. Cu. Yd. Cu. Yd.

Elevations Table

Number	Minimum Elevation	Maximum Elevation	Color					
1	-20.000	-10.000						
2	-10.000	-5.000						
3	-5.000	-5.000 -1.000						
4	-1.000	0.000						
5	0.000	1.000						
6	1.000							
7	5.000	10.000						
8	10.000	20.000	N					

NOTES:

- 1. THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON MARCH 13, 2024 AND MARCH 11, 2025 BY SCS ENGINEERS. POSITIVE VALUES (+) INDICATE AREAS OF FILL AND NECATIVE 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
- 3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011)
- 4. THE VERTICAL DATUM(S) IS BASED UPON NAVD-88.



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

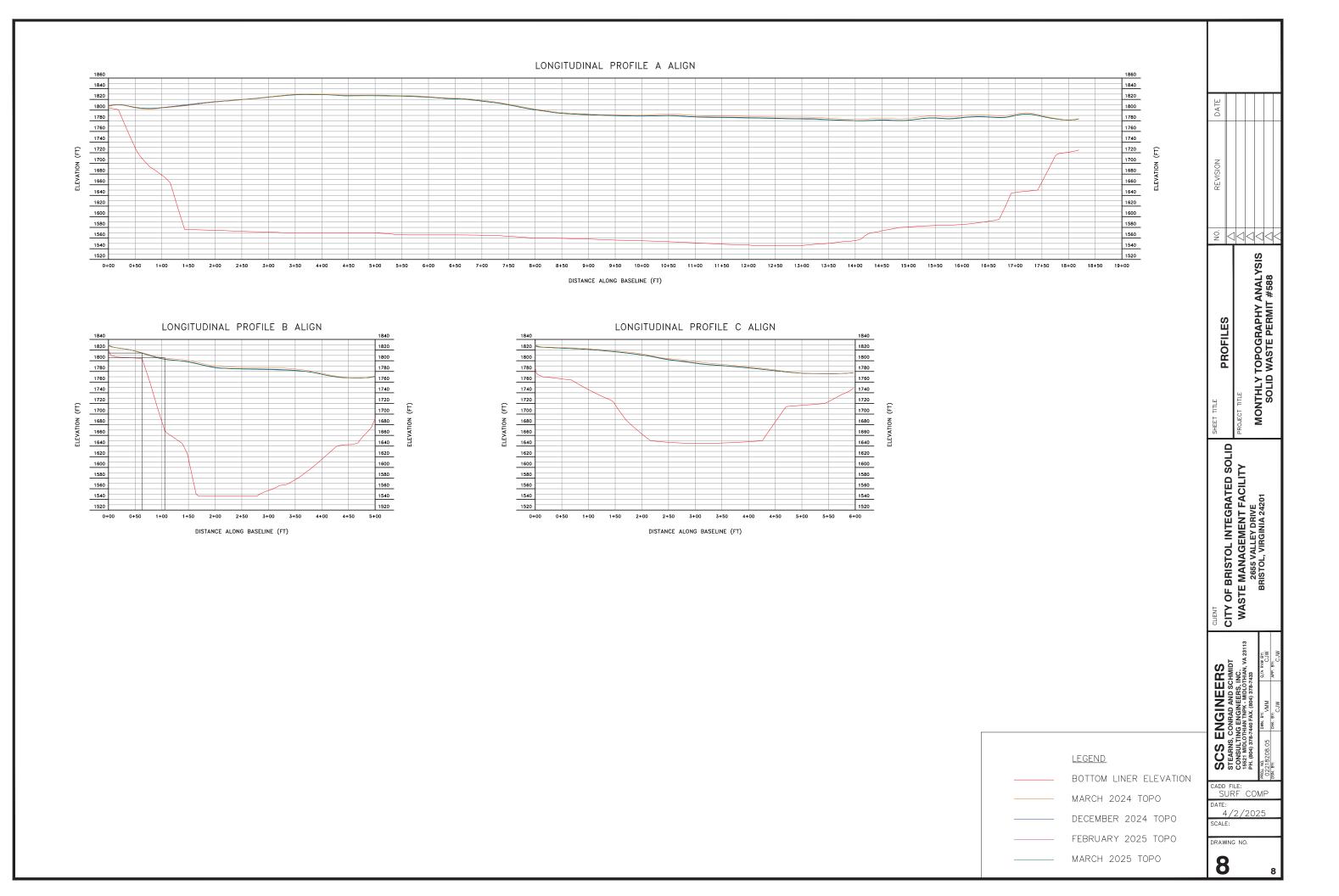
SENGINEERS

NS, CONRAD AND SCHMIDT
LTING BURDINERS, INC.
378-7440 FAX (804) 378-7433

SCS STEARNS, CONSULT 15521 MIDLC PH. (804) 37

CADD FILE: SURF COMP

SCALE:



Appendix F

Field Logs

Lab Report

Historical LFG-EW Leachate Monitoring Results Summary

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

Date							Marc	th 4 and 5, 20	025					
Personnel				M. Nguyen	, L. Nelson						Check	ed By:		L. Howard
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 INSTALL	ED													
EW-36A	3/5/2025	5.80	49.14	52.94	459999	59999	180.00	135	130.86	Y	0	N	Х	Pump is off, lost PVC
EW-49	3/5/2025	6.49	70.62	73.94	79565	79565	96.15	87	25.53	Υ	0	N	Х	Air is off
EW-50	3/5/2025	5.10	50.57	49.04	1539187	1513919	77.70	83	27.13	Υ	80	Y	Х	Sampled at 1005
EW-52	3/4/2025	3.63	45.32	47.78	1235299	1233644	98.70	80	53.38	Υ	110	N	Х	Can not disconnected air line, sticky
EW-53	3/4/2025	5.11	42.53	54.00	3294525	3294343	100.70	77	58.17	Υ	120	N	Х	
EW-54	3/4/2025	4.76	31.78	34.10		1207083	82.70	65	50.92	Y	0	N	Х	Air line disconnected, no cycle count
EW-55	3/4/2025	4.21	34.79	43.00	73374	72336	90.40	90	55.61	Υ	0	N	Х	Air line disconnected
EW-59	3/4/2025	4.56	34.17	59.75	3536810	3497038	73.40	61	39.23	Υ	0	N	Х	Air line disconnected
EW-60	3/5/2025	5.00	48.93	49.32	126607	101985	81.80	72.5	32.87	Υ	110	Y	Х	Sampled at 9:10
EW-61	3/5/2025	3.29	62.18	75.23		431469	87.80	75	25.62	Υ	0	N	Х	All lines disconnected, no cycle count
EW-64	3/5/2025	4.58	79.12	90.24	196791	196791	109.00	90	29.88	Y	0	N	Х	Air is on, pressure reading at zero
EW-65	3/5/2025	5.81	50.37	62.95	77157	77153	88.40	70	38.03	Y	0	N	Х	Air is off
EW-67	3/4/2025	3.33	39.66	42.92	28743	288741	107.75	76	68.09	Υ	0	N	Х	Air is off
EW-68	3/5/2025	1.82	43.82	45.07	2642840	2638794	73.57	60	29.75	Υ	120	Y	Х	Sampled at 8:25
EW-69	3/5/2025	4.64	see note	95.33		18	98.00			N		N	Х	Liquid depth 120.2 (possibly misinterpreted)
EW-78	3/5/2025	3.76	45.41	49.01	18075	2486	57.00	47	11.59	Y	95	N	Х	
EW-81	3/5/2025	6.58	62.28	106.91			151.56	125	89.28	Y	0	N	Х	Too high to read cycle count, air line disconnected
EW-82	3/5/2025	4.53	144.34	134.47	631288	631289	163.26	145	18.92	Y	0	N	Х	Air was off
EW-83	3/5/2025	5.67	86.25	97.63	69720		167.04	145	80.79	Y	0	N	Х	Air was off
EW-85	3/5/2025	4.90	55.73	61.46	292827	252602	91.00	78	35.27	Υ		N	Х	Air line disconnected
EW-93	3/4/2025	4.34	58.88	39.70	1283214	896817	111.00		52.12	Υ	95	N	Х	
EW-96	3/4/2025	7.05	48.23				164.35	145	116.12	Υ	0	N	Х	too high to read, air is off
EW-98	3/4/2025	4.58	32.17	33.70	1637860	1500838	51.00	46	18.83	Υ	110	N	Х	

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

Date							Marc	h 4 and 5, 2	025					
Personnel				M. Nguyen	, L. Nelson						Check	ed By:		L. Howard
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
NO PUMP														
EW-56	3/4/2025	5.48	Dry	Dry			42.71		Dry	N		N	Х	DTB= 38.84
EW-66	3/4/2025	6.38	30.98	48.41						N		N	Х	
EW-70	3/5/2025	1.82	64.63	65.13			71.00	58	6.37	N		N	Х	
EW-71	3/5/2025	5.66	169.49	159.70			185.80		16.31	N		N	Х	
EW-72	3/5/2025	5.28	117.34	118.54			141.21		23.87	N		N	Х	
EW-73	3/5/2025	4.06	107.40	107.53			116.00		8.60	N		N	Х	
EW-74	3/5/2025	7.00	159.73	159.68			184.15		24.42	N		N	Х	
EW-77	3/5/2025	6.51	120.72				185.22		64.50	N		N	Х	
EW-79	3/5/2025	6.09	153.83	134.39			185.64		31.81	N		N	Х	
EW-80	3/5/2025	2.97	137.84				149.00		11.16	N		N	Х	
EW-84	3/5/2025	3.80	81.62				130.56		48.94	N		N	Х	
EW-86	3/5/2025	3.28	77.14	80.93			153.00		75.86	N		N	Х	
EW-91	3/4/2025	5.98	47.19	41.23			137.70		90.51	N		N	Х	No O-ring gasket
EW-92	3/4/2025	8.26	DNM				112.99			N		N	Х	Too high for reading, air line disconnected
EW-95	DNM	DNM	DNM	67.18			68.00			N		N	Х	Caution tape
EW-97	3/4/2025	8.65	DNM				144.50			N		N	Х	Too high for reading
EW-99	3/4/2025	4.71	58.78	60.35			65.00		6.22	N		N	Х	

Date							Marc	h 4 and 5, 2	025					
Personnel				M. Nguyen	, L. Nelson						Check	ced By:		L. Howard
Location ID	Date	Casing Stickup (ft)	Depth to Liquid (ft)	Prior Depth to Liquid (ft)		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-33B ²	3/5/2025	5.51	DNM	102.76		94	185.00	140		N		N	Х	No cycle count, no lines connected
EW-75 ¹	3/5/2025	6.10	DNM	DNM			130.82	140		N		N		No cycle count, no lines connected
EW-76 ²	3/5/2025	3.64	DNM	DNM			127.00	108		Y		N	Х	
EW-87 ²	3/5/2025	6.36	DNM	59.61	340749	340749	149.57	110		Y	0	N	Х	Air turn off
EW-88 ²	3/5/2025	4.43	DNM	54.89		254736	100.00	61		Y	0	N	Х	Air disconnected
EW-89 ²	3/5/2025	4.89	DNM	46.98			84.57	70		Υ	0	N	Х	Air turn off
EW-94 ¹	3/4/2025	3.54	DNM	DNM	987027	697364	50.00	38		Υ	90	N	Х	
DO NOT MEA	SURE - WELLS	SHUT DOWN	DUE TO ISS	UES IN AREA	SURROUND	ING WELL								
EW-62	DNM	DNM	DNM	74.52		214599	110.60	91.5		Υ		N		
EW-63	DNM	DNM	DNM	74.52			117.00			Y		N		

DNM = Do not measure

^{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.

Dual Phase LFG-EW Sample Collection Log

Location ID	Sample Date	Sample Time	Temperature (oC)	pH (s.u.)	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Observations
EW-33B		7111 3		nec.	***		: 3188	111 2	***
EW-36A	220	-							
EW-49	: 		-	1117 0	:1722/	_	0 200		
EW-50	3/5/2025	10:05	58.3	7.69	18.74	0.18	-157.2	40.43	Brownish
EW-51	(See)	was:			***		(3444)		
EW-52	-			2255		1202	Name.		<u> </u>
EW-53			e =111	E1123			(enn)		
EW-54		1995	2.000				(Last)		
EW-55					-	-		-	
EW-57			2 /				****		-
EW-58						S ana	**************************************	E-H-	(=0.5)
EW-59	-	-200	1940	SUE	F 444	1 2000	****		(<u>2459</u>)
EW-60	3/5/2025	9:10	70.50	6.65	29.20	0.19	-228.30	0.00	Black, heavy sheen
EW-61						(2 43) -			:
EW-62	222		W 60-00	1866		% 	424	1244	-
EW-64				-	-	-	=		
EW-67	: ###)	: 444		1 485 .	·	3 1100 1	anne.	A sia	ासर
EW-68	3/5/2025	8:25	69.50	6.63	30.60	0.65	-197.50	0.00	Dark greenish grey
EW-70		-					202	222	Serie.
EW-72		(100	-						

Dual Phase LFG-EW Sample Collection Log

Location ID	Sample Date	Sample Time	Temperature (oC)	pH (s.u.)	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Observations	
EW-73		1000 0		(***)			See		anair:	
EW-74	=	-		2000		-			922	
EW-75	() .	THE E			:=#=		S apa l.	855.54		
EW-76	7999	***								
EW-78	Manus	-446							(Mark)	
EW-81		-	: 127				A SSE N	-		
EW-82			: 91114		i n-			i sse		
EW-83			- Name				***		3866	
EW-85	===>1		UNITE A	non:			7.75			
EW-87			S===0:		:===:		Here:	1999	: 255 2	
EW-88	-			222	: elle:	:201	Hear (:===	: cue:	
EW-89	-	-	(+40)	==				200	-	
EW-90		1777		***	- 		78E	Carre.	CEPTE.	
EW-91	-							:	1 4114	
EW-92	222		222			722		:===	1500	
EW-94		****	 >	1557					STATE	
EW-96	W##5	1986	<u> </u>	F###		S else	#2#)	(444)	1988	
EW-98	-	-		202		7 <u>363</u> 7		1200	1620	
EW-100			- Ma i			1000				
ampler: M. Nguyen, L. Nelson						Samples Shipped By: FedEx				
Log Checked By: L. Howard						Laboratory: Enthalpy Analytical				

^{*} D.O. gave an error of +++++ on YSI, could not get a reading





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

Certificate of Analysis

Final Report

Laboratory Order ID 25C0528

Client Name: SCS Engineers - Winchester

296 Victory Road

Winchester, VA 22602

Submitted To: Jennifer Robb

Submitted to. Centiller Robb

Date Received:

March 6, 2025 10:05

Date Issued:

March 28, 2025 13:40

Project Number:

02218208.15 Task 3

Purchase Order:

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

Enclosed are the results of analyses for samples received by the laboratory on 03/06/2025 10:05. 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.

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Enthalpy Analytical 1941 Reymet Road Richmond, VA 23237 (804)-358-8295 - Telephone (804)-358-8297 - Fax

Analysis Detects Report

SCS Engineers - Winchester Date Issued: 3/28/2025 1:40:42PM

Client Site ID: LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb

Client Name:

Laboratory Sample ID: Client Sample ID: 25C0528-01 **EW-68** Dil. LOQ Parameter Reference Method Sample Results DL Factor Units Samp ID Qual 0.254 01 SW6010D Arsenic 0.0100 0.0200 1 mg/L 01 SW6010D 2.93 0.0050 0.0100 1 Barium mg/L 0.155 0.0080 Chromium 01 SW6010D 0.0100 1 mg/L 01 SW6010D 0.0142 0.0080 0.0100 1 Copper mg/L 0.0229 0.0060 Lead 01 SW6010D 0.0100 1 mg/L 01 SW6010D 0.0818 0.0070 0.0100 1 Nickel mg/L Zinc 01 SW6010D 0.0277 0.0100 0.0100 1 mg/L 01RE1 33700 2-Butanone (MEK) SW8260D 1500 5000 500 ug/L Acetone 01RE1 SW8260D 86400 3500 5000 500 ug/L SW8260D 2350 Benzene 01 20.0 50.0 50 ug/L 117 Ethylbenzene 01 SW8260D 20.0 50.0 50 ug/L SW8260D 10000 500 500 50 Tetrahydrofuran 01 ug/L 01 SW8260D 166 25.0 50.0 50 Toluene ug/L Xylenes, Total 01 SW8260D 200 50.0 150 50 ug/L Ammonia as N 01 EPA350.1 R2.0 2110 146 200 2000 mg/L BOD SM5210B-2016 22000 01 0.2 2.0 1 mg/L COD 01 SM5220D-2011 51500 5000 5000 500 mg/L 2700 TKN as N EPA351.2 R2.0 250 01 100 500 mg/L Total Recoverable Phenolics 01 SW9065 25.9 0.750 1.25 1 mg/L



Enthalpy Analytical 1941 Reymet Road Richmond, VA 23237 (804)-358-8295 - Telephone (804)-358-8297 - Fax

3/28/2025 1:40:42PM

Date Issued:

Analysis Detects Report

Client Name: SCS Engineers - Winchester

Client Site ID: LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb

Laboratory Sample ID: 25C0528-02		Client Sample ID: EW-60							
								Dil.	
Parameter		Samp ID	Reference Method	Sample Results	Qual	DL	LOQ	Factor	Units
Arsenic		02	SW6010D	0.344		0.0100	0.0200	1	mg/L
Barium		02	SW6010D	1.05		0.0050	0.0100	1	mg/L
Cadmium		02	SW6010D	0.0119		0.0020	0.0040	1	mg/L
Chromium		02	SW6010D	0.199		0.0080	0.0100	1	mg/L
Lead		02	SW6010D	0.0816		0.0060	0.0100	1	mg/L
Mercury		02	SW6020B	14.6		2.00	2.00	10	ug/L
Nickel		02	SW6010D	0.0375		0.0070	0.0100	1	mg/L
Zinc		02	SW6010D	0.155		0.0100	0.0100	1	mg/L
2-Butanone (MEK)		02RE1	SW8260D	30600		1500	5000	500	ug/L
Acetone		02RE1	SW8260D	72600		3500	5000	500	ug/L
Benzene		02	SW8260D	1260		20.0	50.0	50	ug/L
Ethylbenzene		02	SW8260D	168		20.0	50.0	50	ug/L
Tetrahydrofuran		02	SW8260D	4890		500	500	50	ug/L
Toluene		02	SW8260D	150		25.0	50.0	50	ug/L
Xylenes, Total		02	SW8260D	386		50.0	150	50	ug/L
Ammonia as N		02	EPA350.1 R2.0	1480		146	200	2000	mg/L
BOD		02	SM5210B-2016	20400		0.2	2.0	1	mg/L
COD		02	SM5220D-2011	74600		10000	10000	1000	mg/L
TKN as N		02	EPA351.2 R2.0	1920		100	250	500	mg/L
Total Recoverable Phenolics		02	SW9065	21.4		0.750	1.25	1	mg/L



Enthalpy Analytical 1941 Reymet Road Richmond, VA 23237 (804)-358-8295 - Telephone (804)-358-8297 - Fax

3/28/2025 1:40:42PM

Date Issued:

Analysis Detects Report

Client Name: SCS Engineers - Winchester

Client Site ID: LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb

Laboratory Sample ID: 25C0528-03	Client Sample ID: EW-50							
							Dil.	
Parameter	Samp ID	Reference Method	Sample Results	Qual	DL	LOQ	Factor	Units
Arsenic	03	SW6010D	0.158		0.0100	0.0200	1	mg/L
Barium	03	SW6010D	0.516		0.0050	0.0100	1	mg/L
Chromium	03	SW6010D	0.248		0.0080	0.0100	1	mg/L
Copper	03	SW6010D	0.0087	J	0.0080	0.0100	1	mg/L
Lead	03	SW6010D	0.0113		0.0060	0.0100	1	mg/L
Nickel	03	SW6010D	0.0933		0.0070	0.0100	1	mg/L
Zinc	03	SW6010D	0.0415		0.0100	0.0100	1	mg/L
2-Butanone (MEK)	03	SW8260D	2540		150	500	50	ug/L
Acetone	03	SW8260D	4460		350	500	50	ug/L
Benzene	03	SW8260D	157		20.0	50.0	50	ug/L
Ethylbenzene	03	SW8260D	61.5		20.0	50.0	50	ug/L
Toluene	03	SW8260D	90.5		25.0	50.0	50	ug/L
Xylenes, Total	03	SW8260D	108	J	50.0	150	50	ug/L
Ammonia as N	03	EPA350.1 R2.0	1240		146	200	2000	mg/L
BOD	03	SM5210B-2016	3490		0.2	2.0	1	mg/L
COD	03	SM5220D-2011	8700		1000	1000	100	mg/L
TKN as N	03	EPA351.2 R2.0	1230		40.0	100	200	mg/L
Total Recoverable Phenolics	03	SW9065	3.88		0.300	0.500	1	mg/L

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



Certificate of Analysis

Client Name: SCS Engineers - Winchester

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

Submitted To: Jennifer Robb

Date Issued:

3/28/2025 1:40:42PM

Work Order:

25C0528

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EW-68	25C0528-01	Waste Water	03/05/2025 08:25	03/06/2025 10:05
EW-60	25C0528-02	Waste Water	03/05/2025 09:10	03/06/2025 10:05
EW-50	25C0528-03	Waste Water	03/05/2025 10:05	03/06/2025 10:05
Trip Blank	25C0528-04	Waste Water	01/27/2025 10:10	03/06/2025 10:05

COA reissued on 3/28/25 to correct to VOCs and SVOCs reported.



Certificate of Analysis

Client Name: SCS Engineers - Winchester

Date Issued: 3/28/2025 1:40:42PM

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

Jennifer Robb

Submitted To:

Work Order: 25C0528

	0 15	CAS	Reference	Sample Prep	Analyzed	Sample	Qual	DL	LOQ	DF	Units	Analys
Parameter	Samp ID	UAG	Method	Date/Time	Date/Time	Results	Quai	DL	LOQ	DF	Ullits	Allalys
Metals (Total) by EPA 6000/7000 Series	s Methods											
Silver	01	7440-22-4	SW6010D	03/10/2025 17:00	03/11/2025 17:38	BLOD		0.0050	0.0100	1	mg/L	MDW
Arsenic	01	7440-38-2	SW6010D	03/10/2025 17:00	03/11/2025 17:38	0.254		0.0100	0.0200	1	mg/L	MDW
Barium	01	7440-39-3	SW6010D	03/10/2025 17:00	03/11/2025 17:38	2.93		0.0050	0.0100	1	mg/L	MDW
Cadmium	01	7440-43-9	SW6010D	03/10/2025 17:00	03/11/2025 17:38	BLOD		0.0020	0.0040	1	mg/L	MDW
Chromium	01	7440-47-3	SW6010D	03/10/2025 17:00	03/11/2025 17:38	0.155		0.0080	0.0100	1	mg/L	MDW
Copper	01	7440-50-8	SW6010D	03/10/2025 17:00	03/11/2025 17:38	0.0142		0.0080	0.0100	1	mg/L	MDW
Mercury	01	7439-97-6	SW6020B	03/10/2025 17:00	03/11/2025 14:05	BLOD		1.00	1.00	5	ug/L	AB
Nickel	01	7440-02-0	SW6010D	03/10/2025 17:00	03/11/2025 17:38	0.0818		0.0070	0.0100	1	mg/L	MDW
Lead	01	7439-92-1	SW6010D	03/10/2025 17:00	03/11/2025 17:38	0.0229		0.0060	0.0100	1	mg/L	MDW
Selenium	01	7782-49-2	SW6010D	03/10/2025 17:00	03/11/2025 17:38	BLOD		0.0400	0.0500	1	mg/L	MDW
Zinc	01	7440-66-6	SW6010D	03/10/2025 17:00	03/11/2025 17:38	0.0277		0.0100	0.0100	1	mg/L	MDW
Volatile Organic Compounds by GCM	S											
2-Butanone (MEK)	01RE1	78-93-3	SW8260D	03/12/2025 19:23	03/12/2025 19:23	33700		1500	5000	500	ug/L	TLH
Acetone	01RE1	67-64-1	SW8260D	03/12/2025 19:23	03/12/2025 19:23	86400		3500	5000	500	ug/L	TLH
Benzene	01	71-43-2	SW8260D	03/11/2025 17:44	03/11/2025 17:44	2350		20.0	50.0	50	ug/L	TLH
Ethylbenzene	01	100-41-4	SW8260D	03/11/2025 17:44	03/11/2025 17:44	117		20.0	50.0	50	ug/L	TLH
Toluene	01	108-88-3	SW8260D	03/11/2025 17:44	03/11/2025 17:44	166		25.0	50.0	50	ug/L	TLH
Xylenes, Total	01	1330-20-7	SW8260D	03/11/2025 17:44	03/11/2025 17:44	200		50.0	150	50	ug/L	TLH
Tetrahydrofuran	01	109-99-9	SW8260D	03/11/2025 17:44	03/11/2025 17:44	10000		500	500	50	ug/L	TLH
Surr: 1,2-Dichloroethane-d4 (Surr)	01	99.6	% 70-120	03/11/2025 1	7:44 03/11/2025 17:4	4						
Surr: 4-Bromofluorobenzene (Surr)	01	106	% 75-120	03/11/2025 17	7:44 03/11/2025 17:4	4						
Surr: Dibromofluoromethane (Surr)	01	95.3	% 70-130	03/11/2025 1	7:44 03/11/2025 17:4	4						
Surr: Toluene-d8 (Surr)	01	106	% 70-130	03/11/2025 1	7:44 03/11/2025 17:4	4						
Surr: 1,2-Dichloroethane-d4 (Surr)	01RE1	103	% 70-120	03/12/2025 1	9:23 03/12/2025 19:2	3						



Certificate of Analysis

Client Name: SCS Engineers - Winchester

Date Issued:

3/28/2025 1:40:42PM

Client Site I.D.: Submitted To: LFG-EW Monthly Monitoring

Jennifer Robb

Work Order:

25C0528

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Parameter	Samp ID	CAS F	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Volatile Organic Compounds by GCM	S											
Surr: 4-Bromofluorobenzene (Surr)	01RE1	107 %	5 75-120	03/12/2025 19:23	3 03/12/2025 19:23	3						
Surr: Dibromofluoromethane (Surr)	01RE1	93.0 %	70-130	03/12/2025 19:23	3 03/12/2025 19:23	3						
Surr: Toluene-d8 (Surr)	01RE1	105 %	70-130	03/12/2025 19:23	3 03/12/2025 19:23	3						
Semivolatile Organic Compounds by	GCMS											
Anthracene	01	120-12-7	SW8270E	03/11/2025 13:30	03/19/2025 18:49	BLOD		100	200	20	ug/L	BMS
Surr: 2,4,6-Tribromophenol (Surr)	01	54.0 %	5-136	03/11/2025 13:30	03/19/2025 18:49	9						
Surr: 2-Fluorobiphenyl (Surr)	01	25.2 %	9-117	03/11/2025 13:30	03/19/2025 18:49	9						
Surr: 2-Fluorophenol (Surr)	01	18.4 %	5-60	03/11/2025 13:30	03/19/2025 18:49	9						
Surr: Nitrobenzene-d5 (Surr)	01	53.6 %	5-151	03/11/2025 13:30	03/19/2025 18:49	9						
Surr: Phenol-d5 (Surr)	01	0.200 %	5-60	03/11/2025 13:30	03/19/2025 18:49	9						DS
Surr: p-Terphenyl-d14 (Surr)	01	4.80 %	5-141	03/11/2025 13:30	03/19/2025 18:49	9						DS



Certificate of Analysis

Client Name: SCS Engineers - Winchester

Date Issued: 3/28/2

3/28/2025 1:40:42PM

Client Site I.D.:

LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb Work Order:

25C0528

Client Sample ID:	EW-68			Laborator	y Sample ID:	25C0528-01
		D-f	0 I - D	A I I	0	

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Wet Chemistry Analysis												
Ammonia as N	01	7664-41-7	EPA350.1 R2.0	03/14/2025 16:06	03/14/2025 16:06	2110		146	200	2000	mg/L	TEG
BOD	01	E1640606	SM5210B-20 16	03/06/2025 17:03	03/06/2025 17:03	22000		0.2	2.0	1	mg/L	CET
COD	01	NA	SM5220D-20 11	03/15/2025 12:00	03/15/2025 12:00	51500		5000	5000	500	mg/L	MJRL
Nitrate as N	01	14797-55-8	SM4500-NO 3F-2019CAL C	03/20/2025 16:00	03/20/2025 16:00	BLOD		2.00	10.0	200	mg/L	TEG
Nitrate+Nitrite as N	01	E701177	SM4500-NO 3F-2019	03/20/2025 16:00	03/20/2025 16:00	BLOD		0.50	0.50	5	mg/L	TEG
Nitrite as N	01	14797-65-0	SM4500-NO 2B-2021	03/06/2025 10:30	03/06/2025 10:30	BLOD		2.00	10.0	200	mg/L	TEG
Total Recoverable Phenolics	01	NA	SW9065	03/19/2025 19:00	03/19/2025 19:00	25.9		0.750	1.25	1	mg/L	MKS
TKN as N	01	E17148461	EPA351.2 R2.0	03/18/2025 11:08	03/18/2025 11:08	2700		100	250	500	mg/L	TEG



Certificate of Analysis

Client Name: SCS Engineers - Winchester

EW-60

Date Issued:

3/28/2025 1:40:42PM

Client Site I.D.:

Client Sample ID:

Submitted To:

LFG-EW Monthly Monitoring

Jennifer Robb

Work Order: 25C0528

Laboratory Sample ID: 25C0528-02

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	s Methods											
Silver	02	7440-22-4	SW6010D	03/10/2025 17:00	03/11/2025 17:40	BLOD		0.0050	0.0100	1	mg/L	MDW
Arsenic	02	7440-38-2	SW6010D	03/10/2025 17:00	03/11/2025 17:40	0.344		0.0100	0.0200	1	mg/L	MDW
Barium	02	7440-39-3	SW6010D	03/10/2025 17:00	03/11/2025 17:40	1.05		0.0050	0.0100	1	mg/L	MDW
Cadmium	02	7440-43-9	SW6010D	03/10/2025 17:00	03/11/2025 17:40	0.0119		0.0020	0.0040	1	mg/L	MDW
Chromium	02	7440-47-3	SW6010D	03/10/2025 17:00	03/11/2025 17:40	0.199		0.0080	0.0100	1	mg/L	MDW
Copper	02	7440-50-8	SW6010D	03/10/2025 17:00	03/11/2025 17:40	BLOD		0.0080	0.0100	1	mg/L	MDW
Mercury	02	7439-97-6	SW6020B	03/10/2025 17:00	03/11/2025 13:38	14.6		2.00	2.00	10	ug/L	AB
Nickel	02	7440-02-0	SW6010D	03/10/2025 17:00	03/11/2025 17:40	0.0375		0.0070	0.0100	1	mg/L	MDW
Lead	02	7439-92-1	SW6010D	03/10/2025 17:00	03/11/2025 17:40	0.0816		0.0060	0.0100	1	mg/L	MDW
Selenium	02	7782-49-2	SW6010D	03/10/2025 17:00	03/11/2025 17:40	BLOD		0.0400	0.0500	1	mg/L	MDW
Zinc	02	7440-66-6	SW6010D	03/10/2025 17:00	03/11/2025 17:40	0.155		0.0100	0.0100	1	mg/L	MDW
Volatile Organic Compounds by GCM	S											
2-Butanone (MEK)	02RE1	78-93-3	SW8260D	03/12/2025 19:46	03/12/2025 19:46	30600		1500	5000	500	ug/L	TLH
Acetone	02RE1	67-64-1	SW8260D	03/12/2025 19:46	03/12/2025 19:46	72600		3500	5000	500	ug/L	TLH
Benzene	02	71-43-2	SW8260D	03/11/2025 18:07	03/11/2025 18:07	1260		20.0	50.0	50	ug/L	TLH
Ethylbenzene	02	100-41-4	SW8260D	03/11/2025 18:07	03/11/2025 18:07	168		20.0	50.0	50	ug/L	TLH
Toluene	02	108-88-3	SW8260D	03/11/2025 18:07	03/11/2025 18:07	150		25.0	50.0	50	ug/L	TLH
Xylenes, Total	02	1330-20-7	SW8260D	03/11/2025 18:07	03/11/2025 18:07	386		50.0	150	50	ug/L	TLH
Tetrahydrofuran	02	109-99-9	SW8260D	03/11/2025 18:07	03/11/2025 18:07	4890		500	500	50	ug/L	TLH
Surr: 1,2-Dichloroethane-d4 (Surr)	02	103	% 70-120	03/11/2025 18	3:07 03/11/2025 18:0)7						
Surr: 4-Bromofluorobenzene (Surr)	02	104	% 75-120	03/11/2025 18	3:07 03/11/2025 18:0)7						
Surr: Dibromofluoromethane (Surr)	02	96.0	% 70-130	03/11/2025 18	3:07 03/11/2025 18:0)7						
Surr: Toluene-d8 (Surr)	02	107	% 70-130	03/11/2025 18	3:07 03/11/2025 18:0)7						
Surr: 1,2-Dichloroethane-d4 (Surr)	02RE1	106	% 70-120	03/12/2025 19	0:46 03/12/2025 19:4	16						



Certificate of Analysis

Client Name: SCS Engineers - Winchester

Date Issued:

3/28/2025 1:40:42PM

Client Site I.D.:

LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb

Work Order:

25C0528

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Parameter	Samp ID	F CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Volatile Organic Compounds by GCMS	3											
Surr: 4-Bromofluorobenzene (Surr)	02RE1	107 %	75-120	03/12/2025 19:46	6 03/12/2025 19:46	<u> </u>						
Surr: Dibromofluoromethane (Surr)	02RE1	96.7 %	70-130	03/12/2025 19:46	6 03/12/2025 19:46	6						
Surr: Toluene-d8 (Surr)	02RE1	105 %	70-130	03/12/2025 19:46	03/12/2025 19:46	5						
Semivolatile Organic Compounds by 0	GCMS											
Anthracene	02	120-12-7	SW8270E	03/11/2025 13:30 0	03/19/2025 19:18	BLOD		200	400	20	ug/L	BMS
Surr: 2,4,6-Tribromophenol (Surr)	02	96.6 %	5-136	03/11/2025 13:30	03/19/2025 19:18	3						
Surr: 2-Fluorobiphenyl (Surr)	02	44.4 %	9-117	03/11/2025 13:30	03/19/2025 19:18	3						
Surr: 2-Fluorophenol (Surr)	02	29.6 %	5-60	03/11/2025 13:30	03/19/2025 19:18	3						
Surr: Nitrobenzene-d5 (Surr)	02	195 %	5-151	03/11/2025 13:30	03/19/2025 19:18	3						DS
Surr: Phenol-d5 (Surr)	02	%	5-60	03/11/2025 13:30	03/19/2025 19:18	3						DS
Surr: p-Terphenyl-d14 (Surr)	02	37.2 %	5-141	03/11/2025 13:30	03/19/2025 19:18	3						



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Client Name: SCS Engineers - Winchester

Date Issued: 3/28/2025 1:40:42PM

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

Submitted To: Jennifer Robb Work Order: 25C0528

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Wet Chemistry Analysis												
Ammonia as N	02	7664-41-7	EPA350.1 R2.0	03/14/2025 16:08	03/14/2025 16:08	1480		146	200	2000	mg/L	TEG
BOD	02	E1640606	SM5210B-20 16	03/06/2025 17:00	03/06/2025 17:00	20400		0.2	2.0	1	mg/L	CET
COD	02	NA	SM5220D-20 11	03/15/2025 12:00	03/15/2025 12:00	74600		10000	10000	1000	mg/L	MJRL
Nitrate as N	02	14797-55-8	SM4500-NO 3F-2019CAL C	03/20/2025 16:00	03/20/2025 16:00	BLOD		2.00	10.0	200	mg/L	TEG
Nitrate+Nitrite as N	02	E701177	SM4500-NO 3F-2019	03/20/2025 16:00	03/20/2025 16:00	BLOD		0.50	0.50	5	mg/L	TEG
Nitrite as N	02	14797-65-0	SM4500-NO 2B-2021	03/06/2025 10:30	03/06/2025 10:30	BLOD		2.00	10.0	200	mg/L	TEG
Total Recoverable Phenolics	02	NA	SW9065	03/19/2025 19:00	03/19/2025 19:00	21.4		0.750	1.25	1	mg/L	MKS
TKN as N	02	E17148461	EPA351.2 R2.0	03/18/2025 11:09	03/18/2025 11:09	1920		100	250	500	mg/L	TEG



3/28/2025 1:40:42PM

Certificate of Analysis

Client Name: SCS Engineers - Winchester

chester Date Issued:

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

Submitted To: Jennifer Robb Work Order: 25C0528

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 6000/7	000 Series Methods											
Silver	03	7440-22-4	SW6010D	03/10/2025 17:00	03/11/2025 17:41	BLOD		0.0050	0.0100	1	mg/L	MDW
Arsenic	03	7440-38-2	SW6010D	03/10/2025 17:00	03/11/2025 17:41	0.158		0.0100	0.0200	1	mg/L	MDW
Barium	03	7440-39-3	SW6010D	03/10/2025 17:00	03/11/2025 17:41	0.516		0.0050	0.0100	1	mg/L	MDW
Cadmium	03	7440-43-9	SW6010D	03/10/2025 17:00	03/11/2025 17:41	BLOD		0.0020	0.0040	1	mg/L	MDW
Chromium	03	7440-47-3	SW6010D	03/10/2025 17:00	03/11/2025 17:41	0.248		0.0080	0.0100	1	mg/L	MDW
Copper	03	7440-50-8	SW6010D	03/10/2025 17:00	03/11/2025 17:41	0.0087	J	0.0080	0.0100	1	mg/L	MDW
Mercury	03	7439-97-6	SW6020B	03/10/2025 17:00	03/11/2025 14:08	BLOD		1.00	1.00	5	ug/L	AB
Nickel	03	7440-02-0	SW6010D	03/10/2025 17:00	03/11/2025 17:41	0.0933		0.0070	0.0100	1	mg/L	MDW
Lead	03	7439-92-1	SW6010D	03/10/2025 17:00	03/11/2025 17:41	0.0113		0.0060	0.0100	1	mg/L	MDW
Selenium	03	7782-49-2	SW6010D	03/10/2025 17:00	03/11/2025 17:41	BLOD		0.0400	0.0500	1	mg/L	MDW
Zinc	03	7440-66-6	SW6010D	03/10/2025 17:00	03/11/2025 17:41	0.0415		0.0100	0.0100	1	mg/L	MDW



Certificate of Analysis

Client Name: SCS Engineers - Winchester

Date Issued:

3/28/2025 1:40:42PM

Client Site I.D.:
Submitted To:

LFG-EW Monthly Monitoring

Jennifer Robb

Work Order:

25C0528

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 GCM	s											
2-Butanone (MEK)	03	78-93-3	SW8260D	03/11/2025 18:31	03/11/2025 18:31	2540		150	500	50	ug/L	TLH
Acetone	03	67-64-1	SW8260D	03/11/2025 18:31	03/11/2025 18:31	4460		350	500	50	ug/L	TLH
Benzene	03	71-43-2	SW8260D	03/11/2025 18:31	03/11/2025 18:31	157		20.0	50.0	50	ug/L	TLH
Ethylbenzene	03	100-41-4	SW8260D	03/11/2025 18:31	03/11/2025 18:31	61.5		20.0	50.0	50	ug/L	TLH
Toluene	03	108-88-3	SW8260D	03/11/2025 18:31	03/11/2025 18:31	90.5		25.0	50.0	50	ug/L	TLH
Xylenes, Total	03	1330-20-7	SW8260D	03/11/2025 18:31	03/11/2025 18:31	108	J	50.0	150	50	ug/L	TLH
Tetrahydrofuran	03	109-99-9	SW8260D	03/11/2025 18:31	03/11/2025 18:31	BLOD		500	500	50	ug/L	TLH
Surr: 1,2-Dichloroethane-d4 (Surr)	03	104	% 70-120	03/11/2025 18:	31 03/11/2025 18:3	1						
Surr: 4-Bromofluorobenzene (Surr)	03	106	% 75-120	03/11/2025 18:	31 03/11/2025 18:3	1						
Surr: Dibromofluoromethane (Surr)	03	95.8	% 70-130	03/11/2025 18:	31 03/11/2025 18:3	1						
Surr: Toluene-d8 (Surr)	03	107	% 70-130	03/11/2025 18:	31 03/11/2025 18:3	1						



Certificate of Analysis

Client Name: SCS Engineers - Winchester

LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb

Client Site I.D.:

Date Issued:

3/28/2025 1:40:42PM

Work Order:

25C0528

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Semivolatile Organic Compounds by Anthracene	03	120-12-7	SW8270E	03/11/2025 13:30	03/19/2025 19:47	BLOD		100	200	20	ua/l	BMS
Surr: 2,4,6-Tribromophenol (Surr)	03	62.6 9		03/11/2025 13:3				100	200		ug/L	BIVIS
Surr: 2-Fluorobiphenyl (Surr)	03	32.8 9	% 9-117	03/11/2025 13:3	30 03/19/2025 19:4	17						
Surr: 2-Fluorophenol (Surr)	03	18.8 9	% 5-60	03/11/2025 13:	30 03/19/2025 19:4	!7						
Surr: Nitrobenzene-d5 (Surr)	03	39.8 9	% 5-151	03/11/2025 13:3	30 03/19/2025 19:4	17						
Surr: Phenol-d5 (Surr)	03	13.8 9	% 5-60	03/11/2025 13:3	30 03/19/2025 19:4	17						
Surr: p-Terphenyl-d14 (Surr)	03	16.0 9	% 5-141	03/11/2025 13:3	30 03/19/2025 19:4	17						



Certificate of Analysis

Client Name: SCS Engineers - Winchester

Date Issued: 3/28/2025 1:40:42PM

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

Submitted To: Jennifer Robb Work Order: 25C0528

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Wet Chemistry Analysis												
Ammonia as N	03	7664-41-7	EPA350.1 R2.0	03/14/2025 16:10	03/14/2025 16:10	1240		146	200	2000	mg/L	TEG
BOD	03	E1640606	SM5210B-20 16	03/06/2025 17:02	03/06/2025 17:02	3490		0.2	2.0	1	mg/L	CET
COD	03	NA	SM5220D-20 11	03/15/2025 12:00	03/15/2025 12:00	8700		1000	1000	100	mg/L	MJRL
Nitrate as N	03	14797-55-8	SM4500-NO 3F-2019CAL C	03/20/2025 16:00	03/20/2025 16:00	BLOD		2.00	10.0	200	mg/L	TEG
Nitrate+Nitrite as N	03	E701177	SM4500-NO 3F-2019	03/20/2025 16:00	03/20/2025 16:00	BLOD		0.50	0.50	5	mg/L	TEG
Nitrite as N	03	14797-65-0	SM4500-NO 2B-2021	03/06/2025 10:30	03/06/2025 10:30	BLOD		2.00	10.0	200	mg/L	TEG
Total Recoverable Phenolics	03	NA	SW9065	03/19/2025 19:00	03/19/2025 19:00	3.88		0.300	0.500	1	mg/L	MKS
TKN as N	03	E17148461	EPA351.2 R2.0	03/18/2025 11:10	03/18/2025 11:10	1230		40.0	100	200	mg/L	TEG



Certificate of Analysis

Client Name: SCS Engineers - Winchester

LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb

Client Site I.D.:

Date Issued:

3/28/2025 1:40:42PM

Work Order: 25C0528

Client Sample ID: Trip Blank Laboratory Sample ID: 25C0528-04

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 GCM	S											
2-Butanone (MEK)	04	78-93-3	SW8260D	03/11/2025 15:01	03/11/2025 15:01	BLOD		3.00	10.0	1	ug/L	TLH
Acetone	04	67-64-1	SW8260D	03/11/2025 15:01	03/11/2025 15:01	BLOD		7.00	10.0	1	ug/L	TLH
Benzene	04	71-43-2	SW8260D	03/11/2025 15:01	03/11/2025 15:01	BLOD		0.40	1.00	1	ug/L	TLH
Ethylbenzene	04	100-41-4	SW8260D	03/11/2025 15:01	03/11/2025 15:01	BLOD		0.40	1.00	1	ug/L	TLH
Toluene	04	108-88-3	SW8260D	03/11/2025 15:01	03/11/2025 15:01	BLOD		0.50	1.00	1	ug/L	TLH
Xylenes, Total	04	1330-20-7	SW8260D	03/11/2025 15:01	03/11/2025 15:01	BLOD		1.00	3.00	1	ug/L	TLH
Tetrahydrofuran	04	109-99-9	SW8260D	03/11/2025 15:01	03/11/2025 15:01	BLOD		10.0	10.0	1	ug/L	TLH
Surr: 1,2-Dichloroethane-d4 (Surr)	04	105	% 70-120	03/11/2025 15:	01 03/11/2025 15:01							
Surr: 4-Bromofluorobenzene (Surr)	04	104	% 75-120	03/11/2025 15:	01 03/11/2025 15:01							
Surr: Dibromofluoromethane (Surr)	04	106	% 70-130	03/11/2025 15:	01 03/11/2025 15:01							
Surr: Toluene-d8 (Surr)	04	107	% 70-130	03/11/2025 15:	01 03/11/2025 15:01							



Certificate of Analysis

Client Name: SCS Engineers - Winchester

LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb

Client Site I.D.:

Date Issued:

3/28/2025 1:40:42PM

Work Order:

25C0528

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

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Bat	ch BIC0454 - EPA20	0.2R2.8/SW30	005A-ICP							
Blank (BIC0454-BLK1)				Prepared: 03/10/	2025 Analyzed: (03/11/2025				
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							
CS (BIC0454-BS1)				Prepared: 03/10/	2025 Analyzed: (03/11/2025				
Arsenic	0.504	0.0200	mg/L	0.500		101	80-120			
Barium	0.501	0.0100	mg/L	0.500		100	80-120			
Cadmium	0.507	0.0040	mg/L	0.500		101	80-120			
Chromium	0.506	0.0100	mg/L	0.500		101	80-120			
Copper	0.483	0.0100	mg/L	0.500		96.6	80-120			
Lead	0.508	0.0100	mg/L	0.500		102	80-120			
Nickel	0.5079	0.0100	mg/L	0.500		102	80-120			
Selenium	0.522	0.0500	mg/L	0.500		104	80-120			
Silver	0.0996	0.0100	mg/L	0.100		99.6	80-120			
Zinc	0.521	0.0100	mg/L	0.500		104	80-120			
Matrix Spike (BIC0454-MS1)	Sour	ce: 25C0699-0	1	Prepared: 03/10/	2025 Analyzed: (03/11/2025				
Arsenic	0.526	0.0200	mg/L	0.500	BLOD	105	75-125			
Barium	0.663	0.0100	mg/L	0.500	0.161	100	75-125			



Certificate of Analysis

Client Name: SCS Engineers - Winchester

LFG-EW Monthly Monitoring

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Client Site I.D.:

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25C0528

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

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch	BIC0454 - EPA20	0.2R2.8/SW3	005A-ICP							
Matrix Spike (BIC0454-MS1)	Soui	rce: 25C0699-0	1	Prepared: 03/10/	2025 Analyzed: 0	3/11/2025				
Cadmium	0.485	0.0040	mg/L	0.500	BLOD	97.1	75-125			
Chromium	0.501	0.0100	mg/L	0.500	BLOD	100	75-125			
Copper	0.529	0.0100	mg/L	0.500	0.0232	101	75-125			
Lead	0.503	0.0100	mg/L	0.500	0.0088	98.8	75-125			
Nickel	0.5119	0.0100	mg/L	0.500	0.0213	98.1	75-125			
Selenium	0.614	0.0500	mg/L	0.500	0.0873	105	75-125			
Silver	0.0998	0.0100	mg/L	0.100	BLOD	99.8	75-125			
Zinc	0.516	0.0100	mg/L	0.500	BLOD	103	75-125			
Matrix Spike (BIC0454-MS2)	Sour	rce: 25C0699-0	2	Prepared: 03/10/	2025 Analyzed: 0	3/11/2025				
Arsenic	0.509	0.0200	mg/L	0.500	BLOD	102	75-125			
Barium	0.632	0.0100	mg/L	0.500	0.158	94.8	75-125			
Cadmium	0.472	0.0040	mg/L	0.500	BLOD	94.4	75-125			
Chromium	0.491	0.0100	mg/L	0.500	BLOD	98.2	75-125			
Copper	0.517	0.0100	mg/L	0.500	0.0222	98.9	75-125			
Lead	0.492	0.0100	mg/L	0.500	0.0079	96.7	75-125			
Nickel	0.4960	0.0100	mg/L	0.500	0.0205	95.1	75-125			
Selenium	0.586	0.0500	mg/L	0.500	0.0878	99.7	75-125			
Silver	0.0965	0.0100	mg/L	0.100	BLOD	96.5	75-125			
Zinc	0.484	0.0100	mg/L	0.500	BLOD	96.7	75-125			
Matrix Spike Dup (BIC0454-MSD1)	Sour	rce: 25C0699-0	1	Prepared: 03/10/	2025 Analyzed: 0	3/11/2025				
Arsenic	0.518	0.0200	mg/L	0.500	BLOD	104	75-125	1.50	20	
Barium	0.664	0.0100	mg/L	0.500	0.161	101	75-125	0.166	20	
Cadmium	0.482	0.0040	mg/L	0.500	BLOD	96.4	75-125	0.703	20	
Chromium	0.497	0.0100	mg/L	0.500	BLOD	99.4	75-125	0.781	20	



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25C0528

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

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch	BIC0454 - EPA20	0.2R2.8/SW3	005A-ICP							
Matrix Spike Dup (BIC0454-MSD1)	Soui	rce: 25C0699-0	1	Prepared: 03/10	/2025 Analyzed: (3/11/2025				
Copper	0.525	0.0100	mg/L	0.500	0.0232	100	75-125	0.759	20	
Lead	0.499	0.0100	mg/L	0.500	0.0088	98.0	75-125	0.799	20	
Nickel	0.5090	0.0100	mg/L	0.500	0.0213	97.5	75-125	0.568	20	
Selenium	0.608	0.0500	mg/L	0.500	0.0873	104	75-125	1.06	20	
Silver	0.0995	0.0100	mg/L	0.100	BLOD	99.5	75-125	0.301	20	
Zinc	0.497	0.0100	mg/L	0.500	BLOD	99.4	75-125	3.83	20	
Matrix Spike Dup (BIC0454-MSD2)	Sour	rce: 25C0699-0	2	Prepared: 03/10	/2025 Analyzed: (3/11/2025				
Arsenic	0.524	0.0200	mg/L	0.500	BLOD	105	75-125	2.98	20	
Barium	0.671	0.0100	mg/L	0.500	0.158	102	75-125	5.86	20	
Cadmium	0.483	0.0040	mg/L	0.500	BLOD	96.7	75-125	2.41	20	
Chromium	0.503	0.0100	mg/L	0.500	BLOD	101	75-125	2.41	20	
Copper	0.529	0.0100	mg/L	0.500	0.0222	101	75-125	2.30	20	
Lead	0.504	0.0100	mg/L	0.500	0.0079	99.2	75-125	2.45	20	
Nickel	0.5090	0.0100	mg/L	0.500	0.0205	97.7	75-125	2.59	20	
Selenium	0.606	0.0500	mg/L	0.500	0.0878	104	75-125	3.27	20	
Silver	0.101	0.0100	mg/L	0.100	BLOD	101	75-125	4.26	20	E
Zinc	0.497	0.0100	mg/L	0.500	BLOD	99.3	75-125	2.65	20	
Batch	BIC0460 - EPA20	0.2R2.8/SW3	005A-ICP	MS						
Blank (BIC0460-BLK1)				Prepared: 03/10	/2025 Analyzed: (3/11/2025				
Mercury	ND	0.200	ug/L	-	-					
_CS (BIC0460-BS1)				Prepared: 03/10	/2025 Analyzed: (3/11/2025				
Mercury	0.942	0.200	ug/L	1.00		94.2	80-120			



Certificate of Analysis

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

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch	BIC0460 - EPA200	0.2R2.8/SW30	005A-ICP	MS						
Matrix Spike (BIC0460-MS1)	Sour	ce: 25C0758-01	1	Prepared: 03/10/	/2025 Analyzed: (03/11/2025				
Mercury	0.949	0.200	ug/L	1.00	BLOD	94.9	70-130			
Matrix Spike Dup (BIC0460-MSD1)	Sour	ce: 25C0758-01	Í	Prepared: 03/10/	2025 Analyzed: (03/11/2025				
Mercury	0.954	0.200	ug/L	1.00	BLOD	95.4	70-130	0.606	20	



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ND

ND

ND

ND

ND

ND

ND

ND

1.00

1.00

1.00

1.00

10.0

1.00

5.00

1.00

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

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1,1-Dichloroethylene

1,1-Dichloropropene

1,2,3-Trichlorobenzene

1,2,3-Trichloropropane

1,2,4-Trichlorobenzene

1,2,4-Trimethylbenzene

1,2-Dibromoethane (EDB)

1.2-Dichlorobenzene

1,2-Dichloroethane

1,2-Dichloropropane

1.3-Dichlorobenzene

1,3-Dichloropropane

1,4-Dichlorobenzene

2,2-Dichloropropane

2-Butanone (MEK)

2-Hexanone (MBK)

2-Chlorotoluene

4-Chlorotoluene

1,3,5-Trimethylbenzene

Jennifer Robb Submitted To: 25C0528 Work Order:

Volatile Organic Compounds by GCMS - Quality Control

				Entrialpy Ar	lalytical					
Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
	Batch BIC0526 - SW5030	OB-MS								
Blank (BIC0526-BLK1)				Prepared & Analy	zed: 03/11/2025	;				
1,1,1,2-Tetrachloroethane	ND	0.40	ug/L							
1,1,1-Trichloroethane	ND	1.00	ug/L							
1,1,2,2-Tetrachloroethane	ND	0.40	ug/L							
1,1,2-Trichloroethane	ND	1.00	ug/L							
1,1-Dichloroethane	ND	1.00	ug/L							



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Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batcl	n BIC0526 - SW5030	B-MS								
Blank (BIC0526-BLK1)				Prepared & Anal	yzed: 03/11/2025					
4-Isopropyltoluene	ND	1.00	ug/L							
4-Methyl-2-pentanone (MIBK)	ND	5.00	ug/L							
Acetone	ND	10.0	ug/L							
Benzene	ND	1.00	ug/L							
Bromobenzene	ND	1.00	ug/L							
Bromochloromethane	ND	1.00	ug/L							
Bromodichloromethane	ND	0.50	ug/L							
Bromoform	ND	1.00	ug/L							
Bromomethane	ND	1.00	ug/L							
Carbon disulfide	ND	10.0	ug/L							
Carbon tetrachloride	ND	1.00	ug/L							
Chlorobenzene	ND	1.00	ug/L							
Chloroethane	ND	1.00	ug/L							
Chloroform	ND	0.50	ug/L							
Chloromethane	ND	1.00	ug/L							
cis-1,2-Dichloroethylene	ND	1.00	ug/L							
cis-1,3-Dichloropropene	ND	1.00	ug/L							
Dibromochloromethane	ND	0.50	ug/L							
Dibromomethane	ND	1.00	ug/L							
Dichlorodifluoromethane	ND	1.00	ug/L							
Di-isopropyl ether (DIPE)	ND	5.00	ug/L							
Ethylbenzene	ND	1.00	ug/L							
Hexachlorobutadiene	ND	0.80	ug/L							
lodomethane	ND	10.0	ug/L							
Isopropylbenzene	ND	1.00	ug/L							



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Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch B	BIC0526 - SW5030	OB-MS								
Blank (BIC0526-BLK1)			ı	Prepared & Analy	yzed: 03/11/2025					
m+p-Xylenes	ND	2.00	ug/L							
Methylene chloride	ND	4.00	ug/L							
Methyl-t-butyl ether (MTBE)	ND	1.00	ug/L							
Naphthalene	ND	1.00	ug/L							
n-Butylbenzene	ND	1.00	ug/L							
n-Propylbenzene	ND	1.00	ug/L							
o-Xylene	ND	1.00	ug/L							
sec-Butylbenzene	ND	1.00	ug/L							
Styrene	ND	1.00	ug/L							
tert-Butylbenzene	ND	1.00	ug/L							
Tetrachloroethylene (PCE)	ND	1.00	ug/L							
Toluene	ND	1.00	ug/L							
trans-1,2-Dichloroethylene	ND	1.00	ug/L							
trans-1,3-Dichloropropene	ND	1.00	ug/L							
Trichloroethylene	ND	1.00	ug/L							
Trichlorofluoromethane	ND	1.00	ug/L							
Vinyl acetate	ND	10.0	ug/L							
Vinyl chloride	ND	0.50	ug/L							
Xylenes, Total	ND	3.00	ug/L							
Surr: 1,2-Dichloroethane-d4 (Surr)	48.8		ug/L	50.0		97.5	70-120			
Surr: 4-Bromofluorobenzene (Surr)	52.7		ug/L	50.0		105	75-120			
Surr: Dibromofluoromethane (Surr)	44.0		ug/L	50.0		88.0	70-130			
Surr: Toluene-d8 (Surr)	53.2		ug/L	50.0		106	70-130			
.CS (BIC0526-BS1)			ı	Prepared & Analy	yzed: 03/11/2025					



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Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch Bl	C0526 - SW5030	B-MS							
LCS (BIC0526-BS1)			Prepared & Anal	lyzed: 03/11/2025					
1,1,1,2-Tetrachloroethane	58.7	ug/L	50.0		117	80-130			
1,1,1-Trichloroethane	47.2	ug/L	50.0		94.3	65-130			
1,1,2,2-Tetrachloroethane	60.2	ug/L	50.0		120	65-130			
1,1,2-Trichloroethane	55.0	ug/L	50.0		110	75-125			
1,1-Dichloroethane	47.2	ug/L	50.0		94.4	70-135			
1,1-Dichloroethylene	36.1	ug/L	50.0		72.3	70-130			
1,1-Dichloropropene	49.2	ug/L	50.0		98.5	75-135			
1,2,3-Trichlorobenzene	48.0	ug/L	50.0		95.9	55-140			
1,2,3-Trichloropropane	59.5	ug/L	50.0		119	75-125			
1,2,4-Trichlorobenzene	49.3	ug/L	50.0		98.6	65-135			
1,2,4-Trimethylbenzene	51.9	ug/L	50.0		104	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	52.2	ug/L	50.0		104	50-130			
1,2-Dibromoethane (EDB)	52.1	ug/L	50.0		104	80-120			
1,2-Dichlorobenzene	52.4	ug/L	50.0		105	70-120			
1,2-Dichloroethane	44.9	ug/L	50.0		89.8	70-130			
1,2-Dichloropropane	56.5	ug/L	50.0		113	75-125			
1,3,5-Trimethylbenzene	51.8	ug/L	50.0		104	75-125			
1,3-Dichlorobenzene	52.4	ug/L	50.0		105	75-125			
1,3-Dichloropropane	55.6	ug/L	50.0		111	75-125			
1,4-Dichlorobenzene	50.2	ug/L	50.0		100	75-125			
2,2-Dichloropropane	51.0	ug/L	50.0		102	70-135			
2-Butanone (MEK)	40.7	ug/L	50.0		81.4	30-150			
2-Chlorotoluene	49.6	ug/L	50.0		99.2	75-125			
2-Hexanone (MBK)	59.2	ug/L	50.0		118	55-130			
4-Chlorotoluene	50.0	ug/L	50.0		100	75-130			



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Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batcl	h BIC0526 - SW5030	B-MS							
.CS (BIC0526-BS1)			Prepared & Anal	yzed: 03/11/2025					
4-Isopropyltoluene	55.7	ug/L	50.0		111	75-130			
4-Methyl-2-pentanone (MIBK)	58.7	ug/L	50.0		117	60-135			
Acetone	43.4	ug/L	50.0		86.8	40-140			
Benzene	50.8	ug/L	50.0		102	80-120			
Bromobenzene	53.3	ug/L	50.0		107	75-125			
Bromochloromethane	45.0	ug/L	50.0		90.0	65-130			
Bromodichloromethane	52.8	ug/L	50.0		106	75-120			
Bromoform	46.6	ug/L	50.0		93.1	70-130			
Bromomethane	44.0	ug/L	50.0		87.9	30-145			
Carbon disulfide	34.7	ug/L	50.0		69.5	35-160			
Carbon tetrachloride	47.7	ug/L	50.0		95.3	65-140			
Chlorobenzene	50.8	ug/L	50.0		102	80-120			
Chloroethane	43.8	ug/L	50.0		87.6	60-135			
Chloroform	45.3	ug/L	50.0		90.6	65-135			
Chloromethane	42.9	ug/L	50.0		85.9	40-125			
cis-1,2-Dichloroethylene	46.2	ug/L	50.0		92.5	70-125			
cis-1,3-Dichloropropene	59.2	ug/L	50.0		118	70-130			
Dibromochloromethane	60.2	ug/L	50.0		120	60-135			
Dibromomethane	48.2	ug/L	50.0		96.3	75-125			
Dichlorodifluoromethane	47.8	ug/L	50.0		95.6	30-155			
Ethylbenzene	53.5	ug/L	50.0		107	75-125			
Hexachlorobutadiene	52.0	ug/L	50.0		104	50-140			
Isopropylbenzene	49.7	ug/L	50.0		99.5	75-125			
m+p-Xylenes	102	ug/L	100		102	75-130			
Methylene chloride	43.2	ug/L	50.0		86.3	55-140			



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Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ U	Inits	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch B	IC0526 - SW5030	B-MS								
_CS (BIC0526-BS1)				Prepared & Analy	zed: 03/11/2025	i				
Methyl-t-butyl ether (MTBE)	47.9	1.00	ug/L				65-125			
Naphthalene	46.7		ug/L	50.0		93.4	55-140			
n-Butylbenzene	56.3		ug/L	50.0		113	70-135			
n-Propylbenzene	51.7		ug/L	50.0		103	70-130			
o-Xylene	52.6		ug/L	50.0		105	80-120			
sec-Butylbenzene	56.1		ug/L	50.0		112	70-125			
Styrene	54.6		ug/L	50.0		109	65-135			
tert-Butylbenzene	53.1		ug/L	50.0		106	70-130			
Tetrachloroethylene (PCE)	68.8		ug/L	50.0		138	45-150			
Toluene	48.9		ug/L	50.0		97.9	75-120			
trans-1,2-Dichloroethylene	37.5		ug/L	50.0		75.1	60-140			
trans-1,3-Dichloropropene	48.1		ug/L	50.0		96.1	55-140			
Trichloroethylene	48.7		ug/L	50.0		97.5	70-125			
Trichlorofluoromethane	42.2		ug/L	50.0		84.5	60-145			
Vinyl chloride	36.4		ug/L	50.0		72.8	50-145			
Surr: 1,2-Dichloroethane-d4 (Surr)	52.5		ug/L	50.0		105	70-120			
Surr: 4-Bromofluorobenzene (Surr)	52.1		ug/L	50.0		104	75-120			
Surr: Dibromofluoromethane (Surr)	47.2		ug/L	50.0		94.5	70-130			
Surr: Toluene-d8 (Surr)	52.8		ug/L	50.0		106	70-130			
Matrix Spike (BIC0526-MS1)	Source	e: 25C0640-01		Prepared & Analy	yzed: 03/11/2025					
1,1,1,2-Tetrachloroethane	54.6		ug/L	50.0	BLOD	109	80-130			
1,1,1-Trichloroethane	46.8		ug/L	50.0	BLOD	93.6	65-130			
1,1,2,2-Tetrachloroethane	57.0		ug/L	50.0	BLOD	114	65-130			
1,1,2-Trichloroethane	53.5		ug/L	50.0	BLOD	107	75-125			



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Certificate of Analysis

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Work Order:

Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch Bl	C0526 - SW503	0B-MS							
Matrix Spike (BIC0526-MS1)	Sour	ce: 25C0640-01	Prepared & Ana	lyzed: 03/11/2025					
1,1-Dichloroethane	45.4	นดู	/L 50.0	BLOD	90.7	70-135			
1,1-Dichloroethylene	35.4	นดู	/L 50.0	BLOD	70.7	50-145			
1,1-Dichloropropene	48.4	นดู	/L 50.0	BLOD	96.7	75-135			
1,2,3-Trichlorobenzene	46.8	นดู	/L 50.0	BLOD	93.6	55-140			
1,2,3-Trichloropropane	55.6	uç	/L 50.0	BLOD	111	75-125			
1,2,4-Trichlorobenzene	47.8	uç	/L 50.0	BLOD	95.6	65-135			
1,2,4-Trimethylbenzene	50.7	uç	/L 50.0	BLOD	101	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	48.9	uç	/L 50.0	BLOD	97.7	50-130			
1,2-Dibromoethane (EDB)	50.3	uç	/L 50.0	BLOD	101	80-120			
1,2-Dichlorobenzene	51.0	uç	/L 50.0	BLOD	102	70-120			
1,2-Dichloroethane	43.7	uç	/L 50.0	BLOD	87.4	70-130			
1,2-Dichloropropane	53.6	uç	/L 50.0	BLOD	107	75-125			
1,3,5-Trimethylbenzene	50.0	uç	/L 50.0	BLOD	100	75-124			
1,3-Dichlorobenzene	50.9	uç	/L 50.0	BLOD	102	75-125			
1,3-Dichloropropane	54.5	uç	/L 50.0	BLOD	109	75-125			
1,4-Dichlorobenzene	49.6	uç	/L 50.0	BLOD	99.1	75-125			
2,2-Dichloropropane	50.7	uç	/L 50.0	BLOD	101	70-135			
2-Butanone (MEK)	46.1	uç	/L 50.0	BLOD	92.1	30-150			
2-Chlorotoluene	48.2	uç	/L 50.0	BLOD	96.3	75-125			
2-Hexanone (MBK)	55.1	uç	/L 50.0	BLOD	110	55-130			
4-Chlorotoluene	49.2	uç	/L 50.0	BLOD	98.3	75-130			
4-Isopropyltoluene	53.4	uç	/L 50.0	BLOD	107	75-130			
4-Methyl-2-pentanone (MIBK)	54.3	uç	/L 50.0	BLOD	109	60-135			
Acetone	43.4	uç	/L 50.0	BLOD	78.1	40-140			
Benzene	49.6	นดู	/L 50.0	BLOD	99.2	80-120			



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Client Name: SCS Engineers - Winchester

Client Site I.D.:

LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb Work Order: 25C0528

Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ Ur		Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Bato	h BIC0526 - SW5030)B-MS								
Matrix Spike (BIC0526-MS1)	Source	ce: 25C0640-01	Prepa	red & Analy	zed: 03/11/2025					
Bromobenzene	52.5		ug/L	50.0	BLOD	105	75-125			
Bromochloromethane	45.3		ug/L	50.0	BLOD	90.6	65-130			
Bromodichloromethane	52.8		ug/L	50.0	BLOD	106	75-136			
Bromoform	45.4		ug/L	50.0	BLOD	90.7	70-130			
Bromomethane	44.0		ug/L	50.0	BLOD	87.9	30-145			
Carbon disulfide	30.2		ug/L	50.0	BLOD	60.1	35-160			
Carbon tetrachloride	46.8		ug/L	50.0	BLOD	93.6	65-140			
Chlorobenzene	49.2		ug/L	50.0	BLOD	98.3	80-120			
Chloroethane	45.9		ug/L	50.0	BLOD	91.8	60-135			
Chloroform	45.4		ug/L	50.0	BLOD	90.8	65-135			
Chloromethane	44.6		ug/L	50.0	BLOD	89.2	40-125			
cis-1,2-Dichloroethylene	45.6		ug/L	50.0	BLOD	91.1	70-125			
cis-1,3-Dichloropropene	57.5		ug/L	50.0	BLOD	115	47-136			
Dibromochloromethane	59.4		ug/L	50.0	BLOD	119	60-135			
Dibromomethane	46.5		ug/L	50.0	BLOD	93.0	75-125			
Dichlorodifluoromethane	47.0		ug/L	50.0	BLOD	94.1	30-155			
Ethylbenzene	51.9		ug/L	50.0	BLOD	104	75-125			
Hexachlorobutadiene	51.0		ug/L	50.0	BLOD	102	50-140			
Isopropylbenzene	48.3		ug/L	50.0	BLOD	96.6	75-125			
m+p-Xylenes	99.7		ug/L	100	BLOD	99.7	75-130			
Methylene chloride	44.4		ug/L	50.0	BLOD	88.8	55-140			
Methyl-t-butyl ether (MTBE)	46.4	1.00	ug/L		BLOD		65-125			
Naphthalene	45.0		ug/L	50.0	BLOD	90.0	55-140			
n-Butylbenzene	54.6		ug/L	50.0	BLOD	109	70-135			
n-Propylbenzene	50.3		ug/L	50.0	BLOD	101	70-130			



3/28/2025 1:40:42PM

Certificate of Analysis

Client Name: SCS Engineers - Winchester

hester Date Issued:

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

Submitted To: Jennifer Robb Work Order: 25C0528

Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch E	BIC0526 - SW5030	B-MS								
Matrix Spike (BIC0526-MS1)	Source	e: 25C0640-01	l	Prepared & Anal	yzed: 03/11/2025					
o-Xylene	50.3		ug/L	50.0	BLOD	101	80-120			
sec-Butylbenzene	54.4		ug/L	50.0	BLOD	109	70-125			
Styrene	52.2		ug/L	50.0	BLOD	104	65-135			
tert-Butylbenzene	51.4		ug/L	50.0	BLOD	103	70-130			
Tetrachloroethylene (PCE)	67.5		ug/L	50.0	BLOD	135	51-231			
Toluene	48.7		ug/L	50.0	BLOD	97.4	75-120			
trans-1,2-Dichloroethylene	37.2		ug/L	50.0	BLOD	74.3	60-140			
trans-1,3-Dichloropropene	47.3		ug/L	50.0	BLOD	94.5	55-140			
Trichloroethylene	46.9		ug/L	50.0	BLOD	93.8	70-125			
Trichlorofluoromethane	43.6		ug/L	50.0	BLOD	87.2	60-145			
Vinyl chloride	35.5		ug/L	50.0	BLOD	70.9	50-145			
Surr: 1,2-Dichloroethane-d4 (Surr)	51.5		ug/L	50.0		103	70-120			
Surr: 4-Bromofluorobenzene (Surr)	52.5		ug/L	50.0		105	75-120			
Surr: Dibromofluoromethane (Surr)	49.5		ug/L	50.0		99.0	70-130			
Surr: Toluene-d8 (Surr)	53.5		ug/L	50.0		107	70-130			
Matrix Spike Dup (BIC0526-MSD1)	Sourc	e: 25C0640-01		Prepared & Anal	yzed: 03/11/2025					
1,1,1,2-Tetrachloroethane	55.4		ug/L	50.0	BLOD	111	80-130	1.55	30	
1,1,1-Trichloroethane	45.7		ug/L	50.0	BLOD	91.3	65-130	2.47	30	
1,1,2,2-Tetrachloroethane	56.6		ug/L	50.0	BLOD	113	65-130	0.651	30	
1,1,2-Trichloroethane	53.2		ug/L	50.0	BLOD	106	75-125	0.600	30	
1,1-Dichloroethane	45.5		ug/L	50.0	BLOD	91.1	70-135	0.396	30	
1,1-Dichloroethylene	36.3		ug/L	50.0	BLOD	72.6	50-145	2.65	30	
1,1-Dichloropropene	48.1		ug/L	50.0	BLOD	96.2	75-135	0.518	30	
1,2,3-Trichlorobenzene	46.9		ug/L	50.0	BLOD	93.7	55-140	0.192	30	



Certificate of Analysis

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LFG-EW Monthly Monitoring

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Work Order:

25C0528

Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch Bl	C0526 - SW503	0B-MS							
Matrix Spike Dup (BIC0526-MSD1)	Source	ce: 25C0640-01	Prepared & Ana	alyzed: 03/11/2025	;				
1,2,3-Trichloropropane	56.2	ug	L 50.0	BLOD	112	75-125	0.984	30	
1,2,4-Trichlorobenzene	45.5	ug.	L 50.0	BLOD	90.9	65-135	5.06	30	
1,2,4-Trimethylbenzene	49.4	ug.	L 50.0	BLOD	98.7	75-130	2.70	30	
1,2-Dibromo-3-chloropropane (DBCP)	48.5	ug.	L 50.0	BLOD	97.0	50-130	0.801	30	
1,2-Dibromoethane (EDB)	49.8	ug.	L 50.0	BLOD	99.6	80-120	0.999	30	
1,2-Dichlorobenzene	49.3	ug.	L 50.0	BLOD	98.7	70-120	3.27	30	
1,2-Dichloroethane	42.9	ug.	L 50.0	BLOD	85.8	70-130	1.89	30	
1,2-Dichloropropane	53.0	ug.	L 50.0	BLOD	106	75-125	1.14	30	
1,3,5-Trimethylbenzene	48.7	ug.	L 50.0	BLOD	97.4	75-124	2.64	30	
1,3-Dichlorobenzene	48.9	ug.	L 50.0	BLOD	97.8	75-125	3.99	30	
1,3-Dichloropropane	54.4	ug.	L 50.0	BLOD	109	75-125	0.221	30	
1,4-Dichlorobenzene	47.9	ug.	L 50.0	BLOD	95.7	75-125	3.47	30	
2,2-Dichloropropane	47.5	ug.	L 50.0	BLOD	95.0	70-135	6.48	30	
2-Butanone (MEK)	39.3	ug.	L 50.0	BLOD	78.6	30-150	15.8	30	
2-Chlorotoluene	47.1	ug.	L 50.0	BLOD	94.2	75-125	2.20	30	
2-Hexanone (MBK)	54.5	ug.	L 50.0	BLOD	109	55-130	1.11	30	
4-Chlorotoluene	46.5	ug.	L 50.0	BLOD	93.0	75-130	5.56	30	
4-Isopropyltoluene	52.1	ug.	L 50.0	BLOD	104	75-130	2.43	30	
4-Methyl-2-pentanone (MIBK)	55.2	ug.	L 50.0	BLOD	110	60-135	1.77	30	
Acetone	43.3	ug.	L 50.0	BLOD	77.9	40-140	0.300	30	
Benzene	48.8	ug.	L 50.0	BLOD	97.6	80-120	1.59	30	
Bromobenzene	50.8	ug.	L 50.0	BLOD	102	75-125	3.23	30	
Bromochloromethane	41.4	ug.	L 50.0	BLOD	82.9	65-130	8.90	30	
Bromodichloromethane	51.7	ug.	L 50.0	BLOD	103	75-136	2.05	30	
Bromoform	45.0	ug	L 50.0	BLOD	90.0	70-130	0.797	30	



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Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch	BIC0526 - SW503	OB-MS								
Matrix Spike Dup (BIC0526-MSD1)	Source	ce: 25C0640-0	01	Prepared & Anal	yzed: 03/11/2025					
Bromomethane	45.2		ug/L	50.0	BLOD	90.5	30-145	2.85	30	
Carbon disulfide	34.8		ug/L	50.0	BLOD	69.3	35-160	14.1	30	
Carbon tetrachloride	46.3		ug/L	50.0	BLOD	92.5	65-140	1.12	30	
Chlorobenzene	48.4		ug/L	50.0	BLOD	96.7	80-120	1.64	30	
Chloroethane	44.9		ug/L	50.0	BLOD	89.9	60-135	2.16	30	
Chloroform	42.6		ug/L	50.0	BLOD	85.1	65-135	6.46	30	
Chloromethane	46.0		ug/L	50.0	BLOD	92.0	40-125	3.07	30	
cis-1,2-Dichloroethylene	41.6		ug/L	50.0	BLOD	83.2	70-125	9.16	30	
cis-1,3-Dichloropropene	57.0		ug/L	50.0	BLOD	114	47-136	0.891	30	
Dibromochloromethane	58.9		ug/L	50.0	BLOD	118	60-135	0.863	30	
Dibromomethane	46.4		ug/L	50.0	BLOD	92.8	75-125	0.237	30	
Dichlorodifluoromethane	48.4		ug/L	50.0	BLOD	96.8	30-155	2.79	30	
Ethylbenzene	51.0		ug/L	50.0	BLOD	102	75-125	1.63	30	
Hexachlorobutadiene	50.0		ug/L	50.0	BLOD	100	50-140	1.96	30	
Isopropylbenzene	47.3		ug/L	50.0	BLOD	94.6	75-125	2.09	30	
m+p-Xylenes	97.8		ug/L	100	BLOD	97.8	75-130	1.95	30	
Methylene chloride	41.0		ug/L	50.0	BLOD	82.1	55-140	7.86	30	
Methyl-t-butyl ether (MTBE)	46.7	1.00	ug/L		BLOD		65-125	0.601	30	
Naphthalene	44.6		ug/L	50.0	BLOD	89.3	55-140	0.870	30	
n-Butylbenzene	53.3		ug/L	50.0	BLOD	107	70-135	2.43	30	
n-Propylbenzene	48.4		ug/L	50.0	BLOD	96.7	70-130	3.95	30	
o-Xylene	49.9		ug/L	50.0	BLOD	99.9	80-120	0.679	30	
sec-Butylbenzene	52.3		ug/L	50.0	BLOD	105	70-125	3.92	30	
Styrene	51.7		ug/L	50.0	BLOD	103	65-135	0.905	30	
tert-Butylbenzene	50.2		ug/L	50.0	BLOD	100	70-130	2.36	30	



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25C0528

Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch B	BIC0526 - SW5030	B-MS								
Matrix Spike Dup (BIC0526-MSD1)	Sourc	e: 25C0640-0	1	Prepared & Anal	yzed: 03/11/2025					
Tetrachloroethylene (PCE)	66.1		ug/L	50.0	BLOD	132	51-231	2.11	30	
Toluene	47.0		ug/L	50.0	BLOD	94.1	75-120	3.45	30	
trans-1,2-Dichloroethylene	38.4		ug/L	50.0	BLOD	76.9	60-140	3.39	30	
trans-1,3-Dichloropropene	47.7		ug/L	50.0	BLOD	95.3	55-140	0.864	30	
Trichloroethylene	46.7		ug/L	50.0	BLOD	93.4	70-125	0.449	30	
Trichlorofluoromethane	41.6		ug/L	50.0	BLOD	83.1	60-145	4.72	30	
Vinyl chloride	35.0		ug/L	50.0	BLOD	70.0	50-145	1.39	30	
Surr: 1,2-Dichloroethane-d4 (Surr)	52.7		ug/L	50.0		105	70-120			
Surr: 4-Bromofluorobenzene (Surr)	52.0		ug/L	50.0		104	75-120			
Surr: Dibromofluoromethane (Surr)	46.0		ug/L	50.0		92.0	70-130			
Surr: Toluene-d8 (Surr)	53.5		ug/L	50.0		107	70-130			
Batch B	IC0606 - SW5030	B-MS								
Blank (BIC0606-BLK1)				Prepared & Anal	yzed: 03/12/2025					
1,1,1,2-Tetrachloroethane	ND	0.40	ug/L							
1,1,1-Trichloroethane	ND	1.00	ug/L							
1,1,2,2-Tetrachloroethane	ND	0.40	ug/L							
1,1,2-Trichloroethane	ND	1.00	ug/L							
1,1-Dichloroethane	ND	1.00	ug/L							
1,1-Dichloroethylene	ND	1.00	ug/L							
1,1-Dichloropropene	ND	1.00	ug/L							
1,2,3-Trichlorobenzene	ND	1.00	ug/L							
1,2,3-Trichloropropane	ND	1.00	ug/L							
1,2,4-Trichlorobenzene	ND	1.00	ug/L							



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Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch Bl	C0606 - SW5030	B-MS								
Blank (BIC0606-BLK1)				Prepared & Anal	yzed: 03/12/2025					
1,2,4-Trimethylbenzene	ND	1.00	ug/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	1.00	ug/L							
1,2-Dibromoethane (EDB)	ND	1.00	ug/L							
1,2-Dichlorobenzene	ND	0.50	ug/L							
1,2-Dichloroethane	ND	1.00	ug/L							
1,2-Dichloropropane	ND	0.50	ug/L							
1,3,5-Trimethylbenzene	ND	1.00	ug/L							
1,3-Dichlorobenzene	ND	1.00	ug/L							
1,3-Dichloropropane	ND	1.00	ug/L							
1,4-Dichlorobenzene	ND	1.00	ug/L							
2,2-Dichloropropane	ND	1.00	ug/L							
2-Butanone (MEK)	ND	10.0	ug/L							
2-Chlorotoluene	ND	1.00	ug/L							
2-Hexanone (MBK)	ND	5.00	ug/L							
4-Chlorotoluene	ND	1.00	ug/L							
4-Isopropyltoluene	ND	1.00	ug/L							
4-Methyl-2-pentanone (MIBK)	ND	5.00	ug/L							
Acetone	ND	10.0	ug/L							
Benzene	ND	1.00	ug/L							
Bromobenzene	ND	1.00	ug/L							
Bromochloromethane	ND	1.00	ug/L							
Bromodichloromethane	ND	0.50	ug/L							
Bromoform	ND	1.00	ug/L							
Bromomethane	ND	1.00	ug/L							
Carbon disulfide	ND	10.0	ug/L							



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Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Bato	ch BIC0606 - SW5030	B-MS								
Blank (BIC0606-BLK1)				Prepared & Analy	zed: 03/12/2025					
Carbon tetrachloride	ND	1.00	ug/L							
Chlorobenzene	ND	1.00	ug/L							
Chloroethane	ND	1.00	ug/L							
Chloroform	ND	0.50	ug/L							
Chloromethane	ND	1.00	ug/L							
cis-1,2-Dichloroethylene	ND	1.00	ug/L							
cis-1,3-Dichloropropene	ND	1.00	ug/L							
Dibromochloromethane	ND	0.50	ug/L							
Dibromomethane	ND	1.00	ug/L							
Dichlorodifluoromethane	ND	1.00	ug/L							
Di-isopropyl ether (DIPE)	ND	5.00	ug/L							
Ethylbenzene	ND	1.00	ug/L							
Hexachlorobutadiene	ND	0.80	ug/L							
lodomethane	ND	10.0	ug/L							
Isopropylbenzene	ND	1.00	ug/L							
m+p-Xylenes	ND	2.00	ug/L							
Methylene chloride	ND	4.00	ug/L							
Methyl-t-butyl ether (MTBE)	ND	1.00	ug/L							
Naphthalene	ND	1.00	ug/L							
n-Butylbenzene	ND	1.00	ug/L							
n-Propylbenzene	ND	1.00	ug/L							
o-Xylene	ND	1.00	ug/L							
sec-Butylbenzene	ND	1.00	ug/L							
Styrene	ND	1.00	ug/L							
tert-Butylbenzene	ND	1.00	ug/L							



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Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch E	BIC0606 - SW5030	B-MS								
Blank (BIC0606-BLK1)			F	Prepared & Analy	/zed: 03/12/2025					
Tetrachloroethylene (PCE)	ND	1.00	ug/L							
Toluene	ND	1.00	ug/L							
trans-1,2-Dichloroethylene	ND	1.00	ug/L							
trans-1,3-Dichloropropene	ND	1.00	ug/L							
Trichloroethylene	ND	1.00	ug/L							
Trichlorofluoromethane	ND	1.00	ug/L							
Vinyl acetate	ND	10.0	ug/L							
Vinyl chloride	ND	0.50	ug/L							
Xylenes, Total	ND	3.00	ug/L							
Surr: 1,2-Dichloroethane-d4 (Surr)	48.8		ug/L	50.0		97.6	70-120			
Surr: 4-Bromofluorobenzene (Surr)	52.2		ug/L	50.0		104	75-120			
Surr: Dibromofluoromethane (Surr)	46.6		ug/L	50.0		93.2	70-130			
Surr: Toluene-d8 (Surr)	53.2		ug/L	50.0		106	70-130			
CS (BIC0606-BS1)			F	Prepared & Analy	/zed: 03/12/2025					
1,1,1,2-Tetrachloroethane	58.0		ug/L	50.0		116	80-130			
1,1,1-Trichloroethane	48.3		ug/L	50.0		96.6	65-130			
1,1,2,2-Tetrachloroethane	62.0		ug/L	50.0		124	65-130			
1,1,2-Trichloroethane	52.3		ug/L	50.0		105	75-125			
1,1-Dichloroethane	48.4		ug/L	50.0		96.9	70-135			
1,1-Dichloroethylene	39.2		ug/L	50.0		78.4	70-130			
1,1-Dichloropropene	49.5		ug/L	50.0		99.0	75-135			
1,2,3-Trichlorobenzene	47.2		ug/L	50.0		94.5	55-140			
1,2,3-Trichloropropane	60.9		ug/L	50.0		122	75-125			
1,2,4-Trichlorobenzene	48.2		ug/L	50.0		96.5	65-135			



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25C0528

Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch Bl	C0606 - SW5030	DB-MS							
.CS (BIC0606-BS1)			Prepared & Ana	lyzed: 03/12/2025					
1,2,4-Trimethylbenzene	52.3	ug/L	50.0		105	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	49.0	ug/L	50.0		98.0	50-130			
1,2-Dibromoethane (EDB)	51.8	ug/L	50.0		104	80-120			
1,2-Dichlorobenzene	52.3	ug/L	50.0		105	70-120			
1,2-Dichloroethane	45.6	ug/L	50.0		91.2	70-130			
1,2-Dichloropropane	54.1	ug/L	50.0		108	75-125			
1,3,5-Trimethylbenzene	51.7	ug/L	50.0		103	75-125			
1,3-Dichlorobenzene	51.3	ug/L	50.0		103	75-125			
1,3-Dichloropropane	56.6	ug/L	50.0		113	75-125			
1,4-Dichlorobenzene	49.9	ug/L	50.0		99.7	75-125			
2,2-Dichloropropane	51.6	ug/L	50.0		103	70-135			
2-Butanone (MEK)	45.0	ug/L	50.0		90.0	30-150			
2-Chlorotoluene	48.7	ug/L	50.0		97.4	75-125			
2-Hexanone (MBK)	57.6	ug/L	50.0		115	55-130			
4-Chlorotoluene	50.7	ug/L	50.0		101	75-130			
4-Isopropyltoluene	56.3	ug/L	50.0		113	75-130			
4-Methyl-2-pentanone (MIBK)	55.2	ug/L	50.0		110	60-135			
Acetone	43.3	ug/L	50.0		86.6	40-140			
Benzene	50.1	ug/L	50.0		100	80-120			
Bromobenzene	57.8	ug/L	50.0		116	75-125			
Bromochloromethane	44.2	ug/L	50.0		88.4	65-130			
Bromodichloromethane	53.2	ug/L	50.0		106	75-120			
Bromoform	46.5	ug/L	50.0		92.9	70-130			
Bromomethane	51.7	ug/L	50.0		103	30-145			
Carbon disulfide	29.8	ug/L	50.0		59.6	35-160			



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25C0528

Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Bato	ch BIC0606 - SW5030	B-MS								
_CS (BIC0606-BS1)			F	Prepared & Anal	yzed: 03/12/2025	;				
Carbon tetrachloride	49.4		ug/L	50.0		98.8	65-140			
Chlorobenzene	51.6		ug/L	50.0		103	80-120			
Chloroethane	44.5		ug/L	50.0		89.0	60-135			
Chloroform	46.0		ug/L	50.0		92.0	65-135			
Chloromethane	51.4		ug/L	50.0		103	40-125			
cis-1,2-Dichloroethylene	46.6		ug/L	50.0		93.3	70-125			
cis-1,3-Dichloropropene	57.5		ug/L	50.0		115	70-130			
Dibromochloromethane	60.8		ug/L	50.0		122	60-135			
Dibromomethane	46.1		ug/L	50.0		92.2	75-125			
Dichlorodifluoromethane	45.4		ug/L	50.0		90.8	30-155			
Ethylbenzene	55.4		ug/L	50.0		111	75-125			
Hexachlorobutadiene	51.5		ug/L	50.0		103	50-140			
Isopropylbenzene	54.1		ug/L	50.0		108	75-125			
m+p-Xylenes	108		ug/L	100		108	75-130			
Methylene chloride	44.0		ug/L	50.0		87.9	55-140			
Methyl-t-butyl ether (MTBE)	48.0	1.00	ug/L				65-125			
Naphthalene	44.9		ug/L	50.0		89.8	55-140			
n-Butylbenzene	57.7		ug/L	50.0		115	70-135			
n-Propylbenzene	51.2		ug/L	50.0		102	70-130			
o-Xylene	56.6		ug/L	50.0		113	80-120			
sec-Butylbenzene	57.3		ug/L	50.0		115	70-125			
Styrene	57.6		ug/L	50.0		115	65-135			
tert-Butylbenzene	52.9		ug/L	50.0		106	70-130			
Tetrachloroethylene (PCE)	71.3		ug/L	50.0		143	45-150			
Toluene	50.3		ug/L	50.0		101	75-120			



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Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch Bl	C0606 - SW5030B	-MS							
LCS (BIC0606-BS1)			Prepared & Ana	yzed: 03/12/2025					
trans-1,2-Dichloroethylene	39.4	ug/L	50.0		78.9	60-140			
trans-1,3-Dichloropropene	48.5	ug/L	50.0		97.0	55-140			
Trichloroethylene	48.1	ug/L	50.0		96.1	70-125			
Trichlorofluoromethane	48.2	ug/L	50.0		96.4	60-145			
Vinyl chloride	44.3	ug/L	50.0		88.7	50-145			
Surr: 1,2-Dichloroethane-d4 (Surr)	48.3	ug/L	50.0		96.5	70-120			
Surr: 4-Bromofluorobenzene (Surr)	56.6	ug/L	50.0		113	75-120			
Surr: Dibromofluoromethane (Surr)	47.2	ug/L	50.0		94.4	70-130			
Surr: Toluene-d8 (Surr)	52.9	ug/L	50.0		106	70-130			
Matrix Spike (BIC0606-MS1)	Source:	25C0669-01	Prepared & Ana	yzed: 03/12/2025					
1,1,1,2-Tetrachloroethane	54.9	ug/L	50.0	BLOD	110	80-130			
1,1,1-Trichloroethane	46.9	ug/L	50.0	BLOD	93.7	65-130			
1,1,2,2-Tetrachloroethane	59.8	ug/L	50.0	BLOD	120	65-130			
1,1,2-Trichloroethane	52.5	ug/L	50.0	BLOD	105	75-125			
1,1-Dichloroethane	45.9	ug/L	50.0	BLOD	91.9	70-135			
1,1-Dichloroethylene	36.8	ug/L	50.0	BLOD	73.6	50-145			
1,1-Dichloropropene	47.2	ug/L	50.0	BLOD	94.5	75-135			
1,2,3-Trichlorobenzene	45.6	ug/L	50.0	BLOD	91.3	55-140			
1,2,3-Trichloropropane	57.8	ug/L	50.0	BLOD	116	75-125			
1,2,4-Trichlorobenzene	46.6	ug/L	50.0	BLOD	93.1	65-135			
1,2,4-Trimethylbenzene	50.2	ug/L	50.0	BLOD	100	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	46.5	ug/L	50.0	BLOD	93.0	50-130			
1,2-Dibromoethane (EDB)	49.7	ug/L	50.0	BLOD	99.5	80-120			
1,2-Dichlorobenzene	50.6	ug/L	50.0	BLOD	101	70-120			



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Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch	n BIC0606 - SW5030	B-MS							
Matrix Spike (BIC0606-MS1)	Source	e: 25C0669-01	Prepared & Ana	yzed: 03/12/2025	5				
1,2-Dichloroethane	44.5	ug/L	50.0	BLOD	89.0	70-130			
1,2-Dichloropropane	53.5	ug/L	50.0	BLOD	107	75-125			
1,3,5-Trimethylbenzene	49.0	ug/L	50.0	BLOD	98.0	75-124			
1,3-Dichlorobenzene	50.0	ug/L	50.0	BLOD	100	75-125			
1,3-Dichloropropane	54.9	ug/L	50.0	BLOD	110	75-125			
1,4-Dichlorobenzene	48.5	ug/L	50.0	BLOD	97.0	75-125			
2,2-Dichloropropane	50.2	ug/L	50.0	BLOD	100	70-135			
2-Butanone (MEK)	45.6	ug/L	50.0	BLOD	91.1	30-150			
2-Chlorotoluene	47.7	ug/L	50.0	BLOD	95.3	75-125			
2-Hexanone (MBK)	55.9	ug/L	50.0	BLOD	112	55-130			
4-Chlorotoluene	47.2	ug/L	50.0	BLOD	94.3	75-130			
4-Isopropyltoluene	54.2	ug/L	50.0	BLOD	108	75-130			
4-Methyl-2-pentanone (MIBK)	55.0	ug/L	50.0	BLOD	110	60-135			
Acetone	45.6	ug/L	50.0	11.6	68.1	40-140			
Benzene	49.1	ug/L	50.0	BLOD	98.3	80-120			
Bromobenzene	55.2	ug/L	50.0	BLOD	110	75-125			
Bromochloromethane	44.1	ug/L	50.0	BLOD	88.2	65-130			
Bromodichloromethane	51.8	ug/L	50.0	BLOD	104	75-136			
Bromoform	45.7	ug/L	50.0	BLOD	91.3	70-130			
Bromomethane	49.7	ug/L	50.0	BLOD	99.4	30-145			
Carbon disulfide	32.8	ug/L	50.0	BLOD	65.2	35-160			
Carbon tetrachloride	47.2	ug/L	50.0	BLOD	94.4	65-140			
Chlorobenzene	49.2	ug/L	50.0	BLOD	98.4	80-120			
Chloroethane	44.7	ug/L	50.0	BLOD	89.3	60-135			
Chloroform	44.6	ug/L	50.0	BLOD	89.2	65-135			



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Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batc	h BIC0606 - SW5030	0B-MS								
Matrix Spike (BIC0606-MS1)	Source: 25C0669-01			Prepared & Anal	yzed: 03/12/2025					
Chloromethane	49.7		ug/L	50.0	BLOD	99.4	40-125			
cis-1,2-Dichloroethylene	45.1		ug/L	50.0	BLOD	90.3	70-125			
cis-1,3-Dichloropropene	56.7		ug/L	50.0	BLOD	113	47-136			
Dibromochloromethane	59.6		ug/L	50.0	BLOD	119	60-135			
Dibromomethane	44.7		ug/L	50.0	BLOD	89.5	75-125			
Dichlorodifluoromethane	49.5		ug/L	50.0	BLOD	99.0	30-155			
Ethylbenzene	53.2		ug/L	50.0	BLOD	106	75-125			
Hexachlorobutadiene	49.0		ug/L	50.0	BLOD	98.0	50-140			
Isopropylbenzene	51.3		ug/L	50.0	BLOD	103	75-125			
m+p-Xylenes	104		ug/L	100	BLOD	104	75-130			
Methylene chloride	41.8		ug/L	50.0	BLOD	83.6	55-140			
Methyl-t-butyl ether (MTBE)	46.8	1.00	ug/L		BLOD		65-125			
Naphthalene	43.5		ug/L	50.0	BLOD	86.9	55-140			
n-Butylbenzene	54.1		ug/L	50.0	BLOD	108	70-135			
n-Propylbenzene	48.3		ug/L	50.0	BLOD	96.5	70-130			
o-Xylene	53.8		ug/L	50.0	BLOD	108	80-120			
sec-Butylbenzene	54.6		ug/L	50.0	BLOD	109	70-125			
Styrene	55.3		ug/L	50.0	BLOD	111	65-135			
tert-Butylbenzene	50.5		ug/L	50.0	BLOD	101	70-130			
Tetrachloroethylene (PCE)	68.0		ug/L	50.0	BLOD	136	51-231			
Toluene	48.9		ug/L	50.0	BLOD	97.2	75-120			
trans-1,2-Dichloroethylene	38.3		ug/L	50.0	BLOD	76.5	60-140			
trans-1,3-Dichloropropene	47.2		ug/L	50.0	BLOD	94.4	55-140			
Trichloroethylene	46.6		ug/L	50.0	BLOD	93.3	70-125			
Trichlorofluoromethane	45.3		ug/L	50.0	BLOD	90.6	60-145			



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Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch Blo	C0606 - SW503	0B-MS							
Matrix Spike (BIC0606-MS1)	Sour	ce: 25C0669-01	Prepared & Ana	alyzed: 03/12/2025					
Vinyl chloride	38.2	ug/	_ 50.0	BLOD	76.5	50-145			
Surr: 1,2-Dichloroethane-d4 (Surr)	50.3	ug/	_ 50.0		101	70-120			
Surr: 4-Bromofluorobenzene (Surr)	55.4	ug/	_ 50.0		111	75-120			
Surr: Dibromofluoromethane (Surr)	48.2	ug/	50.0		96.3	70-130			
Surr: Toluene-d8 (Surr)	54.3	ug/	_ 50.0		109	70-130			
Matrix Spike Dup (BIC0606-MSD1)	Sour	ce: 25C0669-01	Prepared & Ana	alyzed: 03/12/2025					
1,1,1,2-Tetrachloroethane	55.0	ug/	_ 50.0	BLOD	110	80-130	0.109	30	
1,1,1-Trichloroethane	46.1	ug/	_ 50.0	BLOD	92.2	65-130	1.68	30	
1,1,2,2-Tetrachloroethane	59.0	ug/	_ 50.0	BLOD	118	65-130	1.43	30	
1,1,2-Trichloroethane	52.1	ug/	_ 50.0	BLOD	104	75-125	0.765	30	
1,1-Dichloroethane	45.7	ug/	_ 50.0	BLOD	91.4	70-135	0.546	30	
1,1-Dichloroethylene	36.3	ug/	_ 50.0	BLOD	72.6	50-145	1.31	30	
1,1-Dichloropropene	46.9	ug/	_ 50.0	BLOD	93.8	75-135	0.701	30	
1,2,3-Trichlorobenzene	46.4	ug/	_ 50.0	BLOD	92.9	55-140	1.76	30	
1,2,3-Trichloropropane	56.6	ug/	_ 50.0	BLOD	113	75-125	2.10	30	
1,2,4-Trichlorobenzene	47.0	ug/	_ 50.0	BLOD	94.0	65-135	0.962	30	
1,2,4-Trimethylbenzene	50.0	ug/	_ 50.0	BLOD	99.9	75-130	0.559	30	
1,2-Dibromo-3-chloropropane (DBCP)	48.0	ug/	_ 50.0	BLOD	95.9	50-130	3.11	30	
1,2-Dibromoethane (EDB)	49.3	ug/	_ 50.0	BLOD	98.7	80-120	0.828	30	
1,2-Dichlorobenzene	50.1	ug/	_ 50.0	BLOD	100	70-120	0.954	30	
1,2-Dichloroethane	43.2	ug/	_ 50.0	BLOD	86.5	70-130	2.85	30	
1,2-Dichloropropane	53.8	ug/	_ 50.0	BLOD	108	75-125	0.429	30	
1,3,5-Trimethylbenzene	49.4	ug/	_ 50.0	BLOD	98.9	75-124	0.894	30	
1,3-Dichlorobenzene	49.9	ug/	_ 50.0	BLOD	99.9	75-125	0.120	30	



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Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch	BIC0606 - SW503	0B-MS							
Matrix Spike Dup (BIC0606-MSD1)	Source	ce: 25C0669-01	Prepared & Ana	lyzed: 03/12/2025	;				
1,3-Dichloropropane	55.5	ug/	L 50.0	BLOD	111	75-125	1.11	30	
1,4-Dichlorobenzene	48.4	ug/	L 50.0	BLOD	96.8	75-125	0.206	30	
2,2-Dichloropropane	49.2	ug/	L 50.0	BLOD	98.5	70-135	1.87	30	
2-Butanone (MEK)	44.6	ug/	L 50.0	BLOD	89.1	30-150	2.22	30	
2-Chlorotoluene	47.0	ug/	L 50.0	BLOD	94.1	75-125	1.31	30	
2-Hexanone (MBK)	61.2	ug/	L 50.0	BLOD	122	55-130	9.02	30	
4-Chlorotoluene	47.6	ug/	L 50.0	BLOD	95.2	75-130	0.929	30	
4-Isopropyltoluene	53.7	ug/	L 50.0	BLOD	107	75-130	1.02	30	
4-Methyl-2-pentanone (MIBK)	59.9	ug/	L 50.0	BLOD	120	60-135	8.55	30	
Acetone	50.5	ug/	L 50.0	11.6	77.7	40-140	10.1	30	
Benzene	49.0	ug/	L 50.0	BLOD	98.0	80-120	0.285	30	
Bromobenzene	54.0	ug/	L 50.0	BLOD	108	75-125	2.12	30	
Bromochloromethane	43.1	ug/	L 50.0	BLOD	86.2	65-130	2.29	30	
Bromodichloromethane	50.9	ug/	L 50.0	BLOD	102	75-136	1.60	30	
Bromoform	44.3	ug/	L 50.0	BLOD	88.6	70-130	3.05	30	
Bromomethane	47.7	ug/	L 50.0	BLOD	95.4	30-145	4.11	30	
Carbon disulfide	36.5	ug/	L 50.0	BLOD	72.6	35-160	10.7	30	
Carbon tetrachloride	45.9	ug/	L 50.0	BLOD	91.7	65-140	2.84	30	
Chlorobenzene	49.0	ug/	L 50.0	BLOD	98.1	80-120	0.346	30	
Chloroethane	43.4	ug/	L 50.0	BLOD	86.9	60-135	2.75	30	
Chloroform	44.3	ug/	L 50.0	BLOD	88.6	65-135	0.675	30	
Chloromethane	46.3	ug/	L 50.0	BLOD	92.6	40-125	7.04	30	
cis-1,2-Dichloroethylene	44.8	ug/	L 50.0	BLOD	89.7	70-125	0.645	30	
cis-1,3-Dichloropropene	56.1	ug/	L 50.0	BLOD	112	47-136	0.922	30	
Dibromochloromethane	58.9	ug/	L 50.0	BLOD	118	60-135	1.10	30	



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Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch B	BIC0606 - SW5030	OB-MS								
Matrix Spike Dup (BIC0606-MSD1)	Sourc	ce: 25C0669-0)1	Prepared & Anal	yzed: 03/12/2025					
Dibromomethane	45.4		ug/L	50.0	BLOD	90.8	75-125	1.42	30	
Dichlorodifluoromethane	39.7		ug/L	50.0	BLOD	79.4	30-155	21.9	30	
Ethylbenzene	52.8		ug/L	50.0	BLOD	106	75-125	0.661	30	
Hexachlorobutadiene	49.3		ug/L	50.0	BLOD	98.6	50-140	0.611	30	
Isopropylbenzene	50.6		ug/L	50.0	BLOD	101	75-125	1.31	30	
m+p-Xylenes	102		ug/L	100	BLOD	102	75-130	1.49	30	
Methylene chloride	40.9		ug/L	50.0	BLOD	81.8	55-140	2.27	30	
Methyl-t-butyl ether (MTBE)	45.9	1.00	ug/L		BLOD		65-125	1.79	30	
Naphthalene	43.6		ug/L	50.0	BLOD	87.2	55-140	0.367	30	
n-Butylbenzene	55.0		ug/L	50.0	BLOD	110	70-135	1.72	30	
n-Propylbenzene	48.0		ug/L	50.0	BLOD	96.1	70-130	0.457	30	
o-Xylene	53.0		ug/L	50.0	BLOD	106	80-120	1.50	30	
sec-Butylbenzene	54.3		ug/L	50.0	BLOD	109	70-125	0.478	30	
Styrene	53.7		ug/L	50.0	BLOD	107	65-135	2.86	30	
tert-Butylbenzene	50.5		ug/L	50.0	BLOD	101	70-130	0.0792	30	
Tetrachloroethylene (PCE)	68.0		ug/L	50.0	BLOD	136	51-231	0.0147	30	
Toluene	49.0		ug/L	50.0	BLOD	97.4	75-120	0.184	30	
trans-1,2-Dichloroethylene	37.5		ug/L	50.0	BLOD	75.0	60-140	1.98	30	
trans-1,3-Dichloropropene	46.2		ug/L	50.0	BLOD	92.3	55-140	2.21	30	
Trichloroethylene	46.5		ug/L	50.0	BLOD	93.0	70-125	0.258	30	
Trichlorofluoromethane	44.5		ug/L	50.0	BLOD	89.0	60-145	1.85	30	
Vinyl chloride	35.2		ug/L	50.0	BLOD	70.4	50-145	8.28	30	
Surr: 1,2-Dichloroethane-d4 (Surr)	48.8		ug/L	50.0		97.7	70-120			
Surr: 4-Bromofluorobenzene (Surr)	54.6		ug/L	50.0		109	75-120			



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3/28/2025 1:40:42PM

Work Order:

25C0528

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

				Spike	Source		%REC		RPD	
Analyte	Result	LOQ	Units	Level	Result	%REC	Limits	RPD	Limit	Qual

Batch BIC0606 - SW5030B-MS

Matrix Spike Dup (BIC0606-MSD1)	Source: 25C0669-01		Prepared & Analyzed: 03/12/2025			
Surr: Dibromofluoromethane (Surr)	47.0	ug/L	50.0	94.0	70-130	
Surr: Toluene-d8 (Surr)	53.8	ug/L	50.0	108	70-130	



Certificate of Analysis

Client Name: SCS Engineers - Winchester

LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb

Client Site I.D.:

Date Issued:

3/28/2025 1:40:42PM

Work Order:

25C0528

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

				Spike	Source		%REC		RPD	
Analyte	Result	LOQ	Units	Level	Result	%REC	Limits	RPD	Limit	Qual

Batch BIC0513 - SW3510C/EPA600-MS

Blank (BIC0513-BLK1)			Prepared: 03/11/20	025 Analyzed: 03/12/2025	
1,2,4,5-Tetrachlorobenzene	ND	10.0	g/L		
1,2,4-Trichlorobenzene	ND	10.0	g/L		
1,2-Dichlorobenzene	ND	10.0	g/L		
1,2-Diphenylhydrazine	ND	10.0	g/L		
1,3-Dichlorobenzene	ND	10.0	g/L		
1,3-Dinitrobenzene	ND	2.50	g/L		
1,4-Dichlorobenzene	ND	10.0	g/L		
1-Naphthylamine	ND	10.0	g/L		
2,3,4,6-Tetrachlorophenol	ND	10.0	g/L		
2,4,5-Trichlorophenol	ND	10.0	g/L		
2,4,6-Trichlorophenol	ND	10.0	g/L		
2,4-Dichlorophenol	ND	10.0	g/L		
2,4-Dimethylphenol	ND	5.00	g/L		
2,4-Dinitrophenol	ND	50.0	g/L		
2,4-Dinitrotoluene	ND	10.0	g/L		
2,6-Dichlorophenol	ND	10.0	g/L		
2,6-Dinitrotoluene	ND	10.0	g/L		
2-Chloronaphthalene	ND	10.0	g/L		
2-Chlorophenol	ND	10.0	g/L		
2-Methylnaphthalene	ND	10.0	g/L		
2-Naphthylamine	ND	10.0	g/L		
2-Nitroaniline	ND	20.0	g/L		
2-Nitrophenol	ND	10.0	g/L		
3,3'-Dichlorobenzidine	ND	10.0	g/L		
3-Methylcholanthrene	ND	10.0	g/L		



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25C0528

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

				Spike	Source		%REC		RPD	
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Analyte	Result	LOQ	Units	Level	Result	%REC	Limits	RPD	Limit	Qual

Batch BIC0513 - SW3510C/EPA600-MS

Blank (BIC0513-BLK1)				Prepared: 03/11/2025 Analyzed: 03/12/2025
3-Nitroaniline	ND	20.0	ug/L	
4,6-Dinitro-2-methylphenol	ND	50.0	ug/L	
4-Aminobiphenyl	ND	10.0	ug/L	
4-Bromophenyl phenyl ether	ND	10.0	ug/L	
4-Chloroaniline	ND	10.0	ug/L	
4-Chlorophenyl phenyl ether	ND	10.0	ug/L	
4-Nitroaniline	ND	20.0	ug/L	
4-Nitrophenol	ND	50.0	ug/L	
7,12-Dimethylbenz (a) anthracene	ND	10.0	ug/L	
Acenaphthene	ND	10.0	ug/L	
Acenaphthylene	ND	10.0	ug/L	
Acetophenone	ND	20.0	ug/L	
Aniline	ND	50.0	ug/L	
Anthracene	ND	10.0	ug/L	
Benzidine	ND	50.0	ug/L	
Benzo (a) anthracene	ND	10.0	ug/L	
Benzo (a) pyrene	ND	10.0	ug/L	
Benzo (b) fluoranthene	ND	10.0	ug/L	
Benzo (g,h,i) perylene	ND	10.0	ug/L	
Benzo (k) fluoranthene	ND	10.0	ug/L	
Benzoic acid	ND	50.0	ug/L	
Benzyl alcohol	ND	20.0	ug/L	
bis (2-Chloroethoxy) methane	ND	10.0	ug/L	
bis (2-Chloroethyl) ether	ND	10.0	ug/L	
2,2'-Oxybis (1-chloropropane)	ND	10.0	ug/L	



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25C0528

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

				Spike	Source		%REC		RPD		
Analyte	Result	LOQ	Units	Level	Result	%REC	Limits	RPD	Limit	Qual	

Batch BIC0513 - SW3510C/EPA600-MS Blank (BIC0513-BLK1) Prepared: 03/11/2025 Analyzed: 03/12/2025 10.0 bis (2-Ethylhexyl) phthalate ND ug/L Butyl benzyl phthalate ND ug/L 10.0 Chrysene ND 10.0 ug/L Dibenz (a,h) anthracene ND ug/L 10.0 Dibenz (a,j) acridine ND 10.0 ug/L Dibenzofuran ND 5.00 ug/L Diethyl phthalate ND 10.0 ug/L Dimethyl phthalate ND 10.0 ug/L Di-n-butyl phthalate ND 10.0 ug/L Di-n-octyl phthalate ND 10.0 ug/L Diphenylamine ND 10.0 ug/L Ethyl methanesulfonate ND 20.0 ug/L Fluoranthene ND 10.0 ug/L Fluorene ND 10.0 ug/L Hexachlorobenzene ND 1.00 ug/L Hexachlorobutadiene ND 10.0 ug/L Hexachlorocyclopentadiene ND 10.0 ug/L Hexachloroethane ND 10.0 ug/L Indeno (1,2,3-cd) pyrene ND 10.0 ug/L Isophorone ND 10.0 ug/L m+p-Cresols ND 10.0 ug/L Methyl methanesulfonate ND 10.0 ug/L Naphthalene ND 5.00 ug/L Nitrobenzene ND 10.0 ug/L ND 10.0 ug/L n-Nitrosodimethylamine



25C0528

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Client Name: SCS Engineers - Winchester

Engineers - Winchester Date Issued:

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

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Semivolatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
	Batch BIC0513 - SW35100	:/FPA600-	MS	_						

Allalyte	Result	LOQ	Ullito	LEVEI	Nesuit	701NLC	LIIIIII	INID	LIIIII	Quai
Batch Bl	C0513 - SW3510	C/EPA600-	MS							
Blank (BIC0513-BLK1)				Prepared: 03/11/	2025 Analyzed: 0	3/12/2025				
n-Nitrosodi-n-butylamine	ND	10.0	ug/L							
n-Nitrosodi-n-propylamine	ND	10.0	ug/L							
n-Nitrosodiphenylamine	ND	10.0	ug/L							
n-Nitrosopiperidine	ND	10.0	ug/L							
o+m+p-Cresols	ND	10.0	ug/L							
o-Cresol	ND	10.0	ug/L							
p-(Dimethylamino) azobenzene	ND	2.50	ug/L							
p-Chloro-m-cresol	ND	10.0	ug/L							
Pentachloronitrobenzene (quintozene)	ND	10.0	ug/L							
Pentachlorophenol	ND	20.0	ug/L							
Phenacetin	ND	10.0	ug/L							
Phenanthrene	ND	10.0	ug/L							
Phenol	ND	10.0	ug/L							
Pronamide	ND	10.0	ug/L							
Pyrene	ND	10.0	ug/L							
Pyridine	ND	10.0	ug/L							
Surr: 2,4,6-Tribromophenol (Surr)	54.3		ug/L	100		54.3	5-136			
Surr: 2-Fluorobiphenyl (Surr)	20.5		ug/L	50.0		41.1	9-117			
Surr: 2-Fluorophenol (Surr)	19.4		ug/L	100		19.4	5-60			
Surr: Nitrobenzene-d5 (Surr)	20.1		ug/L	50.0		40.3	5-151			
Surr: Phenol-d5 (Surr)	19.4		ug/L	100		19.4	5-60			
Surr: p-Terphenyl-d14 (Surr)	25.8		ug/L	50.0		51.6	5-141			
CS (BIC0513-BS1)				Prepared: 03/11/	2025 Analyzed: 0	3/12/2025				
1,2,4-Trichlorobenzene	21.6	10.0	ug/L	50.0		43.3	57-130			L



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25C0528

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batc	h BIC0513 - SW3510	C/EPA600-	MS							
LCS (BIC0513-BS1)			F	Prepared: 03/11/	2025 Analyzed: 0	3/12/2025				
1,2-Dichlorobenzene	27.6	10.0	ug/L	50.0		55.1	22-115			
1,3-Dichlorobenzene	27.0	10.0	ug/L	50.0		53.9	22-112			
1,4-Dichlorobenzene	27.2	10.0	ug/L	50.0		54.3	13-112			
2,4,6-Trichlorophenol	24.4	10.0	ug/L	50.0		48.8	52-129			L
2,4-Dichlorophenol	25.1	10.0	ug/L	50.0		50.1	53-122			L
2,4-Dimethylphenol	30.0	5.00	ug/L	50.0		60.0	42-120			
2,4-Dinitrophenol	22.3	50.0	ug/L	50.0		44.7	48-127			J, L
2,4-Dinitrotoluene	32.2	10.0	ug/L	50.0		64.3	10-173			
2,6-Dinitrotoluene	29.7	10.0	ug/L	50.0		59.5	68-137			L
2-Chloronaphthalene	29.8	10.0	ug/L	50.0		59.6	65-120			L
2-Chlorophenol	30.7	10.0	ug/L	50.0		61.3	36-120			
2-Nitrophenol	32.2	10.0	ug/L	50.0		64.3	45-167			
3,3'-Dichlorobenzidine	35.5	10.0	ug/L	50.0		70.9	10-213			
4,6-Dinitro-2-methylphenol	30.5	50.0	ug/L	50.0		61.0	53-130			
4-Bromophenyl phenyl ether	29.2	10.0	ug/L	50.0		58.5	65-120			L
4-Chlorophenyl phenyl ether	26.0	10.0	ug/L	50.0		51.9	38-145			
4-Nitrophenol	10.7	50.0	ug/L	50.0		21.4	13-129			
Acenaphthene	33.7	10.0	ug/L	50.0		67.4	60-132			
Acenaphthylene	34.2	10.0	ug/L	50.0		68.5	54-126			
Acetophenone	26.8	20.0	ug/L	50.0		53.6	0-200			
alpha-Terpineol	29.2	2.50	ug/L	50.0		58.4	0-200			
Anthracene	31.1	10.0	ug/L	50.0		62.2	43-120			
Benzo (a) anthracene	31.6	10.0	ug/L	50.0		63.1	42-133			
Benzo (a) pyrene	33.3	10.0	ug/L	50.0		66.7	32-148			
Benzo (b) fluoranthene	31.3	10.0	ug/L	50.0		62.5	42-140			



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25C0528

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batcl	n BIC0513 - SW3510	C/EPA600-	MS							
.CS (BIC0513-BS1)			F	Prepared: 03/11/	2025 Analyzed: 0	3/12/2025				
Benzo (g,h,i) perylene	40.3	10.0	ug/L	50.0		80.6	10-195			
Benzo (k) fluoranthene	30.7	10.0	ug/L	50.0		61.3	25-146			
bis (2-Chloroethoxy) methane	28.3	10.0	ug/L	50.0		56.6	49-165			
bis (2-Chloroethyl) ether	30.1	10.0	ug/L	50.0		60.1	43-126			
2,2'-Oxybis (1-chloropropane)	29.4	10.0	ug/L	50.0		58.9	63-139			L
bis (2-Ethylhexyl) phthalate	40.7	10.0	ug/L	50.0		81.3	29-137			
Butyl benzyl phthalate	43.7	10.0	ug/L	50.0		87.5	10-140			
Chrysene	33.4	10.0	ug/L	50.0		66.9	44-140			
Dibenz (a,h) anthracene	41.1	10.0	ug/L	50.0		82.3	10-200			
Diethyl phthalate	34.4	10.0	ug/L	50.0		68.9	10-120			
Dimethyl phthalate	30.3	10.0	ug/L	50.0		60.6	10-120			
Di-n-butyl phthalate	41.8	10.0	ug/L	50.0		83.7	10-120			
Di-n-octyl phthalate	41.9	10.0	ug/L	50.0		83.8	19-132			
Fluoranthene	33.0	10.0	ug/L	50.0		65.9	43-121			
Fluorene	30.7	10.0	ug/L	50.0		61.4	70-120			L
Hexachlorobenzene	32.0	1.00	ug/L	50.0		64.1	10-142			
Hexachlorobutadiene	20.3	10.0	ug/L	50.0		40.6	38-120			
Hexachlorocyclopentadiene	5.86	10.0	ug/L	50.0		11.7	10-76			
Hexachloroethane	27.7	10.0	ug/L	50.0		55.3	55-120			
Indeno (1,2,3-cd) pyrene	37.0	10.0	ug/L	50.0		73.9	10-151			
Isophorone	19.3	10.0	ug/L	50.0		38.7	47-180			L
Naphthalene	30.1	5.00	ug/L	50.0		60.1	36-120			
Nitrobenzene	26.4	10.0	ug/L	50.0		52.8	54-158			L
n-Nitrosodimethylamine	13.4	10.0	ug/L	50.0		26.9	10-85			
n-Nitrosodi-n-propylamine	26.6	10.0	ug/L	50.0		53.2	14-198			



Certificate of Analysis

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Semivolatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BIC	0513 - SW351	0C/EPA600-N	IS							
LCS (BIC0513-BS1)				Prepared: 03/11/	2025 Analyzed: 0	3/12/2025				
n-Nitrosodiphenylamine	24.6	10.0	ug/L	50.0		49.2	12-97			
p-Chloro-m-cresol	29.4	10.0	ug/L	50.0		58.9	10-142			
Pentachloronitrobenzene (quintozene)	ND	10.0	ug/L				0-200			
Pentachlorophenol	15.8	20.0	ug/L	50.0		31.6	38-152			J, L
Phenanthrene	33.4	10.0	ug/L	50.0		66.7	65-120			
Phenol	11.5	10.0	ug/L	50.5		22.7	17-120			
Pyrene	30.3	10.0	ug/L	50.0		60.6	70-120			L
Pyridine	18.1	10.0	ug/L	50.0		36.3	10-103			
Surr: 2,4,6-Tribromophenol (Surr)	67.4		ug/L	100		67.4	5-136			
Surr: 2-Fluorobiphenyl (Surr)	27.7		ug/L	50.0		55.3	9-117			
Surr: 2-Fluorophenol (Surr)	35.1		ug/L	100		35.1	5-60			
Surr: Nitrobenzene-d5 (Surr)	26.3		ug/L	50.0		52.7	5-151			
Surr: Phenol-d5 (Surr)	24.8		ug/L	100		24.8	5-60			
Surr: p-Terphenyl-d14 (Surr)	30.8		ug/L	50.0		61.7	5-141			
Matrix Spike (BIC0513-MS1)	Sour	ce: 25C0376-03	3	Prepared: 03/11/	/2025 Analyzed: 0	3/12/2025				
1,2,4-Trichlorobenzene	19.1	10.0	ug/L	100	BLOD	19.1	44-142			М
1,2-Dichlorobenzene	25.0	10.0	ug/L	100	BLOD	25.0	22-115			
1,3-Dichlorobenzene	24.1	10.0	ug/L	100	BLOD	24.1	22-112			
1,4-Dichlorobenzene	25.8	10.0	ug/L	100	BLOD	25.8	13-112			
2,4,6-Trichlorophenol	20.7	10.0	ug/L	100	BLOD	20.7	37-144			М
2,4-Dichlorophenol	21.4	10.0	ug/L	100	BLOD	21.4	39-135			М
2,4-Dimethylphenol	24.8	5.00	ug/L	100	BLOD	24.8	32-120			М
2,4-Dinitrophenol	22.3	50.0	ug/L	100	BLOD	22.3	39-139			J, M
2,4-Dinitrotoluene	25.2	10.0	ug/L	100	BLOD	25.2	10-191			



Certificate of Analysis

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Semivolatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch	n BIC0513 - SW3510	C/EPA600-	MS							
Matrix Spike (BIC0513-MS1)	Sourc	e: 25C0376-0)3	Prepared: 03/11/	/2025 Analyzed: 0	3/12/2025				
2,6-Dinitrotoluene	23.9	10.0	ug/L	100	BLOD	23.9	50-158			М
2-Chloronaphthalene	24.2	10.0	ug/L	100	BLOD	24.2	60-120			М
2-Chlorophenol	27.0	10.0	ug/L	100	BLOD	27.0	23-134			
2-Nitrophenol	28.5	10.0	ug/L	100	BLOD	28.5	29-182			М
3,3'-Dichlorobenzidine	26.8	10.0	ug/L	100	BLOD	26.8	10-262			
4,6-Dinitro-2-methylphenol	25.0	50.0	ug/L	100	BLOD	25.0	10-181			
4-Bromophenyl phenyl ether	23.6	10.0	ug/L	100	BLOD	23.6	53-127			М
4-Chlorophenyl phenyl ether	20.7	10.0	ug/L	100	BLOD	20.7	25-158			М
4-Nitrophenol	4.14	50.0	ug/L	100	BLOD	4.14	10-132			J, M
Acenaphthene	27.2	10.0	ug/L	100	BLOD	27.2	47-145			М
Acenaphthylene	27.9	10.0	ug/L	100	BLOD	27.9	33-145			М
Acetophenone	23.6	20.0	ug/L	100	BLOD	23.6	0-200			
alpha-Terpineol	24.7	2.50	ug/L	100	BLOD	24.7	0-200			
Anthracene	25.0	10.0	ug/L	100	BLOD	25.0	27-133			М
Benzo (a) anthracene	25.0	10.0	ug/L	100	BLOD	25.0	33-143			М
Benzo (a) pyrene	26.5	10.0	ug/L	100	BLOD	26.5	17-163			
Benzo (b) fluoranthene	26.7	10.0	ug/L	100	BLOD	26.7	24-159			
Benzo (g,h,i) perylene	29.2	10.0	ug/L	100	BLOD	29.2	10-219			
Benzo (k) fluoranthene	22.4	10.0	ug/L	100	BLOD	22.4	11-162			
bis (2-Chloroethoxy) methane	23.9	10.0	ug/L	100	BLOD	23.9	33-184			М
bis (2-Chloroethyl) ether	26.6	10.0	ug/L	100	BLOD	26.6	12-158			
2,2'-Oxybis (1-chloropropane)	25.5	10.0	ug/L	100	BLOD	25.5	36-166			М
bis (2-Ethylhexyl) phthalate	29.8	10.0	ug/L	100	BLOD	29.8	10-158			
Butyl benzyl phthalate	33.9	10.0	ug/L	100	BLOD	33.9	10-152			
Chrysene	26.5	10.0	ug/L	100	BLOD	26.5	17-169			



Certificate of Analysis

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25C0528

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch Bl	C0513 - SW3510	C/EPA600-N	MS							
Matrix Spike (BIC0513-MS1)	Sourc	e: 25C0376-0	3	Prepared: 03/11/	/2025 Analyzed: (3/12/2025				
Dibenz (a,h) anthracene	30.0	10.0	ug/L	100	BLOD	30.0	10-227			
Diethyl phthalate	27.4	10.0	ug/L	100	BLOD	27.4	10-120			
Dimethyl phthalate	23.8	10.0	ug/L	100	BLOD	23.8	10-120			
Di-n-butyl phthalate	33.1	10.0	ug/L	100	BLOD	33.1	10-120			
Di-n-octyl phthalate	31.5	10.0	ug/L	100	BLOD	31.5	10-146			
Fluoranthene	25.9	10.0	ug/L	100	BLOD	25.9	26-137			М
Fluorene	24.3	10.0	ug/L	100	BLOD	24.3	59-121			М
Hexachlorobenzene	25.7	1.00	ug/L	100	BLOD	25.7	10-152			
Hexachlorobutadiene	17.4	10.0	ug/L	100	BLOD	17.4	24-120			М
Hexachlorocyclopentadiene	4.48	10.0	ug/L	100	BLOD	4.48	10-90			J, M
Hexachloroethane	24.4	10.0	ug/L	100	BLOD	24.4	40-120			М
Indeno (1,2,3-cd) pyrene	27.4	10.0	ug/L	100	BLOD	27.4	10-171			
Isophorone	16.4	10.0	ug/L	100	BLOD	16.4	21-196			М
Naphthalene	26.5	5.00	ug/L	100	BLOD	26.5	21-133			
Nitrobenzene	23.2	10.0	ug/L	100	BLOD	23.2	35-180			М
n-Nitrosodimethylamine	12.6	10.0	ug/L	100	BLOD	12.6	10-85			
n-Nitrosodi-n-propylamine	23.4	10.0	ug/L	100	BLOD	23.4	10-230			
n-Nitrosodiphenylamine	19.4	10.0	ug/L	100	BLOD	19.4	12-111			
p-Chloro-m-cresol	25.6	10.0	ug/L	100	BLOD	25.6	10-127			
Pentachloronitrobenzene (quintozene)	ND	10.0	ug/L		BLOD		0-200			
Pentachlorophenol	15.4	20.0	ug/L	100	BLOD	15.4	14-176			
Phenanthrene	26.9	10.0	ug/L	100	BLOD	26.9	54-120			М
Phenol	11.5	10.0	ug/L	101	2.59	8.84	10-120			М
Pyrene	22.6	10.0	ug/L	100	BLOD	22.6	52-120			М
Pyridine	17.0	10.0	ug/L	100	BLOD	17.0	10-110			



Certificate of Analysis

Client Name: SCS Engineers - Winchester

LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb

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Date Issued:

3/28/2025 1:40:42PM

Work Order:

25C0528

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch	BIC0513 - SW3510	C/EPA600-N	//S							
Matrix Spike (BIC0513-MS1)	Sourc	e: 25C0376-0	3	Prepared: 03/11/	/2025 Analyzed: 0	03/12/2025				
Surr: 2,4,6-Tribromophenol (Surr)	55.1		ug/L	200		27.6	5-136			
Surr: 2-Fluorobiphenyl (Surr)	22.6		ug/L	100		22.6	9-117			
Surr: 2-Fluorophenol (Surr)	23.5		ug/L	200		11.7	5-60			
Surr: Nitrobenzene-d5 (Surr)	23.2		ug/L	100		23.2	5-151			
Surr: Phenol-d5 (Surr)	21.1		ug/L	200		10.5	5-60			
Surr: p-Terphenyl-d14 (Surr)	22.5		ug/L	100		22.5	5-141			
Matrix Spike Dup (BIC0513-MSD1)	Sourc	e: 25C0376-0	3	Prepared: 03/11/	/2025 Analyzed: 0	3/12/2025				
1,2,4-Trichlorobenzene	16.3	10.0	ug/L	100	BLOD	16.3	44-142	15.9	20	М
1,2-Dichlorobenzene	23.1	10.0	ug/L	100	BLOD	23.1	22-115	8.02	20	
1,3-Dichlorobenzene	20.3	10.0	ug/L	100	BLOD	20.3	22-112	16.9	20	М
1,4-Dichlorobenzene	21.5	10.0	ug/L	100	BLOD	21.5	13-112	18.1	20	
2,4,6-Trichlorophenol	20.9	10.0	ug/L	100	BLOD	20.9	37-144	0.818	20	М
2,4-Dichlorophenol	19.4	10.0	ug/L	100	BLOD	19.4	39-135	9.59	20	М
2,4-Dimethylphenol	22.0	5.00	ug/L	100	BLOD	22.0	32-120	12.0	20	М
2,4-Dinitrophenol	28.3	50.0	ug/L	100	BLOD	28.3	39-139	23.6	20	J, M, P
2,4-Dinitrotoluene	30.9	10.0	ug/L	100	BLOD	30.9	10-191	20.4	20	P
2,6-Dinitrotoluene	26.2	10.0	ug/L	100	BLOD	26.2	50-158	8.82	20	М
2-Chloronaphthalene	22.1	10.0	ug/L	100	BLOD	22.1	60-120	9.24	20	М
2-Chlorophenol	23.0	10.0	ug/L	100	BLOD	23.0	23-134	16.0	20	М
2-Nitrophenol	24.7	10.0	ug/L	100	BLOD	24.7	29-182	14.2	20	М
3,3'-Dichlorobenzidine	35.2	10.0	ug/L	100	BLOD	35.2	10-262	27.2	20	P
4,6-Dinitro-2-methylphenol	34.2	50.0	ug/L	100	BLOD	34.2	10-181	30.9	20	J, P
4-Bromophenyl phenyl ether	28.1	10.0	ug/L	100	BLOD	28.1	53-127	17.2	20	М
4-Chlorophenyl phenyl ether	22.4	10.0	ug/L	100	BLOD	22.4	25-158	7.71	20	М



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Work Order:

25C0528

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch	BIC0513 - SW3510	C/EPA600-I	MS							
Matrix Spike Dup (BIC0513-MSD1)	Sourc	e: 25C0376-0	3	Prepared: 03/11/	/2025 Analyzed: (3/12/2025				
4-Nitrophenol	4.23	50.0	ug/L	100	BLOD	4.23	10-132	2.15	20	J, M
Acenaphthene	26.6	10.0	ug/L	100	BLOD	26.6	47-145	2.34	20	М
Acenaphthylene	27.0	10.0	ug/L	100	BLOD	27.0	33-145	3.13	20	М
Acetophenone	21.1	20.0	ug/L	100	BLOD	21.1	0-200	11.3	20	
alpha-Terpineol	21.9	2.50	ug/L	100	BLOD	21.9	0-200	12.2	20	
Anthracene	32.9	10.0	ug/L	100	BLOD	32.9	27-133	27.2	20	P
Benzo (a) anthracene	37.3	10.0	ug/L	100	BLOD	37.3	33-143	39.2	20	P
Benzo (a) pyrene	39.2	10.0	ug/L	100	BLOD	39.2	17-163	38.7	20	P
Benzo (b) fluoranthene	37.1	10.0	ug/L	100	BLOD	37.1	24-159	32.5	20	P
Benzo (g,h,i) perylene	43.2	10.0	ug/L	100	BLOD	43.2	10-219	38.7	20	P
Benzo (k) fluoranthene	35.5	10.0	ug/L	100	BLOD	35.5	11-162	45.2	20	P
bis (2-Chloroethoxy) methane	21.0	10.0	ug/L	100	BLOD	21.0	33-184	12.9	20	М
bis (2-Chloroethyl) ether	23.1	10.0	ug/L	100	BLOD	23.1	12-158	14.2	20	
2,2'-Oxybis (1-chloropropane)	21.8	10.0	ug/L	100	BLOD	21.8	36-166	15.6	20	М
bis (2-Ethylhexyl) phthalate	44.8	10.0	ug/L	100	BLOD	44.8	10-158	40.3	20	P
Butyl benzyl phthalate	50.1	10.0	ug/L	100	BLOD	50.1	10-152	38.6	20	P
Chrysene	37.9	10.0	ug/L	100	BLOD	37.9	17-169	35.5	20	P
Dibenz (a,h) anthracene	44.8	10.0	ug/L	100	BLOD	44.8	10-227	39.4	20	P
Diethyl phthalate	32.1	10.0	ug/L	100	BLOD	32.1	10-120	15.8	20	
Dimethyl phthalate	25.4	10.0	ug/L	100	BLOD	25.4	10-120	6.51	20	
Di-n-butyl phthalate	46.8	10.0	ug/L	100	BLOD	46.8	10-120	34.2	20	P
Di-n-octyl phthalate	47.2	10.0	ug/L	100	BLOD	47.2	10-146	39.9	20	P
Fluoranthene	36.6	10.0	ug/L	100	BLOD	36.6	26-137	34.3	20	P
Fluorene	26.4	10.0	ug/L	100	BLOD	26.4	59-121	8.28	20	М
Hexachlorobenzene	32.5	1.00	ug/L	100	BLOD	32.5	10-152	23.3	20	P



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25C0528

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch Blo	C0513 - SW3510	C/EPA600-	MS							
Matrix Spike Dup (BIC0513-MSD1)	Sourc	e: 25C0376-0)3	Prepared: 03/11	/2025 Analyzed: 0	3/12/2025				
Hexachlorobutadiene	14.9	10.0	ug/L	100	BLOD	14.9	24-120	15.4	20	М
Hexachlorocyclopentadiene	4.31	10.0	ug/L	100	BLOD	4.31	10-90	3.87	20	J, M
Hexachloroethane	20.8	10.0	ug/L	100	BLOD	20.8	40-120	15.7	20	М
Indeno (1,2,3-cd) pyrene	41.2	10.0	ug/L	100	BLOD	41.2	10-171	40.2	20	P
Isophorone	14.4	10.0	ug/L	100	BLOD	14.4	21-196	12.8	20	М
Naphthalene	23.3	5.00	ug/L	100	BLOD	23.3	21-133	12.7	20	
Nitrobenzene	20.2	10.0	ug/L	100	BLOD	20.2	35-180	13.5	20	М
n-Nitrosodimethylamine	10.5	10.0	ug/L	100	BLOD	10.5	10-85	18.2	20	
n-Nitrosodi-n-propylamine	21.2	10.0	ug/L	100	BLOD	21.2	10-230	10.1	20	
n-Nitrosodiphenylamine	24.0	10.0	ug/L	100	BLOD	24.0	12-111	21.4	20	P
p-Chloro-m-cresol	27.5	10.0	ug/L	100	BLOD	27.5	10-127	7.05	20	
Pentachloronitrobenzene (quintozene)	ND	10.0	ug/L		BLOD		0-200		20	
Pentachlorophenol	23.2	20.0	ug/L	100	BLOD	23.2	14-176	40.5	20	P
Phenanthrene	34.9	10.0	ug/L	100	BLOD	34.9	54-120	26.0	20	M, P
Phenol	10.6	10.0	ug/L	101	2.59	7.89	10-120	8.70	20	М
Pyrene	32.8	10.0	ug/L	100	BLOD	32.8	52-120	36.8	20	M, P
Pyridine	13.2	10.0	ug/L	100	BLOD	13.2	10-110	25.4	20	P
Surr: 2,4,6-Tribromophenol (Surr)	71.6		ug/L	200		35.8	5-136			
Surr: 2-Fluorobiphenyl (Surr)	20.3		ug/L	100		20.3	9-117			
Surr: 2-Fluorophenol (Surr)	19.5		ug/L	200		9.74	5-60			
Surr: Nitrobenzene-d5 (Surr)	20.4		ug/L	100		20.4	5-151			
Surr: Phenol-d5 (Surr)	19.1		ug/L	200		9.54	5-60			
Surr: p-Terphenyl-d14 (Surr)	32.8		ug/L	100		32.8	5-141			



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LFG-EW Monthly Monitoring

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25C0528

Wet Chemistry Analysis - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch	BIC0258 - No Prep	Wet Chem								
Blank (BIC0258-BLK1)				Prepared & Analy	/zed: 03/06/2025					
BOD	ND	2.0	mg/L							
LCS (BIC0258-BS1)				Prepared & Analy	zed: 03/06/2025					
BOD	185		mg/L	198		93.4	84.6-115.4			
Duplicate (BIC0258-DUP1)	Sourc	e: 25C0338-01	I	Prepared & Analy	zed: 03/06/2025					
BOD	ND	2.0	mg/L		BLOD			NA	20	
Batch	BIC0308 - No Prep	Wet Chem								
Blank (BIC0308-BLK1)				Prepared & Analy	/zed: 03/06/2025					
Nitrite as N	ND	0.05	mg/L							
LCS (BIC0308-BS1)				Prepared & Analy	zed: 03/06/2025					
Nitrite as N	0.10	0.05	mg/L	0.100		101	80-120			
Matrix Spike (BIC0308-MS1)	Sourc	e: 25C0368-01	l	Prepared & Analy	/zed: 03/06/2025					
Nitrite as N	0.24	0.05	mg/L	0.100	0.17	63.0	80-120			М
Matrix Spike Dup (BIC0308-MSD1)	Sourc	e: 25C0368-01	l	Prepared & Analy	zed: 03/06/2025					
Nitrite as N	0.24	0.05	mg/L	0.100	0.17	61.0	80-120	0.847	20	М
Batch	BIC0748 - No Prep	Wet Chem								
Blank (BIC0748-BLK1)				Prepared & Analy	zed: 03/14/2025					
Ammonia as N	ND	0.10	mg/L							



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LFG-EW Monthly Monitoring

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Work Order:

25C0528

Wet Chemistry Analysis - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch I	BIC0748 - No Prep	Wet Chem								
LCS (BIC0748-BS1)				Prepared & Analy	/zed: 03/14/2025					
Ammonia as N	1.09		mg/L	1.00		109	90-110			
Matrix Spike (BIC0748-MS1)	Sourc	e: 25C0137-0	1	Prepared & Analy	zed: 03/14/2025					
Ammonia as N	1.10	0.10	mg/L	1.00	BLOD	110	89.3-131			
Matrix Spike (BIC0748-MS2)	Source	e: 25C0365-0	1	Prepared & Analy	/zed: 03/14/2025					
Ammonia as N	1.09	0.10	mg/L	1.00	BLOD	109	89.3-131			
Matrix Spike Dup (BIC0748-MSD1)	Sourc	e: 25C0137-0	1	Prepared & Analy	zed: 03/14/2025					
Ammonia as N	1.10	0.10	mg/L	1.00	BLOD	110	89.3-131	0.0906	20	
Matrix Spike Dup (BIC0748-MSD2)	Source	e: 25C0365-0	1	Prepared & Analy	zed: 03/14/2025					
Ammonia as N	1.10	0.10	mg/L	1.00	BLOD	110	89.3-131	0.822	20	
Batch I	BIC0784 - No Prep	Wet Chem								
Blank (BIC0784-BLK1)				Prepared & Analy	/zed: 03/15/2025					
COD	ND	10.0	mg/L							
LCS (BIC0784-BS1)				Prepared & Analy	/zed: 03/15/2025					
COD	50.0	10.0	mg/L	50.0		100	88-119			
Matrix Spike (BIC0784-MS1)	Sourc	e: 25C1043-0	1	Prepared & Analy	/zed: 03/15/2025					
COD	53.7	10.0	mg/L	50.0	BLOD	107	72.4-130			
Matrix Spike Dup (BIC0784-MSD1)	Sourc	e: 25C1043-0	1	Prepared & Analy	/zed: 03/15/2025					
COD	52.4	10.0	mg/L	50.0	BLOD	105	72.4-130	2.58	20	



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Wet Chemistry Analysis - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch E	BIC0866 - No Prep	Wet Chem								
Blank (BIC0866-BLK1)				Prepared & Analy	zed: 03/18/2025					
TKN as N	ND	0.50	mg/L							
LCS (BIC0866-BS1)				Prepared & Analy	zed: 03/18/2025					
TKN as N	5.10		mg/L	5.00		102	90-110			
Matrix Spike (BIC0866-MS1)	Source	e: 25C1343-0	2	Prepared & Analy	zed: 03/18/2025					
TKN as N	5.60	0.50	mg/L	5.00	0.52	102	90-110			
Matrix Spike (BIC0866-MS2)	Source	e: 25C1343-0	8	Prepared & Analy	zed: 03/18/2025					
TKN as N	5.60	0.50	mg/L	5.00	0.62	99.6	90-110			
Matrix Spike Dup (BIC0866-MSD1)	Sourc	e: 25C1343-0	2	Prepared & Analy	zed: 03/18/2025					
TKN as N	5.66	0.50	mg/L	5.00	0.52	103	90-110	1.12	20	
Matrix Spike Dup (BIC0866-MSD2)	Sourc	e: 25C1343-0	8	Prepared & Analy	zed: 03/18/2025					
TKN as N	5.88	0.50	mg/L	5.00	0.62	105	90-110	4.90	20	
Batch E	BIC1028 - No Prep	Wet Chem								
Blank (BIC1028-BLK1)				Prepared & Analy	zed: 03/19/2025					
Total Recoverable Phenolics	ND	0.050	mg/L							
LCS (BIC1028-BS1)				Prepared & Analy	zed: 03/19/2025					
Total Recoverable Phenolics	0.49	0.050	mg/L	0.510		96.1	80-120			
Matrix Spike (BIC1028-MS1)	Sourc	e: 25C1338-0	2	Prepared & Analy	zed: 03/19/2025					
Total Recoverable Phenolics	0.41	0.050	mg/L	0.500	0.07	68.4	70-130			М



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Client Name: SCS Engineers - Winchester

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

Submitted To: Jennifer Robb Work Order: 25C0528

Wet Chemistry Analysis - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch	BIC1028 - No Prep	Wet Chem								
Matrix Spike Dup (BIC1028-MSD1)	Sourc	e: 25C1338-0	2	Prepared & Analy	/zed: 03/19/2025					
Total Recoverable Phenolics	0.40	0.050	mg/L	0.500	0.07	66.4	70-130	2.46	20	М
Batch	BIC1089 - No Prep	Wet Chem								
Blank (BIC1089-BLK1)				Prepared & Analy	zed: 03/20/2025					
Nitrate+Nitrite as N	ND	0.10	mg/L							
LCS (BIC1089-BS1)				Prepared & Analy	zed: 03/20/2025					
Nitrate+Nitrite as N	1.03		mg/L	1.00		103	90-110			
Matrix Spike (BIC1089-MS1)	Source	e: 25C1079-0	1	Prepared & Analy	/zed: 03/20/2025					
Nitrate+Nitrite as N	9.24	0.50	mg/L	5.00	4.52	94.4	90-120			
Matrix Spike Dup (BIC1089-MSD1)	Sourc	e: 25C1079-0	ı	Prepared & Analy	zed: 03/20/2025					
Nitrate+Nitrite as N	9.16	0.50	mg/L	5.00	4.52	92.9	90-120	0.815	20	



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Client Site I.D.:

25C0528-03

Sample ID

25C0528-01

25C0528-02

25C0528-03

Sample ID

25C0528-01

25C0528-02

25C0528-03

25C0528-01

25C0528-02

25C0528-03

25C0528-01

25C0528-02

25C0528-03

25C0528-01

25C0528-02

25C0528-03

Wet Chemistry Analysis

LFG-EW Monthly Monitoring

Work Order:

25C0528

Submitted To: Jennifer Robb

	— Analytical Summary
Sample ID	Preparation Factors Initial / Final
Metals (Total) by E	PA 6000/7000 Series Methods
25C0528-01	50.0 mL / 50.0 mL
25C0528-02	50.0 mL / 50.0 mL

50.0 mL / 50.0 mL

Preparation Factors

50.0 mL / 50.0 mL

50.0 mL / 50.0 mL

50.0 mL / 50.0 mL

Preparation Factors

Initial / Final

300 mL / 300 mL

300 mL / 300 mL

300 mL / 300 mL

25.0 mL / 25.0 mL

25.0 mL / 25.0 mL

25.0 mL / 25.0 mL

6.00 mL / 6.00 mL

6.00 mL / 6.00 mL

6.00 mL / 6.00 mL

2.00 mL / 2.00 mL

2.00 mL / 2.00 mL

2.00 mL / 2.00 mL

Initial / Final

Metals (Total) by EPA 6000/7000 Series Methods

Method	Batch ID	Sequence ID	Calibration ID
	Preparation Method:	EPA200.2R2.8/SW300	5A-ICP
SW6010D	BIC0454	SIC0490	AC50220
SW6010D	BIC0454	SIC0490	AC50220
SW6010D	BIC0454	SIC0490	AC50220
Method	Batch ID	Sequence ID	Calibration ID
	Preparation Method:	EPA200.2R2.8/SW300	5A-ICPMS
SW6020B	BIC0460	SIC0492	AC50218
SW6020B	BIC0460	SIC0492	AC50218
SW6020B	BIC0460	SIC0492	AC50218
Method	Batch ID	Sequence ID	Calibration ID
	Preparation Method:	No Prep Wet Chem	
SM5210B-2016	BIC0258	SIC0456	
SM5210B-2016	BIC0258	SIC0456	
SM5210B-2016	BIC0258	SIC0456	
SM4500-NO2B-2021	BIC0308	SIC0313	AJ40362
SM4500-NO2B-2021	BIC0308	SIC0313	AJ40362
SM4500-NO2B-2021	BIC0308	SIC0313	AJ40362
EPA350.1 R2.0	BIC0748	SIC0684	AC50260
EPA350.1 R2.0	BIC0748	SIC0684	AC50260
EPA350.1 R2.0	BIC0748	SIC0684	AC50260
SM5220D-2011	BIC0784	SIC0703	AB50163
SM5220D-2011	BIC0784	SIC0703	AB50163



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

Submitted To: Jennifer Robb Work Order: 25C0528

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analy	ysis		Preparation Method:	No Prep Wet Chen	n
25C0528-01	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIC0866	SIC0799	AC50276
25C0528-02	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIC0866	SIC0799	AC50276
25C0528-03	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIC0866	SIC0799	AC50276
25C0528-01	0.200 mL / 10.0 mL	SW9065	BIC1028	SIC0919	AC50306
25C0528-02	0.200 mL / 10.0 mL	SW9065	BIC1028	SIC0919	AC50306
25C0528-03	0.500 mL / 10.0 mL	SW9065	BIC1028	SIC0919	AC50306
25C0528-01	5.00 mL / 5.00 mL	SM4500-NO3F-2019	BIC1089	SIC0976	AC50311
25C0528-02	5.00 mL / 5.00 mL	SM4500-NO3F-2019	BIC1089	SIC0976	AC50311
25C0528-03	5.00 mL / 5.00 mL	SM4500-NO3F-2019	BIC1089	SIC0976	AC50311
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Semivolatile Organio	Compounds by GCMS		Preparation Method:	SW3510C/EPA600	-MS
25C0528-01	500 mL / 0.500 mL	SW8270E	BIC0513	SIC0908	AK40150
25C0528-01RE1	500 mL / 0.500 mL	SW8270E	BIC0513	SIC0959	AC50235
25C0528-02	500 mL / 1.00 mL	SW8270E	BIC0513	SIC0908	AK40150
25C0528-02RE1	500 mL / 1.00 mL	SW8270E	BIC0513	SIC0959	AC50235
25C0528-03	500 mL / 0.500 mL	SW8270E	BIC0513	SIC0908	AK40150
25C0528-03RE1	500 mL / 0.500 mL	SW8270E	BIC0513	SIC0959	AC50235
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Volatile Organic Con	npounds by GCMS		Preparation Method:	SW5030B-MS	
25C0528-01	5.00 mL / 5.00 mL	SW8260D	BIC0526	SIC0476	AK40303
25C0528-02	5.00 mL / 5.00 mL	SW8260D	BIC0526	SIC0476	AK40303
25C0528-03	5.00 mL / 5.00 mL	SW8260D	BIC0526	SIC0476	AK40303
25C0528-04	5.00 mL / 5.00 mL	SW8260D	BIC0526	SIC0476	AK40303
25C0528-01RE1	5.00 mL / 5.00 mL	SW8260D	BIC0606	SIC0539	AK40303
25C0528-02RE1	5.00 mL / 5.00 mL	SW8260D	BIC0606	SIC0539	AK40303



Certificate of Analysis

Client Name: SCS Engineers - Winchester

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

Submitted To: Jennifer Robb

Date Issued:

3/28/2025 1:40:42PM

Work Order:

25C0528



Certificate of Analysis

Client Name: SCS Engineers - Winchester

Date Issued:

3/28/2025 1:40:42PM

Client Site I.D.:
Submitted To:

LFG-EW Monthly Monitoring

Jennifer Robb

Work Order: 25C0528

QC Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID				
Metals (Total) by EPA	A 6000/7000 Series Methods		Preparation Method:	EPA200.2R2.8/SW300	005A-ICP				
BIC0454-BLK1	50.0 mL / 50.0 mL	SW6010D	BIC0454	SIC0457	AC50220				
BIC0454-BS1	50.0 mL / 50.0 mL	SW6010D	BIC0454	SIC0457	AC50220				
BIC0454-MS1	50.0 mL / 50.0 mL	SW6010D	BIC0454	SIC0457	AC50220				
BIC0454-MS2	50.0 mL / 50.0 mL	SW6010D	BIC0454	SIC0490	AC50220				
BIC0454-MSD1	50.0 mL / 50.0 mL	SW6010D	BIC0454	SIC0457	AC50220				
BIC0454-MSD2	50.0 mL / 50.0 mL	SW6010D	BIC0454	SIC0490	AC50220				
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID				
Metals (Total) by EPA	A 6000/7000 Series Methods		Preparation Method:	EPA200.2R2.8/SW300	5A-ICPMS				
BIC0460-BLK1	50.0 mL / 50.0 mL	SW6020B	BIC0460	SIC0492	AC50218				
BIC0460-BS1	50.0 mL / 50.0 mL	SW6020B	BIC0460	SIC0492	AC50218				
BIC0460-MS1	50.0 mL / 50.0 mL	SW6020B	BIC0460	SIC0492	AC50218				
BIC0460-MSD1	50.0 mL / 50.0 mL	SW6020B	BIC0460	SIC0492	AC50218				
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID				
Wet Chemistry Analy	ysis		Preparation Method:	No Prep Wet Chem					
BIC0258-BLK1	300 mL / 300 mL	SM5210B-2016	BIC0258	SIC0456					
BIC0258-BS1	300 mL / 300 mL	SM5210B-2016	BIC0258	SIC0456					
BIC0258-DUP1	300 mL / 300 mL	SM5210B-2016	BIC0258	SIC0456					
BIC0308-BLK1	25.0 mL / 25.0 mL	SM4500-NO2B-2021	BIC0308	SIC0313	AJ40362				
BIC0308-BS1	25.0 mL / 25.0 mL	SM4500-NO2B-2021	BIC0308	SIC0313	AJ40362				
BIC0308-MRL1	25.0 mL / 25.0 mL	SM4500-NO2B-2021	021 BIC0308 SIC0313		AJ40362				
BIC0308-MS1	25.0 mL / 25.0 mL	SM4500-NO2B-2021	BIC0308	SIC0313	AJ40362				
BIC0308-MSD1	25.0 mL / 25.0 mL	0 mL / 25.0 mL SM4500-NO2B-2021 BIC0308 SIC0313							



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Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Anal	ysis		Preparation Method:	No Prep Wet Chem	
BIC0748-BLK1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BIC0748	SIC0684	AC50260
BIC0748-BS1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BIC0748	SIC0684	AC50260
BIC0748-MRL1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BIC0748	SIC0684	AC50260
BIC0748-MRL2	6.00 mL / 6.00 mL	EPA350.1 R2.0	BIC0748	SIC0684	AC50260
BIC0748-MS1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BIC0748	SIC0684	AC50260
BIC0748-MS2	6.00 mL / 6.00 mL	EPA350.1 R2.0	BIC0748	SIC0684	AC50260
BIC0748-MSD1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BIC0748	SIC0684	AC50260
BIC0748-MSD2	6.00 mL / 6.00 mL	EPA350.1 R2.0	BIC0748	SIC0684	AC50260
BIC0784-BLK1	2.00 mL / 2.00 mL	SM5220D-2011	BIC0784	SIC0703	AB50163
BIC0784-BS1	2.00 mL / 2.00 mL	SM5220D-2011	BIC0784	SIC0703	AB50163
BIC0784-MRL1	2.00 mL / 2.00 mL	SM5220D-2011	BIC0784	SIC0703	AB50163
BIC0784-MS1	2.00 mL / 2.00 mL	SM5220D-2011	BIC0784	SIC0703	AB50163
BIC0784-MSD1	2.00 mL / 2.00 mL	SM5220D-2011	BIC0784	SIC0703	AB50163
BIC0866-BLK1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIC0866	SIC0799	AC50276
BIC0866-BS1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIC0866	SIC0799	AC50276
BIC0866-MRL1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIC0866	SIC0799	AC50276
BIC0866-MRL2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIC0866	SIC0799	AC50276
BIC0866-MS1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIC0866	SIC0799	AC50276
BIC0866-MS2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIC0866	SIC0799	AC50276
BIC0866-MSD1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIC0866	SIC0799	AC50276
BIC0866-MSD2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BIC0866	SIC0799	AC50276
BIC1028-BLK1	5.00 mL / 10.0 mL	SW9065	BIC1028	SIC0919	AC50306
BIC1028-BS1	5.00 mL / 10.0 mL	SW9065	BIC1028	SIC0919	AC50306
BIC1028-MRL1	5.00 mL / 10.0 mL	SW9065	BIC1028	SIC0919	AC50306
BIC1028-MS1	5.00 mL / 10.0 mL	SW9065	BIC1028	SIC0919	AC50306
BIC1028-MSD1	5.00 mL / 10.0 mL	SW9065	BIC1028	SIC0919	AC50306
BIC1089-BLK1	5.00 mL / 5.00 mL	SM4500-NO3F-2019	BIC1089	SIC0976	AC50311
BIC1089-BS1	5.00 mL / 5.00 mL	SM4500-NO3F-2019	BIC1089	SIC0976	AC50311
BIC1089-MRL1	5.00 mL / 5.00 mL	SM4500-NO3F-2019	BIC1089	SIC0976	AC50311



Certificate of Analysis

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Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Anal	ysis		Preparation Method:	No Prep Wet Chem	
BIC1089-MRL2	5.00 mL / 5.00 mL	SM4500-NO3F-2019	BIC1089	SIC0976	AC50311
BIC1089-MS1	5.00 mL / 25.0 mL	SM4500-NO3F-2019	BIC1089	SIC0976	AC50311
BIC1089-MSD1	5.00 mL / 25.0 mL	SM4500-NO3F-2019	BIC1089	SIC0976	AC50311
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Semivolatile Organi	c Compounds by GCMS		Preparation Method:	SW3510C/EPA600-M	IS
BIC0513-BLK1	1000 mL / 1.00 mL	SW8270E	BIC0513	SIC0577	AK40150
BIC0513-BS1	1000 mL / 1.00 mL	SW8270E	BIC0513	SIC0577	AK40150
BIC0513-MS1	500 mL / 0.500 mL	SW8270E	BIC0513	SIC0577	AK40150
BIC0513-MSD1	500 mL / 0.500 mL	SW8270E	BIC0513	SIC0577	AK40150
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Volatile Organic Cor	npounds by GCMS		Preparation Method:	SW5030B-MS	
BIC0526-BLK1	5.00 mL / 5.00 mL	SW8260D	BIC0526	SIC0476	AK40303
BIC0526-BS1	5.00 mL / 5.00 mL	SW8260D	BIC0526	SIC0476	AK40303
BIC0526-MS1	5.00 mL / 5.00 mL	SW8260D	BIC0526	SIC0476	AK40303
BIC0526-MSD1	5.00 mL / 5.00 mL	SW8260D	BIC0526	SIC0476	AK40303
BIC0606-BLK1	5.00 mL / 5.00 mL	SW8260D	BIC0606	SIC0539	AK40303
BIC0606-BS1	5.00 mL / 5.00 mL	SW8260D	BIC0606	SIC0539	AK40303
BIC0606-MS1	5.00 mL / 5.00 mL	SW8260D	BIC0606	SIC0539	AK40303
BIC0606-MSD1	5.00 mL / 5.00 mL	SW8260D	BIC0606	SIC0539	AK40303



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Work Order: 25C0528

Certified Analyses included in this Report

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



Certificate of Analysis

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LFG-EW Monthly Monitoring

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Work Order: 25C0528

Certified Analyses included in this Report

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



Certificate of Analysis

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LFG-EW Monthly Monitoring

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Client Site I.D.:

Date Issued: 3/28/2025 1:40:42PM

Work Order: 25C0528

Code	Description	Laboratory ID	Expires
DURSC-NCDEQ	NCDEQ Durham Service Center	703	12/31/2025
DURSC-NCDHHS	NCDHHS Durham Service Center	37918	07/31/2025
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	07/31/2025
NYDOH	New York DOH Drinking Water	12069	04/01/2025
PADEP	NELAP-Pennsylvania Certificate #009	68-03503	10/31/2025
SCDHEC	South Carolina Dept of Health and Environmental Control Certificate 93016001	93016	06/14/2025
TXCEQ	Texas Comm on Environmental Quality #T104704576-23-1	T104704576	05/31/2025
VELAP	NELAP-Virginia Certificate #12969	460021	06/14/2025
WVDEP	West Virginia DEP	350	11/30/2025



Certificate of Analysis

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3/28/2025 1:40:42PM

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Qualifiers and Definitions

DS Surrogate concentration reflects a dilution factor.

E Estimated concentration, outside calibration range

J The reported result is an estimated value.

LCS recovery is outside of established acceptance limits

M Matrix spike recovery is outside established acceptance limits

P Duplicate analysis does not meet the acceptance criteria for precision

RPD Relative Percent Difference

Qual Qualifers

Client Site I.D.:

-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.

Chain of Custody Effective: Mar 10, 2021



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

CHAIN OF CUSTODY

PAGE 1 OF 1

for the second s					CHAI	14 01	000	10	J 1									PAGE 1 OF 1						
COMPANY NAME: SCS Engir	neers			OICE TO			-		itol, VA		PROJ	ECT	NAM	E/Quo	ote#	:	City	y of Bristol Landfill #588						
CONTACT: Jennifer Robb			IN۱	OICE CC	NTACT	Jo	n Haye	es			SITE	1000 2000	DZ SASES					Monitoring						
ADDRESS: 296 Victory Road. W	/inches	ster, VA	IN\	OICE AD	DRESS	3: 265	5 Valley	Drive	Bristol, VA,	24201	PROJ	ECT	NUM	BER:	02	2182	208.1	5 Task 3						
PHONE #: 703-471-6150			IN\											P.O. #:										
EMAIL: jrobb@scsengineers.com			EMAIL: jon.hayes@bristolva.org										Pretreatment Program:											
Is sample for compliance reporting	? 1	ES NO Reg	gulator	y State:	VA	Is sam	ple fro	m a	chlorinate	ed supp	oly?	YE	S N	0	PV	VS I.	D. #:							
SAMPLER NAME (PRINT): M. N.	UYEN	: L. NEL	SOW		MPLEF			1 1 100	inen	La	sen	VG		Tu	urn /	Arour	nd Tir	me: 10 Day(s)						
Matrix Codes: WW=Waste Water/Storm Water	GW=Gro	und Water DW=D	rinking \	Water S=Soil/	Solids Of	R=Organ	ic A=Air	WP=	Nipe OT=Oth	ier	6	-						COMMENTS						
		als)			р					ANAL	YSIS /	(PRI	ESER'	VATIV	/E)			Preservative Codes: N=Nitric Acid C=Hydrochloric Acid S=Sulfuric Acid						
CLIENT SAMPLE I.D.	Grab Composite	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		H=Sodium Hydroxide A=Ascorbic Acid Z=Zinc Acetate T=Sodium Thiosulfate M=Methanol Note VOC 8260 no HCI PLEASE NOTE PRESERVATIVE(S), INTERFERENCE CHECKS or PUMP RATE (L/min)						
1) EW-68	X		0	30525	825	2.	GW	9	X	X	×	X	X	X	X	X								
2) EW-60	X			V	910		GW	9	X	X	X	X	X	X	X	X	_	1						
3) EW-50	X	-		1	1005		GW	9	X	X	X	X	X	X	X	X	_							
4)							GW	\vdash				H			+			- 4						
5)							GW	Н				\vdash			+	\vdash		Y						
7)	++	+					GW	H	J.						1	\Box								
8)							GW						1											
9)							GW											OT:1.5°C						
10) Trip Blank				1/27/25			DI	2	×			Ш						CF: 0.0°C						
RELINQUISHED: TENEX E	DATE / TI	ME RECEIVE	Fede D: B-	e 3-6-		DATE / DATE / DATE /	TIME	Leve		age LA Cus	stody Seal	SCS 24-1	S-W 2 Bri	stol I	LFC	5 - E	E W	DLER TEMP °C Received on ice? N) 25C0528 03/20/2025						



Sample Preservation Log

Order ID		25	50	0 -	5	 28	· _	•••	_						Date	Perf	orm	ed:	3/7	12	8	'			_				Ana	lyst F	Perfor	ming C	heck:	_{_{1}}	ile.	2			_		
۵	2		letal	8		yanic	de		Sulfid	de		mmo	nia		TKN		P	hos,		N	D3+N			DRC)	(80) PC	estic 81/608 B DW	ide /508)	(52	SVO: 5/8270	C		* **	s	Pest/P (508) :VOC(CB /		OT	2	 reni	
Sample ID	Container [PH Recs	bevi	Final pH	PH Reco	as sived Other	Final pH	Rec	elved Other	Final pH	Rec	l as eived Other		Rec	H as selved Other	Final pH	Re	H as celved Other	Final pH	Rec	eived Other	Final pH	Rec	d as elved Other	Final pH	Rec Re:	elved s. Cl	final + or -	Rec Re:	elved s. Cl	final + or -	Received pH	Final pH	Re	H as celved Other	Final pH	PH Reco	as elved Other	Final pH	 as elved Other	Ē
١	A		4	n																																					
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2	E																																							6	<2
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3	A		6	12																																					
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3	F																													-											
NaOH II	D:							_	HNO)3 ID:	5	B	02	25	73			CrVI												Ana	lyst In	itials: _									
H2SO4 I	D: _ <u>S</u>	B	0	24	53	}		_	Na ₂ S	S2O3	ID:_						_	* pH n						3 - 9.7																	
HCL ID:				•					Na ₂ S	SO ₃ II	D:							5N N	аOН	ID:																					



Certificate of Analysis

Client Name: SCS Engineers - Winchester

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

Submitted To: Jennifer Robb

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Certificate of Analysis

Client Name: SCS Engineers - Winchester

Client Site I.D.:

LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb Work Order: 25C0528

Laboratory Order ID: 25C0528

Sample Conditions Checklist

Samples Received at:	1.50°C
How were samples received?	FedEx Express
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?	No
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	Yes
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis. In addition, field parameters are always received outside holding time and will be marked accordingly.	No

Work Order Comments

Jennifer robb notified via email for the containers for Ammonia, COD, Nitrate Cd, TKN, and Phenolics for samples "EW-68", "Ew-60", and "EW-50" were received outside of the pH range for analysis and have been preserved in the lab to the appropriate pH. All the VOAC40mLHCl containers for these samples were received



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LFG-EW Monthly Monitoring

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Client Site I.D.:

with headspace. HEG 3/7/25 1051

Jennifer Robb confirmed via email to proceed with analysis. HEG 3/7/25 1317

Date Issued: 3/28/2025 1:40:42PM

Work Order: 25C0528

We	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	105	100
Parameter	Monitoring Event													ntration			-									LOD	LOQ
	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
	Jul 1001 y - 2023										2440															100	100
	February-2023																	1490								100	100
	March-2023									667	1480															73.1	100
	April-2023									1410		1220														73.1	100
	May-2023		1390							1860	2380															146	200
	June-2023										2740		2370		2170											146	200
	July-2023																		1180							73.1	100
			1570						2260															2350	310	146	200
	August-2023						1600		1890										1700					2140	222	146	200
	September-2023				1250														1720							73.1 146	200
	October-2023							1980											1730			2890				146	200
	0010001 2020		1260		2490	1830		2070											1800			2590				146	200
	November-2023													1170											2080	183	250
A mana a misa sa a N											2440															366	500
	December-2023																		1540							73.1	100
Ammonia as N	January-2024			2160	2900						2400							2200							1610	146 146	200
(mg/L)	February-2024			1900		2600															1780		2380			146	200
	March-2024																						2280		968	146	200
	April-2024				2290									928				2140	1800							146	200
	NA 000 4																								898	73.1	100
	May-2024										2550								1620		1950	2660				146	200
	June-2024																		1990		2170				1850	146	200
	July-2024										1860															73.1	100
	301y 2024											1950														146	200
	August-2024						1110														2120			2550		73.1	100
							1440														2130			2550		146 73.1	100
	September-2024				2210													2290								146	200
	Optobor 2004	343																		1490						73.1	100
	October-2024		1370		2180																					146	200
	November-2024	934	1370																							146	200
	December-2024				1510																				1560	146	200
	January-2025		1000																		0.68					0.005	0.01
	February-2025		1300										1160								1400					73.1 199	100
	March-2025		1240									1480						2110								146	200
	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		1010		20400	27500		34600			20/00			2/40					690			37000			21.500	0.2	2
Biological	November-2023 December-2023		1910		30400 >44105	27500		32015			29600			3640				13700	480 681			32135			21500	0.2	2
Oxygen Demand	January-2024			26000							17100														14000	0.2	2
(mg/L)	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											27400			20800			33400		0.2	$\frac{2}{2}$
	September-2024 October-2024	180	6680		ND		36100											27400		36100						0.2	2
	November-2024		7360																	36100						0.2	2
	December-2024				42600																				20300	0.2	2
	January-2025																T				22900					0.2	2
	February-2025		4420										43418.4								16200					0.2	2
	March-2025		3490									20400						22000								0.2	2

We	II ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	100
Parameter	Monitoring Event				'								Conce	ntration		<u>'</u>										LOD	LOQ
	November-2022												9790			10800										1000	1000
	11010111001 2022										23500															2000	2000
			7440																							1000	1000
	December-2022										13200	8000					20300	14100								2000	2000
					86800				22400																	5000	5000
-										3630																10000 500	10000 500
	January-2023		14900													8430										2000	2000
	January 2020										47600															5000	5000
	February-2023																	9210								1000	1000
										1690																500	500
	March-2023										10600															2000	2000
	April-2023											7370														1000	1000
	Aprii-2023	·								16800																2000	2000
	May-2023		7590							18700																2000	2000
	771G 7 2020										44700															4000	4000
	June-2023	3											44800													5000	5000
											41300				55000										0100	10000	10000
			4.400																2440						2180	500	500
	July-2023		6480																2460					41000		1000 5000	1000 5000
									50100															41000		10000	10000
																									1750	500	500
	August-2023						59000		58600															60600		5000	5000
	September-2023																		6260							1000	1000
	30010111001 2020	<u></u>			87400																					10000	10000
	October-2023							51000											5320							500 5000	500
	OC100e1-2023							31000														63600				10000	5000 10000
																			4710							1000	1000
	November-2023		6200											5620												2000	2000
	14046111061-2020	′ <u></u>				48100		57900			43700														37600	5000	5000
Chemical					77100														4870			63900				10000	10000
Oxygen Demand	December-2023	3																19900								5000	5000
(mg/L)					94200																					10000	10000
	January-2024			48600							59800														38200	5000	5000
	February-2024			42700		51200															48900		 /0400			5000	5000
-																							68400		14400	10000 2000	10000
	March-2024																						75500			10000	10000
														3110					4200							1000	1000
	April-2024																	32400								5000	5000
					79700																					10000	10000
																			4930							1000	1000
	May-2024																								17700	5000	5000
											48500								4500		43100	70700				10000	10000
	June-2024																		4520 		51400				31300	1000 5000	1000 5000
	luk 2004										42400															5000	5000
	July-2024											98500														10000	10000
, i			1																		48100			59500		5000	5000
	August-2024	.																26800								10000	10000
	August-2024						56600			<u>-</u>							+	20000									5000
							55900																			5000	0000
	August-2024 September-2024																									5000 10000	10000
	September-2024	 951					55900									+										10000 500	10000
		 951	 10700		78300 	 	55900 														 	 	 	 		10000 500 2000	10000 500 2000
	September-2024 October-2024	951	 10700		78300 83300		55900 		 							 			 	 62000	 	 	 		 	10000 500 2000 10000	10000 500 2000 10000
	September-2024	951	 10700		78300 	 	55900 														 	 	 	 		10000 500 2000 10000	10000 500 2000 10000
	September-2024 October-2024 November-2024	951 951 9540	 10700		78300 83300		55900 	 	 	 		 				 			 	 62000	 	 	 	 	 	10000 500 2000 10000 1000 2000 5000	10000 500 2000 10000 1000 2000 5000
	September-2024 October-2024 November-2024 December-2024	951 951 9540 	 10700 8840		78300 83300 		 55900 	 	 	 	 	 							 	62000 	 	 	 	 	 	10000 500 2000 1000 1000 2000 5000 10000	10000 500 2000 10000 1000 2000 5000 10000
	September-2024 October-2024 November-2024	951 951 9540 	 10700 8840 		78300 83300 8	 	 55900 	 	 	 	 	 		 	 			 	 	62000 	 	 	 	 	 36600	10000 500 2000 10000 1000 2000 5000 10000 5000	10000 500 2000 10000 1000 2000 5000 10000 5000
	September-2024 October-2024 November-2024 December-2024 January-2025	951 951 9540 	 10700 8840 3630		78300 83300 81500		55900	 	 	 	 		 	 	 	 	 	 		62000 	 36800			 	36600 	10000 500 2000 10000 1000 2000 5000 10000 5000 1000	10000 500 2000 10000 1000 2000 5000 10000 5000 1000
	September-2024 October-2024 November-2024 December-2024	951 951 9540 	 10700 8840 		78300 83300 83500 81500 		55900		 		 			 	 		 	 		62000 	 36800			 	 36600	10000 500 2000 1000 1000 2000 5000 1000 5000 1000 5000	10000 500 2000 10000 1000 2000 5000 10000 5000 1000 5000
	September-2024 October-2024 November-2024 December-2024 January-2025	951 951 9540 	 10700 8840 3630		78300 83300 81500		55900	 	 	 	 		 	 	 	 	 	 		62000 	 36800 23400			 	 36600 	10000 500 2000 1000 1000 2000 5000 1000 5000 1000 5000 10000	10000 500 2000 10000 1000 2000 5000 10000 5000 1000 10000
	September-2024 October-2024 November-2024 December-2024 January-2025	951 951 9540 5	 10700 8840 3630		78300 83300 83300 81500 		55900						 447000							 62000 	 36800 23400			 	 36600 	10000 500 2000 1000 1000 2000 5000 1000 5000 1000 5000	10000 500 2000 10000 1000 2000 5000 10000 5000 10000 10000 10000 5000
	September-2024 October-2024 November-2024 December-2024 January-2025 February-2025	951 951 9540 5	 10700 8840 3630 8700		78300 83300 81500 		55900						 447000							62000	36800 23400				36600 	10000 500 2000 10000 1000 2000 5000 1000 5000 1000 5000 100000 10000	10000 500 2000 10000 1000 2000 5000 10000 5000 10000 100000 10000

	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event												Conce	ntration													
																	ND									0.2	0.2
	December-2022											ND														0.2	0.6
			ND		ND				ND		ND															1.1	5.1
																		ND								1.5	5.5
										ND																0.35	1.35
	January-2023															ND										1.1	1.1
	34116417 2626		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
	1VIGY 2020									ND	ND															1.2	5.2
	June-2023										ND				ND											1.1	5.1
	30110-2020												ND													1.2	5.2
																			0.355							0.15	0.35
	July-2023																								ND	0.55	0.75
	July-2023		ND																							1	3
									ND															ND		1.5	5.5
	August-2023																								ND	0.15	0.35
	7.09031-2023						ND		ND															ND		1.5	3.5
	September-2023																		ND							0.3	1.1
					ND																					0.7	1.5
	October-2023							ND											ND							0.35	1.35
	OC10be1-2023							ND 														ND				1.5	3.5
			ND																ND							0.15	0.35
														ND												0.35	1.35
	November-2023							ND																		0.75	1.75
ate as N					ND																					1.1	5.1
g/L)						ND					ND											ND			ND	1.5	5.5
,, -,	December-2023				ND														ND							1.1	5.1
																		ND								1.5	5.5
	January-2024			2.01							ND														ND	1.5	5.5
	February-2024			9.1		ND															ND		ND			1.5	5.5
	March-2024					ND 																	ND		ND	3.5 0.75	7.5 1.75
	7VIGIC11-2024													ND					ND							0.75	0.35
	April-2024				ND																					1.5	5.5
	7 (0111 2024																	ND								2.5	10.5
																			ND							0.15	0.35
																									ND	0.35	1.35
	May-2024																				ND					0.6	2.6
	Widy-2024																					1.9				1	3
											ND															1.1	5.1
																			0.692							0.6	2.6
	June-2024																				ND				ND	1.5	3.5
<i> </i>	1.1.000.1											ND														0.5	2.5
	July-2024										6.66															5	25
1	August-2024						1.57														ND			ND		0.25	1.25
1	September-2024				ND		2.42																			0.25	1.25
	30p10111061-2024																	ND								5	25
	0 -1 -1 000 :	ND																								0.1	0.5
	October-2024		ND																	ND						10	5
-					ND																					10	50
	November-2024	ND 	 ND																							0.25	1.25 2.5
-	December-2024				ND																				ND	0.5	2.5
	January-2025																				ND					0.5	1.25
			ND																		ND					1	5
,	February-2025												ND													10	50
l l								 				ND						ND								2	10

W	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98		
Parameter	Monitoring Event	LIII OUA	211-00		211-52	111 30	211 04	LW 00	211-07		211-07	211 00	Conce				LW O	111-00	211-70	211 02	211 00	211-07	211 00	EW 74	LW-70	LOD	LOQ
raidifferen	Monitoring Event		I	T	I	T	I			I		0.12 J			T	I		I		I	I					0.1	0.5
	December-2022				ND																					0.1	0.5
			ND		ND				ND		ND						ND	ND								0.05	1.05
										ND																0.25	1.25
	January-2023															ND										1	1
			ND								ND															2	2
	February-2023																	0.48 J								0.25	1.25
	March-2023									ND	ND															1	5
	April-2023									ND		ND														0.5	2.5
	May-2023		ND							ND	ND															1	5
	June-2023										2 J		ND		ND											1	5
																			ND						ND	0.05	0.25
	July-2023		ND																							0.5	2.5
	,								1.2 J															ND		1	5
																									ND	0.05	0.25
	August-2023						ND		ND															ND		0.5	2.5
	September-2023				ND														ND							0.2	1
																			ND							0.25	1.25
	October-2023							ND														ND				0.5	2.5
			0.06 J																ND							0.05	0.25
	November-2023							ND						ND												0.25	1.25
					ND	ND					ND											ND			ND	1	5
	December-2023				ND													ND	ND							1	5
Nitrita as N	January-2024			1.7 J							ND														ND	1	5
Nitrite as N	February-2024			ND		ND															ND		ND			1	5
(mg/L)	March-2024																						ND		0.25 J	0.25	1.25
														ND					ND							0.25	0.25
	April-2024				ND																					1	5
																		ND								2	10
																			ND							0.05	0.25
																									ND	0.25	1.25
	May-2024																				ND	ND				0.5	2.5
											ND															1	5
	June-2024																		ND		ND				ND	0.5	2.5
												ND														0.5	2.5
	July-2024										ND															5	25
	August-2024						ND														ND			ND		0.25	1.25
					ND		ND																			0.25	1.25
	September-2024																	ND								5	25
		ND																								0.1	0.5
	October-2024		ND																	ND						1	5
					ND																					10	50
	November-2024	ND																								0.25	1.25
			1.35 J																							0.5	2.5
	December-2024				ND																				ND	0.5	2.5
	January-2025																				ND					0.25	1.25
	February-2025		ND																		ND					1	5
													ND													10	50
	March-2025		ND									ND						ND								2	10

	Monitoring Event	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59												EW-88	EW-94			
												EW-60	EW-61 Concer	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87			EW-98	LOD	LOQ
													1290			1470										20	50
-	November-2022										2110																125
	December 2000		1510		2570				1700			1400					1240	1040								50	
	December-2022		1510		3570				1790		1830	1490				1410	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
	lun a 2002										3080				2750											100	250
	June-2023												2650													200	500
	July-2023		1670						2960										1670					2720	285	40	100
																									279	10	25
	August-2023						2240		2820															2850		100	250
	September-2023				3340														2680							100	250
	Ootobor 2022							1050														1320				40	100
	October-2023																		4630							100	250
	November-2023							2240																	2120	80	200
	November-2023		1440		3290	2630					2530			1120					2270			3170				100	250
	December-2023																	1880								80	200
					3130														1890							100	250
Total Kjeldahl	January-2024			2450							3020														1810	100	250
Nitrogen (mg/L)	February-2024			2540		2890															2470		2970			100	250
INITOGETT (TTIG/L)	March-2024																								1030	50	125
_																							2980			100	250
														1030					1730							40	100
	April-2024																	2320								50	125
					3260																					100	250
	May-2024																								1140	40	100
	7VIGY-2024										3120								1780		2470	3280				100	250
	June-2024																		1870						4750	100	250
L	JUNE-2024																				2680					200	500
	July-2024										2840	2680														100	250
	August-2024						1980														1460			3150		100	250
							2090																			50	125
	September-2024																	2650								80	200
					3320																					100	250
	October-2024	351	12/0																	1870						40	100
-		1070	1360		2850																					100	250
	November-2024	1070	1610		0700																					40	100
-	December-2024				2790																10/0				2210	100	250
-	January-2025																				1960					40	100
	February-2025												0.948								1500					0.0398	0.0995
-	,		1190																		1520					100	250
	March-2025		1230									1020						2700								40	100
												1920						2700								100	250

We	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98		
Parameter	Monitoring Event	211 0071	211 00	211 01	211 02	1111 00	211 01	211 00	211 07	211 00	211 07	211 00	Conce		211 01	211 00	211 07	211 00	211 70	111 02	211 00	211 07	211 00	211 74	211 70	LOD	LOQ
													5.68			3										0.3	0.5
	November-2022										28.8															0.75	1.25
												8.94														0.3	0.5
	December-2022		24.9		54.6				28.3		32						20.2	36								1.5	2.5
			27.2							1.3						20.2										0.75	1.25
	January-2023										56.5															1.5	2.5
	Fobruary 2022																	22.4								1.5	2.5
	February-2023									0.4																	
	March-2023									0.4	10.0															0.03	0.05
	A									10.7	13.9	 E 1														0.3	0.5
	April-2023									18.7		5.1														0.3	0.5
	May-2023		18.6							20	50		45.4													1.5	2.5
	June-2023										39.1		45.6		80.6											1.5	2.5
																			0.7							0.15	0.25
	July-2023																								2.92	0.3	0.5
			11.6						47.9															37.3		1.5	2.5
	August-2023																								1.46	0.15	0.25
	3333 2320						28.6		31.4										4.50					40.4		1.5	2.5
	September-2023				20.2														4.58							0.3	0.5
					38.2														4 12							3	0.05
	October-2023							37											4.13			38.7				0.15	0.25
																			3.65							0.15	0.25
			7.88			36.4								4.76					3.65							0.13	0.23
	November-2023				38.8			47.4														47.1				0.75	1.25
											46.9														29.1	1.5	2.5
																			3.72							0.06	0.1
	December-2023																	23								0.75	1.25
Total					34.2																					1.5	2.5
Recoverable	1			38																					22.7	1.5	2.5
Phenolics (mg/L)	January-2024										39.2															3	5
	February-2024			37.3		42.9															50.2		43.1			1.5	2.5
	March-2024																						46.6		12.8	3	5
	April-2024													1.68					1.16							0.3	0.5
	Aprii-2024				38.4													28.6								1.5	2.5
																			1.06							0.3	0.5
	May-2024																								13.6	1.5	2.5
	·										36.6										33.6	51				3	5
																			0.82							0.3	0.5
	June-2024																								23.2	1.5	2.5
																					44.8					3	5
	July-2024											28.8														0.75	1.25
											37.8															3	5
	August-2024						29.2														44.2			39.2		3	5
	September-2024				39.6		31.6											31.6								3	5
		0.376																								0.03	0.05
	October-2024		8.4																	45.1						0.3	0.5
					27./															45.1						1.5	2.5
		 5 00			37.6																					3	5
	November-2024	5.22	10.1																							0.3	0.5
			10.1																						26.4	1.5	2.5 2.5
	December-2024				37.2																					1.5	2.5
	January-2025																				34.4					3	5
	Jul 1001 y-2023		8.15																							0.75	1.25
	February-2025																				20.8					1.5	2.5
	10010019-2023												516													495	495
			3.88																							0.3	0.5
	March-2025		J.00 									21.4						25.9								0.75	1.25
																											1.20

Note	We	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98		
Market Wilson Wi		Monitoring Event			,		,		,													,					LOD	LOQ
Section 1	SEMI-VOLATILE OF													ND			ND										46.7	93.5
APPEAR A CALLES A CAL		November-2022							 																			
A PROVEN IN THE												ND	ND						ND									
AFFECTION 1. Sept. 1.		December-2022																										
Property of the property of									 																			
## A C C C C C C C C C C C C C C C C C C											ND																	
With the property of the prope		January-2023															ND											
Section Sect		,																										
Mariente de la companya de la compan		February-2023																										
Add 20		March-2023										ND																
Afference		741611 2020																										
Metacole Metaco		April-2023																										
Affective Affective Affec		May 2023		ND								ND																
APPEAR APPEAR		W(dy-2023									ND																	
APPRINSON		June-2023							 																			
Additional figures of the control of																												
Administrate Application Control of Control		July-2023		ND																							100	200
Afficient Approximate Approxi		301,7 2020																										
Adhlesses Applications									 																			
Affine Cells 900 1								ND		ND															ND		1000	2000
Color-2028		September-2023																										
Addresses		October-2023							 																			
APPROVIDED SET 19 SET 1																												
Arrigance Arriga									 																			
Adhthracene December 2222 December		November-2023																								ND	100	200
December 2022																												
September 2024 Sept	Anthracene					1																					50	100
September 2024 Sept		December-2023																										
February 2224							 		 																			
February-2024		January-2024																										
February-2024									 																			
Merch 2024		February-2024																									250	500
Moth-2024																												
April 2024		March-2024							 																			
Agris-2024															ND													
No		April-2024																										
May-2024																												
June-2024		Mav-2024										ND								ND		ND				ND	10	10
Mile 2024							<u> </u>		 																			
July-2024		June-2024							 																			
August-2024		July-2024																									40	80
August-2024		,																										
September-2024		August-2024																									500	1000
September-2024																												
November-2024		September-2024																									200	400
November-2024 ND ND		October-2024																										
December-2024 ND ND ND									 																			
January-2025 -																										ND		400
February-2025 ND																												
February-2025		January-2025																										
March-2025 ND		February-2025																									200	400
		March-2025																									200	400

We	II ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	100	100
Parameter	Monitoring Event												Conce	ntration												LOD	LOQ
TOTAL METALS (mg																											
	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															0.000	0.02
	/VIGICI1-2025											0.11														0.0005	0.001
	April-2023 —									0.24																	
	M === 0000									0.36	0.07															0.005	0.01
	May-2023		0.26							0.3	0.27															0.0025	0.005
	June-2023										0.26		0.5		0.14											0.0025	0.005
	July-2023		0.23																0.24					0.19	0.06	0.0005	0.001
	,								0.7																	0.0025	0.005
	August-2023																								0.15	0.0025	0.005
							0.32		0.43															0.29		0.005	0.01
	September-2023				0.42														0.25			0.21				0.005	0.01
	October-2023							0.24											0.24			0.31				0.0005	0.001
	November-2023		0.23		0.33	0.53		0.36 0.43			0.35			0.78					0.34			0.27			0.2	0.001	0.002
					0.33													0.26								0.003	0.005
Arsenic	December-2023																		0.24							0.0023	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
																									0.12	0.001	0.002
	March-2024																						0.23			0.0025	0.005
	A 1 000 4													0.49					0.18							0.0005	0.001
	April-2024				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
		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																		0.73					0.005	0.01
													0.774 J													0.465	1
	March-2025		0.158									0.344						0.254								0.01	0.02

W	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98		
Parameter	Monitoring Event	LW-00A	L11-30	LW-51	LW-32	L11-30	LW-54	LW-33	L11-37	LW-30	LW-57	LW-00	Conce		LW-04	LW-03	L11-07	LW-00	LW-70	LW-02	LW-03	LW-07	LW-00	LW-74	LVV-70	LOD	LOQ
raidiffelei	November-2022		Ī				I				0.871		0.485			0.36										0.01	0.02
			0.5//		0.003				0.978			0.214					0.054	0.702									
	December-2022		0.566		0.803					0.402	0.438	0.214				0.554	0.856	0.793								0.01	0.02
	January-2023		0.643							0.683	1.92					0.554		1.04								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
	141dy 2020									1.2	1.83															0.01	0.05
	June-2023										1.69				1.65											0.005	0.025
	JUI 16-2023												3.01													0.01	0.05
																									0.217	0.001	0.005
	July-2023																		0.558							0.002	0.01
			0.542						2.28															1.02		0.005	0.025
	A																								0.218	0.005	0.025
	August-2023						1.61		1.58															1.48		0.01	0.05
	September-2023				0.72														0.649							0.01	0.05
	October-2023																		0.664							0.002	0.01
								2.56														1.93				0.005	0.025
	November-2023		0.572		0.81	2.28		2.51			1.96			0.418					0.67			2.06			2.84	0.01	0.05
Barium	December-2023				0.68													1.36								0.005	0.025
											1.02								0.672						1.01	0.002	0.01
	January-2024			3.27							1.92														1.91	0.005 0.01	0.025 0.05
	February-2024					4 A1															2.65		0.925			0.005	0.03
				3.03		4.41																			1.03	0.003	0.023
	March-2024																						1.54			0.002	0.01
														0.4					0.634							0.003	0.005
	April-2024				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		0.003	0.05
	September-2024				1.34		1.33											3.65								0.01	0.05
		0.26	0.568		1.17															3.33						0.01	0.05
		0.262	0.69																							0.01	0.05
	December-2024				2.4																				1.21	0.01	0.05
	January-2025																				1.88					0.01	0.05
			0.633																		1.48					0.01	0.05
	February-2025												ND													0.465	0.5
	March-2025		0.516									1.05						2.93								0.005	0.01
			_																								

W	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98		
Parameter	Monitoring Event												Conce													LOD	LOQ
	November-2022										ND		ND			ND										0.004	0.008
	December-2022		ND		0.0104				ND		ND	ND					ND	ND								0.004	0.008
	January-2023		ND							ND	ND					ND										0.002	0.004
	February-2023																	0.000297 J								0.0001	0.001
	March-2023									ND	ND															0.002	0.004
	April-2023									0.000158 J		0.000333 J														0.0001	0.001
	May-2023		ND							ND	ND															0.0005	0.005
	June-2023										ND		ND		ND											0.0005	0.005
	July-2023		0.000219 J						0.000156 J										0.000186 J					ND	ND	0.0001	0.001
	August-2023																								ND	0.0005	0.005
							ND		ND															ND		0.001	0.01
	September-2023				ND														ND							0.001	0.01
	October-2023																		0.000171 J			ND				0.0001	0.001
								ND																		0.0002	0.002
	November-2023		ND		ND	ND		ND			ND			ND					ND			ND			ND	0.001	0.003
	December-2023				ND													0.000604 J								0.0005	0.0015
Cadmium																			ND							0.0002	0.002
Cddriiom	January-2024			ND							ND														ND	0.0005	0.005
	February-2024			ND		ND															0.0175		ND			0.0005	0.005
	March-2024																								ND	0.0002	0.002
																							ND			0.0005	0.005
	April-2024													0.000204 J					0.000195 J							0.0001	0.001
	·				ND													ND								0.001	0.004
	May-2024										ND								ND		0.0483	ND			ND	0.001	0.01
	June-2024																		ND		0.0175				ND	0.001	0.01
	July-2024										ND	ND														0.0005	0.005
	August-2024						ND														0.00508 J			0.00247 J		0.001	0.01
	September-2024				ND		ND											ND								0.001	0.01
	October-2024		ND		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
	,												ND													0.186	0.2
	March-2025		ND									0.0119						ND								0.002	0.004

W	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	100	100
Parameter	Monitoring Event						,						Concer													LOD	LOQ
	November-2022							I			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
	,									0.012	0.100	_ 															
	March-2023									0.213	0.188															0.008	0.01
	April-2023											0.142														0.0004	0.001
	·									0.306																0.004	0.01
	May-2023		0.422							0.281	0.237															0.002	0.005
	June-2023										0.251		0.191		0.272											0.002	0.005
	July-2023		0.308						0.535										0.231					0.215	0.0265	0.0004	0.001
	August-2023																								0.0276	0.002	0.005
							0.606		0.449															0.259		0.004	0.01
	September-2023				1.17														0.234							0.004	0.01
	October-2023																		0.144			0.194				0.0004	0.001
	0010001 2020							0.273																		0.0008	0.002
			0.391																							0	0.003
	November-2023					0.51													0.251			0.403				0.003	0.003
					1.04			0.402			0.246			0.343											0.222	0.004	0.01
Chromium	December-2023				1.34													0.259								0.002	0.005
	1			0.17							0.193								0.219						0.128	0.0008	0.002
	January-2024			0.17		0.070															0.002		0.227			0.002	
	February-2024			0.23		0.272															0.203		0.336		0.0750	0.002	0.005
	March-2024																						0.414		0.0759	0.0008	0.002
														0.24					0.245							0.002	
	April-2024				0.007									0.36													0.001
	11 0001				0.836													0.228								0.004	0.01
	May-2024										0.268								0.226		0.183	0.352			0.11	0.004	0.01
	June-2024																		0.226		0.188				0.16	0.004	0.01
	July-2024										0.252	0.246														0.002	0.005
	August-2024				0.040		0.549											0.220			0.185			0.233		0.004	0.01
	September-2024	0.0072	0.047		0.948		0.541											0.226		0.240						0.004	0.01
	October-2024		0.246		0.929															0.349						0.004	0.01
		0.0797	0.237		0.772																				0.104	0.004	0.01
	December-2024				0.773																0.00041				0.184	0.004	0.01
	January-2025																				0.00941					0.003	0.01
	February-2025		0.21																		0.196					0.004	0.01
												0.100	0.0992													0.0465	0.05
	March-2025		0.248									0.199						0.155								0.008	0.01

W	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98		
Parameter	Monitoring Event												Conce													LOD	LOQ
	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				ND		0.00343 J		0.0176										0.00407 J					ND		0.003	0.01
																			0.00407 3			0.000609 J				0.0003	0.001
	October-2023							0.00806																		0.0006	0.002
	November-2023		0.00607		0.00352	0.0212		0.00756			ND			0.00341					0.00387			ND			ND	0.003	0.003
	December-2023				0.00184													ND								0.0015	0.0015
Copper											0.010								0.0034						ND	0.0006	0.002
СОРРСІ	January-2024 February-2024			ND ND		0.00201					0.019										ND		ND		ND 	0.0015	0.005
																									0.00115 J	0.0006	0.002
	March-2024																						0.00184 J			0.0015	0.005
	April-2024													0.00443					0.004							0.0003	0.001
	Αρπ-2024				ND													ND								0.003	0.004
	May-2024										ND								0.00486 J		0.00688 J	ND			ND	0.003	0.01
	June-2024																		0.00409 J		ND				ND	0.003	0.01
	July-2024										0.398	ND														0.0015	0.005
	August-2024 September-2024				ND		ND ND											ND			ND			ND		0.003	0.01
	October-2024		ND		ND															0.00306 J						0.003	0.01
	November-2024		ND																							0.003	0.01
	December-2024				ND																				ND	0.003	0.01
	January-2025																				0.035 J					0.01	0.01
	February-2025		ND																		0.00381 J					0.003	0.01
													ND													0.0465	0.05
	March-2025		0.0087 J									ND				0.017.1		0.0142				_ 				0.008	0.01
	November-2022				0.0201						ND		ND			0.017 J										0.012	0.02
	December-2022 January-2023		ND		0.0381				ND	ND	ND ND	ND				ND	ND	ND								0.012	0.02
	February-2023		ND															0.006								0.008	0.001
	March-2023									ND	ND															0.006	0.001
	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
																									ND	0.005	0.005
	August-2023						0.014		ND															0.013		0.01	0.01
	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		0.0077			ND			ND					0.0032			0.0043			ND	0.002	0.002
																			0.0043							0.002	0.002
1 1	December-2023				0.16													0.002								0.0015	0.0015
Lead	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																						0.02		ND	0.002	0.002
														0.0013					0.0025							0.003	0.003
	April-2024				0.13													ND								0.004	0.004
	May-2024										ND								ND		0.11	ND			ND	0.01	0.01
	June-2024																		ND		0.024				ND	0.01	0.01
	July-2024										ND	ND														0.005	0.005
	August-2024						0.031														0.027			ND		0.01	0.01
	September-2024				0.098		0.057											ND								0.01	0.01
	October-2024 November-2024	ND ND	ND		0.12															ND						0.01	0.01
	December-2024		ND 		0.18																				ND	0.01	0.01
	January-2025																				ND					0.002	0.002
	,		ND																		0.02					0.002	0.002
	February-2025												0.0561													0.0465	0.05
	March-2025		0.0113									0.0816						0.0229								0.006	0.01

W	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	IOD	100
Parameter	Monitoring Event												Conce	ntration												LOD	LOQ
													0.00169			0.00053										0.0004	0.0004
	November-2022										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
	BOCOTTIBOT 2022				ND																					0.004	0.004
			ND			+	-			ND						ND										0.004	0.004
	January-2023										ND																
	F - I 0000										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
	7 (0111 2020									ND																0.0004	0.0004
	May-2023		ND							ND	ND															0.0002	0.0002
	June-2023										ND		ND		ND											0.004	0.004
	1.1. 0000		0.000306																ND						ND	0.0002	0.0002
	July-2023								0.0107															ND		0.001	0.001
	4																								ND	0.001	0.001
	August-2023						0.00312		0.00397															ND		0.002	0.002
	September-2023				0.00503														ND							0.002	0.002
	October-2023							0.00165											ND			0.00055				0.0004	0.0004
			ND											ND												0.0000002	
Mercury	November-2023																		ND							0.0000004	
					0.00576	0.00606		0.00578			ND											0.00954			ND	0.000004	
	December-2023				0.00484													ND								0.001	0.001
																			ND							0.0004	0.0004
	January-2024			ND							ND														ND	0.001	0.001
	February-2024			0.00376		0.0115															0.00238		0.00284			0.001	0.001
	March-2024																								0.00124	0.0004	0.0004
														0.000001									ND			0.001	0.001
	April-2024													0.000201					ND							0.0002	0.0002
	11 0001				0.00382													0.00151								0.0008	0.0008
	May-2024										ND								ND		ND	ND			ND	0.002	0.002
	June-2024																		ND		0.0119				ND	0.002	0.002
	July-2024										ND	0.00104														0.001	0.001
	August-2024				0.00044		ND														0.00671			ND		0.002	0.002
	September-2024	ND.			0.00244		ND											ND		0.00254						0.002	0.002
	October-2024	ND	ND		ND															0.00254						0.002	0.002
	November-2024 December-2024	ND	ND		0.00213																				ND	0.002	0.002
																					0.1047				ND		
	January-2025												0.00011								0.1047					0.01	0.01
	February-2025												0.00011													0.000009	
			ND																		ND					0.002	0.002
	March-2025		ND									0.0146						ND								0.001	0.001
												0.0140														0.002	0.002

W	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	100	100
Parameter	Monitoring Event						•						Concer	ntration					,			,				LOD	LOQ
	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	0.003	0.003
																									0.02029	0.005	0.005
	August-2023						0.1457		0.09673															0.0513		0.01	0.01
	September-2023				0.5152														0.2387							0.01	0.01
																			0.2019			0.09206				0.001	0.001
	October-2023							0.104																		0.002	0.002
	November-2023		0.1178		0.4227	0.1242		0.07791			0.05944			0.1493					0.2492			0.1332			0.05277	0.01	0.01
	December-2023				0.6091													0.1447								0.005	0.005
Niekol	December-2023																		0.2127							0.002	0.002
Nickel	January-2024			0.06308							0.04911														0.0326	0.005	0.005
	February-2024			0.07945		0.07013															0.09174		0.06183			0.005	0.005
	March-2024																								0.02232	0.002	0.002
																							0.08678			0.005	0.005
	April-2024													0.1319					0.196							0.001	0.001
	·				0.3136													0.1139								0.01	0.01
	May-2024										0.0538								0.2065		0.07835	0.09235			0.02884	0.01	0.01
	June-2024																		0.211		0.07664				0.03166	0.01	0.01
	July-2024										0.1917	0.03634														0.005	0.005
	August-2024						0.1008														0.0822			0.02104		0.01	0.01
	September-2024		0.115		0.396		0.1138											0.08772								0.01	0.01
			0.115 0.09665		0.3536															0.05751						0.01	0.01
	November-2024				0.2964																				0.03528	0.01	0.01
	December-2024																									0.01	0.01
	January-2025		0.00075																		ND 0.1001					0.0085	0.01
	February-2025		0.09275																		0.1021					0.01	0.01
			0.0933									0.0375	ND					0.0818								0.0465	0.05
			0.0733									0.03/3						0.0010								0.007	0.01

W	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event												Conce	ntration												LOD	LOQ
	November-2022										ND		ND			ND										0.08	0.1
	December-2022		ND		ND				ND		ND	ND					ND	ND								0.08	0.1
	January-2023		ND							ND	ND					ND										0.04	0.05
	February-2023																	0.00199								0.00085	0.001
	March-2023									ND	ND															0.04	0.05
	April-2023									0.00189		0.00185														0.00085	0.001
	May-2023		ND							ND	0.00569															0.00425	0.005
	June-2023										ND		ND		ND											0.00425	0.005
	July-2023		0.00101						0.00331										0.00116					0.00251	ND	0.00085	0.001
	August-2023						ND		 ND															ND	ND 	0.00425 0.0085	0.005
	September-2023				ND														ND							0.0085	0.01
	October-2023																		0.00186			0.0044				0.00085	0.001
								0.00332																		0.0017	0.002
	November-2023		ND		0.00425	0.00314		0.00315			ND			ND				0.00252	ND			0.0032			ND	0.003	0.003
	December-2023				0.00785													0.00253	0.00215							0.0015 0.0017	0.0015
Selenium	January-2024			ND							ND														ND	0.0017	0.005
	February-2024			ND		ND															0.00571		0.00651			0.00425	0.005
	March-2024																								ND	0.0017	0.002
																							0.00627			0.00425	0.005
	April-2024				ND									ND				ND	0.000929 J							0.00085 0.0085	0.001
	May-2024										ND								ND		 ND	ND			 ND	0.0085	0.01
	June-2024																		ND		ND				ND	0.0085	0.01
	July-2024										ND	ND														0.00425	0.005
	August-2024						ND														ND			ND		0.0085	0.01
	September-2024				ND		ND											ND								0.0085	0.01
	October-2024 November-2024	ND ND	ND ND		ND															ND						0.0085 0.0085	0.01
	December-2024		ND		ND																				ND	0.0085	0.01
	January-2025																				ND					0.0006	0.01
			ND																		ND					0.0085	0.01
	February-2025												ND													2.32	2.5
	March-2025		ND									ND						ND								0.04	0.05
	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 April-2023									ND ND	ND 	0.00011 J														0.005	0.01
	May-2023		ND							ND	ND															0.00008	0.001
	June-2023										ND		ND		ND											0.0003	0.005
	July-2023		ND						ND										ND					ND	ND	0.00006	0.001
	August-2023																								ND	0.0003	0.005
							ND		ND															ND		0.0006	0.01
	September-2023				ND														ND							0.0006	0.01
	October-2023							ND											ND 			ND				0.00006 0.00012	0.001
	November-2023		ND		ND	ND		ND			ND			ND					ND			ND			ND	0.0006	0.002
	December-2023				ND													ND								0.00025	0.001
Silver																			ND							0.00012	0.002
0.1101	January-2024 February-2024			ND ND		ND					ND 										 ND		ND		ND 	0.0003	0.005 0.005
																									ND	0.0003	0.003
	March-2024																						ND			0.0003	0.005
	April-2024													ND					ND							0.00006	0.001
					ND													ND								0.0004	0.001
	May-2024										ND								ND		ND	ND			ND	0.0006	0.01
	June-2024										NID								ND		ND				ND	0.0006	0.01
	July-2024 August-2024						ND				ND 	ND 									 ND			ND		0.0003	0.0005
	September-2024				ND		ND											ND								0.0006	0.01
	October-2024		ND		ND															ND						0.0006	0.01
	November-2024		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								ND 					0.0006 0.00232	0.01
	March-2025		ND									ND						ND								0.00252	0.0023

W	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event												Conce	ntration						-						LOD	LOQ
	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
	Widicii 2020									0.0539																0.0025	0.005
	April-2023					+						0.414														0.0025	0.005
	Many 2002		0.070							0.0435	0.0510																_
	May-2023		0.079							0.0635	0.0519															0.0125	0.025
	June-2023										0.0538		0.0253		0.945											0.0125	0.025
	July-2023		0.0488																0.0714					0.354	0.0782	0.0025	0.005
	, ====								2.03																	0.0125	0.025
																									0.112	0.0125	0.025
	August-2023								1.71															0.914		0.025	0.05
							5.92																			0.05	0.1
	September-2023				 AE														0.0788							0.025	0.05
					45																					0.25	0.5
	October-2023							0.202											0.0622			422				0.0025	0.005
			0.0471			0.0524		0.203			0.052			0.0419					0.0722			633			0.0212.1	0.005	0.01
	November-2023		0.0471 J		20.4	0.0534		0.74			0.053			0.0618					0.0722			0.845			0.0313 J	0.025	0.05
					30.4 52.7																					0.25 0.25	0.5
	December-2023																		0.061							0.25	0.01
Zinc	December 2023																	0.0462								0.005	0.025
	January-2024			0.117							0.0974														0.0261	0.0125	0.025
	February-2024			0.0879		0.0554															0.475		0.809			0.0125	0.025
																									0.0342	0.005	0.01
	March-2024																						2.09			0.0125	0.025
														0.0565					0.0539							0.0025	0.005
	April-2024																	0.0394								0.02	0.02
	7 (prii 2024				24.7	1																				0.02	0.5
	MA 50 4 000 4										0.1/5								0.05/0		1.2	1.42			0.0010		
	May-2024										0.165								0.0568		1.3	1.43			0.0812	0.025	0.05
	June-2024										0.104	0.0451							0.0505		0.498				ND	0.025	0.05
	July-2024						2.40				0.104	0.0451									0.512			0.417		0.0125	0.025
	August-2024				0.212		3.49														0.512			0.417		0.025 0.0025	0.05
	September-2024						3.68											0.111								0.0025	0.005
		0.266	0.077				3.00													0.342						0.025	0.05
	October-2024	0.200			20.2																					0.025	0.03
	November-2024	0.0325 1	0.0367 J																							0.25	0.05
																									0.0696	0.025	0.05
	December-2024				14.3	1																				0.25	0.5
	January 2005																				ND						
	January-2025		0.0405 1																		ND 0.537					0.002	0.002
	February-2025		0.0405 J										0.127								0.527					0.025	0.05
													0.136													0.0465	0.05
	March-2025		0.0415									0.155						0.0277								0.01	0.01

We	II ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	100	100
Parameter	Monitoring Event				,			,					Conce													LOD	LOQ
VOLATILE FATTY A																											
													1600													25	100
	November-2022										3500					150 J										62	250
	Dagambar 0000		1000																								
	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
																									ND	150	200
	July-2023		ND																ND							370	500
									6100															750		750	1000
	August-2023						3300		5300															4200	ND		500
	September-2023				7400														ND							370	500
	October-2023							3200											720			4100				370	
	OC1000e1-2023		 ND											ND					ND						4160	250	500 500
	November-2023					4950		6650			5350											7300				500	1000
	14076111061-2023				9900																					1000	2000
																		660									100
	December-2023																		ND								250
	Bocombor 2020				11200																						1000
	January-2024			4410							5290														3080		250
	· i			3130		3530																					250
Acetic Acid	February-2024																				3530		6770				500
	14 1 0004																								2700		200
	March-2024																						46000				1000
														ND					ND								100
	April-2024																	1670									250
					9170																						1250
																			ND		4370				221		250
	May-2024										4950																500
																						6530					1250
																			ND								100
	June-2024																				3890				4450		500
	July-2024										6280	6180															1250
	August-2024						5210														3500			5540			500
																		2950									250
	September-2024						5970																				500
					10400																						1250
		ND																									50
	October 2024		260																								100
	October-2024																			4780							250
					9410																						1250
	November-2024	960	230																								200
	Da a a mala a ii 000 t																								10000		200
	December-2024				17000																						400
	January-2025																				3500						100
	33331, 2020														1				1	1			1				

W	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event												Conce	ntration												LOD	
	November-2022												430													12	100
											830					ND										29	250
	December-2022		ND																							29	250
	January-2023		ND							ND	1800					ND											500
	February-2023																	ND									500
	March-2023									ND	ND																500
	April-2023									ND	1000	ND														330	500
	May-2023		ND							ND	1200		1500		2000											330	500
	June-2023										2500		1500		2900											650	1000
	July-2023		 ND																ND						ND	130 330	200 500
	July-2023								2800										ND					650		650	1000
	August-2023						1400		1700															1600	 ND		500
	September-2023				3100														ND							330	500
	October-2023							1200											ND			2000				330	500
			ND			1670		1760			1370			ND					ND			2730			740	250	500
	November-2023				3420																					500	1000
																		336									100
D	December-2023				2200														ND								250
Butyric Acid	January 2024			913	3390						1230														594		1000
	January-2024			813 583		1170					1230														574		250 250
	February-2024																				1180		2980				500
	14 1 2224																								500		20
	March-2024																						2100				200
	April-2024													ND					ND								100
	·				3120													444									250
	May-2024										1190								ND		984	2370			448		250
	June-2024																		ND		1190				1030		100
	July-2024						1/20				2400	2360									1100			1020			250
	August-2024 September-2024				3550		1630 2060											670			1180			1930			500 250
	3CD1C111DC1-2024	ND																									50
	0 -1 -1 000 4		ND																								100
	October-2024																			1630							250
					3070																						1250
	November-2024	480	ND																								200
	December-2024																								2200		200
					4600																						400
	January-2025																				1100						100
	November-2022												ND													11	100
	D = = = = = 0000										ND					ND										27	250
	December-2022		90 J			0/0		1000			0/0											1170			204	27	250
	November-2023		ND 		6030	968		1800			969			ND 					ND 			1170			324	250 500	500
																		ND									1000
	December-2023																		ND								250
					9050																						1000
	January-2024			629							979														256		250
	February-2024			334		180																	1450				250
	, -														 						756		1650				500
	March-2024																						ND		ND		20
														ND					ND				ND 				200
	April-2024													ND 				ND	ND								250
Lactic Acid	, , , , , , , , , , , , , , , , , , , ,				5120																						1250
	May-2024										1160								ND		1170	1730			ND		250
	June-2024																		ND		706				246		100
	July-2024										1220	1210															250
	August-2024						2270														593			959			500
	September-2024				 FF10		2550											ND									250
		ND			5510																						1250
		ND 	 ND																								100
	October-2024		ND																	2590							250
					5630																						1250
		ND	ND																								200
	November-2024	ואט																									
																									730		200
	November-2024 December-2024				5300																				730		400

We		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event												Conce	ntration												LOD	
	November-2022												620													11	100
											1600					73 J										27	250
	December-2022		640																							27	250
	January-2023		ND							ND	2000					ND											500
	February-2023 March-2023									ND	ND							ND									500
	April-2023									600		ND														340	500
	May-2023		520							800	1400															340	500
	June-2023										2900		2000		2900											680	1000
	30110 2020																								ND	140	200
	July-2023		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		2500	2170		2310			2080			387					ND			3350			1420	250	500
					2580													996								500	1000
	December-2023																		ND								250
Propionic Acid					2280																						1000
	January-2024			1680							1970														1030		250
	February-2024			1210		1510															1000						250
	·																				1980		2900		570		500
	March-2024																						2100				200
														ND					ND								100
	April-2024				2300													1150									250
	May-2024										1730								ND		1640	2770			647		250
	June-2024																		ND		1870				1400		100
	July-2024						1200				2500	2470									1000						250
	August-2024 September-2024				2640		1320 1690											1300			1920			2040			500 250
	3eptember-2024	ND																									50
	October 2024		275																								100
	October-2024																			1470							250
	N				2240																						1250
	November-2024	1300	310																						2200		200
	December-2024				4200																				3300		200
	January-2025				4200																1800						100
													46 J													12	100
	November-2022										98 J					ND										30	250
	December-2022		ND																							30	250
			ND			ND		ND			ND			ND					ND			ND			ND	250	500
	November-2023				ND																					500	1000
																		ND									100
	December-2023																		ND								250 1000
	January-2024			ND	ND 						ND														 ND		250
				ND		ND																					250
	February-2024																				ND		ND				500
	March-2024																								130		20
	3.3.7 202 1																						460				200
Pyruvic Acid	April-2024				ND									ND 				 ND	ND 								100 250
	May-2024				ND 						ND								ND		ND	 ND			 ND		250
	June-2024																		ND		113				ND		100
	July-2024										ND	ND															250
	August-2024						ND														ND			ND			500
	September-2024				ND		ND											ND									250
	-	ND																									50
	October-2024		ND																	ND							100 250
	-				ND																						1250
	November-2024		ND																								200
1																									410		200
	December 2024																										100
	December-2024 January-2025				460																						100

		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LO
Parameter	Monitoring Event												Conce	ntration												100	
OLATILE ORGAN	IIC COMPOUNDS (ug/	/L)	ı		ı	1	_	1					1		1						ı	ı					7
	November-2022										3510					1140										30	100
			2140									2200	15600													300	100
	December-2022		3140		26800				27700		5670	3390					21700	7150								300	100
			3480							632								7150								300	100
	January-2023										7840					5470										300	100
	February-2023										7040							14400								600	200
	March-2023									257	2770															30	100
	April-2023									3420		5530														750	250
			5360							5970																150	500
	May-2023										13600															750	250
	L 0000										13800															750	250
	June-2023												20100		22600											1500	500
			5860																ND							60	20
	July-2023																								13500	750	250
									38400															31600		3000	100
																								70.50	5950	60	20
	August-2023								3000															7350		150	50
							25600		3000																	750 1500	250 500
	Combanala an Occo																		439							60	20
	September-2023				17500																					750	250
	October-2023																		211							15	50
	0010001 2020							17800														33400				1500	500
								17700			10600								78.8 J							30 150	10 50
	November-2023		3990																							300	10
	11070111001 2020				25700																					750	25
						22300								17600								26700			31200	1500	50
	December-2023				13700													7060	ND							150	50
Butanone	January-2024			24700							10800															150	50
ΛEK)				34700																	12700				28900	1500 150	50
	February-2024			30500		28900																	17400			1500	50
	March 2024																						11700			150	50
	March-2024																								25200	1500	50
																			ND							30	1
	April-2024													14600												750	25
					37200													28700								1500	50
																			ND							60	20
	May-2024										05700										7340	20700			18600	150	50
											25700								ND			32700				1500	50
	June-2024																		ND 		13800					150	50
	333 202+																								33200	15000	25
	July-2024										15600															150	5
												25400														1500	50
	August-2024				10000		17700														7260			17900		150	50
	September-2024				19000		16600											32200								150 1500	50
		28.2																								3	1
	October-2024		2770																							60	20
					13000															10800						150	5
	November-2024		4140																							60	2
	1 2 2 2 2 1	28800			 / FO																					750	25
	December-2024				658																				41000	150	50
	January 2005																				17000				41800	600	20
	January-2025		6930		_ 																17000					1500	50
	February-2025		6930																		23900					150	5
	1 0010011 2020												ND													24500	245
	11-1-2225		2540																							150	50
	March-2025												†		†		 			<u> </u>						1500	500
												30600						33700								1500	, J.

W		EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event												Conce	ntration												LOD	LOQ
	November-2022															4420										70	100
											16100		38300													700	1000
											15600	5170						9800								700	1000
	December-2022		8500		 53100				40000								45400									1750	2500
					53100				49900	1520							45600									3500	5000
	January-2023									1530	22200					14000										70 700	100
	January-2023		8130																							1750	2500
	February-2023																	23900								1400	2000
										375																70	100
	March-2023										6810															700	1000
	April-2023									8290		7560														1750	2500
			10700							11700																350	500
	May-2023										29600															1750	2500
	1 0000										29600															1750	2500
	June-2023												61800		50800											3500	5000
																			1180							140	200
	July-2023		9780																							700	1000
	July-2023																								11600	1750	2500
									77200															69700		7000	10000
																									20900	700	1000
	August-2023								18700																	1750	2500
							72500												100 1					87700		3500	5000
	September-2023				40100														188 J							140 1750	200 2500
					40100														79							35	50
	October-2023							66900														92900				3500	5000
																			104							70	100
cetone	November-2023		5560																							700	1000
	November-2023				64700																					1750	2500
						43100		61100			36800			32800								53900			67800	3500	5000
	Da a a mala a r 2002																	ND								140	200
	December-2023				44300														ND							350 1750	500 2500
	January-2024			96600	44300						22800														47300	3500	5000
	February-2024			81600		70200															45600		63100			3500	5000
	March-2024																						50800		57600	3500	5000
																			ND							70	100
	April-2024													24300												1750	2500
					95300													55200								3500	5000
	May 2024																		ND							140	200
	May-2024										63200										39000	91300			33300	3500	5000
	June-2024																		ND							140	200
																					94400				84400	35000	50000
	July-2024						 F7700				32200	52600												01500		3500	5000
	August-2024				59800		57700 44500											69300			36000			81500		3500 3500	5000 5000
	September-2024	30.1					44500																			7	10
	October-2024		5230																							140	200
					49800															40700						3500	5000
	November-2024		8680																							350	500
		44400																								1750	2500
	December-2024				51700																				69700	1400	2000
	January-2025																				65300					3500	5000
			9820																							700	1000
	February-2025																				46400					3500	5000
			4460										ND													49000	98000
	March-2025		4460									72600						86400								350 3500	500 5000
	1											, 2000															

We	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98		
Parameter	Monitoring Event									2 00			Conce													LOD	LOQ
raidificiei	November-2022										7.4 J		2860			50.4										1	10
	14076111061-2022																	179								4	10
	December-2022		301		2960						6.3 J	622					1750	1/9								4	
	1 0000								6550																	40	100
	January-2023		240							28.7	1620					167										4	10
	February-2023																	1370								4	10
	March-2023									1540	727															4	10
	April-2023									3740		320														4	10
	May-2023		814							4890	3370															20	50
	luna 2022										2630															8	20
	June-2023												1400		1590											20	50
			824																80.8							8	20
	July-2023								4050															1420		20	50
																									11800	100	250
																									379	8	20
	August-2023						2320		168															ND		20	50
	2 1 1 2222																		193							8	20
	September-2023				468																					100	250
	0 -1 -1 0000																		399							2	5
	October-2023							576														3100				20	50
			80.8											31.3												2	5
	November-2023																		323							4	10
	14076111061-2023					1070		654			982											1960			1190	20	50
Benzene					870																					100	250
Delizerie	December-2023																	932								8	20
					1330														463							20	50
	January-2024			1410							662														2900	20	50
	February-2024			906		884															346		484			20	50
	March-2024																						226		8910	20	50
	April-2024													52.1					13.8							4	10
	-				2040													3420								20	50
	May-2024																		276							8	20
	741GY 2024										3080										144	818			2990	20	50
	June-2024																		173							8	20
																					210				2740	20	50
	July-2024										1410	1820														20	50
	August-2024						828														162			384		20	50
	September-2024				960		727											2710								20	50
	Octobar 2004	306	420																							0.4	+ 1
	October-2024		429		1200															020						2	5
	November-2024	119	512		1200															828						20	50
					475																				3390	8	20
	December-2024				675																 F00				3280	20	50
	January-2025		700																		588					20	50
	Folo ::		739																							8	20
	February-2025																				443					20	50
	Marrie 0005		1.57									10/0	559000					2250								24500	24500
	March-2025		157									1260						2350								20	50

We	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98		
Parameter	Monitoring Event						,						Conce								,					LOD	LOQ
	December-2022		67.3		172				287		ND	48.5					108	27.4			I					4	10
	November-2022										ND		194			16.2										1	10
	January-2023		65.1							ND	93.9					20.8										4	10
																										4	10
	February-2023									101	71.5							151								4	
	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
	30110 2020												98		116											20	50
																									666	4	10
	July-2023		128																82							8	20
									224															87.5		20	50
	August 2022																								16.8 J	8	20
	August-2023						80		ND															ND		20	50
	September-2023																		22.8							8	20
	36p16111061-2023				ND																					100	250
	October-2023																		34.8							2	5
	0010001 2020							42.5 J														247				20	50
			26.3											45.4												2	5
	November-2023																		26.9							4	10
						62		54			76.5											224			60.5	20	50
					ND																					100	250
Ethylbenzene	December-2023				 40 F													46	44.1							8	20
	January-2024			99	69.5						28 J								44 J						248	20 20	50 50
	February-2024			51		43 J															31 J		41 J			20	50
	March-2024																						25 J		710	20	50
														106					ND							4	10
	April-2024				91.5													186								20	50
																			35.4							8	20
	May-2024										14/																
											146										ND	59			225	20	50
	June-2024																		23.6						142	8	20
	July-2024										76	118									ND 					20 20	50 50
	August-2024						27.5 J														ND			27 J		20	50
	September-2024				46.5 J		44 J											192								20	50
	SOPICITION 2024	59.6																								0.4	1
	October-2024		112																							2	5
					62.5															76						20	50
	November-2024	14.4 J	135																							8	20
	December-2024				52.5																				252	20	50
	January-2025																				54.5					20	50
	2 3 (2 3) 2020		164																							8	20
	February-2025																				158					20	50
													2090000													24500	24500
	March-2025		61.5									168						117								20	50

We	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98		
Parameter	Monitoring Event												Conce				1 -11 -11									LOD	LOQ
raidifferen	Monitoring Event										309					176										100	100
	November-2022					+							8530													1000	1000
			1.51								170	1100															
	December-2022		151						10000		170	1120					/100	663								100	100
					5210				19800								6130									1000	1000
	January-2023		183							566	1810					352										100	100
	February-2023																	3760								2000	2000
	March-2023									353	464															100	100
	April-2023									2410		4790														100	100
	May-2023		ND							2740	2380															500	500
	l 0002										2100															200	200
	June-2023												7320		6670											500	500
																									2960	100	100
	July-2023		411																616							200	200
	3017 2020								8380															5310		500	500
																 									2880	200	200
	August-2023						7370		3210															1200		500	500
																			343							200	200
	September-2023				ND																					2500	2500
																			606							50	50
	October-2023							4870														9140				500	500
			199											325												50	50
	N																		358							100	100
	November-2023					4780		3320			785											5370			4600	500	500
Tetrahydrofuran					4620																					2500	2500
	December-2023																	4240								200	200
	December-2023				2620														502							500	500
	January-2024			5160							1040														10900	500	500
	February-2024			3500		4580															3520		4910			500	500
	March-2024																						3320		8710	500	500
	April-2024													697					ND							100	100
	Αριιι-2024				7290													7680								500	500
	Many 2002 4																		555							200	200
	May-2024										2660										1880	5860			7640	500	500
	l 000 4																		568							200	200
	June-2024																				3830				13000	500	500
	July-2024										1900	4020														500	500
	August-2024						3220														2020			4610		500	500
	September-2024				2950		2730											6640								500	500
		248																								10	10
	October-2024		318																							50	50
					2580															2730						500	500
	November-2024	6620	452																							200	200
	December-2024				5660																				17000	500	500
	January-2025																				11200					500	500
			1020																							200	200
	February-2025																				7490					500	500
													ND													24500	24500
	March-2025		ND									4890						10000								500	500

W	ell ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98		
Parameter	Monitoring Event												Conce							,						LOD	LOQ
1 0.1 0.1.1.10.10.1	November-2022										ND		214			32.8					I					5	10
	December-2022		122		175				195		ND	113					113	48.3								5	10
	January-2023		122							8 J	139					35.3										5	10
	-																	224									10
	February-2023									100								224								5	
	March-2023									182	98.1															5	10
	April-2023									303		94.4														5	10
	May-2023		258							371	239															25	50
	June-2023										165															10	20
	30110 2020												67		212											25	50
																									965	5	10
	July-2023		248																107							10	20
									218															118		25	50
	4																								36.6	10	20
	August-2023						105		ND															ND		25	50
	Santambar 2002																		40.6							10	20
	September-2023				ND																					125	250
	October-2023																		59.2							2.5	5
	OC10D 0 1-2023							37 J														235				25	50
			47.3											50.4												2.5	5
	November-2023																		48.7							5	10
	14076111061-2025					62.5		51.5			114											167			114	25	50
					ND																					125	250
Toluene	December-2023																	73.2								10	20
					83.5														74.5							25	50
	January-2024			95.5							60														310	25	50
	February-2024			49 J		37 J															ND		30.5 J			25	50
	March-2024																						73		916	25	50
	April-2024													90.1					ND							5	10
	7 (0111 202)				104													263								25	50
	May-2024																		53.8							10	20
	7V1Gy-2024										180										ND	62.5			284	25	50
	June-2024																		34.6							10	20
	JUHE-2024																				ND				228	25	50
	July-2024										97	125														25	50
	August-2024						35 J														ND			25 J		25	50
	September-2024				80		63.5											226								25	50
		55.7																								0.5	1
	October-2024		173																							2.5	5
					65.5															72						25	50
	November-2024	44.6	245																							10	20
	December-2024				42 J																				288	25	50
	January-2025																				36 J					25	50
			271																							10	20
	February-2025																				54.5					25	50
													537000													24500	24500
	March-2025		90.5									150						166								25	50

Historical LFG-EW Leachate Monitoring Results Summary

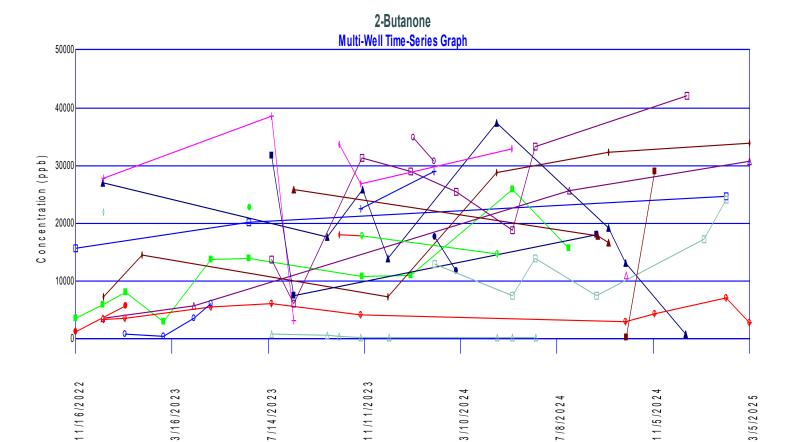
We	II ID	EW-36A	EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-82	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event												Conce	ntration												LOD	LOQ
	November-2022										ND		185			37.8										10	30
	December-2022		161		222				186		ND	112					197	59.9								10	30
	January-2023		138							ND	134					38.1										10	30
	February-2023																	240								10	30
	March-2023									240	111															10	30
																+											
	April-2023		074							329	020	97.4														10	30
	May-2023		274							441	230															50	150
	June-2023										177															20	60
													92 J		136 J											50	150
																									1130	10	30
	July-2023		257																74.4							20	60
									230															174		50	150
	August 2022																								48.4 J	20	60
	August-2023						180		ND															ND		50	150
	September-2023																		ND							20	60
	36p16111061-2023				ND																					250	750
	October-2023																		30.6							5	15
	0010001-2020							134 J														328				50	150
			56											48												5	15
	November-2023																		25.3 J							10	30
	11010111001 2020					116 J		104 J			132 J											306			138 J	50	150
					ND																					250	750
Xylenes, Total	December-2023																	167								20	60
				140.1	224														ND							50	150
	January-2024			142 J							ND														534	50	150
	February-2024			63 J		59 J															ND		ND		12/0	50	150
	March-2024													110									ND		1360	50	150
	April-2024													110					ND							10	30
					140 J													352								50	150
	May-2024 - June-2024 -																		31.6 J							20	60
											223										ND	105 J			400	50	150
																			ND							20	60
																					ND				261	50	150
	July-2024										125 J	157														50	150
	August-2024						72.5 J														ND			55.5 J		50	150
	September-2024				90.5 J		120 J											368								50	150
	0 -1 -1 000 1	54.3																									3
	October-2024		201		144 1															75 E I						5	15
	November 2004		223		144 J															75.5 J						50	150
	November-2024	ND			00 5 1																				407	20	60
	December-2024				98.5 J																				487	50	150
	January-2025																				82 J					50	150
	Falam: 2005		267																		254					20	60
	February-2025												4070000								354					50	150
	Marrals 0005		100 1									207	4260000					200								24500	24500
= not applicable/a	March-2025		108 J									386						200								50	150 Iligrams per lite

^{--- =} not applicable/available

LOQ = laboratory's Limit of Quantitation

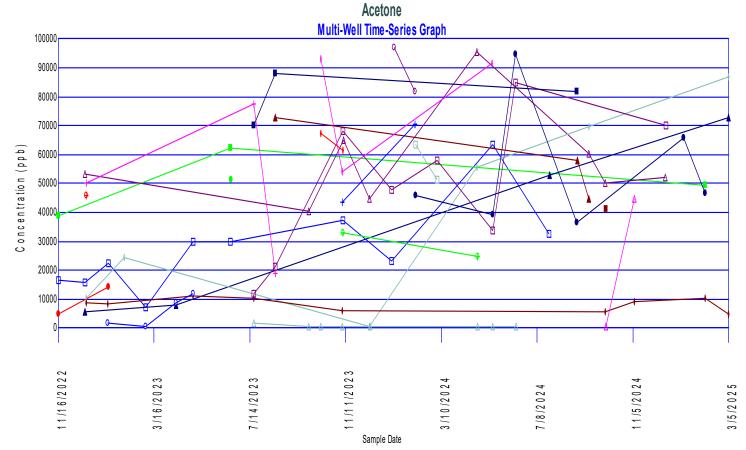
mg/L = milligrams per liter ND = Not Detected ug/L = micrograms per liter

J = Parameter was detected at a concentration greater than the laboratory's LOD, but less than the laboratory's LOQ. Concentration is considered estimated. LOD = laboratory's Limit of Detection

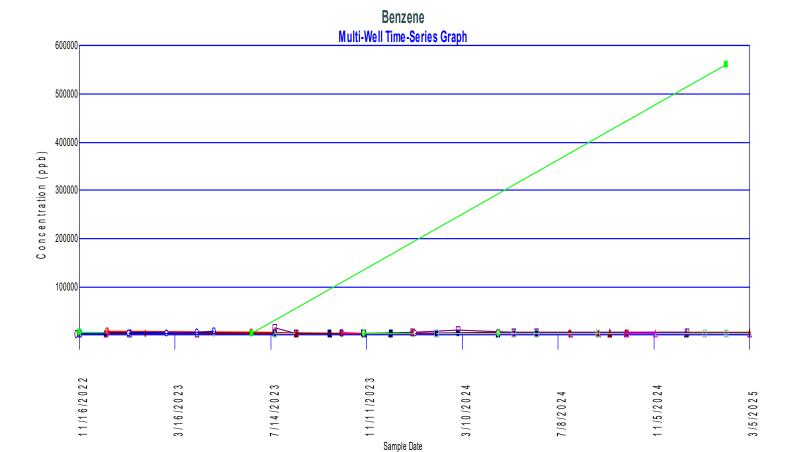


Sample Date

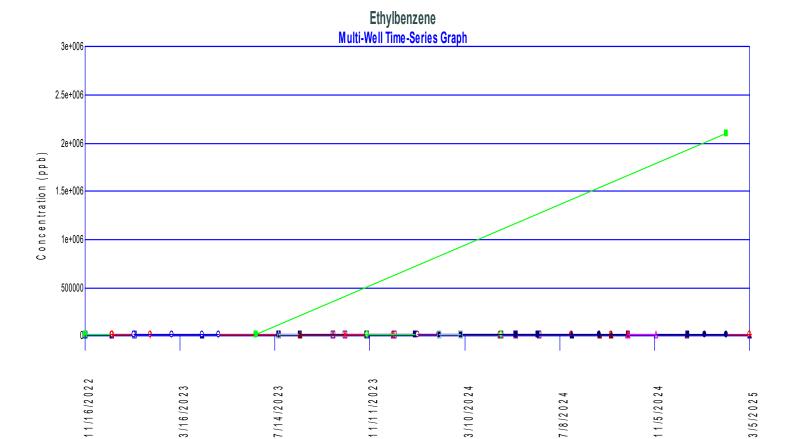
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■EW-36A △EW-82



[●]EW-65 □EW-59 ■EW-61 △EW-52 ▲EW-60 ↑EW-68 ↑EW-50 +EW-57 ◆EW-67 ○EW-58 ●EW-64 □EW-98 ■EW-94 △EW-78 ▲EW-54 ↑EW-87 ↑EW-55 +EW-53 ◆EW-62 ○EW-51 ●EW-85 □EW-88 ■EW-82 △EW-36A

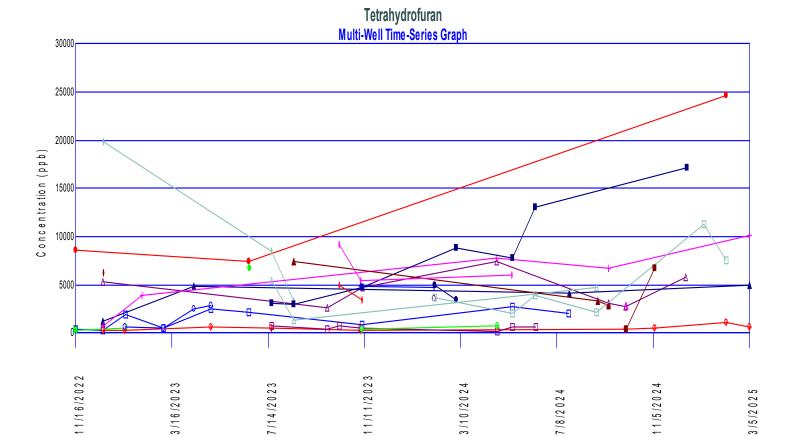


●EW-59 □EW-65 ■EW-61 △EW-60 ▲EW-52 ↑EW-50 ↑EW-68 +EW-67 ●EW-57 ○EW-58 ●EW-64 □EW-98 ■EW-78 △EW-94 ▲EW-54 ↑EW-87 ↑EW-55 +EW-53 ⊕EW-62 ○EW-51 ●EW-88 □EW-85 ■EW-82 △EW-36A



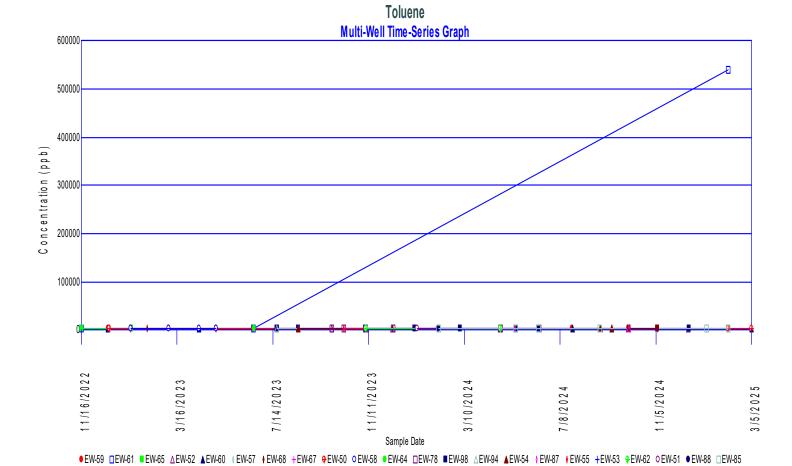
[●]EW-59 □EW-65 ■EW-61 △EW-52 ▲EW-60 ↓EW-50 ↓EW-57 +EW-67 ⊕EW-68 ○EW-58 ●EW-64 □EW-78 ■EW-98 △EW-94 ▲EW-54 ↓EW-87 ↓EW-55 +EW-53 ⊕EW-62 ○EW-51 ●EW-85 □EW-88 □EW-82 △EW-36A

Sample Date

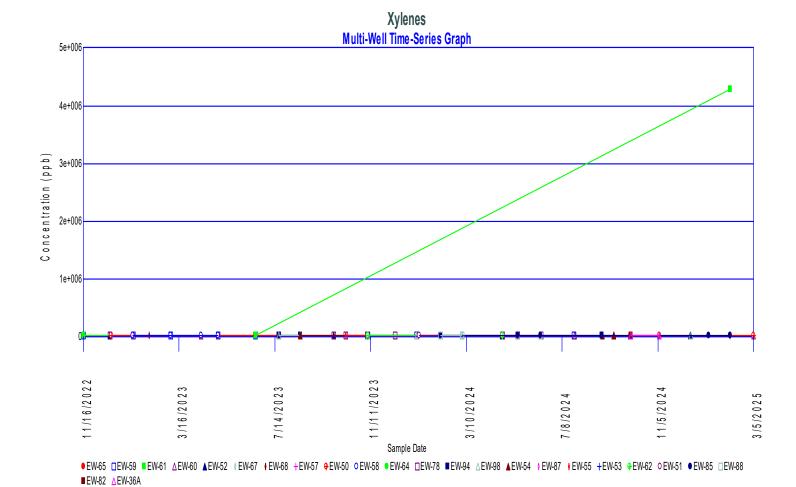


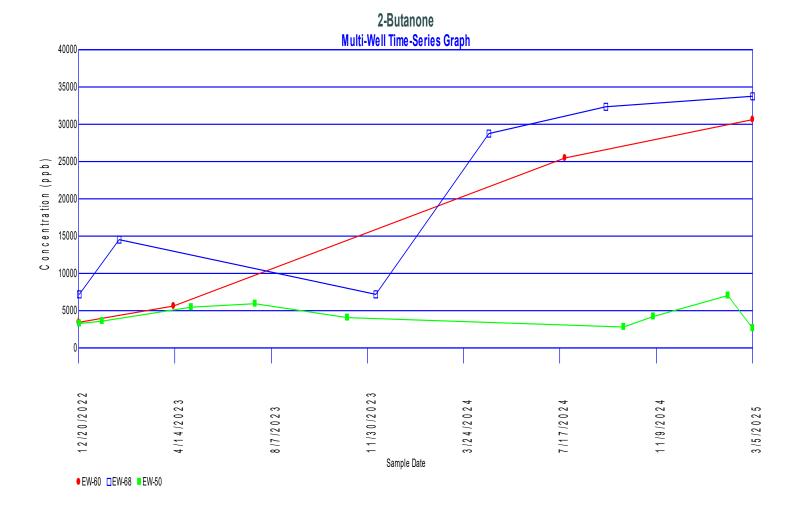
Sample Date

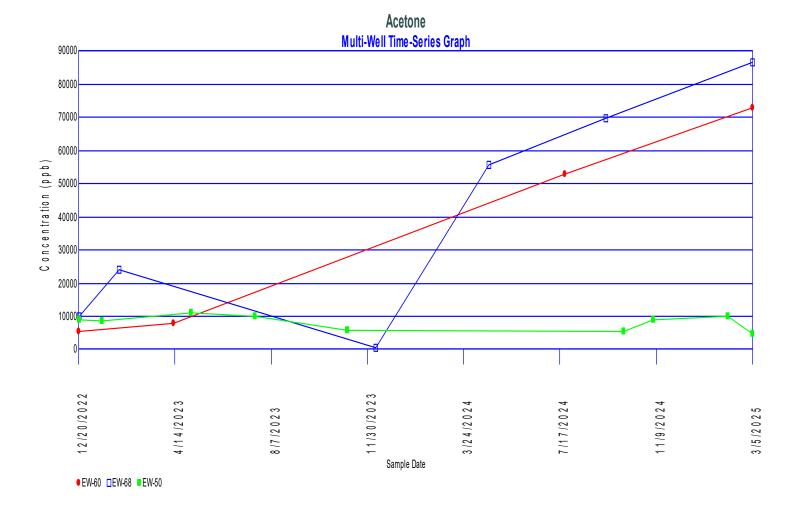
◆EW-61 □EW-59 ■EW-65 △EW-52 ▲EW-60 ↑EW-57 ↑EW-67 +EW-68 ◆EW-50 ○EW-58 ◆EW-64 □EW-78 ■EW-98 △EW-94 ▲EW-54 ↑EW-87 ↑EW-55 +EW-53 ◆EW-62 ○EW-51 ◆EW-85 □EW-85 □EW-85 △EW-82

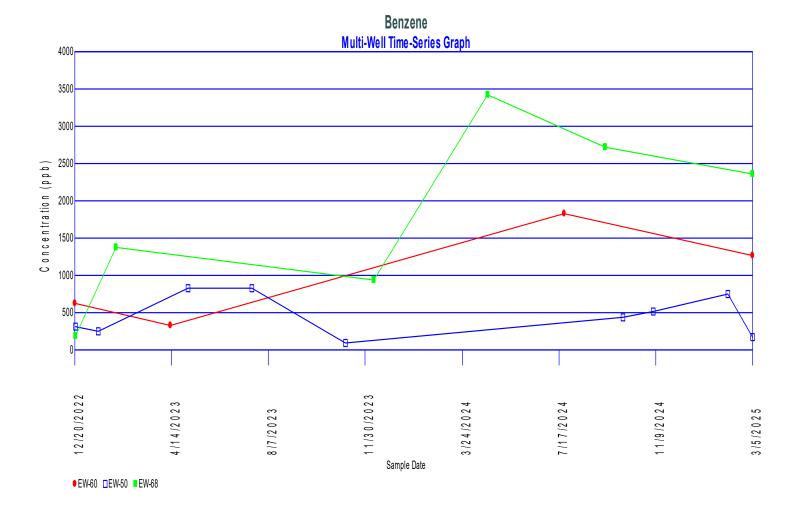


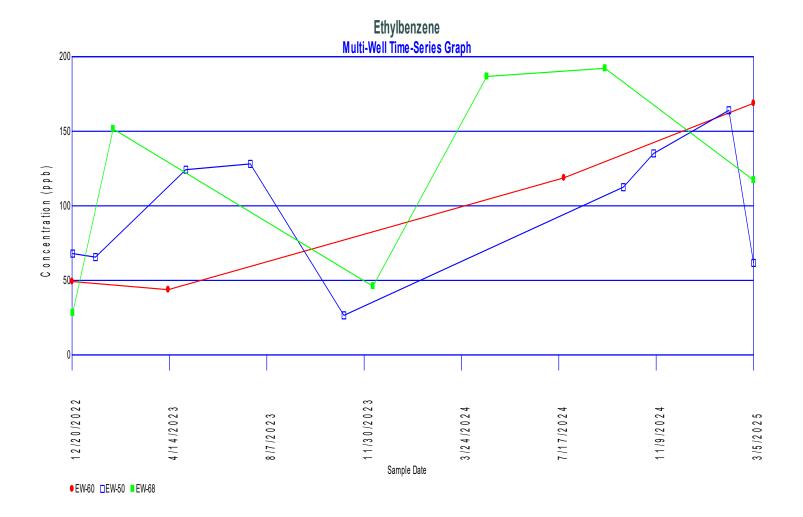
■EW-36A △EW-82

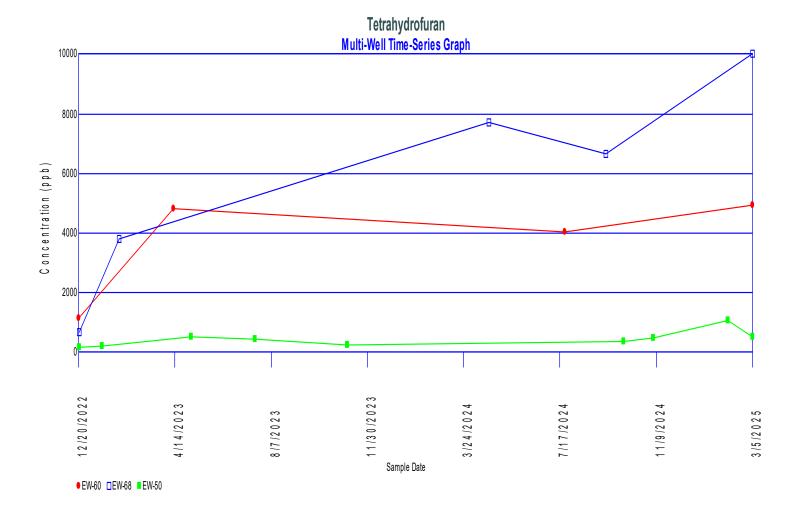


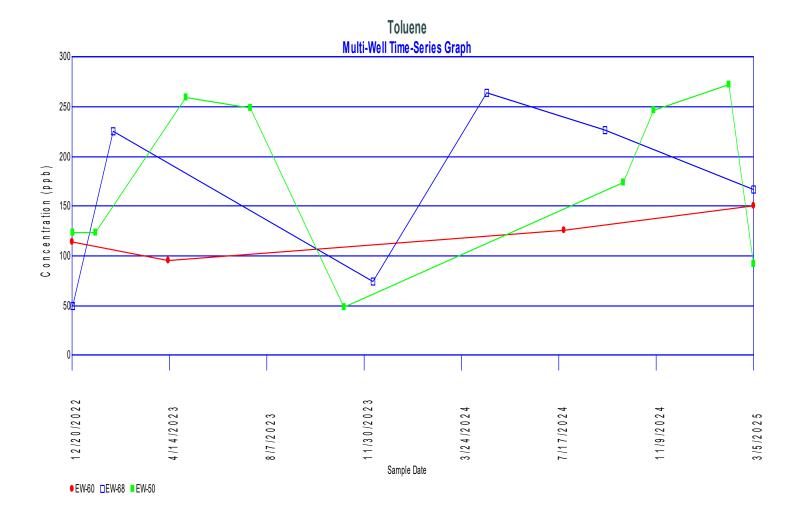


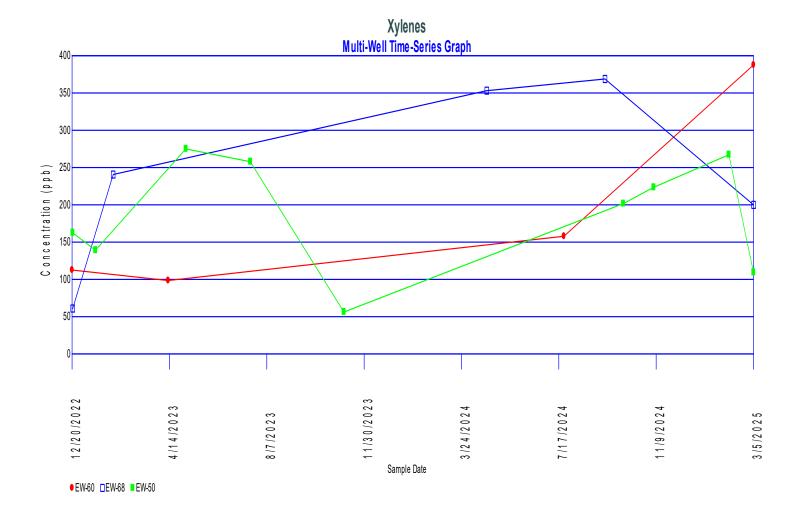












Appendix G

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 40 wells from February 25, 2025 to March 25, 2025. The recorded stroke count data from each well during March are 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	2/25/2025	3/10/2025	3/25/2025	# of strokes between measurements	Estimated liquid removed (gallons)			
EW33B				-	-			
EW36A				-	-			
EW49	79565		79565	-	-			
EW50	1534516	1541569	1548311	13,795	4,139			
EW51	1234839	1237065	1239019	4,180	1,254			
EW52	3294343	3294528		185	56			
EW53				-	-			
EW54	73374	73374	73374	-	-			
EW55	3536795	3536810	3536810	15	5			
EW57	120738	130825	140746	20,008	6,002			
EW59	477303			-	-			
EW60		214599	214599	-	-			
EW61		196791	196791	-	-			
EW62			79659	2,504	751			
EW64	288743	288743	288743	-	-			
EW65	2641281	2643218	2644962	3,681	1,104			
EW67				-	-			
EW68				-	-			
EW69				-	-			
EW70		20694	28100	22,765	2,550			
EW74				-	-			
EW75				-	-			
EW76				-	-			
EW78	288416		292827	4,411	494			
EW81	340749			-	-			
EW82	254736		254736	-	-			
EW83				-	-			
EW85				-	-			

Well	2/25/2025	3/10/2025	3/25/2025	# of strokes between measurements	Estimated liquid removed (gallons)			
EW87				-	-			
EW88	1265449	1292375	1292375	26,926	3,016			
EW89	963390	1013181	1096145	132,755	14,869			
EW90				-	-			
EW91	1621752	1670621	1706410	84,658	25,397			
EW92				-	-			
EW93				-	-			
EW94	79565		79565	-	-			
EW96	1534516	1541569	1548311	13,795	4,139			
EW98	1234839	1237065	1239019	4,180	1,254			
	T	59,636						