# April 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 April 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 April 1, 2025; April 8, 2025; April 18, 2025; April 24, 2025; and April 30, 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 April Surface Emissions Monitoring

Description	April 1, 2025	April 8, 2025	April 18, 2025	April 24, 2025	April 30, 2025
Number of Points Sampled	167	167	167	168	168
Number of Points in Serpentine Route	100	100	100	100	100
Number of Points at Surface Cover Penetrations	67	67	67	68	68
Number of Exceedances	3	0	3	4	3
Number of Serpentine Exceedances	0	0	0	0	0
Number of Pipe Penetration Exceedances	3	0	3	4	3

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-66, SCS-FS increased the vacuum at EW-66. Monitoring of this well during a follow-up event did not result in an exceedance.
- Pipe penetration exceedances occurred on April 30, 2025 at EW-54, EW-67, and EW-95.
   SCS-FS identified low available vacuum at these three locations. SCS-FS plans to conduct further field investigations on the low available vacuum during the week of May 12, 2025.

## 1.1.2 Monitoring of Leachate Collection Components

SCS Field Services (SCS-FS) visited the Bristol Landfill on April 25, 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	LC01	4/25/2025	58.8	39.8	0.0	1.4	60.3	61.1	-14.29	-14.14	-14.06
Gradient West		9:54:03 AM									
Southern Cleanouts Gradient East	LC02	4/25/2025 9:57:48 AM	33.6	19.2	7.9	39.4	68.8	69.1	-14.14	-14.18	-14.07
Southern Cleanouts Leachate Center	LC03	4/25/2025 10:01:14 AM	7.4	4.1	19.8	68.7	69.0	69.1	-13.93	-14.06	-14.04
Southern Cleanouts Witness East	LC04	4/25/2025 10:04:42 AM	5.6	1.7	18.7	74.0	69.7	69.6	-11.25	-11.44	-14.34
Southern Cleanouts Leachate West	LC05	4/25/2025 10:09:17 AM	40.5	30.4	5.8	23.2	70.7	70.7	-14.47	-14.16	-14.11
Southern Cleanouts Gradient Center West	LC06	4/25/2025 10:12:41 AM	24.9	10.8	12.6	51.8	72.8	72.8	-9.09	-9.11	-13.98
Southern Cleanouts Leachate East	LC08	4/25/2025 10:17:21 AM	37.5	19.0	6.6	36.9	70.1	70.0	-14.35	-14.22	-14.02
Southern Cleanouts Gradient Center East	LC09	4/25/2025 10:19:58 AM	40.0	32.9	5.3	21.8	75.0	75.2	-14.23	-14.36	-14.16
Southern Cleanouts Leachate West	LC10	4/25/2025 10:22:50 AM	5.2	5.4	18.3	71.1	75.6	75.7	-14.29	-14.47	-14.17
Northern Cleanouts Leachate East	NC01	4/25/2025 8:02:18 AM	0.0	0.0	21.5	78.5	68.6	68.5	-10.10	-10.10	0.00
Northern Cleanouts Leachate Center	NC02	4/25/2025 8:03:54 AM	0.0	0.0	21.4	78.6	71.6	71.9	-10.13	-10.14	0.00
Northern Cleanouts Leachate West	NC03	4/25/2025 8:07:20 AM	0.1	0.0	21.3	78.6	69.4	70.8	-10.12	-10.11	0.03
Northern Cleanouts Witness East	NC04	4/25/2025 8:09:24 AM	5.0	3.3	17.7	74.0	73.3	73.1	-10.11	-10.10	0.03
Northern Cleanouts Witness Center	NC05	4/25/2025 8:11:12 AM	11.2	8.5	12.7	67.6	72.6	72.5	-10.11	-10.10	0.03
Northern Cleanouts Witness West	NC06	4/25/2025 8:12:42 AM	0.2	0.2	21.2	78.5	72.5	72.6	-10.10	-10.10	0.03
Northern Cleanouts Gradient East	NC07	4/25/2025 8:14:24 AM	55.3	37.3	1.0	6.3	72.5	72.4	-9.76	-9.76	0.03
Northern Cleanouts Gradient Center East	NC08	4/25/2025 8:16:28 AM	45.0	35.4	4.1	15.5	77.5	77.5	-9.76	-9.76	0.03
Northern Cleanouts Gradient Center West	NC09	4/25/2025 8:18:05 AM	0.2	0.7	21.0	78.1	74.4	74.6	-10.10	-10.10	0.03

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	NC10	4/25/2025	0.1	0.2	21.1	78.6	70.5	70.4	-9.77	-9.77	0.03
Gradient West		8:20:12 AM									

#### 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 April 2025.

## 1.3.1 Automated Wellhead Temperature Measurements

SCS reviewed the automated hourly temperature measurements from April 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 are 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.

#### Maintenance:

- o The battery in the sensor at EW-55 was replaced.
- The temperature sensors from EW-58 and EW-60 were pulled, cleaned, and evaluated for performance. The sensor from EW-58 showed a 10-degree difference in ice bath temperature and a 20-degree difference in the wellhead temperature. This sensor is being sent to the manufacturer for further troubleshooting. The sensor from EW-60 showed a 3-degree difference in an ice bath temperature and a 6-degree difference in the wellhead temperature.
- The sample ports were restructured on EW-79 and EW-92 to increase proximity of manual and automatic sensor locations.

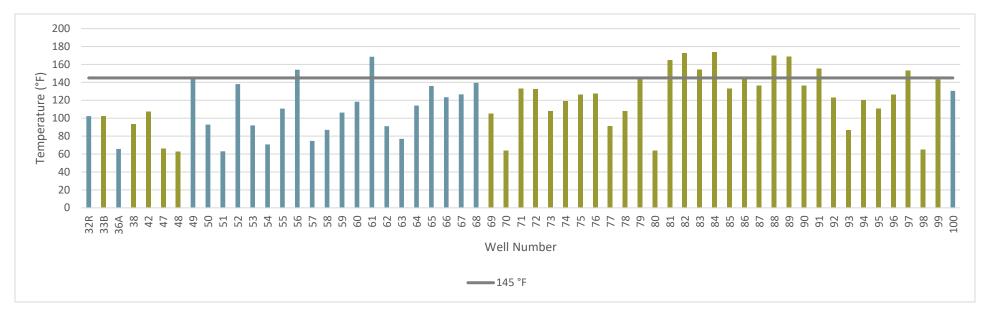


Figure 1. Monthly Average Automated Wellhead Temperatures<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> 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  $\pm 8\,^{\circ}$  F deviation lines were observed at 3 wells during this reporting period: EW-54, EW-58, and EW-64. At all 3 wells the automated temperature was less than the manually measured temperatures.

As discussed in Section 1.3.1 the deviation is likely a calibration issue that is being managed as described in that section. For the other 2 sensors, a potential cause of automated temperatures falling below manual 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-54 and EW-64 were less than 10 cfm during manual temperature measurements in April. The temperature at EW-54 was very close to the threshold and may simply be an anomaly. Further investigation may be merited if this discrepancy worsens. SCS-FS replaced the wellhead at EW-64 in late April to decrease the influence of ambient temperature on the automated sensor.

Figure 2. Typical LFG Extraction Wellhead with Automated Temperature Probe



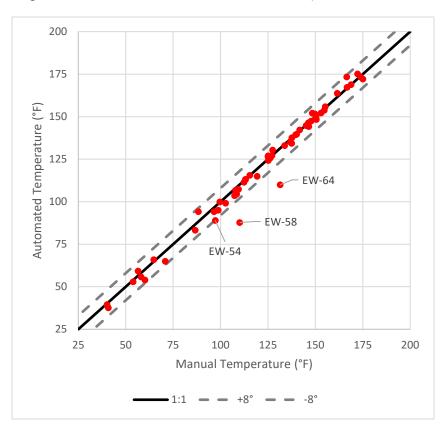


Figure 3. Automated vs. Manual Temperature Measurements

## 1.3.3 Monthly Regulatory Wellhead Temperature Measurements

Routine monthly temperature monitoring was conducted on April 8, 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 5/1/2025
EW-68	4/8/25	4/10/25 141.1°F	4/21/25 142.4°F	3 days	Resolved within 15- day timeline
EW-79	4/8/25	N/A	4/23/25 150.3°F	24 days	Ongoing, within 60-day timeline

Table 3. April Temperature Exceedance Summary

#### 1.3.4 LFG Sampling

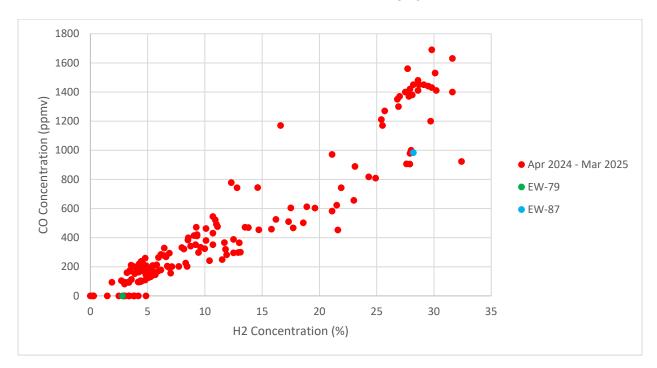
SCS collected weekly LFG samples from wells with temperature exceedances lasting more than seven days using 1.5-L Summa canisters. The samples were sent to Enthalpy Analytical for laboratory analysis of carbon monoxide (CO) and hydrogen ( $H_2$ ) content. As of May 1, 2025, the City has received lab results for sampling on March 21, 2025 and April 10, 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		3/21/25	4/10/25
EW-79	CO (ppmv)		ND
	H2 (Vol. %)		2.80
EW-87	CO (ppmv)	983	
	H2 (Vol. %)	28.2	

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 and 2025.

Figure 4. CO vs H<sub>2</sub> Concentration from gas wells in April 2025 with historical trend



# 2.0 SIDEWALL ODOR MITIGATION

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

#### 2.1 PERIMETER GAS COLLECTION SYSTEM

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

## 2.2 SIDEWALL ODOR MITIGATION SYSTEM

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

#### 2.3 PILOT SYSTEM CONSTRUCTION

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

#### 2.4 FULL SYSTEM CONSTRUCTION

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

Record Dates	Average CH4 [%]	Average CO <sub>2</sub> [%]	Average O <sub>2</sub> [%]	Average Bal Gas [%]
4/15/2025, 4/16/2025	3.9	7.0	16.9	72.2
4/29/2025	5.0	6.7	15.7	72.7

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.

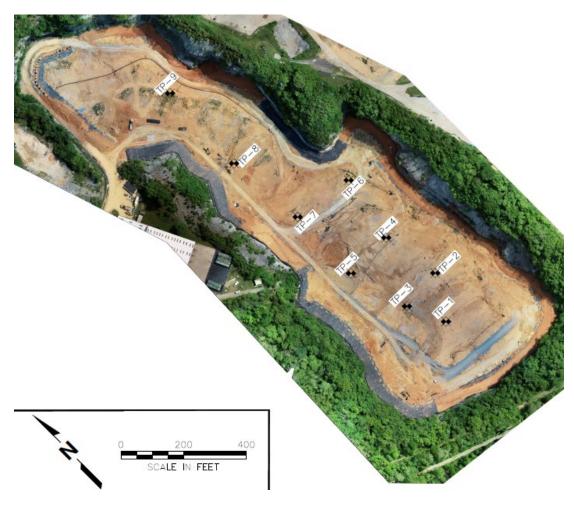


Figure 5. Temperature Monitoring Probe Locations

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

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

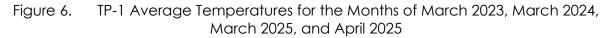
TP-3 began having sensor reading issues at the 150-foot depth at the end of October 2024. These issues continued through December 2024. Sensor readings resumed at the 25-foot depth in early December; however, sensor reading issues arose at the 125-foot and 175-foot depths in the latter half of December.

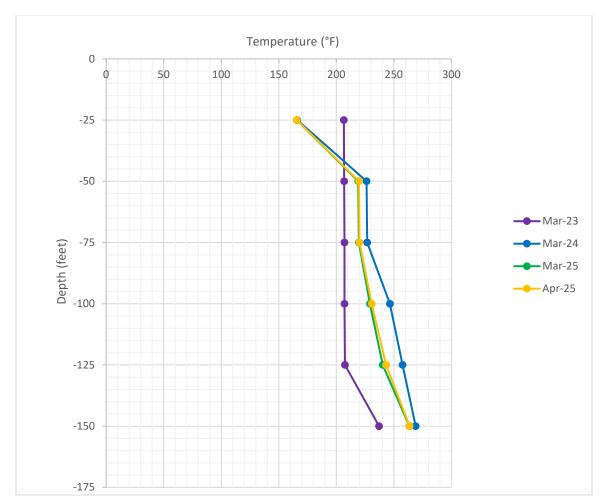
In January 2025, all sensors in TP-3 below the 75-foot level appeared to record erroneous temperatures intermittently. There was no improvement to the temperature signals after replacing the thermocouple interface card at TP-3 in January. This may indicate that the thermocouples are damaged. TP-2 stopped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

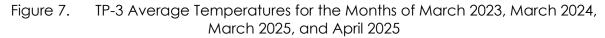
SCS coordinated with the City in March to pull the string of thermocouples from TP-2 and TP-3 but were unable to remove the strings in either probe due to suspected pinching of the casings. The City is considering alternative methods to record temperatures to replace the loss of TP-2 and TP-3, such as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

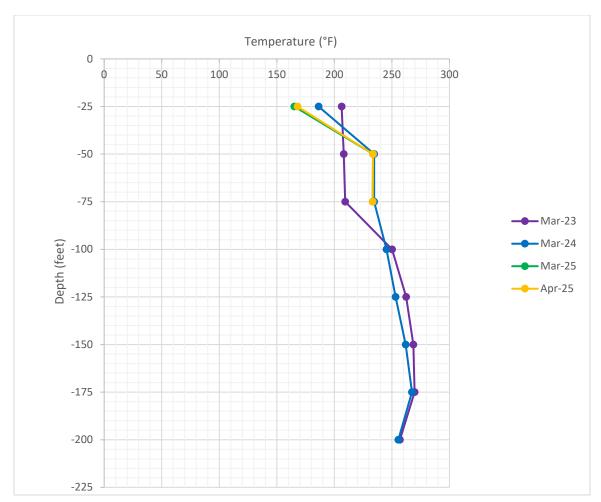
#### 3.1.2 Probes with Consistent Temperatures over Time

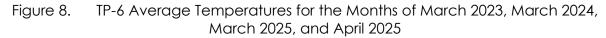
TP-1, TP-3, TP-6, TP-8, and TP-9 have exhibited relatively consistent monthly average temperatures over time (as shown in Figures 6, 7, 8, 9, and 10).

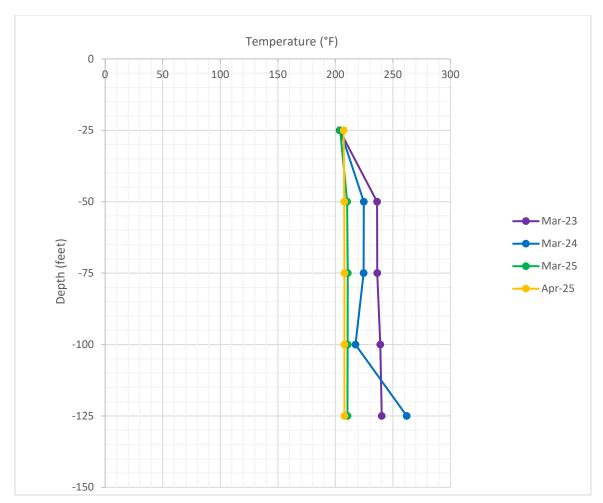


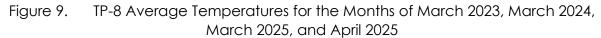


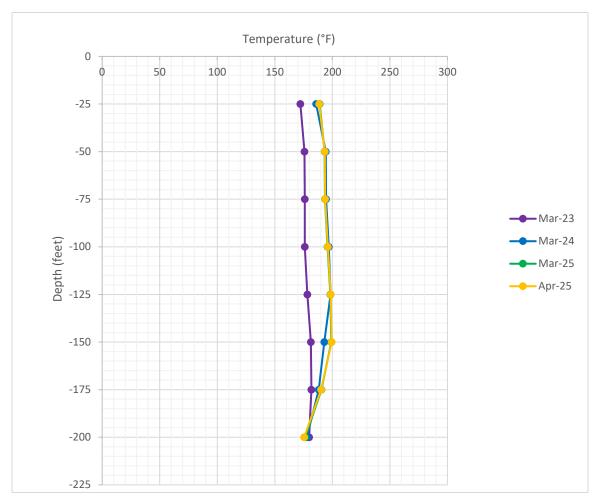












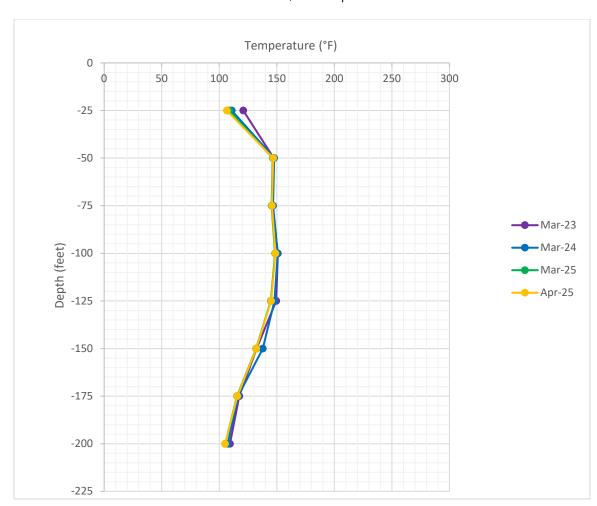
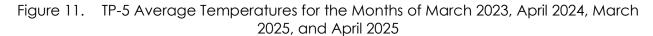


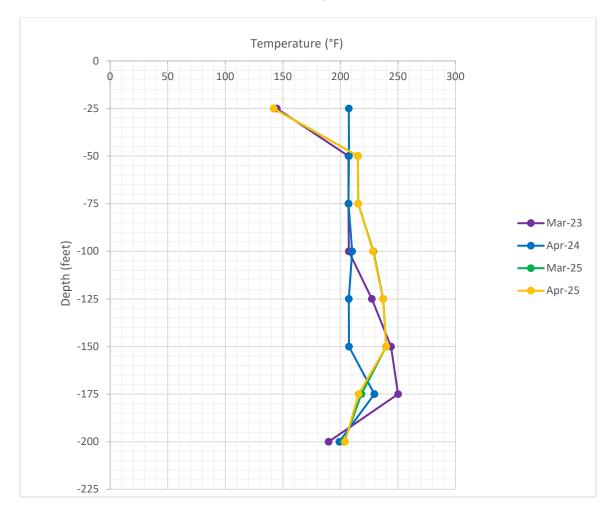
Figure 10. TP-9 Average Temperatures for the Months of March 2023, March 2024, March 2025, and April 2025

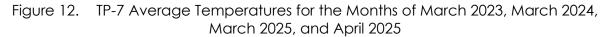
# 3.1.3 Probes with Changing Temperatures over Time

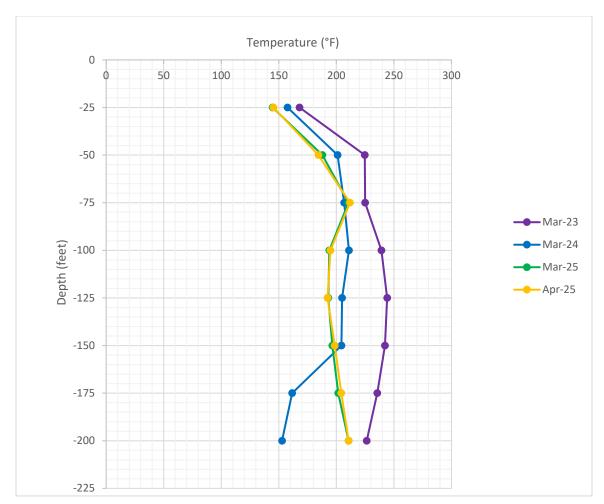
The temperatures at probes TP-5 and TP-7 are more varied over time.

- 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).









#### 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 April 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 75,000 gallons of liquid were pumped out of the landfill in April.

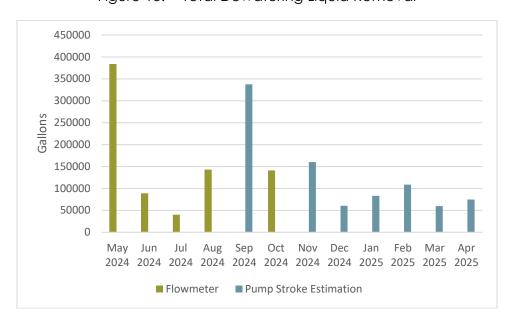


Figure 13. Total Dewatering Liquid Removal

#### 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-59, RE-60, EW-61, EW-65, EW-68, EW-78, EW-85, EW-88, EW-93, EW-94, EW-98
  - The pump in EW-59 was swapped in March.
  - The pump in EW-85 was put back in service in March.
  - The pump in EW-93 was swapped in March for cleaning and tri-tubing was replaced.

#### Inaccessible Pumps/Wells

- The pumps in EW-33B, EW-76, and EW-87 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.
- The casings of EW-36A, EW-49, EW-81, EW-83, EW-91, and EW-96 extend too high above the existing ground level for a pump to be safely accessed. These are stainless steel wells that cannot be lowered through conventional means. SCS-FS and the City are coordinating placement of additional soil around the wells to provide safe access. Figure 14 shows a technician attempting to access EW-96 for liquid level measurement.
  - Soil was added around EW-36A in April, and SCS-FS intends to replace the Blackhawk pump with a OED.



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 167 gallons of liquid during the month of April 2025. The airline was unable to be disconnected to de-energize the pump in April 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-61 was reinstalled in April.

- 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 disconnected and scheduled to be removed, inspected by SCS-FS in May.

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 April 2, 2025, SCS collected a leachate sample from three Dual Phase LFG extraction wells (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 April 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
<ul> <li>Pump was not running at the time of monitoring for the following wells:</li> <li>EW-50, EW-52, EW-53, EW-59, EW-64,</li> <li>EW-65, EW-78, EW-81, EW-85, and EW-98.</li> </ul>	<ul> <li>There was no pump at the time of the monitoring for the following wells:</li> <li>EW-61, EW-66, EW-69, EW-70, EW-71,</li> <li>EW-72, EW-73, EW-74, EW-77, EW-79,</li> <li>EW-80, EW-84, EW-86, EW-91, and EW-99.</li> </ul>
<ul> <li>Pump was disconnected or off at the time of monitoring for EW-36A, EW-49, EW-54, EW-55, EW-67, EW-82, EW-83, EW-93, and EW-96.</li> </ul>	There is no pump and the well appeared dry at the time of monitoring for EW-56.
Pump was not running and the liquid depth was not measured at the time of monitoring for EW-62 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 monitoring for EW-63, EW-87, EW-88, and EW-89.	There is no pump and the liquid depth was not measured at the time of monitoring for EW-33B, EW-75, and EW-76.
	There was no pump at the time of the monitoring and liquid level could not be 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 April 2025 monitoring event. The laboratory analysis report for the April 2025 monitoring event trip blank is included in **Appendix F**. The April 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) guidance<sup>2</sup>. 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

<sup>&</sup>lt;sup>2</sup> United States Environmental Protection Agency. Guidance for Data Usability in Risk Assessment (Part A-14). April 1992.

United States Environmental Protection Agency. Office of Superfund Remediation and Technology Innovation. National Functional Guidelines for Inorganic Superfund Methods Data Review. November 2020. United States Environmental Protection Agency. Office of Superfund Remediation and Technology Innovation. National Functional Guidelines for Organic Superfund Methods Data Review. November 2020.

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

No leachate results were flagged with a "B" qualifier for the April 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 April 2025 leachate samples collected from extraction wells EW-60 and EW-68 are summarized in **Table 7**. The associated COA is included in **Appendix F**. Parameter results from April 2025 and previous monitoring events (November 2022 – March 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-60	EW-68	LOD	LOQ	
Parameter	April 2025 Co	oncentration	LOD		
Ammonia as N (mg/L)	2440	2580	146	200	
Biological Oxygen Demand (mg/L)	33900	24600	0.2	2	
Chemical Oxygen Demand (mg/L)	47900	24100	6300	10000	
Nitrato as N (ma/l)	ND		0.5	1.25	
Nitrate as N (mg/L)		ND	1	5	
Nitrita as N (mag/1)	ND		0.25	1.25	
Nitrite as N (mg/L)		7.6	1	5	
Total Recoverable Phenolics		35	0.75	1.25	
(mg/L)	43		1.5	2.5	
Total Kieldahl Nitrogen (mg/l)		2600	45.9	250	
Total Kjeldahl Nitrogen (mg/L)	2240	80		200	
SEMI-VOLATILE ORGANIC COMPOUN	ID (ug/L)				
Anthracene		ND	100	200	
Anniacene	ND		200	400	
TOTAL METALS (mg/L)					
Arsenic	0.246	0.217	0.01	0.02	
Barium	1.96	2.95	0.005	0.01	
Cadmium	0.0284	ND	0.002	0.004	
Chromium	0.248	0.143	0.008	0.01	
Copper	ND	0.009 J	0.008	0.01	
Lead	0.132	0.0207	0.006	0.01	
Mercury	0.00169	ND	0.001	0.001	
Nickel	0.0161	0.0713	0.007	0.01	
Selenium	ND	ND	0.04	0.05	
Silver	0.007 J	ND	0.005	0.01	

Table 7. Monthly LFG-EW Leachate Monitoring Event Summary

Well ID	EW-60	EW-68	LOD	100					
Parameter	April 2025 Co	April 2025 Concentration		LOQ					
TOTAL METAL (mg/L)	TOTAL METAL (mg/L)								
Zinc		0.0297	0.01	0.01					
ZITIC	0.366		0.05	0.05					
VOLATILE ORGANIC COMPOUNDS (U	g/L)								
2-Butanone	20800	28100	150	500					
Acetone	61200	78000	3500	5000					
Benzene	938	1540	20	50					
Ethylbenzene	52.5	73.5	20	50					
Tetrahydrofuran	3660	5920	500	500					
Toluene	51	114	25	50					
Xylenes	87.5 J	144 J	50	150					

<sup>--- =</sup> 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.

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

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



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 March 11, 2025. A drawing depicting the March 11, 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 1,600 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 3,500 cubic yards. Cut volumes are typically attributed to settlement. This resulted in a net volume decrease of approximately 2,000 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.

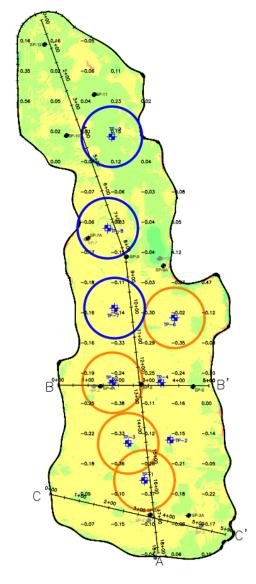


Figure 17. 1-Month Elevation Change Map

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 April 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 April to the topographic data collected on January 14, 2025. Based on a comparison of the topographic data collected on those two dates, settlement occurred that reduced the volume of waste in the landfill by approximately 20,400 cubic yards. During that same time period calculations indicate approximately 700 cubic yards of fill were placed on the landfill, for a net decrease in waste volume of 20,800 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.

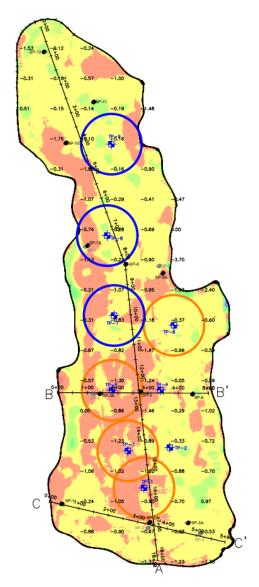


Figure 18. 3-Month Elevation Change Map

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

SCS also compared the topographic data collected in April 2025 to the drone topographic data collected on April 24, 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 1,800 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 36,800 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.

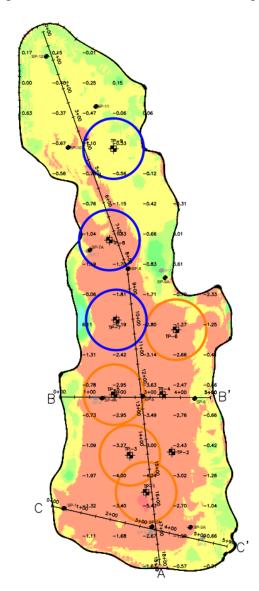


Figure 19. 1-Year Elevation Change Map

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 1.3 feet.

SCS will collect topographic data covering the landfill surface again in May using photogrammetric methods via UAV. This data will be compared to the data collected in May 2024, February 2025, and April 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 Apr. 24, 2025 (ft)	Elevation Change Since Mar. 18, 2025 (ft)	Strain <sup>3</sup> Since Mar. 18, 2024	Elevation Change Since Installation (ft)
SP-1	3397887.6	10,412,080.8	1,828.8	-0.13	-0.2%	-5.6
SP-2A	3,397,823.1	10,412,370.6	1,793.2	-0.27	-0.2%	-2.5

<sup>&</sup>lt;sup>3</sup> Strain is defined as the change in elevation divided by the estimated waste depth.

Settlement Plate	Northing	Easting	Elevation on Apr. 24, 2025 (ft)	Elevation Change Since Mar. 18, 2025 (ft)	Strain <sup>3</sup> Since Mar. 18, 2024	Elevation Change Since Installation (ft)
SP-3A	3,397,820.2	10,412,498.3	1,779.3	-0.05	-0.1%	-0.9
SP-4A	3,398,247.0	10,412,207.1	1,802.9	-0.29	-0.2%	-2.3
SP-5	3,398,255.9	10,412,339.6	1,788.5	-0.31	-0.1%	-12.2
SP-6	3,398,248.7	10,412,509.9	1,773.0	-0.04	0.0%	-4.6
SP-7A	3,398,731.6	10,412,158.1	1,822.3	-0.19	-0.1%	-1.1
SP-8	3,398,678.2	10,412,290.9	1,799.8	-0.21	-0.1%	-7.5
SP-9A	3,398,644.2	10,412,416.2	1,788.2	-0.07	-0.1%	-0.6
SP-10	3,399,080.2	10,412,093.3	1,836.9	-0.13	0.0%	-3.3
SP-11	3,399,216.4	10,412,183.9	1,814.5	-0.07	0.0%	-1.8
SP-12	3,399,381.7	10,412,019.6	1,809.8	-0.02	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, 2A and 4A demonstrated larger strains due to settlement than at other locations. Settlement Plates 1 and 4A are 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 strains at the other settlement plates were lower during this monthly measurement period compared to Settlement Plates, 1, 2A, and 4A.

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.

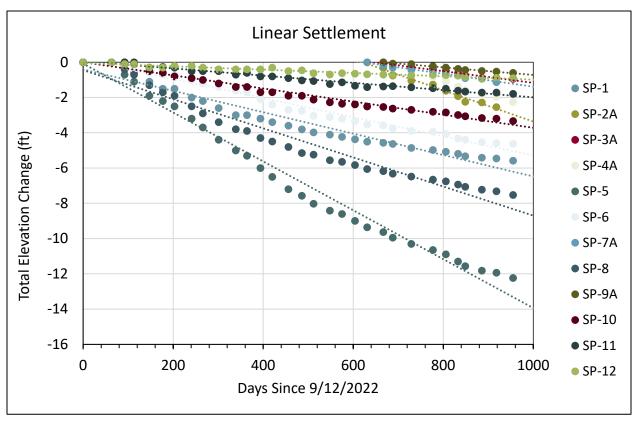


Figure 21. Elevation Change of Select Settlement Plates Over Time

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

#### 6.0 INTERMEDIATE COVER AND EVOH COVER SYSTEM

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

#### 6.1 INTERMEDIATE COVER INSTALLATION

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

#### 6.2 EVOH COVER SYSTEM DESIGN

An amendment to the Consent Decree was issued on March 21, 2024 which requires an ethylene vinyl alcohol (EVOH) deployment no later than December 1, 2026. The amended Consent Decree also requires regular settlement assessments, and the EVOH deployment may occur earlier if settlement rates appear acceptable. The first of these assessments was submitted to VDEQ on April 11, 2024. The most recent assessment was submitted on April 10, 2025. The next assessment will be submitted on or before July 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 April 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 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 2025 surface emissions monitoring event on March 7, 2025. The results of the Quarterly SEM were summarized in the March 2025 Compliance Report for the SWP No. 588 Landfill. A report outlining the results and exceedance locations will be included in the Semi-Annual Report to be submitted to VDEO prior to September 1, 2025.

The Second Quarter 2025 SEM Event is scheduled to be completed by June 30, 2025.

#### Weekly SEM

In addition to the standard regulatory quarterly surface emissions monitoring, the monitoring in April 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 April monitoring events on April 9, 2025; April 16, 2025; April 23, 2025; April 30, 2025; and May 7, 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

April 9, 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 – April 1, 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 April 1, 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	3
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	3

#### REMONITORING OF ONGOING EXCEEDANCES

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

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

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

 Table 2.
 Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	4/1/25 Event	4/1/25 Event Result	Comments
EW-66	2/24/25	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-54	2/24/25	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-53	2/24/25	1-Month Retest Follow-Up	Passed	Exceedance Resolved
EW-67	3/11/25	N/A	Failed	Requires 2 <sup>nd</sup> 10-Day Retest
EW-49	3/17/25	N/A	Passed	Requires 1-Month Retest
EW-85	3/17/25	N/A	Passed	Requires 1-Month Retest
EW-52	3/27/25	10-Day Retest	Passed	Requires 1-Month Retest
EW-75	3/27/25	10-Day Retest	Passed	Requires 1-Month Retest
EW-82	3/27/25	10-Day Retest	Passed	Requires 1-Month Retest

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

Lucus D. Nachman

Lucas S. Nachman

SCS Engineers

Senior Project Professional

Sincerely,

William J. Fabrie Project Professional SCS Engineers

LSN/WJF

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

Encl. Surface Emissions Monitoring Results Bristol SEM Route Drawing

	Methane		GPS Co	ordinates	
ID#	Concentration	Compliance	Lat.	Long.	Comments
1	1.7 PPM	ОК			Start Serpentine Route
2	1.6 PPM	OK			
3	4.0 PPM	OK			
4	1.6 PPM	OK			
5	1.6 PPM	OK			
6	1.6 PPM	OK			
7	1.6 PPM	OK			
8	1.5 PPM	OK			
9	1.5 PPM	OK			
10	1.5 PPM	OK			
11	1.5 PPM	OK			
12	1.5 PPM	OK			
13	1.6 PPM	OK			
14	1.5 PPM	OK			
15	1.9 PPM	OK			
16	25.3 PPM	OK			
1 <i>7</i>	2.4 PPM	OK			
18	2.4 PPM	OK			
19	2.4 PPM	OK			
20	1.8 PPM	OK			
21	2.9 PPM	OK			
22	5.3 PPM	OK			
23	3.0 PPM	OK			
24	1.5 PPM	OK			
25	1.6 PPM	OK			
26	1.5 PPM	OK			
27	1.7 PPM	OK			
28	1.5 PPM	OK			
29	1.7 PPM	OK			
30	1.6 PPM	OK			
31	7.0 PPM	OK			
32	10.7 PPM	OK			
33	47.5 PPM	OK			
34	114.0 PPM	OK			
35	10.2 PPM	OK OK			
36	92.3 PPM	OK OK			
37	115.0 PPM	OK OK			
38	3.1 PPM	OK OK			
39	45.1 PPM	OK OK			
40	14.0 PPM	OK OK			
41	6.6 PPM	OK OK			
42	1.9 PPM	OK OK			
43	1.9 PPM	OK OK			
43	3.7 PPM	OK OK			
45	9.0 PPM	OK OK			
46	4.5 PPM	OK OK			
46 47	2.7 PPM	OK OK			

	Methane		GPS Co	oordinates					
ID#	Concentration	Compliance	Lat.	Long.	Comments				
48	4.1 PPM	OK							
49	2.6 PPM	OK							
50	5.3 PPM	OK							
51	1.2 PPM	OK							
52	1.2 PPM	OK							
53	1.2 PPM	OK							
54	1.2 PPM	OK							
55	1.1 PPM	OK							
56	1.1 PPM	OK							
57	1.7 PPM	OK							
58	3.2 PPM	OK							
59	1.3 PPM	OK							
60	1.3 PPM	OK							
61	1.2 PPM	OK							
62	1.1 PPM	OK							
63	1.0 PPM	OK							
64	1.3 PPM	OK							
65	1.2 PPM	OK							
66	1.6 PPM	OK							
67	2.1 PPM	OK							
68	0.9 PPM	OK							
69	1.2 PPM	OK							
70	1.7 PPM	OK							
<i>7</i> 1	5.5 PPM	OK							
72	1.0 PPM	OK							
73	1.0 PPM	OK							
74	3.3 PPM	OK							
75	2.3 PPM	OK							
76	88.9 PPM	OK							
77	1.1 PPM	OK							
78	3.1 PPM	OK							
. 79	0.9 PPM	OK							
80	1.4 PPM	OK							
81	1.0 PPM	OK							
82	1.8 PPM	OK							
83	3.9 PPM	OK							
84	269.0 PPM	OK							
85	3.3 PPM	OK							
86	22.5 PPM	OK							
87	1.6 PPM	OK							
88	1.0 PPM	OK							
89	1.8 PPM	OK							
90	2.3 PPM	OK							
91	1.2 PPM	OK							
92	1.5 PPM	OK							
93	1.4 PPM	OK							
94	3.2 PPM	OK							

	Methane GPS Coordinates				
ID#	Concentration	Compliance	Lat.	Long.	Comments
95	4.3 PPM	ОК			
96	4.0 PPM	OK			
97	1.2 PPM	OK			
98	9.0 PPM	OK			
99	1.4 PPM	OK			
100	1.2 PPM	OK			End Serpentine Route
101	393.0 PPM	OK			EW-52
102	106.0 PPM	OK			TP-4
103	89.8 PPM	OK			EW-60
104	1.1 PPM	OK			EW-48
105	1.0 PPM	OK			TP-6
106	19.3 PPM	OK			EW-61
107	0.6 PPM	OK			EW-50
108	2296.0 PPM	HIGH_ALRM	36.59866	-82.14775	EW-67
109	2.3 PPM	OK			EW-47
110	87.3 PPM	OK			EW-54
111	1.2 PPM	OK			EW-55
112	3.5 PPM	OK			EW-92
113	45.4 PPM	OK			EW-91
114	1.1 PPM	OK			EW-96
115	0.8 PPM	OK			TP-2
116	872.0 PPM	HIGH_ALRM	36.59842	-82.14736	EW-66
117	0.9 PPM	OK	00.070-12	02.11-17-00	EW-58
118	20.2 PPM	OK			EW-57
119	0.9 PPM	OK			TP-1
120	29.5 PPM	OK			EW-59
121	5.5 PPM	OK			EW-100
122	0.9 PPM	OK			EW-56
123	6.2 PPM	OK			EW-97
124	262.0 PPM	OK			EW-53
125	2.4 PPM	OK OK			TP-3
126	34.6 PPM	OK OK			EW-51
127	1.5 PPM	OK OK			TP-5
128	0.7 PPM	OK OK			EW-68
129	0.7 PPM 0.8 PPM	OK OK			EW-87
					EW-38
130	0.8 PPM 0.9 PPM	OK OK			
131		OK OK			TP-7 EW-49
132	0.4 PPM	OK OK			
133	1.2 PPM	OK			EW-83
134	0.3 PPM	OK			EW-65
135	0.3 PPM	OK			EW-81
136	0.3 PPM	OK			TP-8
137	0.2 PPM	OK			EW-64
138	0.3 PPM	OK			EW-63
139	1.9 PPM	OK			EW-42

	Methane					
ID#	Concentration	Compliance	Lat.	Long.	Comment	
141	421.0 PPM	ОК			TP-9	
142	0.4 PPM	OK			EW-62	
143	0.9 PPM	OK			EW-74	
144	0.6 PPM	OK			EW-32R	
145	0.3 PPM	OK			EW-69	
146	0.4 PPM	OK			EW-71	
1 <i>47</i>	0.3 PPM	OK			EW-72	
148	0.3 PPM	OK			EW-73	
149	0.1 PPM	OK			EW-78	
150	2.7 PPM	OK			EW-82	
151	0.7 PPM	OK			EW-36A	
152	3.6 PPM	OK			EW-85	
153	128.0 PPM	OK			EW-88	
154	0.8 PPM	OK			EW-89	
155	0.2 PPM	OK			EW-93	
156	12.5 PPM	OK			EW-94	
1 <i>57</i>	0.5 PPM	OK			EW-98	
158	2.5 PPM	OK			EW-99	
159	266.0 PPM	OK			EW-95	
160	2.7 PPM	OK			EW-90	
161	1.4 PPM	OK			EW-86	
162	0.2 PPM	OK			EW-84	
163	0.3 PPM	OK			EW-80	
164	0.2 PPM	OK			EW-79	
165	0.4 PPM	OK			EW-77	
166	0.6 PPM	OK			EW-33B	
167	0.3 PPM	OK			EW-75	
	Number of lea	ations sampled:	167			
		•				
	Number of exceedance locations:		3			

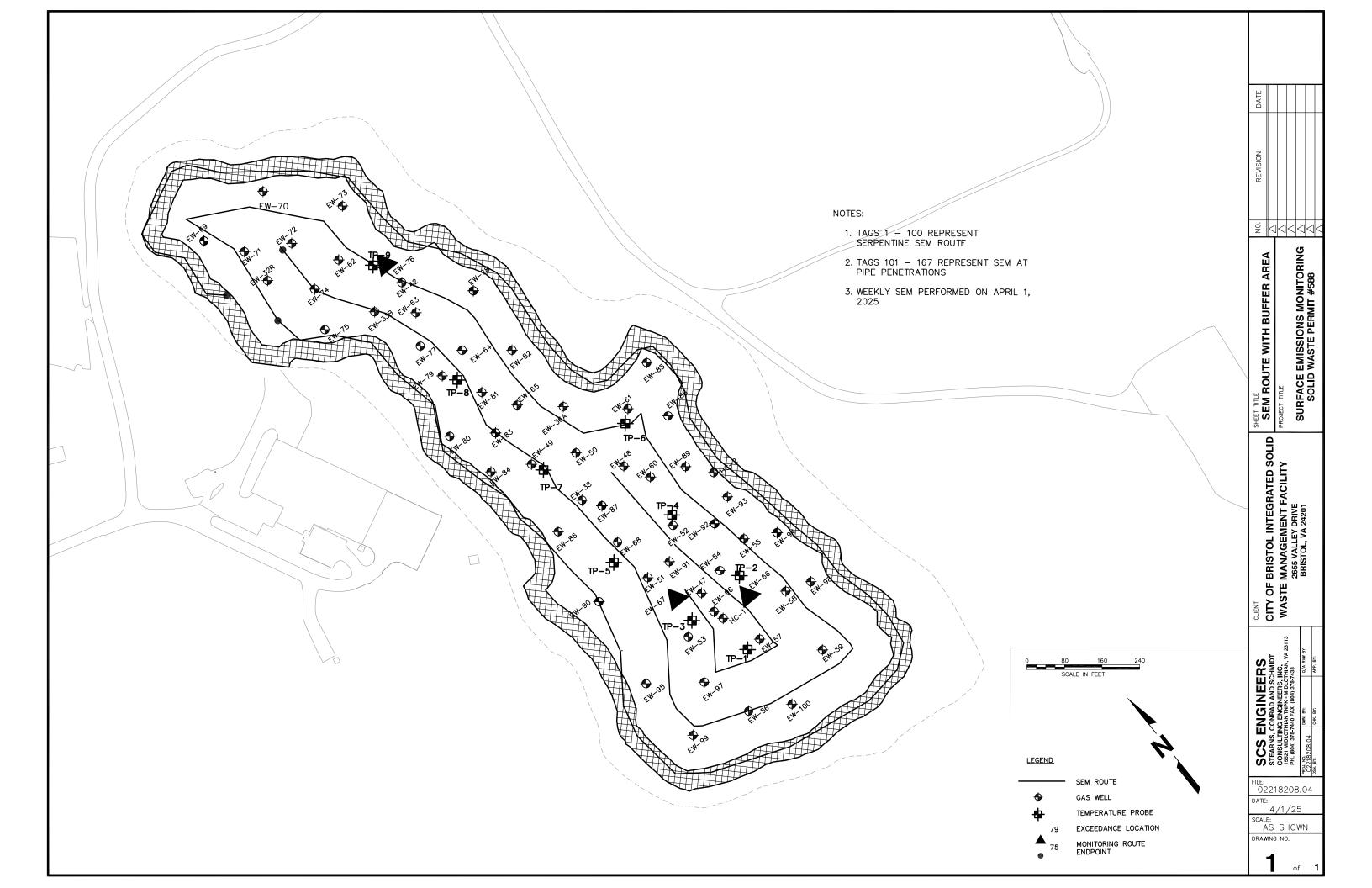
#### NOTES:

Points 1 through 100 represent serpentine SEM route.

Points 101 through 167 represent SEM at Pipe Penetrations

Weather Conditions: Mostly Cloudy, 48°F Wind: 5 MPH N

Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm 4/1/2025 11:10 ZERO 0.1 PPM 4/1/2025 11:11 SPAN 502.0 PPM **Background Reading:** 4/1/2025 11:15 Upwind 1.6 PPM 4/1/2025 11:18 Downwind 2.1  $\mathsf{PPM}$ 



### SCS ENGINEERS

April 16, 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 – April 8, 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 April 8, 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	0
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	0

#### 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	4/8/25 Event	4/8/25 Event Result	Comments
EW-54	2/24/25	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-66	2/24/25	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-67	3/11/25	1-Month Retest	Passed	Exceedance Resolved
EW-49	3/17/25	N/A	Passed	Requires 1-Month Retest
EW-85	3/17/25	N/A	Passed	Requires 1-Month Retest
EW-52	3/27/25	N/A	Passed	Requires 1-Month Retest
EW-75	3/27/25	N/A	Passed	Requires 1-Month Retest
EW-82	3/27/25	N/A	Passed	Requires 1-Month Retest
EW-76	4/1/25	10-Day Retest	Passed	Requires 1-Month Retest

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

Sincerely,

William J. Fabrie Project Professional SCS Engineers Lucas S. Nachman Senior Project Professional SCS Engineers

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	1.4 PPM	OK			Start Serpentine Route
2	1.4 PPM	OK			
3	1.4 PPM	OK			
4	1.3 PPM	OK			
5	1.3 PPM	OK			
6	1.3 PPM	OK			
7	1.3 PPM	OK			
8	1.3 PPM	OK			
9	1.3 PPM	OK			
10	1.3 PPM	OK			
11	1.2 PPM	OK			
12	1.3 PPM	OK			
13	1.2 PPM	OK			
14	1.2 PPM	OK			
15	1.2 PPM	OK			
16	1.2 PPM	OK			
17	1.3 PPM	OK			
18	1.4 PPM	OK			
19	1.4 PPM	OK			
20	1.4 PPM	OK			
21	1.2 PPM	OK			
22	1.1 PPM	OK			
23	1.2 PPM	OK OK			
24	1.1 PPM	OK OK			
25	1.2 PPM	OK OK			
26	0.8 PPM	OK OK			
27	0.9 PPM	OK OK			
28	1.4 PPM	OK OK			
26 29	1.4 FPM	OK OK			
30					
31	1.0 PPM	OK OK			
	3.0 PPM				
32	7.6 PPM	OK OK			
33	1.4 PPM	OK OK			
34	4.6 PPM	OK OK			
35 36	25.0 PPM	OK OK			
36	285.0 PPM	OK OK			
37	2.1 PPM	OK OK			
38	1.2 PPM	OK OK			
39 40	2.5 PPM	OK OK			
40	1.1 PPM	OK			
41	1.2 PPM	OK			
42	0.8 PPM	OK			
43	0.8 PPM	OK			
44	0.9 PPM	OK			
45	0.8 PPM	OK			
46	1.2 PPM	OK			
47	0.7 PPM	OK			

		Methane		GPS Co	ordinates	
ID	#	Concentration	Compliance	Lat.	Long.	Comments
4	8	0.7 PPM	OK			
4	9	0.6 PPM	OK			
5	0	0.6 PPM	OK			
5		0.6 PPM	OK			
5	2	0.6 PPM	OK			
	3	0.6 PPM	OK			
5	34	0.7 PPM	OK			
5	5	0.7 PPM	OK			
5	6	0.6 PPM	OK			
5	7	0.7 PPM	OK			
5	8	0.8 PPM	OK			
5	9	3.1 PPM	OK			
6	0	0.9 PPM	OK			
6	1	1.0 PPM	OK			
6	2	1.1 PPM	OK			
6	3	0.8 PPM	OK			
6	4	0.6 PPM	OK			
6	5	1.0 PPM	OK			
6	6	0.8 PPM	OK			
6	7	0.7 PPM	OK			
6	8	0.7 PPM	OK			
6	9	0.6 PPM	OK			
7	0	0.7 PPM	OK			
7	'1	1.1 PPM	OK			
7	'2	0.7 PPM	OK			
7	'3	1.0 PPM	OK			
	<b>'</b> 4	6.4 PPM	OK			
	<b>'</b> 5	0.9 PPM	OK			
	6	0.5 PPM	OK			
	7	0.9 PPM	OK			
	8	0.8 PPM	OK			
	9	34.2 PPM	OK			
	0	2.2 PPM	OK			
8		1.2 PPM	OK			
	2	7.6 PPM	OK			
	3	0.5 PPM	OK			
	34	0.5 PPM	OK			
	5	0.5 PPM	OK			
	6	0.5 PPM	OK			
	7	0.5 PPM	OK			
	8	0.3 PPM	OK			
	9	0.3 PPM	OK			
	0	0.3 PPM	OK			
9		0.5 PPM	OK			
	2	0.7 PPM	OK			
	3	0.5 PPM	OK			
9	4	0.5 PPM	OK			

	Methane		GPS Cod	ordinates	
ID#	Concentration	Compliance	Lat.	Long.	Comments
95	1 <i>5.</i> 7 PPM	OK			
96	0.6 PPM	OK			
97	0.6 PPM	OK			
98	0.8 PPM	OK			
99	1.1 PPM	OK			
100	0.7 PPM	OK			End Serpentine Route
101	218.0 PPM	OK			EW-52
102	0.7 PPM	OK			TP-4
103	9.2 PPM	OK			EW-60
104	0.3 PPM	OK			EW-48
105	0.4 PPM	OK			TP-6
106	6.4 PPM	OK			EW-61
107	0.6 PPM	OK			EW-50
108	18.6 PPM	OK			EW-67
109	1.5 PPM	OK			EW-47
110	1.3 PPM	OK			EW-54
111	1.0 PPM	OK			EW-55
112	0.8 PPM	OK			EW-92
113	31.5 PPM	OK			EW-91
114	0.6 PPM	OK			EW-96
115	0.8 PPM	OK			TP-2
116	0.7 PPM	OK			EW-66
117	0.5 PPM	OK OK			EW-58
118	0.5 PPM	OK OK			EW-57
119	0.6 PPM	OK OK			TP-1
120	2.2 PPM	OK			EW-59
121	64.0 PPM	OK			EW-100
122	2.2 PPM	OK			EW-56
123	0.6 PPM	OK			EW-97
124	1.6 PPM	OK			EW-53
125	1.0 PPM	OK			TP-3
126	1.8 PPM	OK OK			EW-51
127	0.5 PPM	OK OK			TP-5
128	55.4 PPM	OK OK			EW-68
129	0.3 PPM	OK OK			EW-87
130	0.3 PPM	OK OK			EW-38
131	0.9 PPM	OK OK			TP-7
132	0.9 PPM	OK OK			EW-49
133	1.4 PPM	OK OK			EW-83
134	1.0 PPM	OK OK			EW-65
135	0.7 PPM	OK OK			EW-81
136		OK OK			TP-8
136 137	2.0 PPM 0.6 PPM	OK OK			EW-64
138	0.3 PPM	OK OK			EW-63
139	0.3 PPM 0.3 PPM	OK OK			EW-42
140	220.0 PPM	OK OK			EW-76

	Methane		GPS Co	ordinates	
ID#	Concentration	Compliance	Lat.	Long.	Comment
141	0.3 PPM	OK			TP-9
142	0.3 PPM	OK			EW-62
143	0.2 PPM	OK			EW-74
144	0.3 PPM	OK			EW-32R
145	0.3 PPM	OK			EW-69
146	0.3 PPM	OK			EW-71
147	0.3 PPM	OK			EW-72
148	0.3 PPM	OK			EW-73
149	0.4 PPM	OK			EW-78
150	0.5 PPM	OK			EW-82
151	1.7 PPM	OK			EW-36A
152	0.7 PPM	OK			EW-85
153	1.5 PPM	OK			EW-88
154	0.5 PPM	OK			EW-89
155	0.7 PPM	OK			EW-93
156	2.9 PPM	OK			EW-94
1 <i>57</i>	0.6 PPM	OK			EW-98
158	0.7 PPM	OK			EW-99
159	1.3 PPM	OK			EW-95
160	0.9 PPM	OK			EW-90
161	0.7 PPM	OK			EW-86
162	0.5 PPM	OK			EW-84
163	0.3 PPM	OK			EW-80
164	1.0 PPM	OK			EW-79
165	0.3 PPM	OK			EW-77
166	0.3 PPM	OK			EW-338
167	0.3 PPM	OK			EW-75
	Number of loc	ations sampled:	167		
	Number of exceed	· · · · · · · · · · · · · · · · · · ·	0		

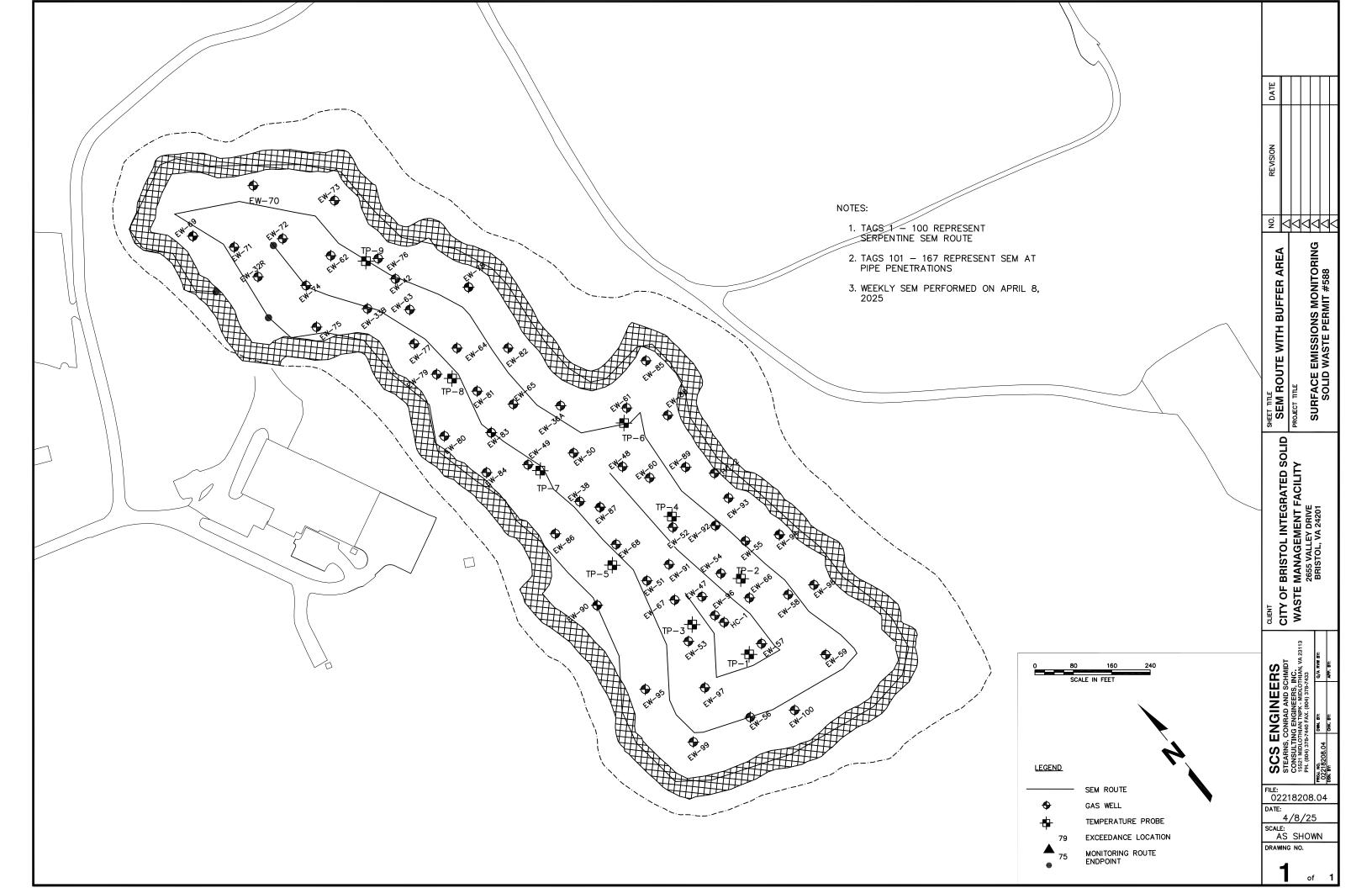
#### **NOTES:**

Points 1 through 100 represent serpentine SEM route.

Points 101 through 167 represent SEM at Pipe Penetrations

Weather Conditions: Mostly Cloudy, 41°F Wind: 10 MPH NW

Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm							
4/8/2025	11:12	ZERO	0.1	PPM			
4/8/2025	11:1 <i>7</i>	SPAN	501.0	PPM			
Background Reading:							
4/8/2025	11:22	Upwind	2.3	PPM			
4/8/2025	11:26	Downwind	1.5	PPM			



### SCS ENGINEERS

April 23, 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 – April 18, 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 April 18, 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	3
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	3

#### REMONITORING OF ONGOING EXCEEDANCES

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

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

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

Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	4/18/25 Event	4/18/25 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	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-49	3/17/25	1-Month Retest	Passed	Exceedance Resolved
EW-85	3/17/25	1-Month Retest	Passed	Exceedance Resolved
EW-52	3/27/25	N/A	Passed	Requires 1-Month Retest
EW-75	3/27/25	N/A	Passed	Requires 1-Month Retest
EW-82	3/27/25	N/A	Passed	Requires 1-Month Retest
EW-76	4/1/25	N/A	Passed	Requires 1-Month Retest

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

Sincerely,

Wylie R Hicklin Staff Professional SCS Engineers

Wylin R Dicklin

Lucas S. Nachman Senior Project Professional SCS Engineers

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** 

,,			0.00	ordinates	
ID#	Concentration	Compliance	Lat.	Long.	Comments
1	0.0 PPM	OK			Start Serpentine Route
2	0.1 PPM	OK			
3	0.1 PPM	OK			
4	0.0 PPM	OK			
5	0.0 PPM	OK			
6	0.0 PPM	OK			
7	0.0 PPM	OK			
8	4.1 PPM	OK			
9	0.3 PPM	OK			
10	1.6 PPM	OK			
11	0.6 PPM	OK			
12	2.4 PPM	OK			
13	0.0 PPM	OK			
14	2.4 PPM	OK			
15	3.2 PPM	OK			
16	1.6 PPM	OK			
17	4.9 PPM	OK			
18	12.9 PPM	OK			
19	9.9 PPM	OK			
20	19.2 PPM	OK			
21	3.6 PPM	OK			
22	5.8 PPM	OK			
23	6.4 PPM	OK			
24	3.6 PPM	OK			
25	2.2 PPM	OK			
26	5.3 PPM	OK			
27	0.8 PPM	OK			
28	10.7 PPM	OK			
29	28.2 PPM	OK OK			
		OK OK			
30 31	29.9 PPM	OK OK			
31	52.0 PPM 5.7 PPM	OK OK			
33	69.9 PPM	OK OK			
33 34	12.1 PPM	OK OK			
35	23.8 PPM	OK OK			
		OK OK			
36 37	0.4 PPM 0.0 PPM				
37		OK OK			
38 39	0.0 PPM				
	0.0 PPM	OK OK			
40	0.0 PPM	OK			
41	O.1 PPM	OK			
42	0.0 PPM	OK			
43	0.0 PPM	OK			
44	0.1 PPM	OK			
45	0.4 PPM	OK			
46 47	0.1 PPM 0.1 PPM	OK OK			

	Methane		GPS Co	ordinates	
ID#	Concentration	Compliance	Lat.	Long.	Comments
48	0.1 PPM	OK			
49	0.0 PPM	OK			
50	0.0 PPM	OK			
51	0.0 PPM	OK			
52	0.1 PPM	OK			
53	0.1 PPM	OK			
54	0.2 PPM	OK			
55	0.3 PPM	OK			
56	1.3 PPM	OK			
57	0.5 PPM	OK			
58	1.4 PPM	OK			
59	1.7 PPM	OK			
60	0.6 PPM	OK			
61	0.4 PPM	OK			
62	0.6 PPM	OK			
63	1.3 PPM	OK			
64	1.2 PPM	OK			
65	38.9 PPM	OK			
66	0.9 PPM	OK			
67	6.3 PPM	OK			
68	3.6 PPM	OK			
69	4.3 PPM	OK			
70	2.6 PPM	OK			
71	4.1 PPM	OK			
72	27.7 PPM	OK			
73	2.0 PPM	OK			
74	1.4 PPM	OK			
75	O.1 PPM	OK			
76	1.3 PPM	OK			
77	0.2 PPM	OK			
78	1.5 PPM	OK			
79	0.2 PPM	OK			
80	0.3 PPM	OK			
81	2.0 PPM	OK OK			
82	0.0 PPM	OK			
83	0.5 PPM	OK			
84	0.0 PPM	OK			
85	0.4 PPM	OK			
86	0.2 PPM	OK			
87	0.2 PPM	OK			
88	0.6 PPM	OK OK			
89	0.0 PPM	OK			
90	0.2 PPM	OK OK			
91	0.3 PPM	OK OK			
92	0.7 PPM	OK OK			
93	2.7 PPM	OK OK			
94	0.2 PPM	OK OK			

	Methane		GPS Co	ordinates	
ID #	Concentration	Compliance	Lat.	Long.	Comments
95	0.0 PPM	OK			
96	0.0 PPM	OK			
97	0.0 PPM	OK			
98	0.0 PPM	OK			
99	0.0 PPM	OK			
100	0.0 PPM	OK			End Serpentine Route
101	0.1 PPM	OK			EW-69
102	0.1 PPM	OK			EW-71
103	0.1 PPM	OK			EW-32R
104	0.1 PPM	OK			EW-74
105	O.1 PPM	OK			EW-72
106	0.4 PPM	OK			EW-62
107	0.2 PPM	OK			EW-33B
108	0.4 PPM	OK			EW-63
109	0.1 PPM	OK			EW-77
110	0.3 PPM	OK			EW-64
111	0.1 PPM	OK			EW-79
112	0.1 PPM	OK			TP-8
113	0.1 PPM	OK			EW-81
114	3.9 PPM	OK			EW-80
115	0.9 PPM	OK			EW-84
116	0.7 PPM	OK			EW-83
11 <i>7</i>	0.9 PPM	OK			EW-65
118	0.7 PPM	OK			EW-36A
119	0.1 PPM	OK			EW-49
120	3.8 PPM	OK			TP-7
121	0.8 PPM	OK			EW-50
122	4.5 PPM	OK			TP-6
123	1.1 PPM	OK			EW-61
124	0.0 PPM	OK			EW-85
125	0.6 PPM	OK			EW-88
126	3.0 PPM	OK			EW-48
127	52.7 PPM	OK			EW-87
128	1.5 PPM	OK			EW-38
129	7.0 PPM	OK			EW-86
130	2.9 PPM	OK			EW-90
131	15.2 PPM	OK			TP-5
132	10.4 PPM	OK			EW-68
133	164.0 PPM	OK			EW-52
134	12.8 PPM	OK			TP-4
135	78.9 PPM	OK			EW-60
136	19.1 PPM	OK			EW-89
137	0.8 PPM	OK			EW-93
138	198.0 PPM	OK			EW-92
139	0.2 PPM	OK			EW-91
140	3.5 PPM	OK			EW-51

	Methane		GPS Co	ordinates	
ID#	Concentration	Compliance	Lat.	Long.	Comment
141	1039.0 PPM	HIGH_ALRM	36.59866	-82.147751	EW-67
142	7.7 PPM	OK			EW-47
143	5370.0 PPM	HIGH_ALRM	36.59859	-82.14738	EW-54
144	19.6 PPM	OK			EW-55
145	34.2 PPM	OK			EW-94
146	8.1 PPM	OK			TP-2
147	61.5 PPM	OK			EW-53
148	7.6 PPM	OK			TP-3
149	3.9 PPM	OK			EW-96
150	2.4 PPM	OK			TP-1
151	11.3 PPM	OK			EW-57
152	1.7 PPM	OK			EW-66
153	0.8 PPM	OK			EW-58
154	0.9 PPM	OK			EW-98
155	6.4 PPM	OK			EW-59
156	0.8 PPM	OK			EW-100
1 <i>57</i>	2.6 PPM	OK			EW-56
158	20.2 PPM	OK			EW-99
159	3.2 PPM	OK			EW-97
160	6603.0 PPM	HIGH_ALRM	36.59837	-82.14835	EW-95
161	8.6 PPM	OK			EW-82
162	4.5 PPM	OK			EW-78
163	3.3 PPM	OK			EW-42
164	80.5 PPM	OK			EW-76
165	1.7 PPM	OK			TP-9
166	7.2 PPM	OK			EW-73
100	1.4 PPM	OK			EW-75

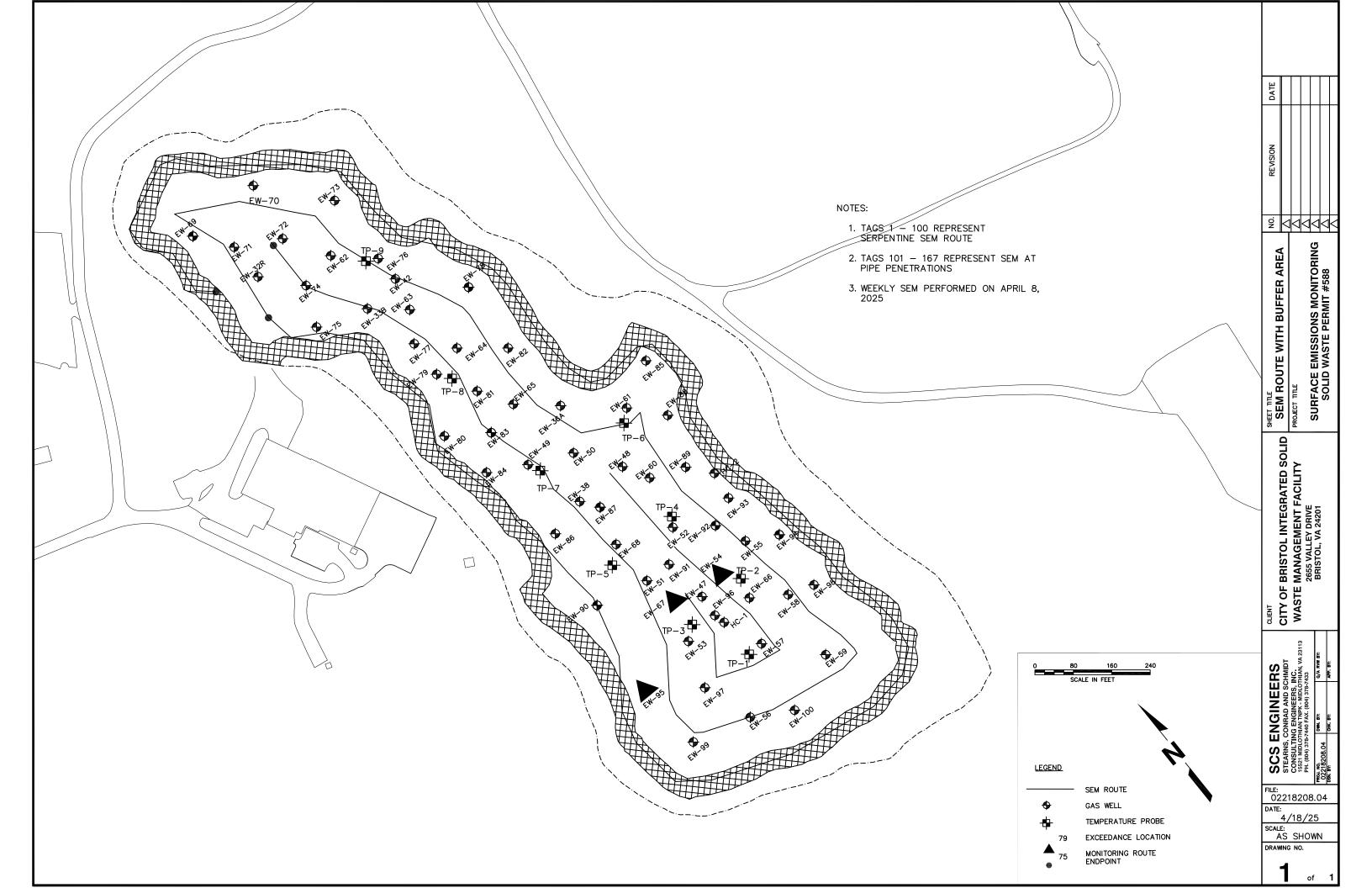
#### **NOTES:**

Points 1 through 100 represent serpentine SEM route.

Points 101 through 167 represent SEM at Pipe Penetrations

Weather Conditions: Mostly Sunny, 70°F Wind: None

Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm							
4/18/2025	9:27	ZERO	0.2	PPM			
4/8/2025	9:43	SPAN	500.0	PPM			
Background Reading:							
4/18/2025	9:48	Upwind	1.3	PPM			
4/8/2025	9:52	Downwind	0.0	PPM			



### SCS ENGINEERS

May 1, 2024 File No. 02218208.04

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

Subject: Weekly Surface Emissions Monitoring Event - April 25, 2024

Bristol Integrated Solid Waste Facility - Bristol, Virginia

#### Dear Mr. Chapman:

On behalf of the City of Bristol (City), SCS Engineers (SCS), is pleased to submit the results of the Weekly Surface Emissions Monitoring event performed at the Bristol Integrated Solid Waste Facility located in Bristol, Virginia on April 25, 2024. This Weekly Surface Emissions Monitoring (SEM) Event was performed in accordance with Appendix A.1.i of the Consent Decree between the Commonwealth of Virginia and the City of Bristol.

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

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

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



Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	167
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	67
Number of Exceedances	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	4/25/24 Event	4/25/24 Event Result	Comments
EW-82	3/29/24	1-Month Recheck	Passed	Exceedance Resolved
EW-90	4/2/24	2 <sup>nd</sup> 10-Day Recheck	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-67	4/11/24	2 <sup>nd</sup> 10-Day Recheck	Failed	Subject to 40 CFR 63.1960(c)(4)(v)

Mr. Jonathan Chapman May 1, 2024 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 J. Fabrie

Lucas S. Nachman Senior Project Professional SCS Engineers

Lucus D. Nachman

LSN/WJF/cjw

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	1.3 PPM	OK			Start Serpentine Route
2	2.3 PPM	OK			
3	1.1 PPM	OK			
4	1.1 PPM	OK			
5	1.0 PPM	OK			
6	1.0 PPM	OK			
7	1.0 PPM	OK			
8	1.3 PPM	OK			
9	0.9 PPM	OK			
10	0.9 PPM	OK			
11	0.9 PPM	OK			
12	0.8 PPM	OK			
13	1.0 PPM	OK			
14	0.9 PPM	OK			
15	0.9 PPM	OK			
16	0.8 PPM	OK			
1 <i>7</i>	1.8 PPM	OK			
18	1.9 PPM	OK			
19	26.2 PPM	OK			
20	9.7 PPM	OK			
21	1.5 PPM	OK			
22	1.2 PPM	OK			
23	1.0 PPM	OK			
24	3.3 PPM	OK			
25	46.0 PPM	OK			
26	1.3 PPM	OK			
27	0.7 PPM	OK			
28	0.8 PPM	OK			
29	0.6 PPM	OK			
30	0.5 PPM	OK			
31	34.1 PPM	OK			
32	13.1 PPM	OK			
33	59.5 PPM	OK			
34	158.0 PPM	OK			
35	2.2 PPM	OK			
36	15.5 PPM	OK			
37	27.9 PPM	OK			
38	35.8 PPM	OK			
39	3.2 PPM	OK			
40	6.5 PPM	OK			
41	3.4 PPM	OK			
42	1.2 PPM	OK			
43	0.7 PPM	OK			
44	2.9 PPM	OK			
45	1.1 PPM	OK			
46	1.5 PPM	OK			
47	0.3 PPM	OK			

		Methane	GPS Coordinates				
I	ID#	Concentration	Compliance	Lat.	Long.	Comments	
	48	0.2 PPM	OK				
	49	0.3 PPM	OK				
	50	0.2 PPM	OK				
	51	0.2 PPM	OK				
	52	0.2 PPM	OK				
	53	0.2 PPM	OK				
	54	0.2 PPM	OK				
	55	0.3 PPM	OK				
	56	0.2 PPM	OK				
	57	9.5 PPM	OK				
	58	2.4 PPM	OK				
	59	4.1 PPM	OK				
	60	6.6 PPM	OK				
	61	4.5 PPM	OK				
	62	17.4 PPM	OK				
	63	4.0 PPM	OK				
	64	0.6 PPM	OK				
	65	5.4 PPM	OK				
	66	6.3 PPM	OK				
	67	7.5 PPM	OK				
	68	0.9 PPM	OK				
	69	0.1 PPM	OK				
	70	1.5 PPM	OK				
	<i>7</i> 1	0.1 PPM	OK				
	72	0.2 PPM	OK				
	73	0.2 PPM	OK				
	74	1.5 PPM	OK				
	75	12.6 PPM	OK				
	76	1.5 PPM	OK				
	77	42.8 PPM	OK				
	78	0.2 PPM	OK				
	79	0.4 PPM	OK				
	80	0.2 PPM	OK				
	81	1.9 PPM	OK				
	82	489.0 PPM	OK				
	83	5.5 PPM	OK				
	84	9.1 PPM	OK				
	85	1.3 PPM	OK				
	86	4.3 PPM	OK				
	87	1.2 PPM	OK				
	88	0.4 PPM	OK				
	89	0.2 PPM	OK				
	90	0.0 PPM	OK				
	91	13.0 PPM	OK				
	92	44.0 PPM	OK				
	93	12.7 PPM	OK				
	94	13.3 PPM	OK				

# EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - APRIL 25, 2024 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

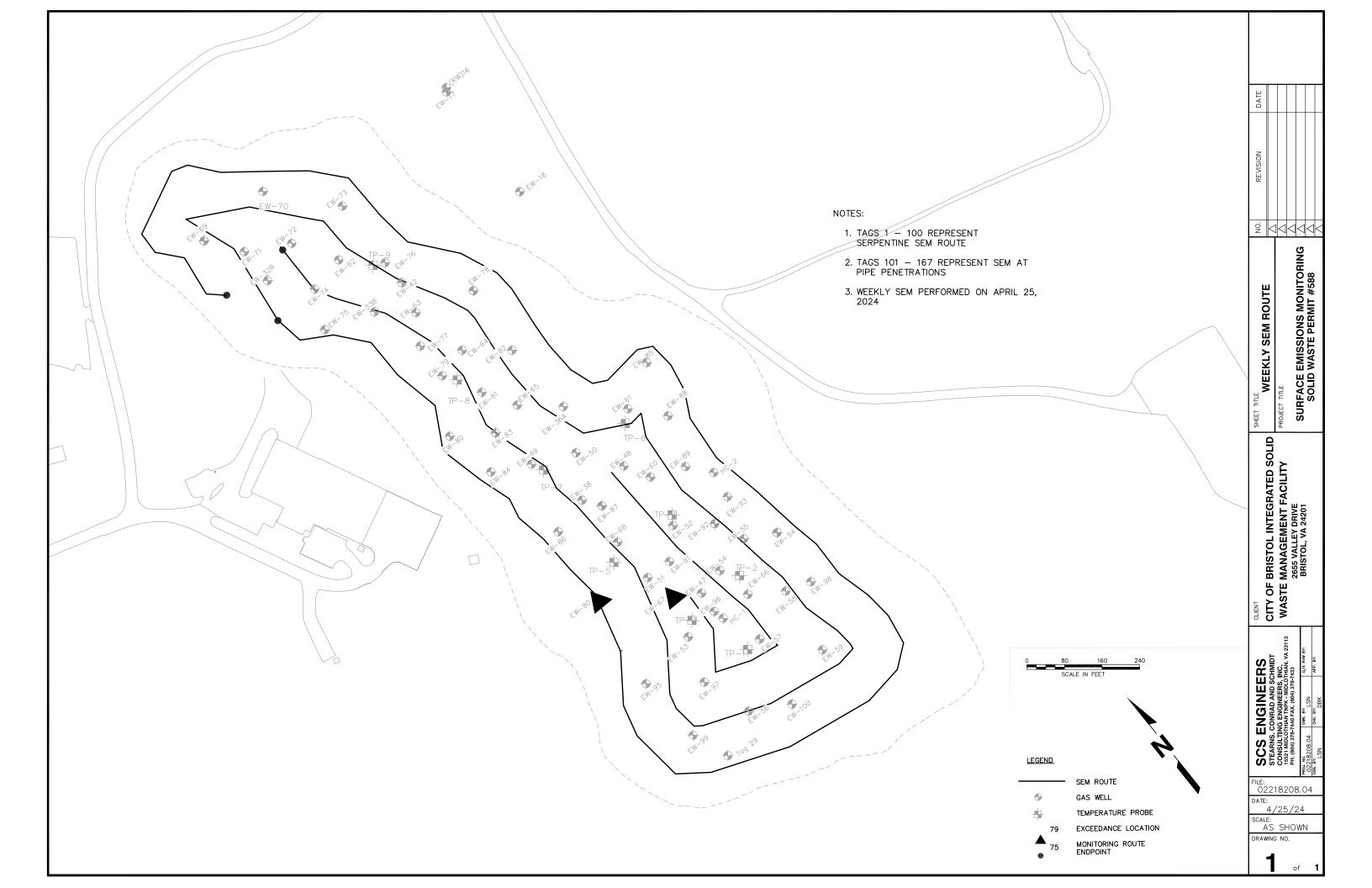
	Methane	GPS Coordinates			
ID#	Concentration	Compliance	Lat.	Long.	Comments
95	16.4 PPM	OK			
96	0.3 PPM	OK			
97	0.6 PPM	OK			
98	1.4 PPM	OK			
99	1.1 PPM	OK			
100	3.2 PPM	OK			End Serpentine Route
101	255.0 PPM	OK			EW-52
102	7.5 PPM	OK			TP-4
103	158.0 PPM	OK			EW-60
104	106.0 PPM	OK			EW-48
105	8.9 PPM	OK			TP-6
106	0.0 PPM	OK			EW-61
107	4.8 PPM	OK			EW-50
108	4529.0 PPM	HIGH_ALRM	36.59866	-82.14775	EW-67
109	0.3 PPM	OK			EW-47
110	0.2 PPM	OK			EW-54
111	1.1 PPM	OK			EW-55
112	12.3 PPM	OK			EW-92
113	430.0 PPM	OK			EW-91
114	3.7 PPM	OK			EW-96
115	1.0 PPM	OK			TP-2
116	10.4 PPM	OK			EW-66
11 <i>7</i>	0.0 PPM	OK			EW-58
118	1.0 PPM	OK			EW-57
119	3.6 PPM	OK			TP-1
120	39.3 PPM	OK			EW-59
121	53.5 PPM	OK			EW-100
122	115.0 PPM	OK			EW-56
123	1.0 PPM	OK			EW-97
124	0.0 PPM	OK			EW-53
125	0.1 PPM	OK			TP-3
126	70.1 PPM	OK			EW-51
127	3.8 PPM	OK			TP-5
128	5.0 PPM	OK			EW-68
129	27.7 PPM	OK			EW-87
130	40.5 PPM	OK			EW-38
131	180.0 PPM	OK			TP-7
132	1.9 PPM	OK			EW-49
133	0.0 PPM	OK			EW-83
134	0.9 PPM	OK			EW-65
135	0.0 PPM	OK			EW-81
136	0.0 PPM	OK			TP-8
137	0.0 PPM	OK			EW-64
138	0.1 PPM	OK			EW-63
139	0.0 PPM	OK			EW-42
140	7.4 PPM	OK			EW-76

# EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - APRIL 25, 2024 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

	Methane		GPS Co	ordinates	
ID#	Concentration	Compliance	Lat.	Long.	Comment
141	0.1 PPM	OK			TP-9
142	0.1 PPM	OK			EW-62
143	0.0 PPM	OK			EW-74
144	0.5 PPM	OK			EW-32R
145	0.0 PPM	OK			EW-69
146	0.3 PPM	OK			EW-71
147	0.0 PPM	OK			EW-72
148	4.0 PPM	OK			EW-73
149	0.7 PPM	OK			EW-78
150	8.2 PPM	OK			EW-82
151	0.1 PPM	OK			EW-36A
152	0.1 PPM	OK			EW-85
153	0.1 PPM	OK			EW-88
154	109.0 PPM	OK			EW-89
155	0.0 PPM	OK			EW-93
156	0.0 PPM	OK			EW-94
1 <i>57</i>	0.1 PPM	OK			EW-98
158	0.0 PPM	OK			EW-99
159	159.0 PPM	OK			EW-95
160	672.0 PPM	HIGH_ALRM	36.59893	-82.14826	EW-90
161	51.8 PPM	OK			EW-86
162	31.5 PPM	OK			EW-84
163	9.7 PPM	OK			EW-80
164	11.8 PPM	OK			EW-79
165	0.2 PPM	OK			EW-77
166	0.3 PPM	OK			EW-33B
167	0.4 PPM	OK			EW-75
	0.4 PPM	OK ations sampled:	167 2		

# EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - APRIL 25, 2024 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

Methane				GPS Coordinates					
ID#	Concentr	ration	Compliance	Lat.	Long.	Comments			
NOTES:									
Points 1 through	100 represen	nt serpentine	SEM route.						
-		•		ıs					
omis ioi mrou	Juli 10/ Teble:		Points 101 through 167 represent SEM at Pipe Penetrations Weather Conditions: Mostly Sunny, 68°F Wind: 5 MPH W						
	•		•						
	•		•						
Weather Condi	tions: Mostly Su	unny, 68°F W	•						
Weather Condi	tions: Mostly Su	unny, 68°F W	/ind: 5 MPH W						
Weather Condi	tions: Mostly Su	unny, 68°F W <u>e - 500 ppm</u>	/ind: 5 MPH W	<u>ppm</u>					
Weather Condi Sampling Calib 4/25/2024 4/25/2024	tions: Mostly Suration: Methano 13:03 13:08	unny, 68°F W <u>e - 500 ppm</u> ZERO	/ind: 5 MPH W , Zero Air - 0.0 0.1	<u>ppm</u> PPM					
Weather Condi Sampling Calib 4/25/2024	tions: Mostly Suration: Methano 13:03 13:08	unny, 68°F W <u>e - 500 ppm</u> ZERO	/ind: 5 MPH W , Zero Air - 0.0 0.1	<u>ppm</u> PPM					



### Appendix B

In-Waste Temperatures on Select Days in April

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Figure B - 39 Average Temperatures Recorded by TP-9 on April 23, 2025	
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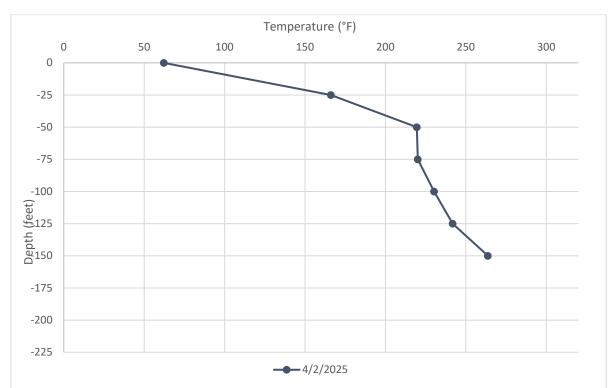
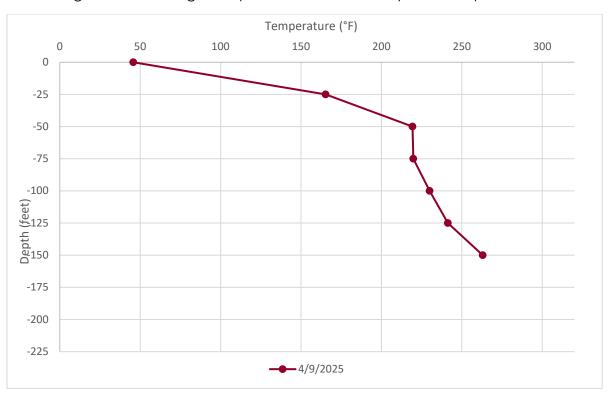


Figure B - 1 Average Temperatures Recorded by TP-1 on April 2, 2025





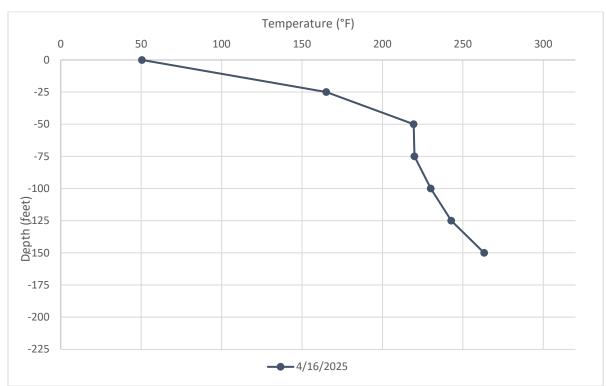
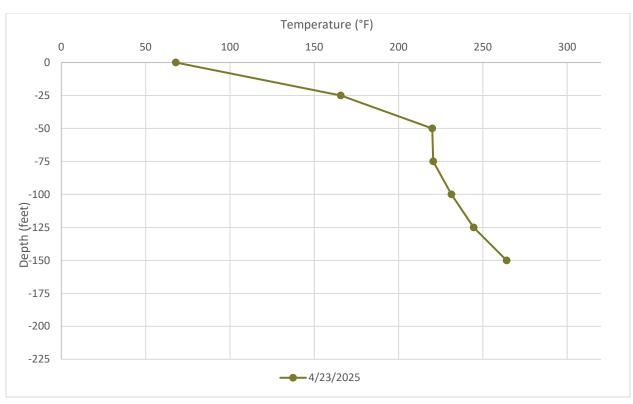


Figure B - 3 Average Temperatures Recorded by TP-1 on April 16, 2025





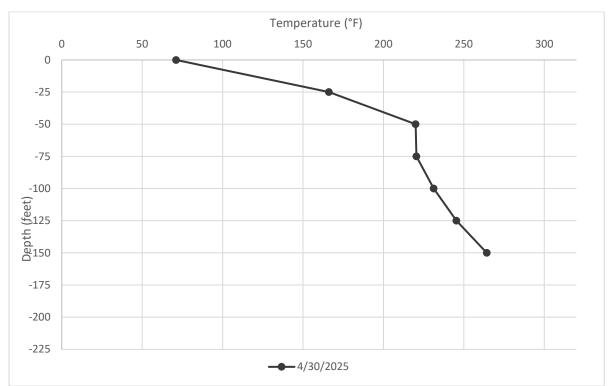


Figure B - 5 Average Temperatures Recorded by TP-1 on April 30, 2025

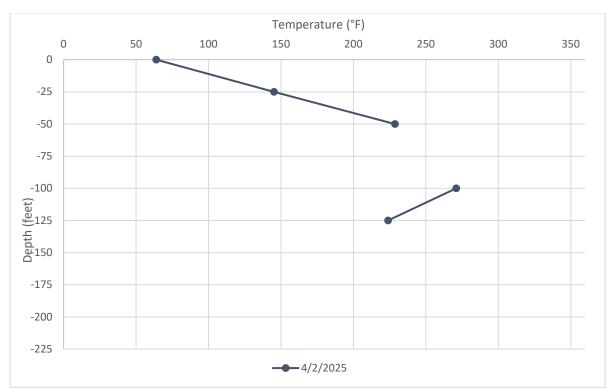
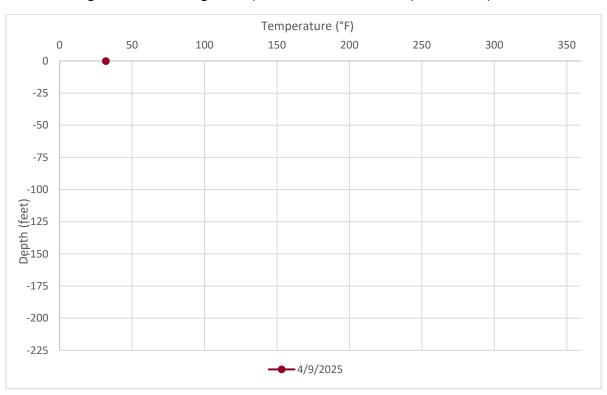


Figure B - 6 Average Temperatures Recorded by TP-2 on April 2, 2025





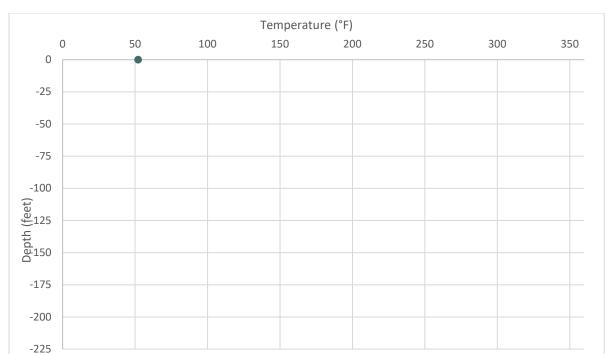
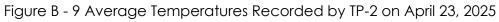
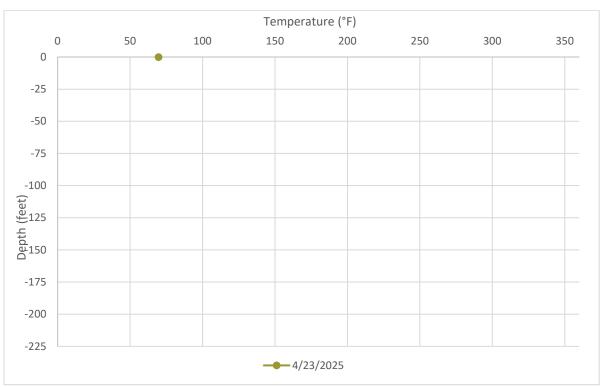


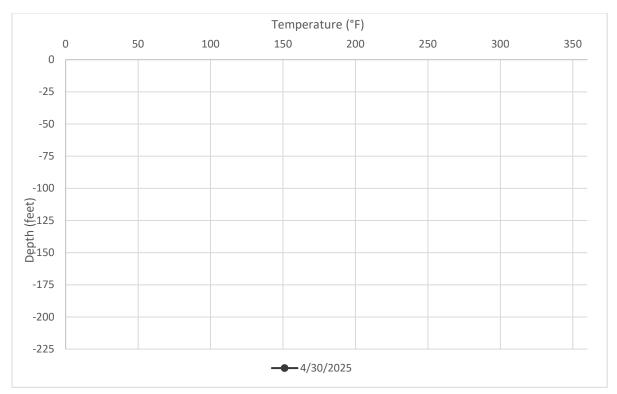
Figure B - 8 Average Temperatures Recorded by TP-2 on April 16, 2025



4/16/2025







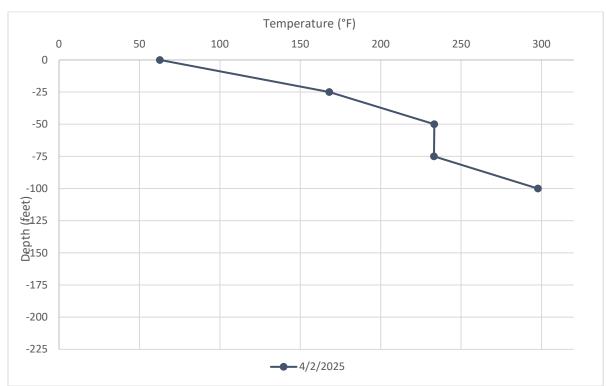
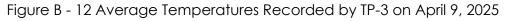
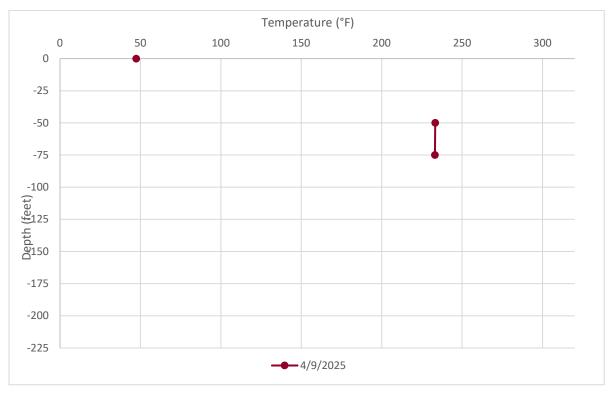


Figure B - 11 Average Temperatures Recorded by TP-3 on April 2, 2025





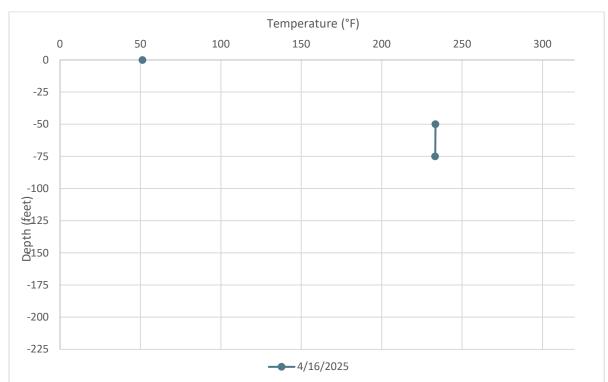
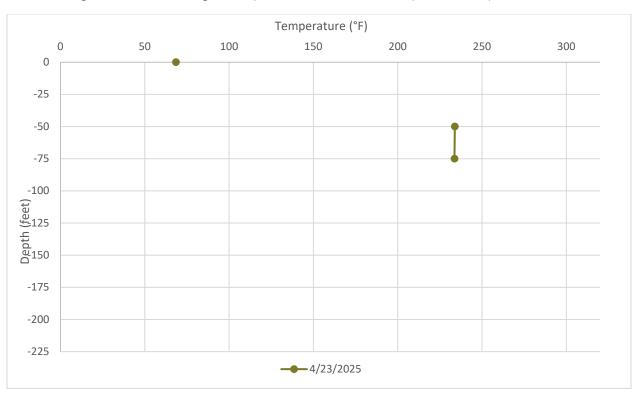


Figure B - 13 Average Temperatures Recorded by TP-3 on April 16, 2025

Figure B - 14 Average Temperatures Recorded by TP-3 on April 23, 2025



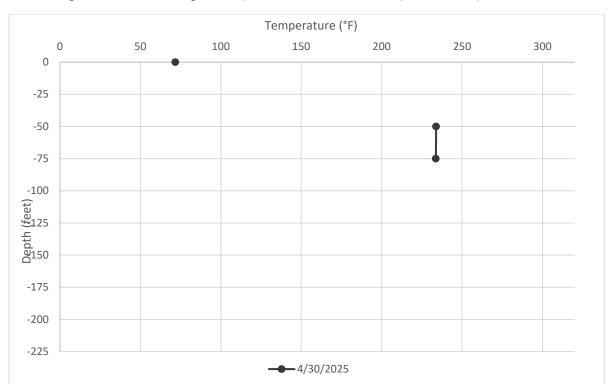


Figure B - 15 Average Temperatures Recorded by TP-3 on April 30, 2025

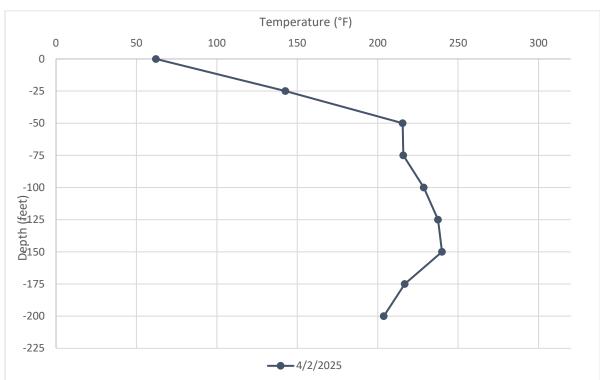
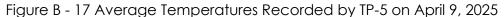
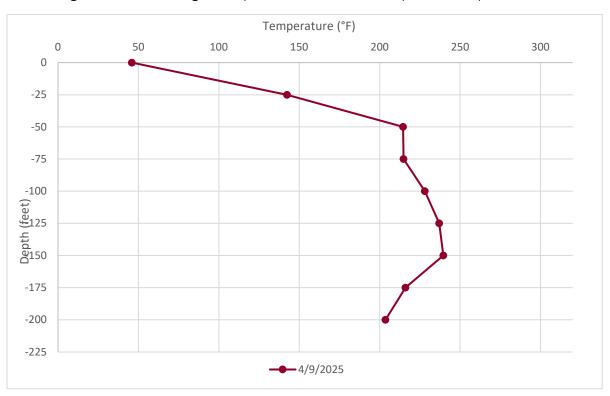


Figure B - 16 Average Temperatures Recorded by TP-5 on April 2, 2025





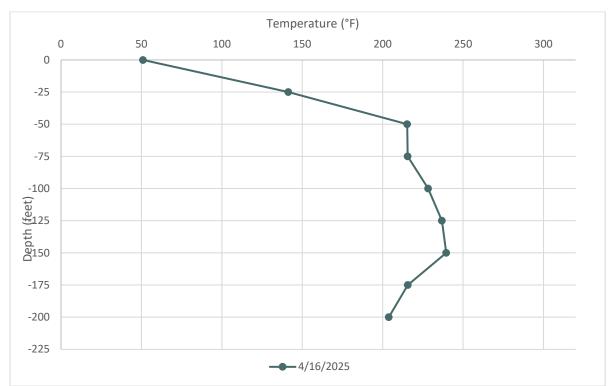
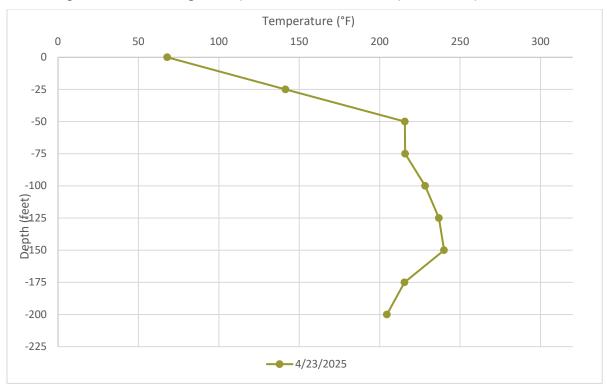


Figure B - 18 Average Temperatures Recorded by TP-5 on April 16, 2025

Figure B - 19 Average Temperatures Recorded by TP-5 on April 23, 2025



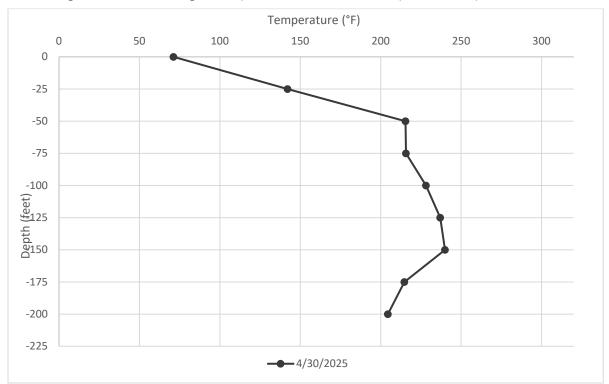


Figure B - 20 Average Temperatures Recorded by TP-5 on April 30, 2025

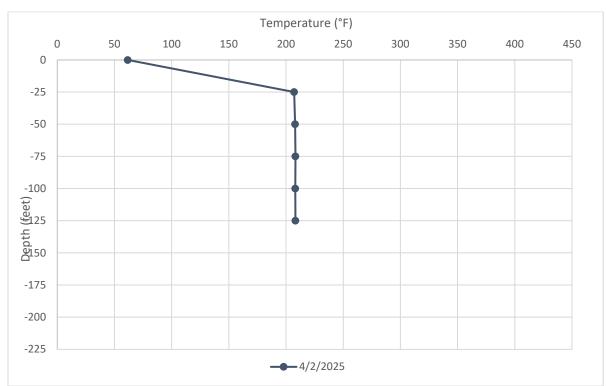
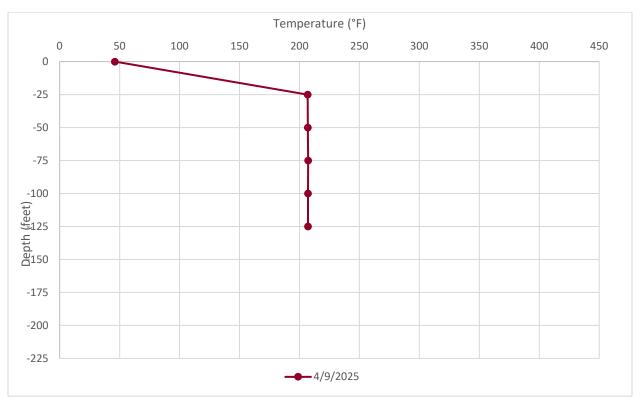


Figure B - 21 Average Temperatures Recorded by TP-6 on April 2, 2025





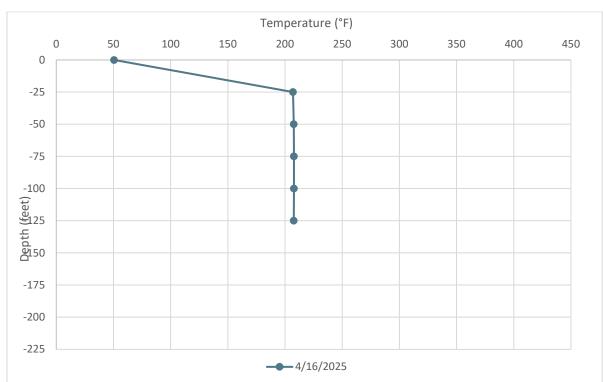
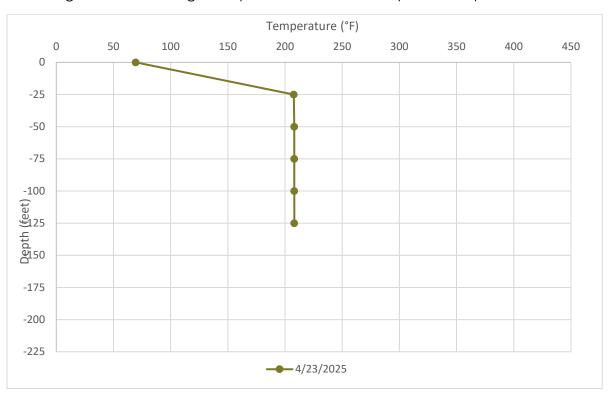


Figure B - 23 Average Temperatures Recorded by TP-6 on April 16, 2025

Figure B - 24 Average Temperatures Recorded by TP-6 on April 23, 2025



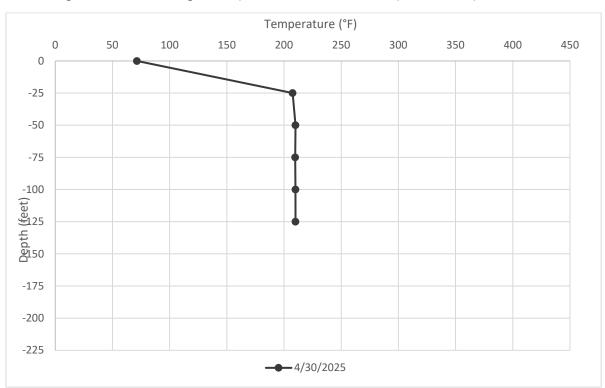


Figure B - 25 Average Temperatures Recorded by TP-6 on April 30, 2025

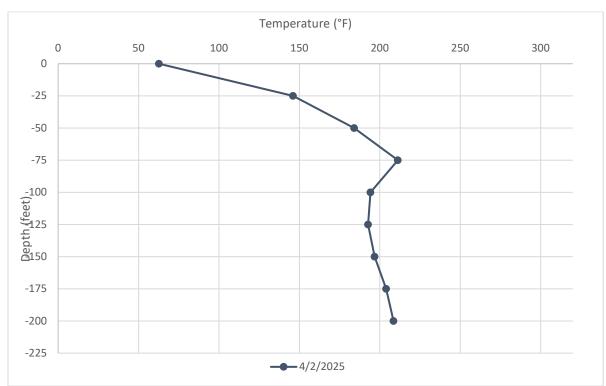
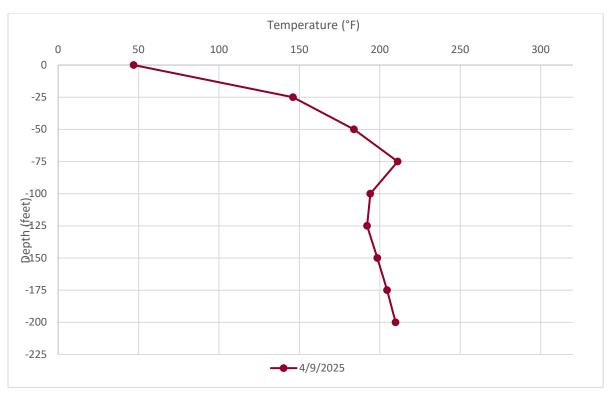


Figure B - 26 Average Temperatures Recorded by TP-7 on April 2, 2025





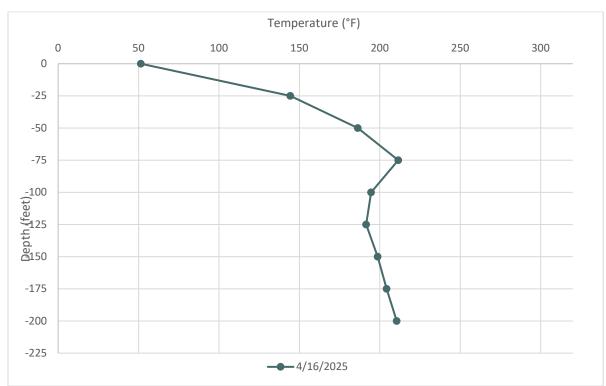
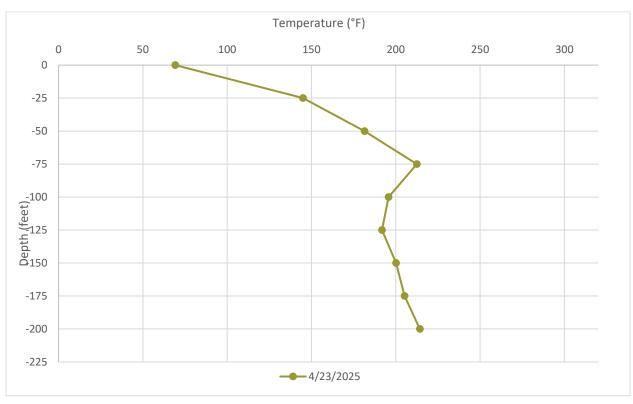


Figure B - 28 Average Temperatures Recorded by TP-7 on April 16, 2025





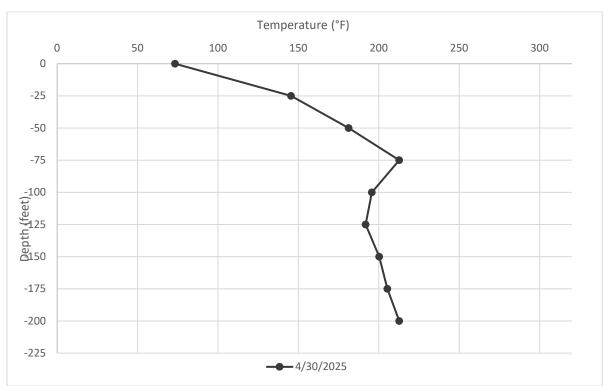


Figure B - 30 Average Temperatures Recorded by TP-7 on April 30, 2025

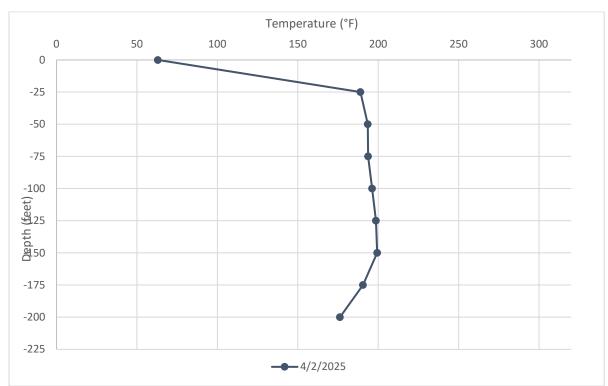
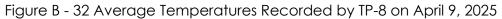
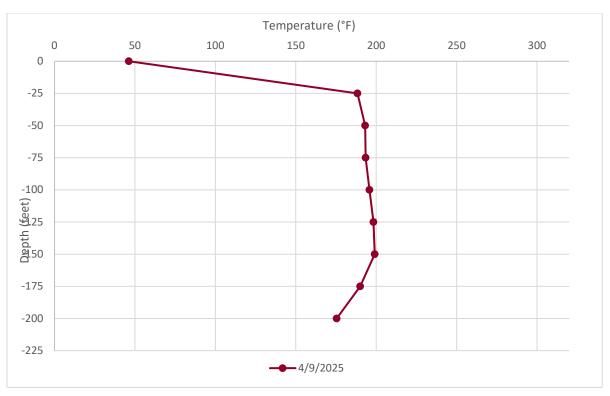


Figure B - 31 Average Temperatures Recorded by TP-8 on April 2, 2025





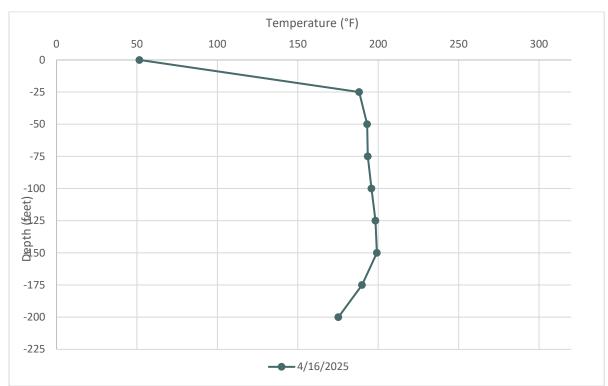
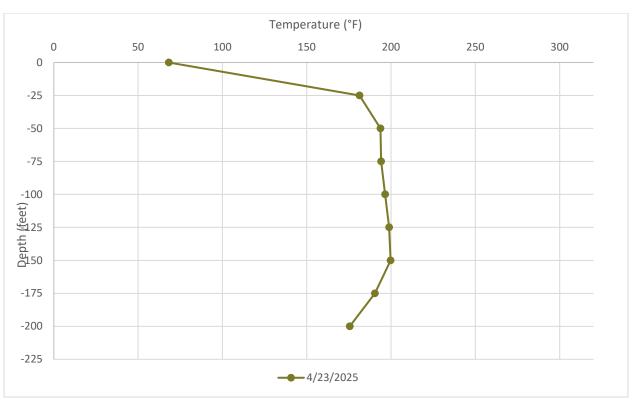


Figure B - 33 Average Temperatures Recorded by TP-8 on April 16, 2025





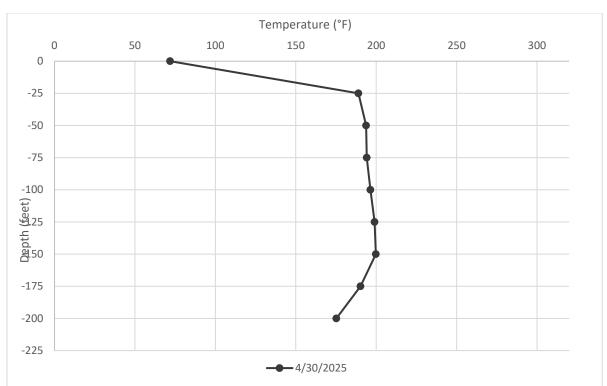


Figure B - 35 Average Temperatures Recorded by TP-8 on April 30, 2025

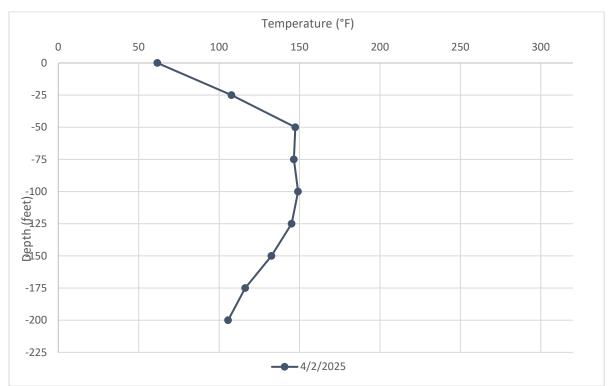
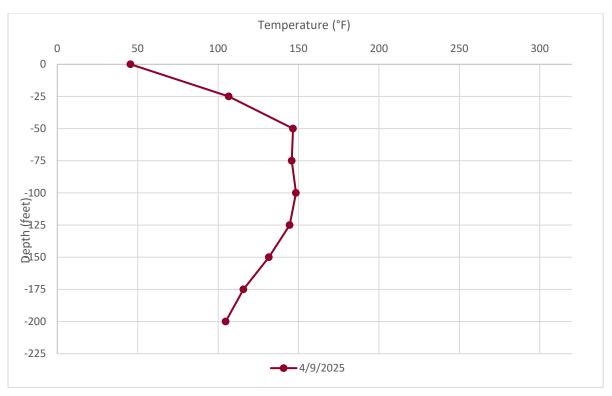


Figure B - 36 Average Temperatures Recorded by TP-9 on April 2, 2025





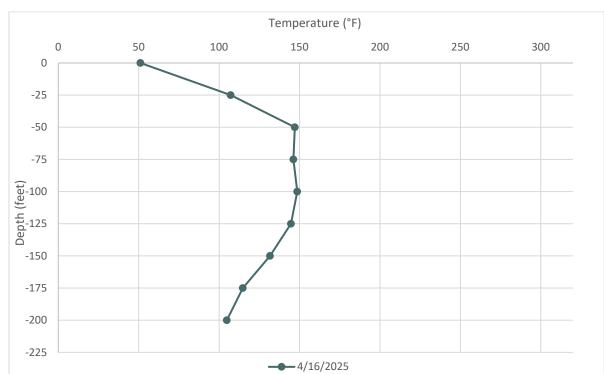
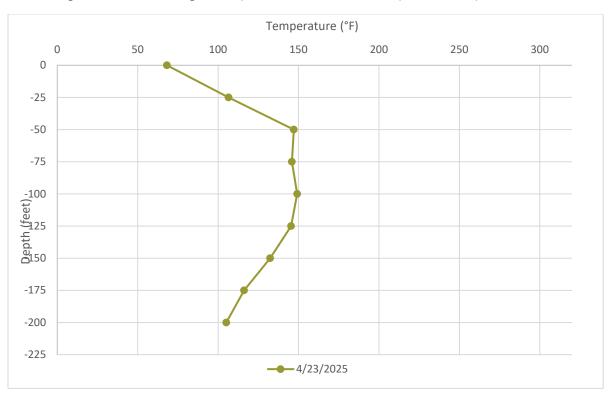


Figure B - 38 Average Temperatures Recorded by TP-9 on April 16, 2025

Figure B - 39 Average Temperatures Recorded by TP-9 on April 23, 2025



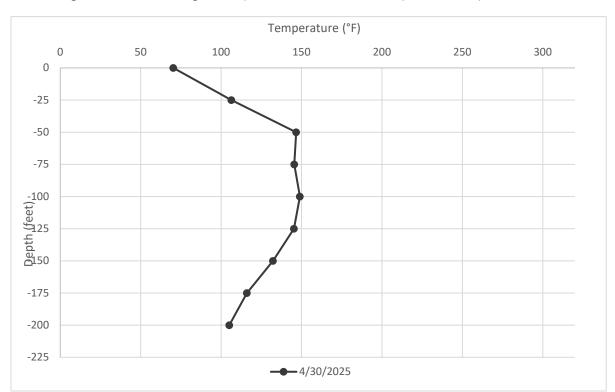


Figure B - 40 Average Temperatures Recorded by TP-9 on April 30, 2025

# Appendix C

## Daily Wellhead Temperature Averages

# Solid Waste Permit 588 Daily Wellhead Temperature Averages

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

# SCS ENGINEERS

07222143.00 | May 1, 2025

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

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

		., g	
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	103.9	99.0	110.9
Apr 2	107.9	104.4	112.2
Apr 3	109.5	107.4	113.5
Apr 4	110.0	107.0	113.4
Apr 5	111.7	108.7	116.8
Apr 6	109.5	105.0	112.6
Apr 7	106.7	102.4	111.0
Apr 8	93.4	38.6	104.5
Apr 9	80.0	29.3	106.4
Apr 10	100.4	95.3	105.5
Apr 11	97.4	92.3	102.6
Apr 12	95.4	91.8	102.2
Apr 13	99.3	92.7	105.1
Apr 14	103.5	98.1	109.6
Apr 15	99.5	94.2	104.4
Apr 16	98.5	93.1	105.3
Apr 17	100.8	92.9	107.4
Apr 18	103.6	97.6	110.7
Apr 19	103.7	99.8	108.9
Apr 20	106.0	99.9	113.0
Apr 21	105.0	98.3	110.9
Apr 22	102.1	99.3	106.2
Apr 23	102.8	97.5	109.9
Apr 24	102.5	99.6	105.7
Apr 25	103.3	98.4	108.7
Apr 26	101.3	93.4	107.5
Apr 27	98.9	93.5	106.7
Apr 28	102.7	96.4	109.5
Apr 29	103.8	97.5	110.4
Apr 30	104.8	100.3	110.8
Summary	102.3	80.0	111.7

# Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 33B

		.,	
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	100.8	90.5	112.7
Apr 2	109.0	99.6	118.3
Apr 3	119.5	117.1	121.2
Apr 4	120.6	117.3	123.2
Apr 5	120.0	117.7	122.4
Apr 6	115.4	112.2	119.0
Apr 7	110.2	105.3	116.6
Apr 8	96.2	43.9	110.0
Apr 9	77.9	31.6	110.0
Apr 10	101.7	89.0	105.4
Apr 11	94.0	84.3	100.5
Apr 12	89.0	83.0	96.4
Apr 13	95.1	86.2	100.7
Apr 14	106.0	91.1	116.6
Apr 15	103.4	98.1	110.1
Apr 16	101.4	96.5	107.0
Apr 17	104.8	96.9	111.9
Apr 18	105.6	99.1	111.9
Apr 19	105.3	100.8	109.9
Apr 20	106.0	99.1	114.9
Apr 21	103.4	95.0	111.6
Apr 22	99.2	96.0	104.2
Apr 23	100.3	93.7	110.4
Apr 24	99.0	92.6	103.7
Apr 25	97.4	84.1	105.3
Apr 26	93.0	84.5	102.6
Apr 27	89.4	80.5	98.2
Apr 28	97.4	88.1	108.0
Apr 29	97.1	87.1	106.3
Apr 30	98.0	93.1	107.4
Summary	101.9	77.9	120.6

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

		, g	
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	57.7	45.3	82.8
Apr 2	67.2	50.9	86.1
Apr 3	75.8	64.9	91.9
Apr 4	78.3	62.9	95.4
Apr 5	78.2	62.3	99.8
Apr 6	67.8	62.3	74.3
Apr 7	58.2	49.6	62.8
Apr 8	52.0	43.5	66.0
Apr 9	55.3	35.4	80.4
Apr 10	53.1	47.3	72.1
Apr 11	48.9	44.3	53.6
Apr 12	47.9	41.3	66.0
Apr 13	54.7	35.3	79.0
Apr 14	66.7	45.3	91.0
Apr 15	60.9	53.1	70.7
Apr 16	58.0	43.9	77.8
Apr 17	62.4	40.9	86.3
Apr 18	70.9	49.5	98.2
Apr 19	72.1	55.6	93.7
Apr 20	77.3	58.2	104.2
Apr 21	72.9	58.3	93.3
Apr 22	68.1	62.2	81.9
Apr 23	74.6	59.6	100.4
Apr 24	70.6	62.8	84.5
Apr 25	70.2	62.6	86.1
Apr 26	69.2	58.3	85.4
Apr 27	65.6	51.4	86.9
Apr 28	73.6	56.8	98.3
Apr 29	73.2	55.4	94.9
Apr 30	75.3	66.6	94.9
Summary	65.9	47.9	78.3

# Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 38

		,,, gs.	
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	92.5	88.6	99.8
Apr 2	95.6	91.2	100.6
Apr 3	99.2	97.1	102.2
Apr 4	100.2	97.8	104.2
Apr 5	100.5	97.3	104.8
Apr 6	97.9	95.7	99.3
Apr 7	97.0	94.9	99.6
Apr 8	87.7	52.2	97.1
Apr 9	78.1	45.4	97.2
Apr 10	92.0	88.5	96.8
Apr 11	92.2	89.1	94.8
Apr 12	90.3	87.6	94.9
Apr 13	92.3	87.9	97.2
Apr 14	95.2	89.9	100.4
Apr 15	88.7	82.4	95.2
Apr 16	85.8	81.3	92.1
Apr 17	87.7	79.6	94.6
Apr 18	91.8	84.8	99.7
Apr 19	93.4	89.2	99.1
Apr 20	95.2	90.2	101.4
Apr 21	95.0	91.3	100.4
Apr 22	94.5	93.2	97.8
Apr 23	95.6	91.4	101.1
Apr 24	95.2	93.3	98.7
Apr 25	95.3	91.4	100.1
Apr 26	94.7	91.0	98.7
Apr 27	93.2	90.8	98.2
Apr 28	95.5	91.7	100.8
Apr 29	95.8	91.4	100.5
Apr 30	96.6	93.7	101.2
Summary	93.5	78.1	100.5

		.,	
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	100.0	95.7	106.2
Apr 2	103.3	99.2	107.5
Apr 3	106.1	104.2	108.6
Apr 4	106.7	104.3	109.9
Apr 5	106.9	104.4	110.6
Apr 6	104.3	102.9	106.1
Apr 7	102.1	99.3	104.1
Apr 8	97.1	56.1	111.5
Apr 9	92.4	48.1	111.7
Apr 10	108.7	106.9	110.7
Apr 11	108.0	107.1	109.1
Apr 12	107.6	106.7	109.2
Apr 13	108.4	106.5	110.7
Apr 14	109.8	107.7	112.2
Apr 15	108.3	106.7	109.9
Apr 16	107.7	105.5	110.1
Apr 17	108.7	106.0	111.3
Apr 18	109.7	107.0	112.4
Apr 19	109.8	107.8	111.9
Apr 20	110.3	107.9	113.2
Apr 21	109.9	108.2	112.8
Apr 22	110.2	109.2	111.8
Apr 23	110.7	109.1	113.0
Apr 24	110.6	109.7	112.2
Apr 25	110.3	108.4	112.1
Apr 26	110.0	107.6	112.2
Apr 27	109.7	107.9	112.0
Apr 28	110.7	109.0	112.9
Apr 29	110.7	108.7	112.9
Apr 30	110.9	109.6	113.3
Summary	107.3	92.4	110.9

Data	Avorago (°E)	Minimum (°E)	Mavimum (°E)
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	55.7	46.6	71.7
Apr 2	67.0	50.1	82.5
Apr 3	74.9	65.3	89.1
Apr 4	76.7	64.8	92.1
Apr 5	77.3	64.2	96.2
Apr 6	68.9	63.9	75.0
Apr 7	62.8	56.1	70.5
Apr 8	53.7	40.4	63.4
Apr 9	52.8	29.9	75.5
Apr 10	56.1	51.1	68.7
Apr 11	53.6	50.2	58.2
Apr 12	51.4	46.8	64.3
Apr 13	56.9	39.2	74.5
Apr 14	67.2	48.6	86.0
Apr 15	61.5	53.1	68.9
Apr 16	57.0	42.5	74.8
Apr 17	60.9	38.4	80.9
Apr 18	69.4	49.6	94.5
Apr 19	70.7	54.9	91.7
Apr 20	75.5	57.2	96.9
Apr 21	71.7	57.0	90.5
Apr 22	69.1	62.9	80.7
Apr 23	72.7	59.8	91.5
Apr 24	71.8	64.0	84.5
Apr 25	72.1	64.8	87.7
Apr 26	71.0	61.1	82.6
Apr 27	65.7	54.9	82.5
Apr 28	73.6	58.5	90.2
Apr 29	74.5	57.1	90.0
Apr 30	77.1	69.0	89.3
Summary	66.3	51.4	77.3

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	52.4	41.1	73.2
Apr 2	65.3	45.7	83.4
Apr 3	74.9	62.0	88.9
Apr 4	75.7	60.3	91.8
Apr 5	75.6	59.3	94.3
Apr 6	65.9	59.5	74.4
Apr 7	54.8	45.1	62.0
Apr 8	45.9	37.2	58.0
Apr 9	50.0	29.9	71.8
Apr 10	48.9	42.1	65.0
Apr 11	45.9	42.0	51.3
Apr 12	43.5	35.8	60.4
Apr 13	49.0	29.9	71.2
Apr 14	63.3	40.1	85.7
Apr 15	58.9	51.3	68.0
Apr 16	54.1	37.0	71.2
Apr 17	57.9	34.5	79.7
Apr 18	68.1	45.0	91.9
Apr 19	69.6	51.9	90.5
Apr 20	75.0	55.2	97.0
Apr 21	70.4	54.3	90.4
Apr 22	66.3	58.8	79.9
Apr 23	70.6	55.8	92.5
Apr 24	68.3	60.2	83.8
Apr 25	69.1	60.5	87.7
Apr 26	67.6	54.6	82.6
Apr 27	60.5	45.5	81.3
Apr 28	70.7	51.5	91.3
Apr 29	71.2	50.0	88.9
Apr 30	74.0	64.4	91.2
Summary	62.8	43.5	75.7

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	153.5	147.9	158.6
Apr 2	153.0	150.4	156.4
Apr 3	154.5	152.2	157.1
Apr 4	155.5	153.4	156.9
Apr 5	155.2	154.0	157.1
Apr 6	152.5	144.6	155.3
Apr 7	151.6	147.1	154.8
Apr 8	134.7	40.6	151.9
Apr 9	120.4	29.9	157.1
Apr 10	152.5	148.5	154.2
Apr 11	150.8	147.2	153.6
Apr 12	149.1	146.3	152.0
Apr 13	151.0	148.6	153.2
Apr 14	152.5	150.6	154.9
Apr 15	147.6	143.8	151.9
Apr 16	148.5	144.7	150.6
Apr 17	151.3	146.9	154.2
Apr 18	151.1	146.0	155.3
Apr 19	105.5	82.1	142.7
Apr 20	88.8	70.3	112.8
Apr 21	110.8	70.2	166.4
Apr 22	158.9	156.3	161.1
Apr 23	156.1	153.5	158.3
Apr 24	155.2	153.5	156.7
Apr 25	154.4	151.3	157.6
Apr 26	151.4	148.0	153.8
Apr 27	151.4	145.4	154.1
Apr 28	153.5	150.5	156.4
Apr 29	153.2	150.5	156.7
Apr 30	153.6	150.4	156.7
Summary	145.9	88.8	158.9

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	96.2	90.7	101.2
Apr 2	98.1	91.5	107.6
Apr 3	100.9	98.6	104.8
Apr 4	101.1	98.1	104.3
Apr 5	100.2	97.4	104.2
Apr 6	97.6	96.1	99.3
Apr 7	96.3	93.2	101.7
Apr 8	86.7	40.9	98.4
Apr 9	75.9	29.9	98.9
Apr 10	93.7	91.1	100.0
Apr 11	92.2	90.1	99.9
Apr 12	90.1	87.9	93.5
Apr 13	92.0	87.6	96.7
Apr 14	96.3	90.2	101.8
Apr 15	92.8	86.7	97.1
Apr 16	90.2	85.6	97.4
Apr 17	93.5	83.6	104.7
Apr 18	94.8	85.3	103.4
Apr 19	75.1	58.8	90.0
Apr 20	74.6	56.2	96.1
Apr 21	79.4	54.6	107.2
Apr 22	99.2	95.0	106.7
Apr 23	99.0	93.2	104.7
Apr 24	98.6	94.0	104.5
Apr 25	97.7	93.2	105.8
Apr 26	94.8	90.1	99.3
Apr 27	92.8	89.5	99.3
Apr 28	97.1	89.7	107.0
Apr 29	96.9	89.9	104.6
Apr 30	98.7	91.9	105.9
Summary	93.1	74.6	101.1

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	54.1	42.5	76.5
Apr 2	66.0	47.5	85.1
Apr 3	75.3	64.0	90.5
Apr 4	76.4	61.9	91.4
Apr 5	77.0	61.1	98.6
Apr 6	67.3	60.9	74.8
Apr 7	56.4	46.6	63.8
Apr 8	46.8	38.5	61.1
Apr 9	49.1	29.0	72.6
Apr 10	50.3	43.3	66.0
Apr 11	47.0	42.4	51.8
Apr 12	43.8	37.9	57.3
Apr 13	50.2	29.2	75.2
Apr 14	63.7	41.2	88.3
Apr 15	58.2	49.3	66.8
Apr 16	53.0	37.2	71.9
Apr 17	57.7	34.4	79.9
Apr 18	67.2	45.2	94.5
Apr 19	69.6	52.3	91.9
Apr 20	74.6	54.9	97.6
Apr 21	70.6	54.6	91.5
Apr 22	66.8	60.2	79.4
Apr 23	70.9	56.8	92.9
Apr 24	69.2	60.7	83.7
Apr 25	69.0	61.3	87.2
Apr 26	68.1	56.7	82.2
Apr 27	60.7	47.5	81.9
Apr 28	70.1	53.2	92.0
Apr 29	70.7	50.8	91.3
Apr 30	74.4	65.7	89.5
Summary	63.2	43.8	77.0

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	141.9	132.0	147.1
Apr 2	142.6	137.9	147.8
Apr 3	139.8	137.1	142.5
Apr 4	140.6	137.4	143.4
Apr 5	145.1	138.0	150.5
Apr 6	147.0	142.5	149.8
Apr 7	144.0	129.0	160.8
Apr 8	127.0	94.2	150.3
Apr 9	119.7	77.5	136.4
Apr 10	132.0	125.2	135.2
Apr 11	129.1	111.4	134.9
Apr 12	131.7	128.5	135.6
Apr 13	136.6	133.5	139.5
Apr 14	137.1	118.6	141.1
Apr 15	112.2	75.1	139.9
Apr 16	110.4	75.5	133.9
Apr 17	127.4	110.0	139.4
Apr 18	140.7	137.4	144.9
Apr 19	142.9	139.9	145.2
Apr 20	145.6	142.4	149.4
Apr 21	146.2	143.0	149.4
Apr 22	146.5	144.8	148.7
Apr 23	147.7	144.6	151.2
Apr 24	148.4	146.6	150.0
Apr 25	148.9	146.6	150.9
Apr 26	148.0	146.0	149.5
Apr 27	147.4	145.4	149.6
Apr 28	147.9	112.3	151.4
Apr 29	150.2	147.6	152.7
Apr 30	151.7	150.1	154.0
Summary	139.2	110.4	151.7

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	80.6	64.2	103.5
Apr 2	92.9	77.0	109.6
Apr 3	101.0	94.2	113.2
Apr 4	105.2	94.7	118.8
Apr 5	108.1	96.0	124.1
Apr 6	98.9	90.0	104.6
Apr 7	83.2	71.6	100.3
Apr 8	74.9	66.5	89.8
Apr 9	82.1	59.4	104.5
Apr 10	82.3	72.6	97.6
Apr 11	72.6	64.6	81.0
Apr 12	71.0	63.2	87.4
Apr 13	80.8	60.3	101.4
Apr 14	92.5	72.8	113.5
Apr 15	82.2	73.0	93.3
Apr 16	81.8	69.6	100.0
Apr 17	88.7	64.1	111.0
Apr 18	98.6	79.3	120.2
Apr 19	101.3	87.1	118.7
Apr 20	104.5	89.5	123.3
Apr 21	101.2	86.7	119.2
Apr 22	98.8	92.4	110.8
Apr 23	103.0	90.6	122.1
Apr 24	101.0	94.9	112.5
Apr 25	101.1	87.5	115.3
Apr 26	90.7	77.8	104.5
Apr 27	86.1	70.2	105.8
Apr 28	95.5	79.1	114.7
Apr 29	98.9	80.9	116.8
Apr 30	101.7	92.9	113.5
Summary	92.0	71.0	108.1

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	56.0	44.6	76.1
Apr 2	67.6	49.8	85.7
Apr 3	77.0	67.4	91.3
Apr 4	78.0	65.1	92.1
Apr 5	79.1	64.7	98.7
Apr 6	69.4	63.4	76.3
Apr 7	60.8	51.2	68.2
Apr 8	51.2	40.8	63.9
Apr 9	51.8	29.5	75.7
Apr 10	54.5	48.3	69.9
Apr 11	51.6	48.0	55.3
Apr 12	49.6	44.1	62.6
Apr 13	56.4	37.0	79.0
Apr 14	71.4	49.5	94.0
Apr 15	66.4	58.1	77.4
Apr 16	63.5	50.8	82.1
Apr 17	67.4	43.6	87.9
Apr 18	78.9	55.8	104.0
Apr 19	81.3	65.6	98.9
Apr 20	85.9	67.0	107.0
Apr 21	81.9	69.2	99.4
Apr 22	82.4	73.9	94.0
Apr 23	86.0	73.1	106.2
Apr 24	81.3	74.3	92.3
Apr 25	80.9	71.0	96.6
Apr 26	80.0	67.2	93.9
Apr 27	74.5	63.8	94.0
Apr 28	83.9	68.6	103.1
Apr 29	82.3	64.5	99.4
Apr 30	82.2	71.7	96.2
Summary	71.1	49.6	86.0

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	109.4	101.3	119.2
Apr 2	113.0	108.6	129.3
Apr 3	114.1	110.8	117.7
Apr 4	116.2	113.1	119.7
Apr 5	117.0	114.5	121.5
Apr 6	113.1	103.4	117.3
Apr 7	109.9	104.5	115.9
Apr 8	96.5	50.0	107.9
Apr 9	93.8	43.8	117.6
Apr 10	106.3	98.1	114.2
Apr 11	101.7	95.0	107.4
Apr 12	101.2	95.4	108.5
Apr 13	102.6	95.9	111.3
Apr 14	107.0	99.2	115.6
Apr 15	96.5	90.4	109.1
Apr 16	100.7	92.0	109.4
Apr 17	109.3	97.1	120.9
Apr 18	114.0	105.3	125.4
Apr 19	115.4	109.8	121.4
Apr 20	119.2	111.6	129.5
Apr 21	119.0	113.2	128.6
Apr 22	119.2	116.4	121.6
Apr 23	119.2	113.5	127.6
Apr 24	116.9	114.6	120.7
Apr 25	115.8	105.5	120.7
Apr 26	113.3	108.8	118.4
Apr 27	113.7	109.7	120.7
Apr 28	116.9	112.9	123.8
Apr 29	117.3	112.2	122.8
Apr 30	119.0	115.7	126.4
Summary	110.9	93.8	119.2

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	151.7	148.9	156.0
Apr 2	153.3	151.7	155.3
Apr 3	154.5	153.7	155.8
Apr 4	154.6	153.6	156.1
Apr 5	155.5	154.1	157.9
Apr 6	154.7	151.3	155.9
Apr 7	153.9	152.3	156.0
Apr 8	149.0	133.2	153.5
Apr 9	151.2	138.2	157.0
Apr 10	154.7	151.5	155.7
Apr 11	153.9	152.3	155.1
Apr 12	153.3	151.8	155.4
Apr 13	154.0	152.4	155.4
Apr 14	155.0	153.6	157.0
Apr 15	152.5	150.8	155.1
Apr 16	152.6	149.6	154.9
Apr 17	153.7	150.4	155.8
Apr 18	154.5	152.8	157.8
Apr 19	154.4	152.8	156.8
Apr 20	155.3	153.2	158.0
Apr 21	155.0	153.4	156.8
Apr 22	154.7	152.2	155.9
Apr 23	155.1	152.6	158.1
Apr 24	155.5	154.3	156.6
Apr 25	155.5	152.4	157.8
Apr 26	154.1	150.8	156.3
Apr 27	154.1	152.1	157.3
Apr 28	155.5	152.6	158.5
Apr 29	156.3	154.2	159.1
Apr 30	156.8	155.5	158.6
Summary	154.2	149.0	156.8

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	68.5	56.9	89.3
Apr 2	78.5	61.0	95.6
Apr 3	86.4	78.3	99.6
Apr 4	89.5	77.1	105.7
Apr 5	90.3	75.8	108.7
Apr 6	78.4	71.8	85.6
Apr 7	68.8	58.6	76.0
Apr 8	60.1	48.0	76.6
Apr 9	62.0	37.8	88.5
Apr 10	63.7	56.0	80.9
Apr 11	58.7	53.3	63.9
Apr 12	56.8	49.7	72.3
Apr 13	63.2	40.6	87.3
Apr 14	76.1	56.2	98.2
Apr 15	68.5	59.5	78.2
Apr 16	64.9	50.0	82.4
Apr 17	68.9	42.7	91.7
Apr 18	77.8	55.4	102.5
Apr 19	80.0	62.7	101.1
Apr 20	84.7	65.4	107.0
Apr 21	81.4	64.5	100.4
Apr 22	78.1	71.3	92.8
Apr 23	81.7	66.7	103.0
Apr 24	79.2	71.0	94.0
Apr 25	79.5	69.6	98.2
Apr 26	76.8	66.0	92.2
Apr 27	71.2	58.2	90.2
Apr 28	80.1	62.8	99.8
Apr 29	80.5	59.8	99.6
Apr 30	84.7	75.0	100.0
Summary	74.6	56.8	90.3

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	79.5	72.8	89.0
Apr 2	87.1	78.1	93.7
Apr 3	92.4	88.6	97.2
Apr 4	93.3	88.9	98.6
Apr 5	93.1	87.8	99.4
Apr 6	87.6	82.5	92.6
Apr 7	82.1	76.3	87.4
Apr 8	72.5	44.2	78.9
Apr 9	70.4	33.3	94.4
Apr 10	84.7	80.7	88.7
Apr 11	81.0	77.2	84.4
Apr 12	79.5	75.4	84.8
Apr 13	83.1	75.1	89.8
Apr 14	89.0	80.7	96.5
Apr 15	83.5	80.5	91.5
Apr 16	82.4	78.2	87.9
Apr 17	85.5	73.5	95.8
Apr 18	89.9	80.7	100.0
Apr 19	91.0	82.9	98.4
Apr 20	93.3	84.8	101.8
Apr 21	91.5	84.7	98.5
Apr 22	91.0	88.4	96.0
Apr 23	92.2	87.1	100.3
Apr 24	91.9	88.5	96.6
Apr 25	90.9	85.9	96.5
Apr 26	89.4	84.8	94.5
Apr 27	87.0	82.2	94.8
Apr 28	91.2	84.3	98.2
Apr 29	91.4	83.2	98.5
Apr 30	94.1	89.5	100.1
Summary	87.1	70.4	94.1

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	105.5	104.3	107.1
Apr 2	106.3	104.1	109.5
Apr 3	107.1	106.0	108.4
Apr 4	107.5	105.7	109.2
Apr 5	107.3	105.9	108.6
Apr 6	106.0	105.3	107.0
Apr 7	105.4	104.4	106.2
Apr 8	95.2	39.5	104.9
Apr 9	85.9	29.4	108.8
Apr 10	104.4	103.6	105.1
Apr 11	104.1	103.7	104.7
Apr 12	103.9	103.3	104.8
Apr 13	104.4	102.8	105.5
Apr 14	105.6	104.0	106.8
Apr 15	104.8	104.0	105.8
Apr 16	105.1	103.9	106.1
Apr 17	105.9	103.2	108.1
Apr 18	106.8	104.9	108.6
Apr 19	107.3	105.5	108.9
Apr 20	107.8	106.2	109.6
Apr 21	107.6	106.0	109.1
Apr 22	107.5	106.9	109.3
Apr 23	107.8	106.4	109.4
Apr 24	107.8	106.9	108.7
Apr 25	107.8	106.7	108.9
Apr 26	107.8	106.6	108.8
Apr 27	107.6	106.5	109.1
Apr 28	112.8	107.0	118.4
Apr 29	118.7	116.7	120.2
Apr 30	120.1	119.3	121.4
Summary	106.4	85.9	120.1

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	122.4	113.2	146.4
Apr 2	129.5	116.6	155.6
Apr 3	126.0	121.7	146.1
Apr 4	127.1	122.7	149.1
Apr 5	124.9	122.8	128.3
Apr 6	121.9	119.5	123.9
Apr 7	124.5	115.7	154.8
Apr 8	118.2	86.3	145.5
Apr 9	110.1	34.4	138.3
Apr 10	117.0	112.9	139.1
Apr 11	116.5	109.1	150.9
Apr 12	108.8	105.3	112.9
Apr 13	108.2	102.6	113.7
Apr 14	113.0	105.6	135.9
Apr 15	105.2	102.7	110.1
Apr 16	108.8	101.4	138.2
Apr 17	114.9	100.6	141.6
Apr 18	116.4	105.7	145.4
Apr 19	114.2	110.0	118.2
Apr 20	116.2	111.0	122.8
Apr 21	117.5	110.8	145.1
Apr 22	123.2	111.2	150.2
Apr 23	119.3	113.3	138.0
Apr 24	125.8	113.9	149.0
Apr 25	119.8	111.9	145.2
Apr 26	115.3	111.8	120.3
Apr 27	114.4	109.1	120.0
Apr 28	122.2	113.8	147.6
Apr 29	121.5	113.6	149.2
Apr 30	126.6	117.5	151.4
Summary	118.3	105.2	129.5

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	108.1	94.1	125.0
Apr 2	150.5	108.2	184.8
Apr 3	179.3	178.4	180.7
Apr 4	178.0	177.6	178.4
Apr 5	177.5	176.8	178.3
Apr 6	176.6	175.9	177.6
Apr 7	173.8	171.8	176.9
Apr 8	174.0	169.5	187.2
Apr 9	176.6	170.8	187.6
Apr 10	170.3	168.8	171.2
Apr 11	168.5	166.6	170.3
Apr 12	167.2	166.3	168.3
Apr 13	168.1	166.7	169.4
Apr 14	168.6	167.3	169.6
Apr 15	169.1	167.7	171.3
Apr 16	170.3	169.1	171.6
Apr 17	170.9	169.5	172.0
Apr 18	171.6	170.1	173.1
Apr 19	172.1	171.5	172.7
Apr 20	172.2	171.3	173.2
Apr 21	171.2	169.4	172.1
Apr 22	170.0	169.4	170.9
Apr 23	169.9	168.7	171.3
Apr 24	169.9	169.5	170.4
Apr 25	169.8	168.9	170.6
Apr 26	168.5	166.5	169.3
Apr 27	167.2	165.7	168.6
Apr 28	168.1	166.8	169.7
Apr 29	169.0	167.4	170.4
Apr 30	169.9	169.0	171.2
Summary	168.6	108.1	179.3

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	87.0	77.6	100.4
Apr 2	93.5	85.7	101.5
Apr 3	101.0	97.4	106.0
Apr 4	102.8	99.1	107.6
Apr 5	103.4	98.7	111.0
Apr 6	98.0	95.0	101.6
Apr 7	91.8	83.8	98.0
Apr 8	79.8	41.2	92.3
Apr 9	68.8	30.9	95.9
Apr 10	81.9	74.6	91.3
Apr 11	77.9	74.1	81.5
Apr 12	75.5	70.4	86.7
Apr 13	79.8	69.2	91.3
Apr 14	86.8	75.8	98.7
Apr 15	82.1	75.8	88.3
Apr 16	79.1	70.5	91.2
Apr 17	82.3	69.0	93.7
Apr 18	87.1	75.4	100.4
Apr 19	88.2	79.2	98.7
Apr 20	90.5	79.9	102.8
Apr 21	94.8	81.1	111.3
Apr 22	104.1	102.3	105.8
Apr 23	103.2	101.0	106.6
Apr 24	101.8	100.2	104.1
Apr 25	101.1	98.1	104.3
Apr 26	99.9	95.7	103.7
Apr 27	98.5	95.6	102.4
Apr 28	100.8	97.8	104.6
Apr 29	100.6	96.9	104.3
Apr 30	101.2	99.0	104.9
Summary	91.4	68.8	104.1

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	70.1	58.1	90.0
Apr 2	79.3	65.8	92.4
Apr 3	87.6	81.4	96.7
Apr 4	90.0	81.5	100.6
Apr 5	90.0	80.3	101.4
Apr 6	81.2	76.1	86.8
Apr 7	71.9	62.4	78.5
Apr 8	61.9	40.1	75.2
Apr 9	59.6	29.4	86.4
Apr 10	67.6	61.7	80.9
Apr 11	61.8	56.0	66.6
Apr 12	58.8	52.4	73.2
Apr 13	63.7	43.7	83.5
Apr 14	75.7	58.6	92.6
Apr 15	69.8	62.0	78.3
Apr 16	65.8	52.9	81.6
Apr 17	68.8	48.6	87.5
Apr 18	76.8	60.0	94.2
Apr 19	79.2	65.2	93.8
Apr 20	81.8	67.5	97.9
Apr 21	82.1	67.7	99.3
Apr 22	85.9	80.8	95.0
Apr 23	88.3	79.3	100.6
Apr 24	87.1	82.1	94.6
Apr 25	86.2	77.4	96.7
Apr 26	84.0	75.1	95.9
Apr 27	80.3	70.5	93.3
Apr 28	86.5	76.2	98.9
Apr 29	86.3	73.5	98.8
Apr 30	88.3	82.1	99.8
Summary	77.2	58.8	90.0

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	105.8	97.6	114.2
Apr 2	110.8	105.5	115.6
Apr 3	116.3	112.6	119.1
Apr 4	118.1	114.8	122.6
Apr 5	118.4	115.1	122.4
Apr 6	113.0	108.0	117.9
Apr 7	108.1	102.5	113.9
Apr 8	95.9	40.1	116.9
Apr 9	95.1	29.3	124.7
Apr 10	117.3	109.2	121.7
Apr 11	111.8	106.6	118.3
Apr 12	110.0	105.7	115.2
Apr 13	114.1	107.5	119.7
Apr 14	117.0	111.4	123.2
Apr 15	110.6	106.7	116.8
Apr 16	110.1	104.3	116.8
Apr 17	114.6	102.9	122.0
Apr 18	116.3	108.4	123.5
Apr 19	116.2	111.5	122.6
Apr 20	117.6	111.0	126.4
Apr 21	117.6	112.3	125.1
Apr 22	120.2	118.4	124.6
Apr 23	120.9	116.2	127.1
Apr 24	120.8	117.8	123.8
Apr 25	119.6	113.4	124.0
Apr 26	116.0	109.8	121.3
Apr 27	115.2	109.3	122.0
Apr 28	120.0	115.7	125.5
Apr 29	119.8	114.6	124.7
Apr 30	121.0	115.9	127.4
Summary	114.3	95.1	121.0

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	137.9	135.9	140.2
Apr 2	137.4	129.4	139.2
Apr 3	139.6	138.3	140.6
Apr 4	140.4	139.1	141.6
Apr 5	140.8	139.9	142.6
Apr 6	139.9	138.9	141.3
Apr 7	138.7	137.1	140.8
Apr 8	129.9	77.6	138.1
Apr 9	112.9	32.3	141.8
Apr 10	138.6	134.2	140.2
Apr 11	137.0	134.2	139.3
Apr 12	134.2	131.9	136.2
Apr 13	131.9	128.7	134.4
Apr 14	133.9	128.8	138.2
Apr 15	129.3	124.7	134.2
Apr 16	128.4	124.3	132.6
Apr 17	134.4	127.6	140.1
Apr 18	139.8	135.9	143.9
Apr 19	138.3	136.8	140.7
Apr 20	136.4	133.2	139.3
Apr 21	139.1	133.6	144.2
Apr 22	140.8	140.1	141.7
Apr 23	140.2	138.0	142.0
Apr 24	136.8	130.2	140.3
Apr 25	137.6	134.5	140.8
Apr 26	138.2	133.9	139.9
Apr 27	133.8	132.3	135.7
Apr 28	137.8	132.7	142.1
Apr 29	139.9	137.5	141.9
Apr 30	138.7	135.5	141.0
Summary	136.1	112.9	140.8

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	117.9	105.4	130.4
Apr 2	119.2	112.5	125.0
Apr 3	125.5	117.5	130.0
Apr 4	129.1	124.5	134.6
Apr 5	126.8	122.8	131.2
Apr 6	115.8	96.9	127.5
Apr 7	115.7	108.2	124.2
Apr 8	115.9	66.9	133.5
Apr 9	111.1	48.1	142.7
Apr 10	133.4	120.3	139.1
Apr 11	127.7	116.5	136.4
Apr 12	125.7	116.2	130.9
Apr 13	128.2	119.8	135.5
Apr 14	131.9	127.1	139.4
Apr 15	114.7	102.9	134.3
Apr 16	116.8	105.5	125.2
Apr 17	120.8	100.6	133.2
Apr 18	122.5	110.4	135.4
Apr 19	109.8	96.8	118.8
Apr 20	115.1	99.6	130.8
Apr 21	118.5	106.2	132.2
Apr 22	124.1	115.1	128.6
Apr 23	125.6	111.5	136.8
Apr 24	124.9	119.1	130.4
Apr 25	122.2	101.8	128.7
Apr 26	121.1	103.7	129.6
Apr 27	123.1	115.0	127.5
Apr 28	130.2	123.3	135.5
Apr 29	131.4	94.5	149.4
Apr 30	154.3	124.0	170.7
Summary	123.3	109.8	154.3

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	113.9	97.4	127.6
Apr 2	124.4	117.3	129.5
Apr 3	131.2	126.9	134.2
Apr 4	134.9	131.4	138.9
Apr 5	135.9	132.2	141.0
Apr 6	132.4	128.7	136.7
Apr 7	107.9	81.5	134.6
Apr 8	112.2	97.4	118.1
Apr 9	119.6	103.3	130.3
Apr 10	122.6	114.4	127.6
Apr 11	108.9	82.1	125.2
Apr 12	114.8	106.9	122.9
Apr 13	121.6	113.9	127.4
Apr 14	127.3	120.4	134.3
Apr 15	118.6	113.0	129.9
Apr 16	122.9	111.5	129.9
Apr 17	127.4	115.1	135.9
Apr 18	132.1	123.4	140.6
Apr 19	134.8	128.9	139.1
Apr 20	137.6	129.9	145.3
Apr 21	135.9	130.1	141.2
Apr 22	135.3	133.2	139.5
Apr 23	134.4	127.2	143.1
Apr 24	134.0	131.2	138.4
Apr 25	134.3	120.3	140.0
Apr 26	120.5	98.1	130.4
Apr 27	123.1	113.1	133.3
Apr 28	130.3	121.3	139.8
Apr 29	132.4	124.3	139.5
Apr 30	135.7	131.7	141.5
Summary	126.6	107.9	137.6

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	139.3	137.0	144.1
Apr 2	138.9	136.0	144.9
Apr 3	138.6	136.6	144.4
Apr 4	139.0	136.1	145.5
Apr 5	137.3	136.1	138.9
Apr 6	135.4	132.1	137.2
Apr 7	141.6	135.0	156.4
Apr 8	140.6	118.6	153.2
Apr 9	141.7	115.1	154.4
Apr 10	144.2	139.7	155.2
Apr 11	144.5	139.2	158.0
Apr 12	140.0	138.5	142.7
Apr 13	138.2	137.1	139.2
Apr 14	139.1	136.8	146.0
Apr 15	137.8	127.2	146.4
Apr 16	141.2	138.0	149.0
Apr 17	142.3	134.0	149.9
Apr 18	140.6	138.0	143.5
Apr 19	138.5	137.2	139.8
Apr 20	139.1	136.5	141.8
Apr 21	140.0	137.5	144.8
Apr 22	140.0	138.7	144.0
Apr 23	138.9	128.5	142.2
Apr 24	139.8	137.8	142.9
Apr 25	139.2	136.2	141.6
Apr 26	138.1	135.9	140.1
Apr 27	137.2	136.4	137.8
Apr 28	137.9	126.0	141.9
Apr 29	137.8	135.5	139.9
Apr 30	138.7	136.4	141.0
Summary	139.5	135.4	144.5

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	101.6	98.9	104.9
Apr 2	104.7	102.1	107.3
Apr 3	107.6	106.1	109.8
Apr 4	108.8	107.6	110.9
Apr 5	109.1	107.7	111.4
Apr 6	108.1	107.4	108.6
Apr 7	107.5	106.7	108.5
Apr 8	98.0	36.7	109.2
Apr 9	82.8	29.9	107.7
Apr 10	105.9	104.7	107.4
Apr 11	106.0	105.1	106.8
Apr 12	106.4	105.3	108.0
Apr 13	107.8	105.8	110.4
Apr 14	109.1	107.0	111.5
Apr 15	108.5	107.4	110.0
Apr 16	108.4	106.5	111.1
Apr 17	109.4	107.3	111.4
Apr 18	110.3	108.4	113.0
Apr 19	110.5	108.8	113.0
Apr 20	111.1	109.2	113.7
Apr 21	108.9	102.0	113.1
Apr 22	103.5	102.0	107.2
Apr 23	104.0	101.2	109.6
Apr 24	103.0	101.3	106.9
Apr 25	103.0	99.8	107.0
Apr 26	102.1	98.1	107.4
Apr 27	100.3	96.9	105.4
Apr 28	102.9	98.1	108.6
Apr 29	103.0	98.4	108.6
Apr 30	102.7	100.2	108.1
Summary	105.2	82.8	111.1

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	54.6	43.2	76.6
Apr 2	65.2	45.1	87.1
Apr 3	72.3	60.8	90.4
Apr 4	74.0	59.4	90.7
Apr 5	74.8	58.9	97.4
Apr 6	65.3	60.1	71.5
Apr 7	58.2	50.7	64.0
Apr 8	51.1	34.6	66.7
Apr 9	50.9	29.8	74.4
Apr 10	51.9	46.2	62.7
Apr 11	50.1	46.4	55.0
Apr 12	47.7	41.5	62.5
Apr 13	53.2	37.0	74.9
Apr 14	63.6	45.5	84.6
Apr 15	60.5	50.7	71.5
Apr 16	57.5	43.6	76.0
Apr 17	58.7	41.1	80.2
Apr 18	66.3	47.9	89.5
Apr 19	68.5	54.0	89.4
Apr 20	72.7	56.3	95.5
Apr 21	70.8	56.5	91.9
Apr 22	67.4	60.7	79.0
Apr 23	71.7	57.6	92.9
Apr 24	68.7	60.7	83.8
Apr 25	69.6	61.5	89.1
Apr 26	68.0	59.9	84.0
Apr 27	64.6	51.1	83.9
Apr 28	70.4	54.3	92.4
Apr 29	71.2	53.7	93.8
Apr 30	74.6	65.3	89.6
Summary	63.8	47.7	74.8

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	131.8	129.0	135.1
Apr 2	133.3	132.2	134.6
Apr 3	134.9	133.8	135.8
Apr 4	135.7	134.0	137.1
Apr 5	135.7	135.1	137.2
Apr 6	134.4	132.8	135.5
Apr 7	132.5	130.8	135.6
Apr 8	123.6	71.3	133.2
Apr 9	114.5	63.3	134.9
Apr 10	133.7	130.2	134.8
Apr 11	131.9	129.6	134.6
Apr 12	131.9	130.0	133.9
Apr 13	133.8	132.6	134.9
Apr 14	134.6	133.8	135.7
Apr 15	133.1	131.9	134.7
Apr 16	133.1	131.5	134.7
Apr 17	134.4	132.5	135.8
Apr 18	134.7	133.5	136.2
Apr 19	134.5	133.8	135.3
Apr 20	135.2	134.1	137.4
Apr 21	135.1	134.2	137.1
Apr 22	135.5	133.8	136.2
Apr 23	135.9	134.9	138.1
Apr 24	135.6	134.2	136.3
Apr 25	135.5	132.7	136.6
Apr 26	134.6	132.4	136.8
Apr 27	134.7	133.3	136.3
Apr 28	135.9	134.2	137.6
Apr 29	136.0	134.9	137.1
Apr 30	136.1	134.9	137.7
Summary	133.4	114.5	136.1

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	129.9	125.2	135.6
Apr 2	132.9	131.1	134.8
Apr 3	135.4	134.1	136.7
Apr 4	136.4	135.1	137.9
Apr 5	136.7	135.9	138.5
Apr 6	134.8	130.0	136.7
Apr 7	131.7	128.7	136.2
Apr 8	124.9	92.6	132.1
Apr 9	124.7	102.6	135.1
Apr 10	133.2	129.0	134.9
Apr 11	130.8	127.2	134.3
Apr 12	130.1	127.2	132.2
Apr 13	132.5	131.1	134.2
Apr 14	133.7	132.2	135.7
Apr 15	130.4	128.3	133.2
Apr 16	130.4	128.1	132.6
Apr 17	132.5	129.6	135.2
Apr 18	133.2	131.0	135.0
Apr 19	133.2	132.2	134.5
Apr 20	134.2	132.1	137.7
Apr 21	133.8	131.5	135.5
Apr 22	133.6	132.5	135.3
Apr 23	134.2	132.5	137.6
Apr 24	134.4	133.0	135.4
Apr 25	134.3	132.8	135.5
Apr 26	132.5	128.3	135.3
Apr 27	131.9	128.7	133.7
Apr 28	134.4	132.8	136.7
Apr 29	134.5	132.0	136.1
Apr 30	134.9	132.0	137.6
Summary	132.7	124.7	136.7

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	104.5	96.0	106.9
Apr 2	105.7	104.6	107.3
Apr 3	106.5	105.9	107.7
Apr 4	107.0	106.1	108.3
Apr 5	107.3	106.3	109.0
Apr 6	106.7	106.1	107.1
Apr 7	106.4	105.8	106.8
Apr 8	97.9	43.4	107.4
Apr 9	87.2	34.3	107.7
Apr 10	105.8	105.0	107.3
Apr 11	106.5	105.8	106.9
Apr 12	107.3	106.4	108.7
Apr 13	108.6	107.3	110.0
Apr 14	110.0	108.6	111.7
Apr 15	109.7	109.0	110.5
Apr 16	109.9	108.7	111.5
Apr 17	111.0	109.4	112.7
Apr 18	111.6	110.3	113.7
Apr 19	111.9	110.9	113.2
Apr 20	112.6	111.4	114.6
Apr 21	111.5	109.0	113.5
Apr 22	110.0	109.3	111.4
Apr 23	110.6	109.4	112.5
Apr 24	110.3	109.8	111.4
Apr 25	110.1	108.7	111.6
Apr 26	109.4	107.9	111.1
Apr 27	109.1	107.9	110.9
Apr 28	109.9	108.4	111.7
Apr 29	110.0	108.7	111.6
Apr 30	110.5	109.3	112.6
Summary	107.8	87.2	112.6

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	122.0	115.2	129.3
Apr 2	123.7	120.9	125.4
Apr 3	125.1	123.1	126.9
Apr 4	125.8	124.1	128.6
Apr 5	127.2	125.0	131.5
Apr 6	124.1	120.5	127.4
Apr 7	122.3	115.8	127.8
Apr 8	105.8	41.9	121.0
Apr 9	96.3	31.8	124.6
Apr 10	119.6	109.4	123.9
Apr 11	116.4	109.9	122.3
Apr 12	113.2	107.9	118.6
Apr 13	118.1	114.1	122.1
Apr 14	121.4	118.6	125.2
Apr 15	115.6	112.7	121.5
Apr 16	115.1	110.0	120.9
Apr 17	119.0	113.1	123.6
Apr 18	120.5	115.2	125.6
Apr 19	121.0	118.8	123.0
Apr 20	122.6	118.3	129.3
Apr 21	121.9	116.1	127.0
Apr 22	120.0	118.2	122.3
Apr 23	120.6	116.7	128.1
Apr 24	120.3	116.2	122.9
Apr 25	120.8	110.7	124.7
Apr 26	117.7	109.0	124.1
Apr 27	116.8	111.6	121.8
Apr 28	121.3	116.3	127.2
Apr 29	121.7	117.0	126.3
Apr 30	123.3	119.5	129.5
Summary	119.3	96.3	127.2

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	118.2	113.5	123.1
Apr 2	123.1	118.2	128.9
Apr 3	127.8	126.7	129.0
Apr 4	128.3	127.1	129.6
Apr 5	128.7	127.0	130.0
Apr 6	127.7	126.7	129.4
Apr 7	127.1	125.7	129.3
Apr 8	121.4	84.9	127.1
Apr 9	109.3	54.3	128.6
Apr 10	127.7	126.1	128.8
Apr 11	127.0	125.0	128.4
Apr 12	126.6	125.4	128.1
Apr 13	127.7	126.4	128.9
Apr 14	128.5	127.0	129.7
Apr 15	126.6	125.5	128.9
Apr 16	126.8	125.8	128.4
Apr 17	128.0	126.4	129.5
Apr 18	128.6	127.1	129.7
Apr 19	128.6	127.5	129.3
Apr 20	128.9	127.4	130.2
Apr 21	128.7	127.5	129.6
Apr 22	128.3	127.2	129.0
Apr 23	128.3	127.3	129.6
Apr 24	128.3	127.7	128.9
Apr 25	128.2	126.7	129.1
Apr 26	127.4	125.5	128.7
Apr 27	127.1	125.9	128.4
Apr 28	127.9	126.3	129.3
Apr 29	128.2	127.1	129.4
Apr 30	128.4	126.9	129.4
Summary	126.6	109.3	128.9

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	126.8	126.3	127.3
Apr 2	127.0	126.7	127.4
Apr 3	127.2	127.0	127.5
Apr 4	127.3	127.0	127.5
Apr 5	127.3	127.0	127.7
Apr 6	127.0	126.7	127.3
Apr 7	126.8	126.5	127.0
Apr 8	123.4	99.8	127.2
Apr 9	120.5	102.5	127.6
Apr 10	127.1	126.7	127.6
Apr 11	127.4	127.1	127.6
Apr 12	127.9	127.6	128.2
Apr 13	128.3	127.9	128.7
Apr 14	128.7	128.3	129.1
Apr 15	128.5	128.4	128.7
Apr 16	128.7	128.3	129.1
Apr 17	129.0	128.6	129.6
Apr 18	129.1	128.8	129.7
Apr 19	129.2	128.8	129.5
Apr 20	129.3	129.0	130.0
Apr 21	128.9	128.5	129.3
Apr 22	128.7	128.4	129.0
Apr 23	128.7	128.3	129.3
Apr 24	128.6	128.4	128.9
Apr 25	128.5	128.1	128.8
Apr 26	128.3	128.0	128.7
Apr 27	128.4	128.0	128.9
Apr 28	128.7	128.4	129.2
Apr 29	128.7	128.3	129.0
Apr 30	128.6	128.3	129.0
Summary	127.8	120.5	129.3

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	54.6	41.3	76.7
Apr 2	66.6	48.5	85.2
Apr 3	76.4	65.0	90.0
Apr 4	78.6	63.0	95.1
Apr 5	78.7	61.3	98.3
Apr 6	66.7	59.8	74.3
Apr 7	55.2	44.8	62.8
Apr 8	48.9	38.6	62.5
Apr 9	53.3	31.6	79.5
Apr 10	51.3	44.7	66.7
Apr 11	47.6	43.4	53.0
Apr 12	46.5	39.9	64.1
Apr 13	54.3	33.6	76.0
Apr 14	67.3	45.1	90.6
Apr 15	62.2	53.4	70.9
Apr 16	60.2	45.0	78.4
Apr 17	66.0	42.7	86.2
Apr 18	74.5	53.1	97.7
Apr 19	76.5	60.2	94.1
Apr 20	79.7	61.4	100.9
Apr 21	97.2	61.5	145.9
Apr 22	153.5	147.7	158.2
Apr 23	157.9	154.6	160.9
Apr 24	160.3	157.3	162.3
Apr 25	160.4	156.8	162.3
Apr 26	158.3	153.4	160.6
Apr 27	162.9	158.3	166.0
Apr 28	165.3	162.1	166.7
Apr 29	165.9	163.2	168.9
Apr 30	166.5	165.3	168.2
Summary	93.8	46.5	166.5

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	104.8	98.9	113.0
Apr 2	108.5	104.4	113.5
Apr 3	110.6	108.5	114.6
Apr 4	111.5	108.2	114.7
Apr 5	111.3	108.0	116.3
Apr 6	108.0	105.8	110.5
Apr 7	106.3	103.0	111.0
Apr 8	101.1	76.7	110.7
Apr 9	103.6	86.5	113.9
Apr 10	107.8	105.8	111.3
Apr 11	105.4	102.1	108.5
Apr 12	104.3	101.7	107.9
Apr 13	105.8	101.7	110.6
Apr 14	108.9	104.5	114.4
Apr 15	105.7	102.8	108.9
Apr 16	105.6	101.4	111.3
Apr 17	108.4	102.5	114.2
Apr 18	109.6	104.8	114.4
Apr 19	109.4	106.9	112.9
Apr 20	110.4	106.8	116.1
Apr 21	110.2	106.6	115.5
Apr 22	109.4	107.3	113.2
Apr 23	110.5	107.4	114.8
Apr 24	110.4	107.9	113.0
Apr 25	109.5	106.2	113.3
Apr 26	107.7	105.4	113.4
Apr 27	108.1	104.3	113.1
Apr 28	109.7	106.1	114.5
Apr 29	109.6	105.8	114.0
Apr 30	110.8	107.8	114.9
Summary	108.1	101.1	111.5

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	142.0	133.2	148.7
Apr 2	142.8	130.2	145.4
Apr 3	146.7	143.9	148.9
Apr 4	148.6	146.0	149.9
Apr 5	149.0	148.0	150.8
Apr 6	146.7	141.3	149.6
Apr 7	145.2	140.9	148.8
Apr 8	131.4	45.8	147.2
Apr 9	117.2	33.5	150.6
Apr 10	148.4	144.4	149.5
Apr 11	146.4	141.6	149.3
Apr 12	145.9	142.6	148.6
Apr 13	148.2	146.3	149.9
Apr 14	149.0	147.4	150.2
Apr 15	145.1	135.8	148.9
Apr 16	146.5	142.7	148.6
Apr 17	148.8	145.7	150.6
Apr 18	149.0	146.4	150.6
Apr 19	149.3	147.5	150.4
Apr 20	149.9	147.1	152.4
Apr 21	149.3	147.0	151.6
Apr 22	149.6	148.1	150.4
Apr 23	149.4	146.7	152.0
Apr 24	149.9	146.1	151.2
Apr 25	149.6	146.8	151.7
Apr 26	148.1	144.8	150.1
Apr 27	147.8	144.4	150.0
Apr 28	150.0	147.8	151.8
Apr 29	149.7	147.8	151.7
Apr 30	150.2	147.8	152.7
Summary	146.3	117.2	150.2

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	53.7	41.2	74.4
Apr 2	65.7	46.2	87.2
Apr 3	75.9	63.6	93.4
Apr 4	78.4	61.2	96.8
Apr 5	76.9	59.9	99.7
Apr 6	65.9	59.7	73.1
Apr 7	55.2	45.1	63.5
Apr 8	47.1	36.5	61.9
Apr 9	50.0	29.8	74.5
Apr 10	49.1	42.0	63.5
Apr 11	46.1	41.8	52.7
Apr 12	43.7	35.4	59.0
Apr 13	51.5	29.8	75.7
Apr 14	65.9	39.8	89.7
Apr 15	59.3	48.7	69.8
Apr 16	55.4	37.3	74.4
Apr 17	60.2	34.6	84.5
Apr 18	69.6	45.7	96.1
Apr 19	71.2	52.0	94.2
Apr 20	76.7	55.3	102.2
Apr 21	72.7	54.6	96.5
Apr 22	67.2	58.2	83.2
Apr 23	72.8	55.5	96.8
Apr 24	69.3	59.5	89.1
Apr 25	69.9	60.9	92.8
Apr 26	68.1	54.4	84.3
Apr 27	61.6	45.6	82.3
Apr 28	72.6	51.2	94.6
Apr 29	73.7	50.1	93.4
Apr 30	75.1	64.7	93.1
Summary	64.0	43.7	78.4

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	164.6	161.8	166.6
Apr 2	164.5	159.0	166.2
Apr 3	165.3	163.9	166.4
Apr 4	166.3	164.9	167.1
Apr 5	166.6	165.3	167.2
Apr 6	165.5	163.8	166.9
Apr 7	164.5	162.5	166.5
Apr 8	150.5	58.8	165.2
Apr 9	129.5	38.0	176.3
Apr 10	166.9	163.7	167.9
Apr 11	165.1	162.2	167.2
Apr 12	164.6	162.8	166.6
Apr 13	166.0	164.4	167.5
Apr 14	166.4	165.4	167.3
Apr 15	164.4	162.3	166.4
Apr 16	165.5	163.7	167.5
Apr 17	167.4	165.9	168.9
Apr 18	167.8	166.2	169.1
Apr 19	168.2	166.7	169.2
Apr 20	168.8	166.7	169.9
Apr 21	168.3	166.3	169.4
Apr 22	169.0	167.5	169.7
Apr 23	168.6	166.3	169.8
Apr 24	169.5	168.3	170.2
Apr 25	169.0	165.8	170.0
Apr 26	167.6	164.2	169.2
Apr 27	167.3	164.6	169.6
Apr 28	169.1	167.8	170.1
Apr 29	169.0	167.7	170.4
Apr 30	169.6	168.5	171.0
Summary	165.2	129.5	169.6

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	170.8	166.9	174.5
Apr 2	172.4	170.8	173.9
Apr 3	174.1	172.3	175.6
Apr 4	174.4	172.3	175.6
Apr 5	174.0	171.6	175.2
Apr 6	173.6	170.8	175.5
Apr 7	171.4	168.6	175.4
Apr 8	169.3	161.3	172.0
Apr 9	170.5	163.7	174.7
Apr 10	173.7	169.3	174.7
Apr 11	170.7	167.6	175.3
Apr 12	169.7	167.5	172.5
Apr 13	171.9	169.7	173.8
Apr 14	173.4	171.8	174.4
Apr 15	170.3	165.7	174.5
Apr 16	170.6	166.6	173.8
Apr 17	173.5	171.3	174.7
Apr 18	173.6	171.4	174.6
Apr 19	173.2	170.9	174.6
Apr 20	174.1	171.7	175.7
Apr 21	173.7	171.3	174.9
Apr 22	174.0	172.6	174.9
Apr 23	173.8	171.8	175.7
Apr 24	174.3	172.9	175.0
Apr 25	173.8	168.6	175.3
Apr 26	170.2	167.9	173.1
Apr 27	171.5	169.4	173.6
Apr 28	172.9	171.8	174.1
Apr 29	172.7	170.8	174.2
Apr 30	173.1	171.4	174.6
Summary	172.5	169.3	174.4

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	128.0	114.2	146.1
Apr 2	137.1	121.6	149.0
Apr 3	135.2	125.0	148.5
Apr 4	138.4	129.8	149.2
Apr 5	143.2	134.8	153.7
Apr 6	138.7	110.4	152.0
Apr 7	118.9	92.0	152.4
Apr 8	121.6	103.1	149.0
Apr 9	138.3	119.8	164.5
Apr 10	144.5	128.5	167.5
Apr 11	140.8	129.3	152.8
Apr 12	140.2	133.3	149.0
Apr 13	145.3	138.9	152.4
Apr 14	147.3	144.6	149.9
Apr 15	143.0	137.9	149.4
Apr 16	147.4	141.8	153.4
Apr 17	165.6	144.0	178.9
Apr 18	175.1	173.5	176.1
Apr 19	175.4	173.8	176.3
Apr 20	175.8	173.8	176.9
Apr 21	175.1	173.4	176.9
Apr 22	174.8	174.0	175.6
Apr 23	174.7	173.4	176.2
Apr 24	174.8	172.5	175.8
Apr 25	174.8	173.5	175.8
Apr 26	173.5	171.5	175.6
Apr 27	173.6	171.6	175.4
Apr 28	174.7	173.4	175.9
Apr 29	174.5	172.5	175.8
Apr 30	175.1	173.4	176.4
Summary	154.8	118.9	175.8

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	176.8	176.4	177.4
Apr 2	176.6	176.3	177.1
Apr 3	176.4	176.2	176.8
Apr 4	176.3	176.0	176.5
Apr 5	176.2	175.8	176.7
Apr 6	175.9	175.6	176.1
Apr 7	175.2	174.6	175.9
Apr 8	173.0	164.4	174.9
Apr 9	174.1	169.1	178.1
Apr 10	174.5	173.9	174.7
Apr 11	174.0	173.5	174.4
Apr 12	173.5	173.2	173.7
Apr 13	173.5	173.1	173.9
Apr 14	173.6	173.2	174.1
Apr 15	173.2	172.9	173.4
Apr 16	173.2	172.9	173.7
Apr 17	173.5	172.9	173.9
Apr 18	173.6	173.0	174.2
Apr 19	173.6	173.2	174.0
Apr 20	173.7	173.1	174.3
Apr 21	173.5	173.1	173.8
Apr 22	173.2	173.0	173.6
Apr 23	173.2	172.7	173.8
Apr 24	173.0	172.8	173.4
Apr 25	173.0	172.5	173.4
Apr 26	172.5	171.9	172.9
Apr 27	172.2	171.7	172.9
Apr 28	172.4	172.0	173.2
Apr 29	172.5	171.8	173.0
Apr 30	172.6	172.3	173.1
Summary	173.9	172.2	176.8

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	141.6	113.6	159.2
Apr 2	114.4	98.7	129.1
Apr 3	119.6	106.7	135.3
Apr 4	124.7	108.0	139.7
Apr 5	141.6	127.2	163.6
Apr 6	153.3	148.7	155.9
Apr 7	155.0	152.0	157.5
Apr 8	140.5	43.8	160.7
Apr 9	94.8	36.4	124.5
Apr 10	114.1	109.1	128.1
Apr 11	107.5	99.6	115.7
Apr 12	101.9	95.1	119.6
Apr 13	122.9	92.0	156.6
Apr 14	157.2	154.6	160.8
Apr 15	151.3	147.5	155.1
Apr 16	149.8	147.4	152.2
Apr 17	152.0	148.8	155.0
Apr 18	154.9	150.8	159.3
Apr 19	154.5	152.2	156.8
Apr 20	153.0	151.0	156.2
Apr 21	152.9	150.9	156.0
Apr 22	153.2	152.4	154.7
Apr 23	153.3	151.8	156.8
Apr 24	153.2	152.1	155.8
Apr 25	147.5	96.6	153.8
Apr 26	98.4	89.1	106.9
Apr 27	93.1	85.4	107.9
Apr 28	100.2	89.9	120.3
Apr 29	102.6	92.0	119.2
Apr 30	108.3	100.0	119.6
Summary	132.2	93.1	157.2

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	147.1	146.3	148.1
Apr 2	146.8	132.7	148.6
Apr 3	147.4	147.1	148.0
Apr 4	147.4	147.0	148.0
Apr 5	147.6	147.0	148.5
Apr 6	147.2	146.8	147.8
Apr 7	146.6	145.8	147.4
Apr 8	142.3	102.7	146.2
Apr 9	144.2	135.3	150.3
Apr 10	145.9	145.3	146.5
Apr 11	145.4	144.0	146.2
Apr 12	143.8	143.1	144.7
Apr 13	145.3	144.2	146.1
Apr 14	146.2	145.5	147.0
Apr 15	145.6	145.2	146.3
Apr 16	145.9	145.2	146.7
Apr 17	146.5	145.2	147.4
Apr 18	146.9	145.9	148.1
Apr 19	147.2	146.5	147.9
Apr 20	147.5	146.5	148.7
Apr 21	147.4	146.7	148.2
Apr 22	147.1	146.8	147.7
Apr 23	147.1	145.3	148.2
Apr 24	147.0	146.6	147.7
Apr 25	147.1	146.2	148.1
Apr 26	146.8	145.5	147.2
Apr 27	146.1	145.0	147.1
Apr 28	146.7	145.7	148.0
Apr 29	147.1	146.0	148.0
Apr 30	147.5	146.9	148.4
Summary	146.4	142.3	147.6

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	146.3	129.9	156.0
Apr 2	148.9	141.6	154.5
Apr 3	151.8	145.5	156.4
Apr 4	155.1	149.6	159.8
Apr 5	153.3	148.6	156.8
Apr 6	147.6	132.8	155.3
Apr 7	139.4	125.1	153.0
Apr 8	132.1	122.5	143.7
Apr 9	138.9	133.1	146.1
Apr 10	139.1	121.9	144.1
Apr 11	128.3	107.1	141.8
Apr 12	121.7	108.9	137.0
Apr 13	133.8	127.6	141.8
Apr 14	136.0	125.6	142.9
Apr 15	120.5	109.1	135.3
Apr 16	125.5	113.6	138.0
Apr 17	135.7	124.5	143.6
Apr 18	137.1	130.0	146.6
Apr 19	138.5	132.9	144.8
Apr 20	140.1	129.9	148.0
Apr 21	135.0	125.1	143.8
Apr 22	136.4	131.6	139.2
Apr 23	135.4	123.9	146.1
Apr 24	135.4	130.6	139.6
Apr 25	133.2	118.4	140.7
Apr 26	123.5	107.0	131.2
Apr 27	123.9	111.7	134.6
Apr 28	131.2	121.3	139.0
Apr 29	131.5	124.1	140.6
Apr 30	132.1	128.4	141.5
Summary	136.2	120.5	155.1

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	164.1	163.3	164.8
Apr 2	163.9	162.8	164.8
Apr 3	163.6	98.7	175.2
Apr 4	170.9	170.3	171.6
Apr 5	170.9	170.1	171.4
Apr 6	170.9	170.5	171.5
Apr 7	170.0	169.0	171.5
Apr 8	171.1	168.2	184.7
Apr 9	176.0	170.0	187.0
Apr 10	169.6	168.5	170.4
Apr 11	168.8	168.0	170.0
Apr 12	168.2	167.6	169.0
Apr 13	168.5	167.6	169.4
Apr 14	168.6	167.6	169.2
Apr 15	169.3	168.2	170.5
Apr 16	170.2	169.1	171.2
Apr 17	169.9	168.0	170.9
Apr 18	171.1	170.3	172.1
Apr 19	171.5	171.1	172.2
Apr 20	171.8	170.9	172.2
Apr 21	171.8	171.2	172.5
Apr 22	172.0	171.4	172.4
Apr 23	171.8	171.3	172.4
Apr 24	171.8	171.1	172.5
Apr 25	172.0	171.6	172.6
Apr 26	171.8	171.5	172.2
Apr 27	171.4	170.4	172.4
Apr 28	170.9	168.1	172.3
Apr 29	172.1	171.4	172.7
Apr 30	172.4	171.6	173.1
Summary	170.2	163.6	176.0

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	167.4	159.7	175.3
Apr 2	170.0	168.0	172.7
Apr 3	171.8	169.0	173.7
Apr 4	173.6	170.3	175.6
Apr 5	174.1	172.4	176.8
Apr 6	170.7	165.2	174.6
Apr 7	169.1	165.4	174.0
Apr 8	162.9	148.2	168.1
Apr 9	166.9	155.6	174.4
Apr 10	169.1	158.8	172.8
Apr 11	164.7	156.6	170.6
Apr 12	163.0	157.4	168.2
Apr 13	166.4	161.0	170.5
Apr 14	169.5	166.4	174.0
Apr 15	162.5	157.6	170.1
Apr 16	163.0	156.5	167.4
Apr 17	167.8	160.3	172.8
Apr 18	169.3	165.0	174.4
Apr 19	169.6	167.8	171.6
Apr 20	172.0	168.3	176.7
Apr 21	171.7	167.9	175.8
Apr 22	171.8	169.0	173.7
Apr 23	171.7	165.4	176.3
Apr 24	170.2	167.5	171.7
Apr 25	169.1	160.7	172.2
Apr 26	165.8	161.4	169.8
Apr 27	167.0	162.1	173.7
Apr 28	167.9	111.8	176.2
Apr 29	172.8	168.2	176.8
Apr 30	174.8	171.8	179.5
Summary	168.9	162.5	174.8

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	138.9	138.3	139.6
Apr 2	139.2	138.6	139.6
Apr 3	139.4	139.1	139.9
Apr 4	139.4	139.1	139.8
Apr 5	139.6	139.2	140.1
Apr 6	139.3	138.8	139.6
Apr 7	138.8	138.2	139.5
Apr 8	124.9	49.3	138.6
Apr 9	113.6	43.6	141.2
Apr 10	138.3	137.7	138.6
Apr 11	137.8	137.2	138.2
Apr 12	137.2	136.9	137.7
Apr 13	137.4	136.9	137.8
Apr 14	137.6	137.1	138.2
Apr 15	136.9	136.4	137.6
Apr 16	136.9	136.4	137.4
Apr 17	137.3	136.4	137.8
Apr 18	137.5	136.6	138.3
Apr 19	137.6	137.0	138.1
Apr 20	137.8	137.0	138.8
Apr 21	137.8	137.3	138.5
Apr 22	137.6	137.3	138.0
Apr 23	137.7	136.9	138.5
Apr 24	137.6	137.2	138.2
Apr 25	137.7	137.1	138.2
Apr 26	137.4	136.8	138.0
Apr 27	137.1	136.6	137.7
Apr 28	137.4	136.8	138.1
Apr 29	137.6	136.9	138.2
Apr 30	137.8	137.5	138.2
Summary	136.7	113.6	139.6

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	154.4	150.1	156.9
Apr 2	154.9	152.7	156.4
Apr 3	155.8	153.7	157.2
Apr 4	157.1	155.6	158.6
Apr 5	157.1	155.7	158.1
Apr 6	155.5	145.4	158.1
Apr 7	154.1	150.9	157.6
Apr 8	150.4	130.4	154.6
Apr 9	153.9	148.9	158.8
Apr 10	154.3	151.2	155.6
Apr 11	152.8	147.8	155.2
Apr 12	151.6	148.6	154.1
Apr 13	153.5	152.1	155.5
Apr 14	154.5	153.5	156.0
Apr 15	151.4	146.9	155.8
Apr 16	153.7	150.5	157.1
Apr 17	156.2	153.4	158.0
Apr 18	156.8	155.0	158.7
Apr 19	157.6	155.9	159.4
Apr 20	158.2	156.2	159.8
Apr 21	157.2	152.9	159.1
Apr 22	157.2	154.8	158.2
Apr 23	156.8	154.4	158.2
Apr 24	156.9	155.5	157.9
Apr 25	156.3	151.3	157.6
Apr 26	154.5	151.2	156.6
Apr 27	154.3	151.5	156.5
Apr 28	155.6	153.5	157.9
Apr 29	155.9	153.9	158.0
Apr 30	156.7	155.3	158.5
Summary	155.2	150.4	158.2

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	108.9	76.8	139.6
Apr 2	116.9	102.8	131.8
Apr 3	126.6	107.5	146.2
Apr 4	142.1	120.3	155.6
Apr 5	139.2	122.2	150.0
Apr 6	121.7	92.0	145.2
Apr 7	109.7	89.2	141.7
Apr 8	98.2	82.3	114.7
Apr 9	113.6	92.0	134.2
Apr 10	118.4	76.3	131.9
Apr 11	102.8	74.8	125.1
Apr 12	94.3	76.9	119.8
Apr 13	112.1	101.9	129.4
Apr 14	119.3	106.8	131.4
Apr 15	95.8	79.9	121.7
Apr 16	103.0	85.1	124.4
Apr 17	128.4	108.6	148.4
Apr 18	132.3	119.8	151.9
Apr 19	137.8	119.9	150.0
Apr 20	145.3	136.3	158.4
Apr 21	131.4	103.1	148.2
Apr 22	135.2	121.4	142.5
Apr 23	136.3	109.1	149.1
Apr 24	140.3	124.3	146.1
Apr 25	133.2	93.1	146.9
Apr 26	112.9	92.0	123.4
Apr 27	120.0	101.4	140.0
Apr 28	136.9	124.0	149.8
Apr 29	137.6	123.5	151.6
Apr 30	139.7	127.8	156.8
Summary	123.0	94.3	145.3

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	54.5	41.7	79.8
Apr 2	65.9	45.9	89.7
Apr 3	75.0	62.0	95.0
Apr 4	76.3	59.9	95.1
Apr 5	76.4	59.5	102.1
Apr 6	67.0	59.9	74.8
Apr 7	55.6	45.1	63.2
Apr 8	47.5	37.5	65.0
Apr 9	50.9	29.9	80.5
Apr 10	50.2	42.8	67.6
Apr 11	46.6	42.4	51.1
Apr 12	44.6	36.1	63.4
Apr 13	50.3	30.1	80.1
Apr 14	64.7	40.8	92.9
Apr 15	60.6	49.4	72.1
Apr 16	55.0	37.9	80.1
Apr 17	98.2	35.1	189.7
Apr 18	149.4	84.2	193.1
Apr 19	107.5	63.9	195.1
Apr 20	76.2	56.0	106.3
Apr 21	85.2	56.1	188.1
Apr 22	135.8	63.4	196.6
Apr 23	176.1	73.1	198.3
Apr 24	195.4	170.2	198.1
Apr 25	186.2	119.1	198.8
Apr 26	197.7	193.3	198.8
Apr 27	135.4	75.1	194.1
Apr 28	80.2	67.0	100.5
Apr 29	75.9	59.7	98.3
Apr 30	77.8	68.9	98.4
Summary	90.6	44.6	197.7

		., 9	
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	152.4	137.1	169.4
Apr 2	150.1	140.4	165.3
Apr 3	134.8	128.2	143.0
Apr 4	144.8	123.4	167.0
Apr 5	159.6	137.8	170.4
Apr 6	126.8	120.2	137.6
Apr 7	123.9	110.3	147.9
Apr 8	128.1	100.7	148.2
Apr 9	138.4	111.8	158.1
Apr 10	95.5	80.2	108.3
Apr 11	89.2	67.9	118.2
Apr 12	97.3	73.5	123.8
Apr 13	68.9	59.9	79.3
Apr 14	81.4	58.3	105.6
Apr 15	114.8	105.9	121.5
Apr 16	101.9	79.4	127.4
Apr 17	76.7	66.4	88.5
Apr 18	75.1	61.3	95.9
Apr 19	75.4	65.0	91.9
Apr 20	79.1	67.1	99.4
Apr 21	83.9	66.1	106.4
Apr 22	126.8	109.2	136.6
Apr 23	143.5	136.7	150.6
Apr 24	150.4	147.5	152.9
Apr 25	154.5	152.7	156.2
Apr 26	155.6	153.5	157.9
Apr 27	156.1	154.3	157.7
Apr 28	154.0	152.0	156.5
Apr 29	152.0	145.4	156.5
Apr 30	153.3	151.5	156.8
Summary	121.5	68.9	159.6

-		., 9	
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	123.8	47.1	134.3
Apr 2	135.6	131.7	138.2
Apr 3	138.7	138.0	140.1
Apr 4	139.0	137.9	140.4
Apr 5	139.1	138.0	140.8
Apr 6	137.8	135.5	138.5
Apr 7	139.8	137.5	141.4
Apr 8	124.5	39.3	140.0
Apr 9	107.6	29.8	139.8
Apr 10	138.9	138.0	139.6
Apr 11	138.1	137.3	138.9
Apr 12	137.6	136.6	138.6
Apr 13	138.4	137.4	139.6
Apr 14	138.9	137.8	140.5
Apr 15	127.2	103.7	137.7
Apr 16	99.2	57.7	129.3
Apr 17	77.5	57.9	101.7
Apr 18	77.4	60.4	102.5
Apr 19	72.0	52.5	98.9
Apr 20	76.7	56.2	102.6
Apr 21	74.0	55.2	99.0
Apr 22	67.8	59.9	83.2
Apr 23	72.8	56.9	99.1
Apr 24	69.9	61.9	87.6
Apr 25	71.3	62.1	97.8
Apr 26	115.5	64.1	133.7
Apr 27	129.9	113.7	135.1
Apr 28	127.8	111.9	135.0
Apr 29	94.5	71.3	114.0
Apr 30	77.6	68.4	94.9
Summary	110.3	67.8	139.8

		, g	
Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	131.7	127.8	135.3
Apr 2	132.6	129.9	134.6
Apr 3	133.3	131.4	134.8
Apr 4	134.5	133.3	135.8
Apr 5	134.0	132.8	136.4
Apr 6	131.7	126.0	134.1
Apr 7	129.5	126.4	133.7
Apr 8	119.2	65.3	129.4
Apr 9	113.3	66.5	140.3
Apr 10	127.1	123.1	128.6
Apr 11	124.4	120.5	126.8
Apr 12	123.9	121.2	125.2
Apr 13	123.8	122.5	126.4
Apr 14	123.4	121.7	125.5
Apr 15	118.7	111.8	124.0
Apr 16	120.4	116.7	122.6
Apr 17	122.4	117.0	126.1
Apr 18	124.0	120.5	127.1
Apr 19	124.9	121.7	126.9
Apr 20	126.6	123.3	130.1
Apr 21	126.5	123.8	129.7
Apr 22	126.4	124.9	127.8
Apr 23	126.7	123.4	129.5
Apr 24	127.2	126.0	129.2
Apr 25	127.1	123.3	129.9
Apr 26	125.7	122.2	128.3
Apr 27	125.9	123.5	127.7
Apr 28	127.7	125.2	130.8
Apr 29	127.9	122.9	130.4
Apr 30	129.1	127.0	131.7
Summary	126.3	113.3	134.5

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	153.4	150.8	156.1
Apr 2	154.8	153.7	155.6
Apr 3	155.9	154.7	156.6
Apr 4	156.6	154.6	157.7
Apr 5	157.4	156.8	158.8
Apr 6	156.7	155.0	158.0
Apr 7	152.7	148.9	157.7
Apr 8	145.5	112.6	153.2
Apr 9	148.5	123.8	165.4
Apr 10	153.8	149.6	155.0
Apr 11	151.8	148.2	154.6
Apr 12	150.7	148.0	153.2
Apr 13	152.7	151.3	154.5
Apr 14	154.0	153.0	155.2
Apr 15	152.2	149.0	154.6
Apr 16	153.5	150.5	156.1
Apr 17	154.0	118.0	157.2
Apr 18	153.9	152.7	155.6
Apr 19	155.0	154.2	155.8
Apr 20	155.5	154.0	156.9
Apr 21	154.2	151.2	156.3
Apr 22	153.2	152.5	153.7
Apr 23	152.9	150.7	154.5
Apr 24	153.0	151.9	153.7
Apr 25	152.7	147.8	154.2
Apr 26	150.7	147.5	152.8
Apr 27	150.8	149.1	152.7
Apr 28	152.2	150.2	154.1
Apr 29	153.0	151.3	154.0
Apr 30	153.9	152.4	155.3
Summary	153.2	145.5	157.4

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	58.1	42.2	84.1
Apr 2	66.9	46.8	91.7
Apr 3	75.1	61.5	93.9
Apr 4	75.6	60.2	95.4
Apr 5	76.6	59.3	100.7
Apr 6	65.8	59.8	73.2
Apr 7	57.2	46.2	70.8
Apr 8	49.3	37.0	63.8
Apr 9	52.6	29.9	76.1
Apr 10	53.9	43.0	72.4
Apr 11	50.6	43.0	59.7
Apr 12	45.2	39.0	61.2
Apr 13	51.3	31.6	76.0
Apr 14	64.2	41.7	88.5
Apr 15	61.3	50.7	69.5
Apr 16	57.0	38.1	79.0
Apr 17	61.2	35.9	86.6
Apr 18	66.7	46.3	95.4
Apr 19	70.1	52.4	93.6
Apr 20	75.3	55.7	103.6
Apr 21	71.3	55.0	95.0
Apr 22	71.5	60.8	87.0
Apr 23	78.1	66.1	95.6
Apr 24	72.0	60.6	87.3
Apr 25	73.9	60.8	91.5
Apr 26	76.6	61.1	88.0
Apr 27	63.3	46.8	86.7
Apr 28	72.7	52.8	95.4
Apr 29	78.9	68.0	93.9
Apr 30	77.2	65.4	94.2
Summary	65.6	45.2	78.9

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	140.7	139.8	141.8
Apr 2	141.8	140.7	142.9
Apr 3	142.4	141.9	143.2
Apr 4	142.6	142.2	143.3
Apr 5	143.0	142.3	144.3
Apr 6	142.5	141.9	143.0
Apr 7	140.7	139.6	143.0
Apr 8	131.5	69.5	142.6
Apr 9	125.6	78.7	144.6
Apr 10	143.0	142.4	143.4
Apr 11	142.6	141.7	143.4
Apr 12	143.0	142.4	143.7
Apr 13	144.1	143.5	144.8
Apr 14	144.9	144.2	145.5
Apr 15	144.3	143.8	144.9
Apr 16	144.5	143.6	145.3
Apr 17	145.1	144.1	145.8
Apr 18	145.6	144.9	146.7
Apr 19	145.6	144.9	146.5
Apr 20	146.0	145.3	147.1
Apr 21	146.2	145.6	147.4
Apr 22	145.9	145.6	146.2
Apr 23	146.0	145.2	146.9
Apr 24	145.8	145.4	146.3
Apr 25	145.9	145.1	146.9
Apr 26	145.3	144.6	145.9
Apr 27	145.1	144.6	145.8
Apr 28	145.5	144.7	146.4
Apr 29	145.7	144.2	146.6
Apr 30	145.9	145.4	146.7
Summary	143.2	125.6	146.2

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Date	Average (°F)	Minimum (°F)	Maximum (°F)
Apr 1	100.9	94.5	110.0
Apr 2	138.9	136.0	144.9
Apr 3	115.0	111.4	119.3
Apr 4	139.0	136.1	145.5
Apr 5	114.9	110.0	120.8
Apr 6	135.4	132.1	137.2
Apr 7	109.6	103.3	115.9
Apr 8	140.6	118.6	153.2
Apr 9	94.8	73.8	108.9
Apr 10	144.2	139.7	155.2
Apr 11	98.6	93.1	104.8
Apr 12	140.0	138.5	142.7
Apr 13	101.3	92.3	110.8
Apr 14	139.1	136.8	146.0
Apr 15	152.8	151.8	153.9
Apr 16	141.2	138.0	149.0
Apr 17	153.2	151.7	154.0
Apr 18	140.6	138.0	143.5
Apr 19	153.1	152.4	154.1
Apr 20	139.1	136.5	141.8
Apr 21	153.4	152.6	154.1
Apr 22	140.0	138.7	144.0
Apr 23	153.6	152.6	154.7
Apr 24	139.8	137.8	142.9
Apr 25	153.4	152.7	154.0
Apr 26	138.1	135.9	140.1
Apr 27	153.2	152.7	153.7
Apr 28	137.9	126.0	141.9
Apr 29	153.3	152.1	154.2
Apr 30	138.7	136.4	141.0
Summary	131.2	94.8	153.6

# 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-Apr	165.4	219.0	219.6	229.9	241.4	263.3	
2-Apr	166.1	219.5	220.1	230.3	241.8	263.7	
3-Apr	166.6	219.7	220.3	230.7	242.2	263.9	
4-Apr	166.6	219.9	220.5	230.6	242.2	263.9	
5-Apr	166.5	220.1	220.5	230.6	242.1	263.9	
6-Apr	166.1	219.7	220.3	230.4	241.7	263.6	
7-Apr	165.0	219.3	220.0	230.1	241.4	263.2	
8-Apr	164.4	219.1	219.7	229.6	240.9	262.8	
9-Apr	165.3	219.3	219.8	229.9	241.4	263.0	
10-Apr	165.2	219.1	219.7	229.9	241.5	262.9	
11-Apr	164.6	219.1	219.7	229.9	241.6	262.9	
12-Apr	164.1	219.0	219.5	229.8	241.9	262.8	
13-Apr	165.0	219.3	219.7	230.2	242.4	263.2	
14-Apr	165.7	219.6	220.1	230.4	242.9	263.5	
15-Apr	165.2	219.5	220.1	230.3	242.8	263.4	
16-Apr	165.1	219.4	220.0	230.1	242.9	263.3	
17-Apr	165.4	219.7	220.2	230.5	243.3	263.6	
18-Apr	165.6	219.8	220.3	230.8	243.8	263.8	
19-Apr	165.6	219.9	220.4	230.8	243.8	263.9	
20-Apr	166.4	220.2	220.7	231.1	244.2	264.1	
21-Apr	166.1	220.0	220.6	231.2	244.3	264.1	
22-Apr	165.7	219.9	220.5	231.2	244.3	264.0	
23-Apr	165.7	220.0	220.5	231.3	244.6	264.1	
24-Apr	165.7	219.8	220.4	231.3	244.5	264.1	
25-Apr	165.8	219.8	220.4	231.4	244.6	264.1	
26-Apr	165.9	219.9	220.5	231.4	244.8	264.1	
27-Apr	165.3	219.6	220.1	231.1	244.7	263.8	
28-Apr	165.9	220.0	220.4	231.3	245.2	264.1	
29-Apr	166.1	219.9	220.4	231.2	245.1	264.1	
30-Apr	166.1	220.0	220.6	231.3	245.4	264.3	
Average	165.6	219.6	220.2	230.6	243.1	263.6	

	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Apr	165.9	233.2	233.1	*	*	*	*	*
2-Apr	168.0	233.4	233.2	*	*	*	*	*
3-Apr	170.0	233.5	233.3	*	*	*	*	*
4-Apr	*	233.5	233.3	*	*	*	*	*
5-Apr	*	233.6	233.4	*	*	*	*	*
6-Apr	*	233.5	233.2	*	*	*	*	*
7-Apr	*	233.2	233.0	*	*	*	*	*
8-Apr	*	233.1	232.9	*	*	*	*	*
9-Apr	*	233.3	233.1	*	*	*	*	*
10-Apr	*	233.1	232.9	*	*	*	*	*
11-Apr	*	233.1	232.8	*	*	*	*	*
12-Apr	*	233.0	232.9	*	*	*	*	*
13-Apr	*	233.3	233.2	*	*	*	*	*
14-Apr	*	233.5	233.3	*	*	*	*	*
15-Apr	*	233.5	233.2	*	*	*	*	*
16-Apr	*	233.5	233.3	*	*	*	*	*
17-Apr	*	233.7	233.5	*	*	*	*	*
18-Apr	*	233.9	233.6	*	*	*	*	*
19-Apr	*	233.8	233.6	*	*	*	*	*
20-Apr	*	234.0	233.8	*	*	*	*	*
21-Apr	*	233.9	233.7	*	*	*	*	*
22-Apr	*	233.9	233.6	*	*	*	*	*
23-Apr	*	233.9	233.7	*	*	*	*	*
24-Apr	*	233.8	233.6	*	*	*	*	*
25-Apr	*	233.8	233.5	*	*	*	*	*
26-Apr	*	233.8	233.5	*	*	*	*	*
27-Apr	*	233.6	233.4	*	*	*	*	*
28-Apr	*	233.8	233.6	*	*	*	*	*
29-Apr	*	233.8	233.6	*	*	*	*	*
30-Apr	*	233.9	233.7	*	*	*	*	*
Average	168.0	233.6	233.4	N/A	N/A	N/A	N/A	N/A

<sup>\*</sup> 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-Apr	142.4	215.4	215.8	228.4	237.3	239.8	216.7	203.7
2-Apr	142.7	215.6	215.9	228.6	237.5	240.0	216.8	203.8
3-Apr	142.9	215.8	216.1	228.9	237.8	240.3	217.0	204.2
4-Apr	143.1	215.8	216.1	228.8	237.7	240.2	216.9	204.1
5-Apr	143.2	215.6	215.9	228.8	237.7	240.3	217.0	204.2
6-Apr	142.9	215.3	215.6	228.5	237.4	240.0	216.6	203.9
7-Apr	142.4	215.0	215.3	228.2	237.1	239.7	216.3	203.7
8-Apr	142.2	214.5	214.8	227.9	236.9	239.4	216.0	203.5
9-Apr	142.4	214.6	214.9	228.1	237.0	239.6	216.1	203.6
10-Apr	142.1	214.5	214.7	228.0	237.0	239.6	216.0	203.6
11-Apr	141.8	214.3	214.6	227.9	236.8	239.4	215.7	203.5
12-Apr	141.7	214.5	214.7	228.0	236.8	239.4	215.6	203.5
13-Apr	141.9	215.1	215.4	228.3	237.0	239.6	215.8	203.7
14-Apr	141.7	215.4	215.7	228.4	237.1	239.7	215.9	203.9
15-Apr	141.5	215.3	215.7	228.4	237.0	239.6	215.8	203.9
16-Apr	141.3	215.2	215.6	228.3	236.8	239.5	215.7	203.8
17-Apr	141.4	215.3	215.7	228.4	236.8	239.6	215.6	203.9
18-Apr	141.3	215.5	215.9	228.5	237.0	239.9	215.8	204.2
19-Apr	141.3	215.7	216.0	228.5	237.0	240.1	215.9	204.3
20-Apr	141.5	215.6	215.8	228.6	237.1	240.2	216.0	204.5
21-Apr	142.1	215.5	215.7	228.4	236.8	240.0	215.6	204.3
22-Apr	141.3	215.5	215.8	228.3	236.8	240.0	215.5	204.3
23-Apr	141.4	215.6	215.9	228.3	236.8	240.1	215.5	204.5
24-Apr	141.4	215.5	215.8	228.1	236.7	239.9	215.2	204.3
25-Apr	141.5	215.4	215.8	228.1	236.6	239.9	215.2	204.3
26-Apr	141.4	215.5	215.8	228.2	236.8	239.9	215.1	204.4
27-Apr	141.7	215.2	215.5	227.9	236.6	239.7	214.7	204.1
28-Apr	142.1	215.5	215.8	228.2	236.9	240.0	214.9	204.4
29-Apr	142.2	215.5	215.8	228.2	237.0	240.0	214.8	204.5
30-Apr	142.2	215.4	215.8	228.2	237.1	240.0	214.8	204.5
Average	142.0	215.3	215.6	228.3	237.0	239.8	215.8	204.0

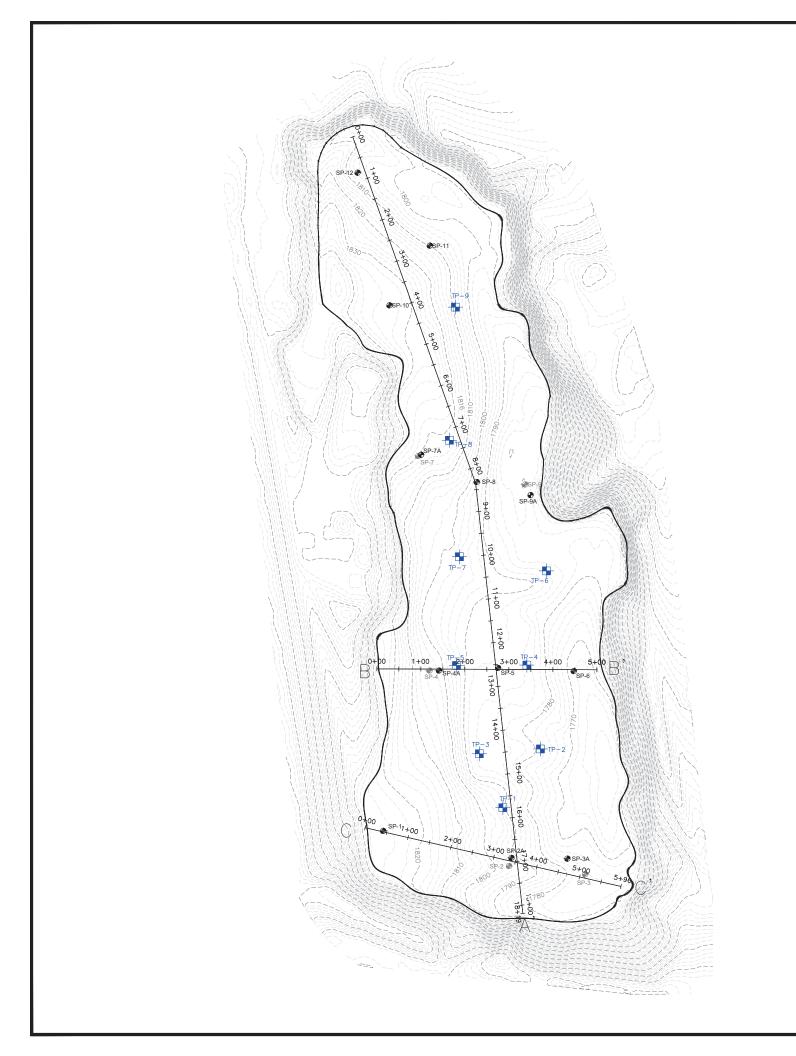
	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft			
1-Apr	206.8	207.5	208.0	207.7	207.7			
2-Apr	207.1	208.0	208.3	208.1	208.2			
3-Apr	207.4	208.2	208.5	208.3	208.3			
4-Apr	207.6	208.3	208.7	208.5	208.5			
5-Apr	207.5	208.3	208.7	208.5	208.5			
6-Apr	206.8	207.6	207.9	207.7	207.7			
7-Apr	206.2	206.7	206.9	206.8	206.8			
8-Apr	206.4	206.6	206.7	206.7	206.7			
9-Apr	206.9	207.0	207.3	207.2	207.2			
10-Apr	206.6	206.6	207.0	206.9	206.8			
11-Apr	206.2	206.6	206.8	206.8	206.8			
12-Apr	206.6	207.2	207.2	207.2	207.3			
13-Apr	206.8	207.4	207.4	207.4	207.5			
14-Apr	206.9	207.2	207.3	207.3	207.2			
15-Apr	207.0	207.0	207.1	207.1	207.0			
16-Apr	207.0	207.7	207.8	207.9	207.8			
17-Apr	207.1	207.7	207.9	208.0	207.9			
18-Apr	207.5	208.1	208.2	208.3	208.2			
19-Apr	207.5	208.1	208.3	208.3	208.2			
20-Apr	207.7	208.1	208.2	208.3	208.2			
21-Apr	207.4	207.9	207.9	208.0	207.9			
22-Apr	207.3	207.7	207.7	207.8	207.7			
23-Apr	207.7	208.2	208.1	208.1	208.2			
24-Apr	207.5	207.9	207.9	207.9	207.9			
25-Apr	207.3	207.8	207.7	207.8	207.9			
26-Apr	207.3	208.0	207.8	207.9	207.9			
27-Apr	207.5	208.6	208.2	208.4	208.4			
28-Apr	207.8	208.5	208.1	208.3	208.4			
29-Apr	207.8	209.5	209.3	209.4	209.4			
30-Apr	207.5	210.0	209.8	210.0	210.0			
Average	207.2	207.8	207.9	207.9	207.9			

				Depth fro	m Surface			
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Apr	145.9	186.6	210.8	194.2	193.7	196.7	202.7	208.9
2-Apr	146.0	184.1	211.2	194.2	192.7	196.8	203.9	208.5
3-Apr	146.5	184.6	211.2	194.4	193.4	197.3	203.9	208.6
4-Apr	146.5	182.8	211.5	194.5	193.1	197.3	204.4	210.3
5-Apr	146.5	182.0	211.7	194.6	192.4	196.9	205.4	212.8
6-Apr	146.3	187.9	211.3	194.2	192.2	196.4	204.5	209.8
7-Apr	146.0	189.9	210.5	193.9	193.0	196.3	202.6	210.1
8-Apr	145.9	191.9	210.4	194.0	195.1	197.9	200.5	205.0
9-Apr	146.1	184.0	211.2	194.1	192.2	198.5	204.6	209.8
10-Apr	145.9	184.3	211.3	194.1	192.0	198.3	203.9	209.4
11-Apr	145.6	187.1	210.8	193.7	194.1	198.2	201.5	207.1
12-Apr	145.4	188.7	210.7	194.1	195.2	198.2	200.2	205.9
13-Apr	145.4	185.9	211.3	194.4	193.7	198.6	202.8	209.3
14-Apr	145.2	187.0	211.4	194.6	192.4	198.9	203.7	211.1
15-Apr	144.8	189.8	211.4	194.6	192.1	198.6	203.7	208.9
16-Apr	144.4	186.4	211.5	194.6	191.6	198.7	204.2	210.5
17-Apr	144.4	184.0	212.1	194.6	190.8	198.5	205.5	211.7
18-Apr	144.5	184.0	212.2	194.9	191.1	199.0	205.7	212.6
19-Apr	144.5	183.6	212.2	195.1	191.8	199.1	204.7	212.2
20-Apr	144.7	182.6	212.4	195.5	192.2	199.3	205.0	211.6
21-Apr	144.6	182.2	212.2	195.0	191.2	199.1	205.0	213.7
22-Apr	144.6	182.6	212.3	195.3	191.8	199.5	204.2	212.1
23-Apr	144.9	181.5	212.5	195.7	191.9	200.1	205.2	214.1
24-Apr	144.8	180.1	212.5	195.5	191.1	199.8	205.6	214.0
25-Apr	144.8	182.0	212.5	195.3	191.0	199.8	205.9	211.9
26-Apr	145.0	183.2	212.5	195.2	191.4	199.8	205.2	212.2
27-Apr	145.0	180.9	212.5	195.5	191.8	200.1	205.5	211.4
28-Apr	145.3	181.8	213.1	196.4	192.8	200.9	206.4	212.5
29-Apr	145.3	180.6	212.5	195.5	191.6	200.2	205.8	211.5
30-Apr	145.5	181.2	212.7	195.7	191.8	200.3	205.3	212.6
Average	145.3	184.4	211.7	194.8	192.4	198.6	204.2	210.7

	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Apr	188.7	193.3	193.5	195.9	198.4	199.2	190.4	176.2
2-Apr	188.9	193.5	193.8	196.2	198.6	199.4	190.5	176.2
3-Apr	189.0	193.8	194.1	196.5	198.9	199.7	190.8	176.5
4-Apr	189.0	193.8	194.1	196.5	199.0	199.7	190.8	176.4
5-Apr	189.1	193.8	194.1	196.5	199.0	199.8	190.8	176.4
6-Apr	188.9	193.5	193.8	196.1	198.6	199.5	190.5	176.0
7-Apr	188.4	193.1	193.4	195.7	198.2	199.1	190.2	175.7
8-Apr	187.9	192.9	193.3	195.6	198.1	199.0	190.0	175.5
9-Apr	188.3	193.2	193.5	195.9	198.3	199.1	190.0	175.5
10-Apr	188.0	193.2	193.4	195.8	198.2	199.0	189.9	175.4
11-Apr	187.8	192.9	193.2	195.5	197.9	198.8	189.8	175.2
12-Apr	187.5	192.9	193.2	195.6	198.0	198.8	189.8	175.1
13-Apr	187.8	193.1	193.4	195.8	198.3	199.1	190.0	175.2
14-Apr	188.1	193.3	193.6	196.0	198.5	199.4	190.2	175.5
15-Apr	188.3	193.4	193.7	195.9	198.4	199.4	190.2	175.5
16-Apr	188.2	193.2	193.5	195.9	198.3	199.2	190.0	175.3
17-Apr	188.2	193.2	193.6	196.0	198.4	199.2	189.9	175.1
18-Apr	188.6	193.6	193.9	196.3	198.8	199.6	190.3	175.5
19-Apr	188.8	193.7	194.0	196.4	198.7	199.6	190.2	175.4
20-Apr	189.0	193.8	194.2	196.6	199.0	199.8	190.4	175.6
21-Apr	188.9	193.6	193.9	196.3	198.7	199.5	190.2	175.4
22-Apr	188.9	193.7	194.0	196.3	198.7	199.6	190.3	175.3
23-Apr	188.8	193.7	194.1	196.5	198.9	199.7	190.4	175.5
24-Apr	188.9	193.7	194.0	196.4	198.8	199.6	190.2	175.3
25-Apr	188.9	193.6	193.9	196.3	198.8	199.6	190.2	175.2
26-Apr	188.7	193.6	194.0	196.3	198.9	199.7	190.2	175.3
27-Apr	188.4	193.4	193.7	196.1	198.6	199.4	189.8	174.9
28-Apr	188.7	193.6	194.0	196.4	199.0	199.7	190.2	175.2
29-Apr	188.8	193.7	194.0	196.4	199.0	199.7	190.1	175.2
30-Apr	189.0	193.7	194.1	196.5	199.0	199.8	190.2	175.2
Average	188.6	193.4	193.8	196.1	198.6	199.4	190.2	175.5

				Depth fro	m Surface			
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Apr	106.8	146.7	145.8	148.7	144.7	132.1	115.8	105.1
2-Apr	107.7	147.3	146.5	149.1	145.1	132.6	116.2	105.6
3-Apr	108.1	147.6	146.6	149.5	145.5	132.9	116.5	105.9
4-Apr	108.4	147.7	146.8	149.5	145.6	132.8	116.6	106.0
5-Apr	108.1	147.8	146.7	149.5	145.6	132.7	116.6	105.9
6-Apr	107.4	147.1	146.0	149.1	145.1	132.3	116.3	105.4
7-Apr	102.0	146.3	144.9	148.6	144.7	131.9	115.9	105.1
8-Apr	103.4	145.1	143.6	148.1	144.5	131.6	115.6	104.7
9-Apr	106.6	146.6	145.8	148.4	144.5	131.6	115.8	104.8
10-Apr	106.8	146.6	145.7	148.3	144.3	131.4	115.6	104.6
11-Apr	105.3	146.2	145.2	148.2	144.2	131.3	114.9	104.5
12-Apr	104.0	145.7	144.6	148.1	144.2	131.2	113.5	104.5
13-Apr	105.1	146.1	145.1	148.5	144.7	131.6	114.8	105.0
14-Apr	106.8	146.9	146.0	148.9	145.0	132.0	115.1	105.3
15-Apr	107.7	147.1	146.3	148.8	144.7	131.8	114.9	105.0
16-Apr	107.2	147.1	146.2	148.6	144.7	131.7	114.8	104.8
17-Apr	107.2	147.1	146.1	148.8	144.8	131.8	115.0	104.9
18-Apr	107.4	147.4	146.3	149.0	145.0	132.0	115.3	105.0
19-Apr	107.4	147.4	146.4	149.1	145.2	132.1	115.3	105.0
20-Apr	107.7	147.6	146.6	149.3	145.4	132.3	115.9	105.2
21-Apr	107.2	147.3	146.2	149.1	145.2	132.1	116.1	105.0
22-Apr	106.9	147.2	146.0	149.0	145.1	132.0	115.9	104.8
23-Apr	106.5	147.1	145.9	149.2	145.4	132.4	116.1	105.1
24-Apr	106.3	146.8	145.6	149.0	145.3	132.2	116.0	105.0
25-Apr	106.0	146.6	145.3	148.9	145.3	132.1	115.9	104.9
26-Apr	105.3	146.0	144.8	148.8	145.2	132.1	115.8	104.8
27-Apr	105.9	146.1	145.0	148.7	145.0	132.0	115.7	104.8
28-Apr	106.3	146.6	145.5	149.0	145.3	132.3	115.9	105.1
29-Apr	106.3	146.6	145.5	148.9	145.3	132.3	116.0	105.1
30-Apr	106.4	146.7	145.5	149.0	145.3	132.3	116.1	105.1
Average	106.5	146.8	145.8	148.9	145.0	132.0	115.7	105.1

# Appendix E Monthly Topography Analysis



#### LEGEND

----- MAJOR CONTOURS (EVERY 10')

MINOR CONTOURS (EVERY 2')

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 APRIL 24, 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.

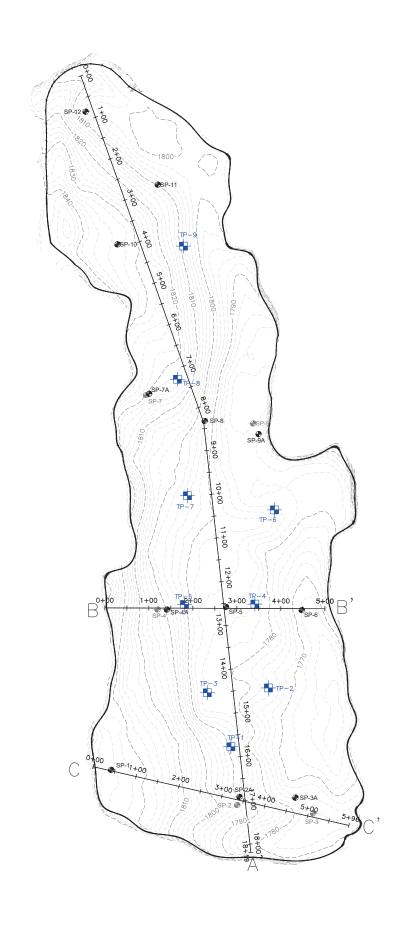
CLIENT	CITY OF BRISTOL INTEGRATED SOLID	WASTE MANAGEMENT FACILITY	2655 VALLEY DRIVE
SCS ENGINEEDS	STEARNS, CONRAD AND SCHMIDT	CONSULTING ENGINEERS, INC. 16521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113	PH. (804) 378-7440 FAX. (804) 378-7433

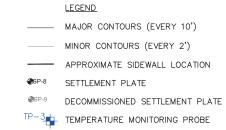
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APRIL 2024 LANDFILL TOPOGRAPHY MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588





#### NOTES:

- GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON JANUARY 14, 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.

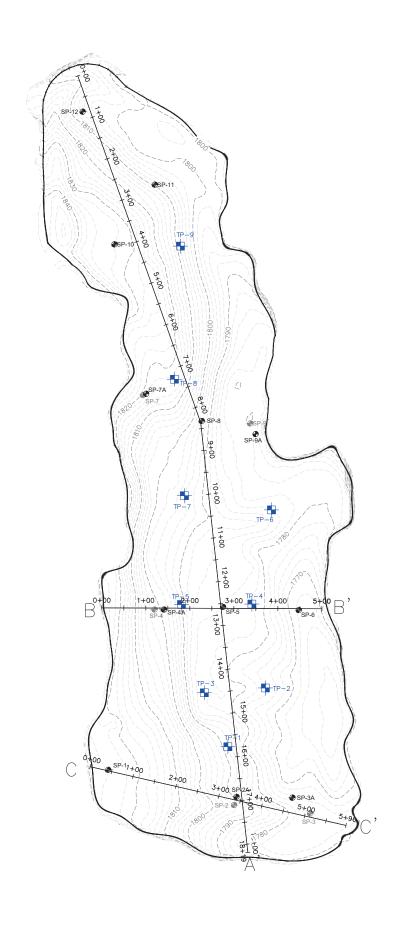
CITY OF BRISTOL INTEGRATED SOLID	WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE	BRISTOL, VIRGINIA 24201	
RS HMIDT	S, INC. DLOTHIAN, VA 23113 378-7433	Q/A RVW BY: CJW	APP. BY:
SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT	CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TNPK - MIDLOTHIAN PH. (804) 378-7440 FAX. (804) 378-7433	DWN. BY: VMM	CHK. BY:
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JANUARY 2025 LANDFILL TOPOGRAPHY MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588



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#### LEGEND

——— MAJOR CONTOURS (EVERY 10')

MINOR CONTOURS (EVERY 2')

---- APPROXIMATE SIDEWALL LOCATION

SETTLEMENT PLATE

DECOMMISSIONED SETTLEMENT PLATE

TP-3 TEMPERATURE MONITORING PROBE

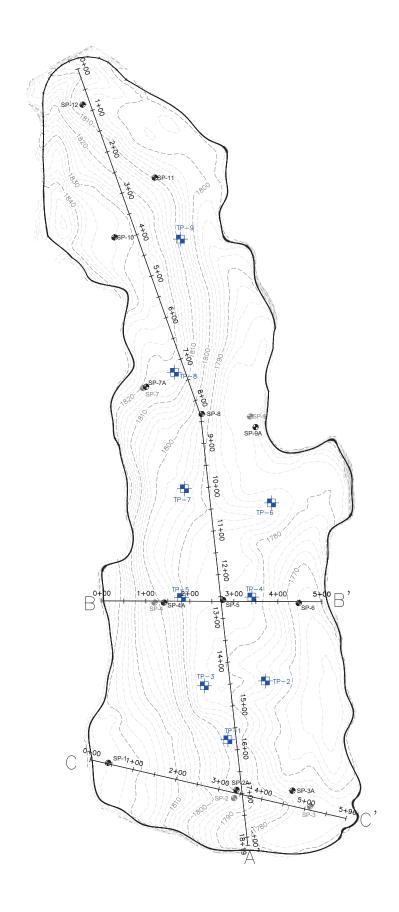
#### NOTES:

- 1. GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON MARCH 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.

SCS ENGINEERS
STEARNS, CONRD AND SCHMIDT
STEARNS

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VIDEAGOGOT LIBORAL		PROJECT TITLE		MONTHLY TOPOGRAPHY ANALYSIS   △	SOLID WASTE PERMIT #588		
	CITY OF BRISTOL INTEGRATED SOLID	WASTE MANAGEMENT FACILITY	2655 VALLEY DRIVE	BRISTOL VIRGINIA 24201	Î		
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#### NOTES:

- 1. GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON APRIL 16, 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.

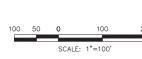
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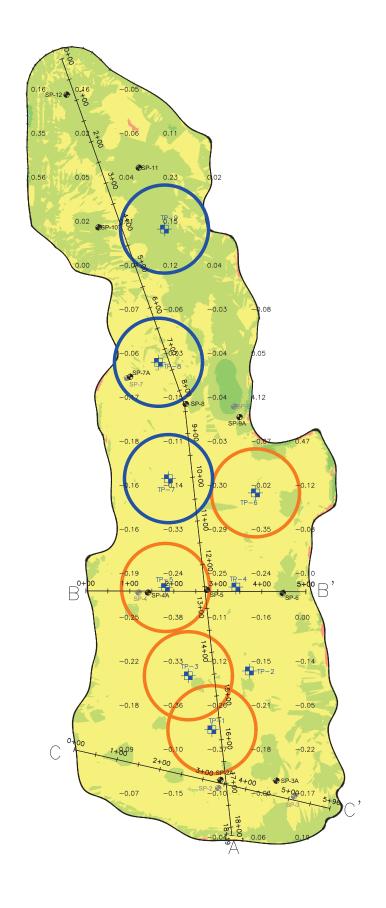
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	2655 VALLEY DRIVE	
/A RVW BY: CJW	BRISTOL, VIRGINIA 24201	

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ENGINEERS	STEARNS, CONRAD AND SCHMID' CONSULTING ENGINEERS, INC. 15521 MDLOTHAN TNPK - MDLOTHAN, V PH. (804) 378-7430 FAX. (804) 378-7433
ENG	S, CONF TING EN LOTHIAN 1 378-7440 F/
scs	STEARN CONSUL 15521 MID PH. (804) 3

	)	STEARNS, CON	CONSULTING	15521 MIDLOTHIAI	PH. (804) 378-7440
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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 AVERAGE TEMPERATURES AT DEPTH BETWEEN 200 °F AND 250 °F



TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 250 °F AND 300 °F

Volume

Base Surface TOPO — March 11, 2025 Comparison Surface TOPO — April 16, 2025

3,522 1,555 Cut Volume Cu. Yd. Cu. Yd. Fill Volume Net Cut 1,967

#### 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	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 MARCH 11, 2025 AND APRIL 16, 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.



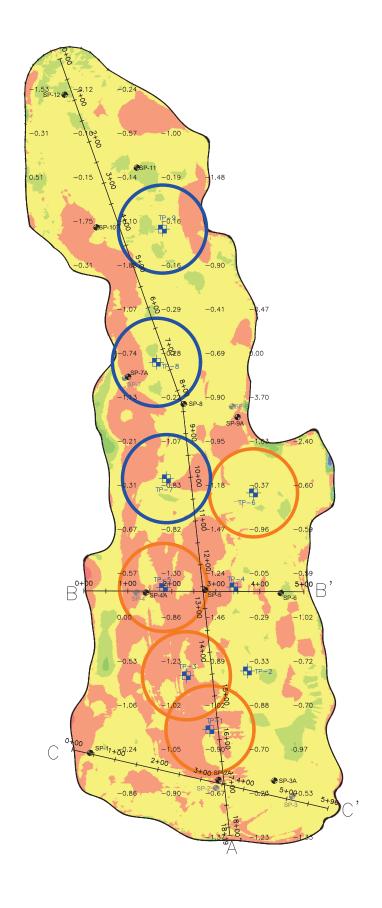
CITY OF BRISTOL INTEGRATED SOLID
WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

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

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SCALE:

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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 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

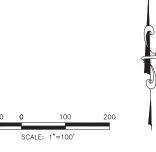
me Base Surface TOPO — January 14, 2025 Comparison Surface TOPO — April 16, 2025

Cut Volume Fill Volume Net Cut 21,472 658 20,814 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	-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 JANUARY 14, 2025 AND APRIL 16, 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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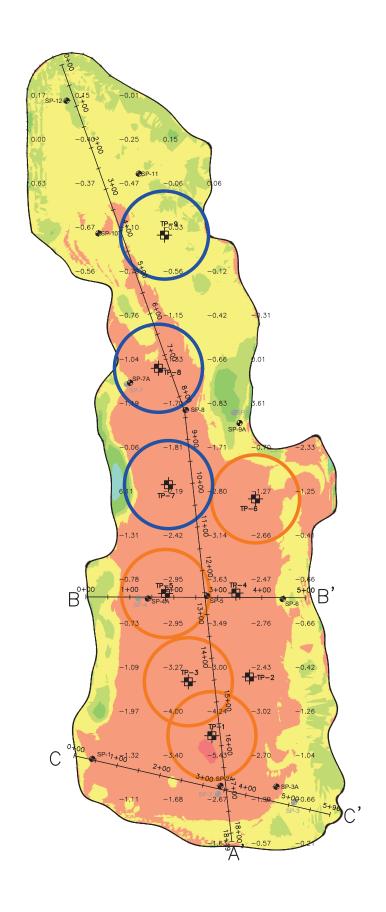
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WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

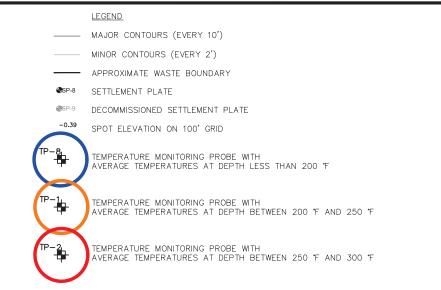
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SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT SCONSULTING ENGINEERS, INC. 16521 MIDLOTHIAN TIPK. MIDLOTHIAN, VA 23113 PH. (804) 378-7440 FAX. (804) 378-7440	DWN. BY:
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Volume

Base Surface TOPO - April 24, 2024 Comparison Surface TOPO - April 16, 2025

 Cut Volume
 38,635
 Cu. Yd.

 Fill Volume
 1,849
 Cu. Yd.

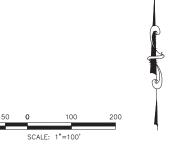
 Net Cut
 36,786
 Cu. Yd.

#### 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	N

#### NOTES:

- 1. THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON APRIL 24, 2024 AND APRIL 16, 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(S) IS BASED UPON NAVD-88.



DATE						
REVISION						
NO.		◁	$\triangleleft$	$\triangleleft$	$\triangleleft$	$\leq$
	$\left[ \right]$			YSIS		

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

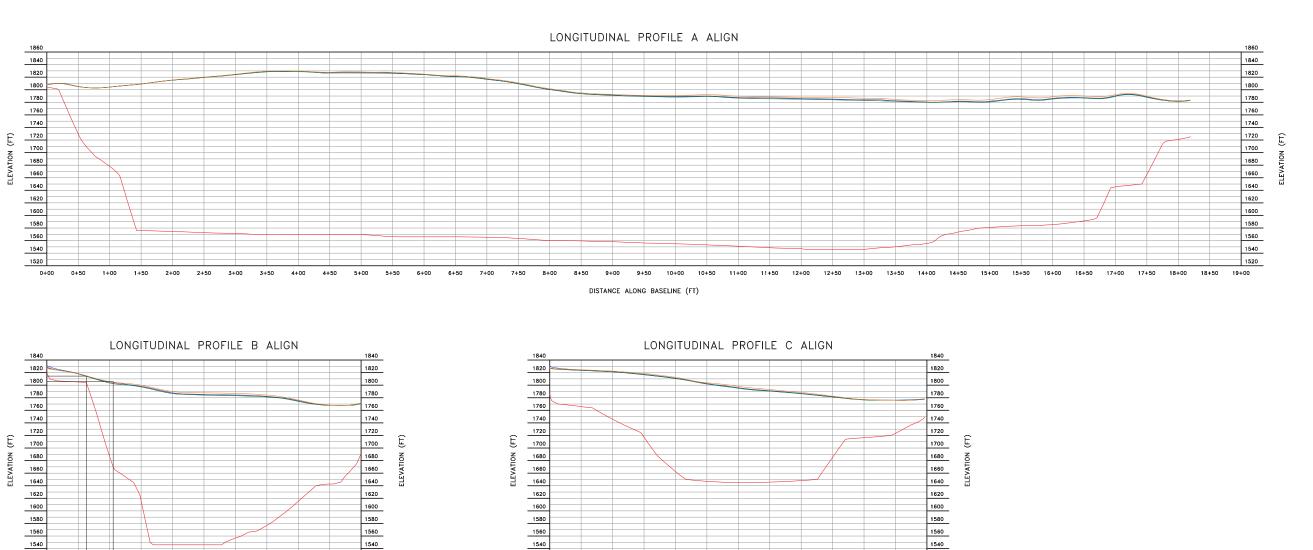
RS	HMIDT	NC. HIAN, VA	433	NA RVW BY
SCS ENGINEERS	STEARNS, CONRAD AND SCHMIDT	CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA.	PH. (804) 378-7440 FAX. (804) 378-7433	PROJ. NO. DWN. BY:

N P SEE	PROJ. NC 02218 DSN RY:	: :
CADD FILE: SURF COI	MР	
DATE:	) E	

DATE: 5/1/2025 SCALE:

DRAWING NO.

7



1600

1580

1560

1540

1520

1520

0+50

1+00

1+50

2+50

3+00

DISTANCE ALONG BASELINE (FT)

4+00

5+00

1540

1520

0+50

1+00

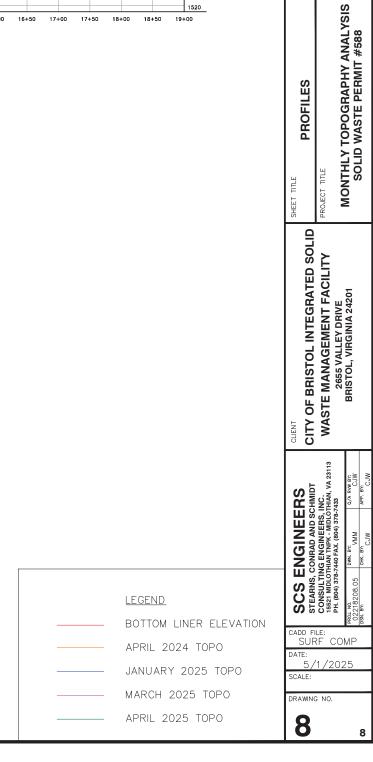
1+50

2+00 2+50

DISTANCE ALONG BASELINE (FT)

3+00

3+50



1600

1580

1560

1540

1520

9 44444

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							4,	1 - 4/2/2025	j					
Personnel				M. Nguyer	ı, L. Tucker					,	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 INSTALLE	E <b>D</b>				<b>T</b> 1 11 1			1				I		
EW-36A	4/1/2025	5.94	64.90	49.14	Too tall to read	459999	180.00	135	115.10	Y	0	N	<b>~</b>	Air off, lost PVC
EW-49	4/2/2025	6.08	71.57	70.62	79565	79565	96.15	87	24.58	Y	0	N	<b>~</b>	Air off, pump head leaning, too tall to take on/off
EW-50	4/2/2025	4.88	49.72	50.57	1552761	1539187	77.70	83	27.98	Y	80	N	~	
EW-52	4/2/2025	3.46	43.74	45.32	1239036	1235299	98.70	80	54.96	Y	105	N	~	Quick connect air line doesn't lock
EW-53	4/2/2025	4.79	52.01	42.53	3294528	3294525	100.70	77	48.69	Y	120	N	<b>~</b>	
EW-54	4/2/2025	4.46	33.87	31.78			82.70	65	48.83	Υ	0	N	~	Air not connected
EW-55	4/2/2025	3.84	38.94	34.79	73374	73374	90.40	90	51.46	Y	0	N	~	Air off
EW-59	4/1/2025	4.49	36.22	34.17	3537043	3536810	73.40	61	37.18	Y	100	N	~	
EW-60	4/2/2025	4.72	41.17	48.93	147455	126607	81.80	72.5	40.63	Y	110	Y	~	
EW-62	4/2/2025	3.96	75.91	DNM	214599		110.60	91.5	34.69	Y	0	N	~	Air on, PSI reading 0
EW-63	4/2/2025	5.04	58.72	DNM			117.00		58.28	Y		N	<b>~</b>	Air disconnected
EW-64	4/2/2025	4.33	81.75	79.12	196791	196791	109.00	90	27.25	Υ	0	N	<b>~</b>	Air on, PSI reading 0
EW-65	4/2/2025	3.13	50.02	50.37	79679	77157	88.40	70	38.38	Y	115	N	<b>~</b>	
EW-67	4/2/2025	3.27	40.46	39.66		28743	107.75	76	67.29	Y	0	N	~	Air off
EW-68	4/2/2025	1.85	46.50	43.82	2647461	2642840	73.57	60	27.07	Υ	180	Υ	<b>~</b>	
EW-78	4/1/2025	3.87	46.62	45.41	31066	18075	57.00	47	10.38	Y	95	N	~	
EW-81	4/2/2025	6.42	103.73	62.28	Too tall to read		151.56	125	47.83	Y		N	<b>~</b>	
EW-82	4/2/2025	4.48	123.11	144.34	631288	631288	163.26	145	40.15	Y	0	N	<b>~</b>	Air off
EW-83	4/2/2025	5.08	85.84	86.25	2263	69720	167.04	145	81.20	Υ	0	N	~	Air off
EW-85	4/1/2025	6.25	62.84	55.73	294797	292827	91.00	78	28.16	Y	110	N	<b>~</b>	
EW-93	4/1/2025	4.37	33.84	58.88	1292375	1283214	111.00		77.16	Υ	0	N	<b>~</b>	Air off
EW-96	4/2/2025	7.42	48.19	48.23	Too tall to read		164.35	145	116.16	Y	0	N	~	Air off
EW-98	4/1/2025	4.37	31.78	32.17	1716630	1637860	51.00	46	19.22	Υ	110	N	~	

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

Date							4/	1 - 4/2/2025	j					
Personnel				M. Nguyen	, L. Tucker						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	4/2/2025	3.33	Dry	Dry			42.71			N		N	~	Hit bottom at 38.40'
EW-61	4/1/2025	2.92	63.32	62.18			87.80	75	24.48	N		N	~	
EW-66	4/2/2025	6.45	33.97	30.98						N		N	~	
EW-69	4/2/2025	4.63	93.23				98.00		4.77	N		N	~	
EW-70	4/1/2025	2.04	65.32	64.63			71.00	58	5.68	N		N	~	
EW-71	4/1/2025	5.52	166.06	169.49			185.80		19.74	N		N	<b>~</b>	
EW-72	4/2/2025	4.83	110.68	117.34			141.21		30.53	N		N	<b>~</b>	
EW-73	4/1/2025	3.78	107.19	107.40			116.00		8.81	N		N	<b>~</b>	
EW-74	4/2/2025	6.13	161.71	159.73			184.15		22.44	N		N	~	
EW-77	4/2/2025	5.31	118.14	120.72			185.22		67.08	N		N	~	
EW-79	4/2/2025	5.25	154.82	153.83			185.64		30.82	N		N	~	
EW-80	4/2/2025	3.02	142.71	137.84			149.00		6.29	N		N	~	Blackline gas meter goes off around this well
EW-84	4/2/2025	3.96	79.76	81.62			130.56		50.80	N		N	~	
EW-86	4/2/2025	3.30	77.05	77.14			153.00		75.95	N		N	~	
EW-91	4/2/2025	6.05	46.14	47.19			137.70		91.56	N		N	~	
EW-92	4/2/2025	8.25		DNM			112.99			N		N	~	Too tall to measure
EW-95	4/2/2025			DNM			68.00			N		N	~	Caution tape around well, did not measure
EW-97	4/2/2025	7.83		DNM			144.50			N		N	~	Too tall to measure
EW-99	4/2/2025	3.23	60.53	58.78			65.00		4.47	N		N	<b>~</b>	

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

Date							4/	1 - 4/2/2025	5					
Personnel				M. Nguyen	, L. Tucker						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
MEASURE CA	SING STICKUP	AND CYCL	E COUNTER (	ONLY										
EW-33B <sup>2</sup>	4/2/2025	5.79	DNM	DNM			185.00	140		N		N	<b>~</b>	
EW-75 <sup>1</sup>	4/2/2025	5.21	DNM	DNM			130.82	140		N		N	~	
EW-76 <sup>2</sup>	4/2/2025	3.67	DNM	DNM			127.00	108		N		N	~	
EW-87 <sup>2</sup>	4/2/2025	6.33	DNM	DNM	360749	340749	149.57	110		Y		N	~	Air off
EW-88 <sup>2</sup>	4/2/2025	4.42	DNM	DNM			100.00	61		Y		N	<b>✓</b>	Air disconnected
EW-89 <sup>2</sup>	4/2/2025	4.92	DNM	DNM	0		84.57	70		Y		N	~	Air off
EW-94 <sup>1</sup>	4/2/2025	3.58	DNM	DNM	1128396	987027	50.00	38		Υ	90	N	<b>~</b>	

DNM = Do not measure

<sup>1 =</sup> 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									
EW-36A									
EW-49									
EW-50									
EW-51									
EW-52									
EW-53									
EW-54									
EW-55									
EW-57									
EW-58									
EW-59									
EW-60	4/2/2025	9:30	63.0	5.61	25.56	++++*	-140.80	3.81	Sheen, dark brown
EW-61									
EW-62									
EW-64									
EW-67									
EW-68	4/2/2025	12:15	73.0	6.45	31.54	++++*	-185.30	0.00	Light sheen, blackish
EW-70									
EW-72									

#### 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									
EW-74									
EW-75									
EW-76									
EW-78									
EW-81									
EW-82									
EW-83									
EW-85									
EW-87									
EW-88									
EW-89									
EW-90									
EW-91									
EW-92									
EW-94									
EW-96									
EW-98									
EW-100									
Sampler: Log Checked		M. Nguyen, L. L. Howard	Tucker			Sampl	es Shipped By:	FedEx Enthalpy Analy	utical

<sup>\*</sup>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 25D0534

Client Name: SCS Engineers - Winchester

296 Victory Road

Winchester, VA 22602

Submitted To: Jennifer Robb

Project Number:

Purchase Order:

Date Received:

Date Issued:

April 7, 2025 9:30

April 21, 2025 17:24

02218208.15 Task 4

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

Enclosed are the results of analyses for samples received by the laboratory on 04/07/2025 09:30. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

Sarah R. Endsley Laboratory Manager

#### End Notes:

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

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

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

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



4/21/2025 5:24:05PM

Date Issued:

#### **Analysis Detects Report**

Client Name: SCS Engineers - Winchester

Client Site ID: Bristol LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb

Laboratory Sample ID: 25D0534-01 Client Sample ID: EW-60

							Dil.	
Parameter	Samp ID	Reference Method	Sample Results	Qual	DL	LOQ	Factor	Units
Arsenic	01	SW6010D	0.246		0.0100	0.0200	1	mg/L
Barium	01	SW6010D	1.96		0.0050	0.0100	1	mg/L
Cadmium	01	SW6010D	0.0284		0.0020	0.0040	1	mg/L
Chromium	01	SW6010D	0.248		0.0080	0.0100	1	mg/L
Lead	01	SW6010D	0.132		0.0060	0.0100	1	mg/L
Mercury	01	SW6020B	1.69		1.00	1.00	5	ug/L
Nickel	01	SW6010D	0.0161		0.0070	0.0100	1	mg/L
Silver	01	SW6010D	0.0070	J	0.0050	0.0100	1	mg/L
Zinc	01RE1	SW6010D	0.366		0.0500	0.0500	5	mg/L
2-Butanone (MEK)	01	SW8260D	20800		150	500	50	ug/L
Acetone	01RE1	SW8260D	61200		3500	5000	500	ug/L
Benzene	01	SW8260D	938		20.0	50.0	50	ug/L
Ethylbenzene	01	SW8260D	52.5		20.0	50.0	50	ug/L
Tetrahydrofuran	01	SW8260D	3660		500	500	50	ug/L
Toluene	01	SW8260D	51.0		25.0	50.0	50	ug/L
Xylenes, Total	01	SW8260D	87.5	J	50.0	150	50	ug/L
Ammonia as N	01	EPA350.1 R2.0	2440		146	200	2000	mg/L
BOD	01	SM5210B-2016	33900	Н	0.2	2.0	1	mg/L
COD	01	SM5220D-2011	47900		6300	10000	1000	mg/L
TKN as N	01RE1	EPA351.2 R2.0	2240		80.0	200	400	mg/L
Total Recoverable Phenolics	01	SW9065	43.0		1.50	2.50	1	mg/L



4/21/2025 5:24:05PM

Dil.

50

2000

1

1000

100

500

1

ug/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

Date Issued:

J

Н

Н

50.0

146

0.2

6300

1.00

45.9

0.750

150

200

2.0

10000

5.00

250

1.25

#### **Analysis Detects Report**

Client Name: SCS Engineers - Winchester

25D0534-02

**Bristol LFG-EW Monthly Monitoring** 

02

02

02

02

02

02

02

**Client Sample ID:** 

Submitted To: Jennifer Robb

Client Site ID:

Xylenes, Total

Ammonia as N

BOD

COD

Nitrite as N

TKN as N

Total Recoverable Phenolics

**Laboratory Sample ID:** 

Parameter LOQ Units Factor Samp ID Reference Method Sample Results Qual DL 0.217 Arsenic 02 SW6010D 0.0100 0.0200 1 mg/L Barium 02 SW6010D 2.95 0.0050 0.0100 mg/L 0.143 Chromium 02 SW6010D 0.0080 0.0100 1 mg/L SW6010D 0.0090 0.0080 0.0100 02 J 1 Copper mg/L 02 SW6010D 0.0207 0.0060 0.0100 1 Lead mg/L SW6010D 0.0713 0.0070 0.0100 Nickel 02 1 mg/L Zinc 02 SW6010D 0.0297 0.0100 0.0100 1 mg/L SW8260D 28100 2-Butanone (MEK) 02 150 500 50 ug/L 02RF1 SW8260D 78000 3500 5000 500 Acetone ug/L 1540 Benzene 02 SW8260D 20.0 50.0 50 ug/L 02 SW8260D 73.5 20.0 50.0 50 Ethylbenzene ug/L Tetrahydrofuran 02 SW8260D 5920 500 500 50 ug/L 02 SW8260D 114 25.0 50.0 50 Toluene ug/L

144

2580

24600

24100

7.60

2600

35.0

**EW-68** 

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".

SW8260D

EPA350.1 R2.0

SM5210B-2016

SM5220D-2011

SM4500-NO2B-2021

EPA351.2 R2.0

SW9065



# **Certificate of Analysis**

Client Name: SCS Engineers - Winchester

**Bristol LFG-EW Monthly Monitoring** 

Submitted To: Jennifer Robb

Client Site I.D.:

Date Issued:

4/21/2025 5:24:05PM

Work Order:

25D0534

#### **ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EW-60	25D0534-01	Ground Water	04/02/2025 09:30	04/07/2025 09:30
EW-68	25D0534-02	Ground Water	04/02/2025 12:15	04/07/2025 09:30
Trip Blank	25D0534-03	Waste Water	03/25/2025 10:43	04/07/2025 09:30



# **Certificate of Analysis**

Client Name: SCS Engineers - Winchester

Date Issued: 4/21/2025 5:24:05PM

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

Submitted To: Jennifer Robb Work Order: 25D0534

Client Sample ID: EW-60 Laboratory Sample ID: 25D0534-01

			Reference	Sample Prep	Analyzed	Sample						
Parameter	Samp ID	CAS	Method	Date/Time	Date/Time	Results	Qual	DL	LOQ	DF	Units	Analys
Metals (Total) by EPA 6000/7000 Serie	s Methods											
Silver	01	7440-22-4	SW6010D	04/09/2025 17:00	04/10/2025 11:52	0.0070	J	0.0050	0.0100	1	mg/L	DRH
Arsenic	01	7440-38-2	SW6010D	04/09/2025 17:00	04/10/2025 11:52	0.246		0.0100	0.0200	1	mg/L	DRH
Barium	01	7440-39-3	SW6010D	04/09/2025 17:00	04/10/2025 11:52	1.96		0.0050	0.0100	1	mg/L	DRH
Cadmium	01	7440-43-9	SW6010D	04/09/2025 17:00	04/10/2025 11:52	0.0284		0.0020	0.0040	1	mg/L	DRH
Chromium	01	7440-47-3	SW6010D	04/09/2025 17:00	04/10/2025 11:52	0.248		0.0080	0.0100	1	mg/L	DRH
Copper	01	7440-50-8	SW6010D	04/09/2025 17:00	04/10/2025 11:52	BLOD		0.0080	0.0100	1	mg/L	DRH
Mercury	01	7439-97-6	SW6020B	04/09/2025 17:00	04/16/2025 12:52	1.69		1.00	1.00	5	ug/L	AB
Nickel	01	7440-02-0	SW6010D	04/09/2025 17:00	04/10/2025 11:52	0.0161		0.0070	0.0100	1	mg/L	DRH
Lead	01	7439-92-1	SW6010D	04/09/2025 17:00	04/10/2025 11:52	0.132		0.0060	0.0100	1	mg/L	DRH
Selenium	01	7782-49-2	SW6010D	04/09/2025 17:00	04/10/2025 11:52	BLOD		0.0400	0.0500	1	mg/L	DRH
Zinc	01RE1	7440-66-6	SW6010D	04/09/2025 17:00	04/10/2025 12:50	0.366		0.0500	0.0500	5	mg/L	DRH
Volatile Organic Compounds by GCM	S											
2-Butanone (MEK)	01	78-93-3	SW8260D	04/09/2025 16:55	04/09/2025 16:55	20800		150	500	50	ug/L	TLH
Acetone	01RE1	67-64-1	SW8260D	04/09/2025 17:18	04/09/2025 17:18	61200		3500	5000	500	ug/L	TLH
Benzene	01	71-43-2	SW8260D	04/09/2025 16:55	04/09/2025 16:55	938		20.0	50.0	50	ug/L	TLH
Ethylbenzene	01	100-41-4	SW8260D	04/09/2025 16:55	04/09/2025 16:55	52.5		20.0	50.0	50	ug/L	TLH
Toluene	01	108-88-3	SW8260D	04/09/2025 16:55	04/09/2025 16:55	51.0		25.0	50.0	50	ug/L	TLH
Xylenes, Total	01	1330-20-7	SW8260D	04/09/2025 16:55	04/09/2025 16:55	87.5	J	50.0	150	50	ug/L	TLH
Tetrahydrofuran	01	109-99-9	SW8260D	04/09/2025 16:55	04/09/2025 16:55	3660		500	500	50	ug/L	TLH
Surr: 1,2-Dichloroethane-d4 (Surr)	01	100	% 70-120	04/09/2025 10	6:55 04/09/2025 16	:55						
Surr: 4-Bromofluorobenzene (Surr)	01	99.0	% 75-120	04/09/2025 1	6:55 04/09/2025 16	:55						
Surr: Dibromofluoromethane (Surr)	01	107	% 70-130	04/09/2025 10	6:55 04/09/2025 16	:55						
Surr: Toluene-d8 (Surr)	01	102	% 70-130	04/09/2025 10	6:55 04/09/2025 16	:55						
Surr: 1,2-Dichloroethane-d4 (Surr)	01RE1	103	% 70-120	04/09/2025 1	7:18 04/09/2025 17	:18						
Surr: 4-Bromofluorobenzene (Surr)	01RE1	96.6	% 75-120	04/09/2025 1	7:18 04/09/2025 17	:18						



**Certificate of Analysis** 

Client Name: SCS Engineers - Winchester

Date Issued:

4/21/2025 5:24:05PM

Client Site I.D.:

Bristol LFG-EW Monthly Monitoring

Submitted To: Jennife

Jennifer Robb

Work Order:

25D0534

Client Sample ID: EW-60 Laboratory Sample ID: 25D0534-01

Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
01RE1	110 9	% 70-130	04/09/2025 17:	18 04/09/2025 17:18	3						
01RE1	103 9	% 70-130	04/09/2025 17:	18 04/09/2025 17:18	3						
СМЅ											
01	120-12-7	SW8270E	04/08/2025 13:30	04/08/2025 23:33	BLOD		200	400	20	ug/L	BMS
01	Ġ	% 5-136	04/08/2025 13:	30 04/08/2025 23:33	3						DS
01	28.8 9	% 9-117	04/08/2025 13:	30 04/08/2025 23:33	3						
01	15.8 9	% 5-60	04/08/2025 13:	30 04/08/2025 23:33	3						
01	262 9	% 5-151	04/08/2025 13:	30 04/08/2025 23:33	3						DS
01	0.400 9	% 5-60	04/08/2025 13:	30 04/08/2025 23:33	3						DS
01	24.0 9	% 5-141	04/08/2025 13:	30 04/08/2025 23:33	3						
	01RE1 01RE1 CMS 01 01 01 01 01 01	O1RE1 110 9 01RE1 103 9  CMS  01 120-12-7  01 28.8 9 01 15.8 9 01 262 9 01 0.400 9	01RE1 110 % 70-130 01RE1 103 % 70-130 CMS  01 120-12-7 SW8270E  01 % 5-136 01 28.8 % 9-117 01 15.8 % 5-60 01 262 % 5-151 01 0.400 % 5-60	Samp ID         CAS         Method         Date/Time           01RE1         110 %         70-130         04/09/2025 17:           01RE1         103 %         70-130         04/09/2025 17:           CMS           01         120-12-7         SW8270E         04/08/2025 13:30           01         %         5-136         04/08/2025 13:30           01         28.8 %         9-117         04/08/2025 13:30           01         15.8 %         5-60         04/08/2025 13:30           01         262 %         5-151         04/08/2025 13:30           01         262 %         5-151         04/08/2025 13:30           01         0.400 %         5-60         04/08/2025 13:30	Samp ID         CAS         Method         Date/Time         Date/Time           01RE1         110 %         70-130         04/09/2025 17:18         04/09/2025 17:18           01RE1         103 %         70-130         04/09/2025 17:18         04/09/2025 17:18           CMS           01         120-12-7         SW8270E         04/08/2025 13:30         04/08/2025 23:33           01         %         5-136         04/08/2025 13:30         04/08/2025 23:33           01         28.8 %         9-117         04/08/2025 13:30         04/08/2025 23:33           01         15.8 %         5-60         04/08/2025 13:30         04/08/2025 23:33           01         262 %         5-151         04/08/2025 13:30         04/08/2025 23:33           01         0.400 %         5-60         04/08/2025 13:30         04/08/2025 23:33	Samp ID         CAS         Method         Date/Time         Date/Time         Results           01RE1 01RE1 103 % 70-130 04/09/2025 17:18 01RE1 103 % 70-130 04/09/2025 17:18 04/09/2025 17:18 04/09/2025 17:18 04/09/2025 17:18         04/09/2025 17:18 04/09/2025 17:18 04/09/2025 17:18           CMS         01 120-12-7 SW8270E 04/08/2025 13:30 04/08/2025 23:33 BLOD         01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 23:33 04/08/2025 23:33 01 04/08/2025 23:33 04/08/2025 23:33 01 04/08/2025 23:33 04/08/2025 23:33 01 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/	Samp ID         CAS         Method         Date/Time         Date/Time         Results         Qual           01RE1 01RE1         110 % 70-130 04/09/2025 17:18 04/09/2025 17:18 04/09/2025 17:18         04/09/2025 17:18 04/09/2025 17:18           CMS         01 120-12-7 SW8270E 04/08/2025 13:30 04/08/2025 23:33 BLOD           01 28.8 % 9-117 04/08/2025 13:30 04/08/2025 23:33 01 15.8 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 262 % 5-151 04/08/2025 13:30 04/08/2025 23:33 01 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 23:33 04/08/2025 23:33 01 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:	Samp ID         CAS         Method         Date/Time         Date/Time         Results         Qual         DL           01RE1 01RE1 103 % 70-130 04/09/2025 17:18 01RE1 103 % 70-130 04/09/2025 17:18 04/09/2025 17:18 04/09/2025 17:18 04/09/2025 17:18         04/09/2025 17:18 04/09/2025 17:18 04/09/2025 17:18         04/09/2025 17:18 04/09/2025 17:18 04/09/2025 17:18 04/09/2025 17:18           01 120-12-7 SW8270E 04/08/2025 13:30 04/08/2025 23:33 01 28.8 % 9-117 04/08/2025 13:30 04/08/2025 23:33 01 15.8 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 262 % 5-151 04/08/2025 13:30 04/08/2025 23:33 01 0.400 % 5-60 04/08/2025 13:30 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/0	Samp ID         CAS         Method         Date/Time         Date/Time         Results         Qual         DL         LOQ           01RE1 01RE1 103 % 70-130 04/09/2025 17:18 01RE1 103 % 70-130 04/09/2025 17:18 04/09/2025 17:18 04/09/2025 17:18         04/09/2025 17:18 04/09/2025 17:18         04/09/2025 17:18 04/09/2025 17:18         04/09/2025 17:18 04/09/2025 17:18         04/09/2025 17:18 04/09/2025 17:18 04/09/2025 17:18         04/09/2025 17:18 04/09/2025 17:	Samp ID         CAS         Method         Date/Time         Date/Time         Results         Qual         DL         LOQ         DF           01RE1 01RE1 103 % 70-130 04/09/2025 17:18 01RE1 103 % 70-130 04/09/2025 17:18 04/09/2025 17:18 04/09/2025 17:18         04/09/2025 17:18 04/09/2025 17:18         04/09/2025 17:18 04/09/2025 17:18         04/09/2025 17:18 04/09/2025 17:18           CMS         01 120-12-7 SW8270E 04/08/2025 13:30 04/08/2025 23:33 BLOD 200 400 20         200 400 20         01 28.8 % 9-117 04/08/2025 13:30 04/08/2025 23:33 04/08/2025 23:33 01 15.8 % 5-60 04/08/2025 13:30 04/08/2025 23:33 01 0262 % 5-151 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 23:33 01 04/08/2025 13:30 04/08/2025 23:33 01 04/08/2025 23:33 04/08/2025 23:33 01 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 01 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2025 23:33 04/08/2	Samp ID         CAS         Method         Date/Time         Date/Time         Results         Qual         DL         LOQ         DF         Units           01RE1         110 %         70-130         04/09/2025 17:18         04/09/2025 17



# **Certificate of Analysis**

Client Name: SCS Engineers - Winchester

Date Issued: 4/21/2025 5:24:05PM

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

Submitted To: Jennifer Robb Work Order: 25D0534

Client Sample ID: EW-60 Laboratory Sample ID: 25D0534-01

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Wet Chemistry Analysis												
Ammonia as N	01	7664-41-7	EPA350.1 R2.0	04/17/2025 23:02	04/17/2025 23:02	2440		146	200	2000	mg/L	AAH
BOD	01	E1640606	SM5210B-20 16	04/08/2025 15:45	04/08/2025 15:45	33900	Н	0.2	2.0	1	mg/L	KKB
COD	01	NA	SM5220D-20 11	04/13/2025 22:18	04/13/2025 22:18	47900		6300	10000	1000	mg/L	AAH
Nitrate as N	01	14797-55-8	SM4500-NO 3F-2019CAL C	04/17/2025 11:00	04/17/2025 19:11	BLOD		0.500	1.25	5	mg/L	CET
Nitrate+Nitrite as N	01	E701177	SM4500-NO 3F-2019	04/17/2025 11:00	04/17/2025 19:11	BLOD		0.50	0.50	5	mg/L	BKR
Nitrite as N	01	14797-65-0	SM4500-NO 2B-2021	04/08/2025 12:00	04/08/2025 12:00	BLOD	Н	0.25	1.25	1	mg/L	CET
Total Recoverable Phenolics	01	NA	SW9065	04/21/2025 15:45	04/21/2025 15:45	43.0		1.50	2.50	1	mg/L	SPH
TKN as N	01RE1	E17148461	EPA351.2 R2.0	04/17/2025 12:18	04/17/2025 12:18	2240		80.0	200	400	mg/L	TEG



**Certificate of Analysis** 

Client Name: SCS Engineers - Winchester

Jennifer Robb

Date Issued:

4/21/2025 5:24:05PM

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

Work Order:

25D0534

Client Sample ID: EW-68

Laboratory Sample ID:

25D0534-02

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 Methods											
Silver	02	7440-22-4	SW6010D	04/09/2025 17:00	04/10/2025 11:54	BLOD		0.0050	0.0100	1	mg/L	DRH
Arsenic	02	7440-38-2	SW6010D	04/09/2025 17:00	04/10/2025 11:54	0.217		0.0100	0.0200	1	mg/L	DRH
Barium	02	7440-39-3	SW6010D	04/09/2025 17:00	04/10/2025 11:54	2.95		0.0050	0.0100	1	mg/L	DRH
Cadmium	02	7440-43-9	SW6010D	04/09/2025 17:00	04/10/2025 11:54	BLOD		0.0020	0.0040	1	mg/L	DRH
Chromium	02	7440-47-3	SW6010D	04/09/2025 17:00	04/10/2025 11:54	0.143		0.0080	0.0100	1	mg/L	DRH
Copper	02	7440-50-8	SW6010D	04/09/2025 17:00	04/10/2025 11:54	0.0090	J	0.0080	0.0100	1	mg/L	DRH
Mercury	02	7439-97-6	SW6020B	04/09/2025 17:00	04/16/2025 12:55	BLOD		1.00	1.00	5	ug/L	AB
Nickel	02	7440-02-0	SW6010D	04/09/2025 17:00	04/10/2025 11:54	0.0713		0.0070	0.0100	1	mg/L	DRH
Lead	02	7439-92-1	SW6010D	04/09/2025 17:00	04/10/2025 11:54	0.0207		0.0060	0.0100	1	mg/L	DRH
Selenium	02	7782-49-2	SW6010D	04/09/2025 17:00	04/10/2025 11:54	BLOD		0.0400	0.0500	1	mg/L	DRH
Zinc	02	7440-66-6	SW6010D	04/09/2025 17:00	04/10/2025 11:54	0.0297		0.0100	0.0100	1	mg/L	DRH



# **Certificate of Analysis**

Client Name: SCS Engineers - Winchester

Date Issued:

4/21/2025 5:24:05PM

Client Site I.D.:

**Bristol LFG-EW Monthly Monitoring** 

Submitted To: Jennifer Robb

Work Order:

25D0534

Client Sample ID:	EW-68	Laboratory Sample ID:	25D0534-02
Cilent Sample ID:	<b>⊏۷۷-0</b> 0	Laboratory Sample ID:	<b>25DU534-U2</b>

						,						
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)	02	78-93-3	SW8260D	04/09/2025 17:41	04/09/2025 17:41	28100		150	500	50	ug/L	TLH
Acetone	02RE1	67-64-1	SW8260D	04/09/2025 18:04	04/09/2025 18:04	78000		3500	5000	500	ug/L	TLH
Benzene	02	71-43-2	SW8260D	04/09/2025 17:41	04/09/2025 17:41	1540		20.0	50.0	50	ug/L	TLH
Ethylbenzene	02	100-41-4	SW8260D	04/09/2025 17:41	04/09/2025 17:41	73.5		20.0	50.0	50	ug/L	TLH
Toluene	02	108-88-3	SW8260D	04/09/2025 17:41	04/09/2025 17:41	114		25.0	50.0	50	ug/L	TLH
Xylenes, Total	02	1330-20-7	SW8260D	04/09/2025 17:41	04/09/2025 17:41	144	J	50.0	150	50	ug/L	TLH
Tetrahydrofuran	02	109-99-9	SW8260D	04/09/2025 17:41	04/09/2025 17:41	5920		500	500	50	ug/L	TLH
Surr: 1,2-Dichloroethane-d4 (Surr)	02	98.7	% 70-120	04/09/2025 1	7:41 04/09/2025 17:	:41						
Surr: 4-Bromofluorobenzene (Surr)	02	96.2	% 75-120	04/09/2025 1	7:41 04/09/2025 17:	:41						
Surr: Dibromofluoromethane (Surr)	02	105	% 70-130	04/09/2025 1	7:41 04/09/2025 17:	:41						
Surr: Toluene-d8 (Surr)	02	103	% 70-130	04/09/2025 1	7:41 04/09/2025 17:	:41						
Surr: 1,2-Dichloroethane-d4 (Surr)	02RE1	97.6	% 70-120	04/09/2025 18	8:04 04/09/2025 18:	:04						
Surr: 4-Bromofluorobenzene (Surr)	02RE1	95.6	% 75-120	04/09/2025 18	8:04 04/09/2025 18:	:04						
Surr: Dibromofluoromethane (Surr)	02RE1	105	% 70-130	04/09/2025 18	8:04 04/09/2025 18:	:04						
Surr: Toluene-d8 (Surr)	02RE1	102	% 70-130	04/09/2025 18	8:04 04/09/2025 18:	:04						
Semivolatile Organic Compounds by	GCMS											
Anthracene	02	120-12-7	SW8270E	04/08/2025 13:30	04/09/2025 00:10	BLOD		100	200	20	ug/L	BMS
Surr: 2,4,6-Tribromophenol (Surr)	02	29.3	% 5-136	04/08/2025 1	3:30 04/09/2025 00:	:10						
Surr: 2-Fluorobiphenyl (Surr)	02	19.8	% 9-117	04/08/2025 1	3:30 04/09/2025 00:	:10						
Surr: 2-Fluorophenol (Surr)	02	11.3	% 5-60	04/08/2025 1	3:30 04/09/2025 00:	:10						
Surr: Nitrobenzene-d5 (Surr)	02	54.0	% 5-151	04/08/2025 1	3:30 04/09/2025 00:	:10						
Surr: Phenol-d5 (Surr)	02	0.200	% 5-60	04/08/2025 1	3:30 04/09/2025 00:	:10						DS
Surr: p-Terphenyl-d14 (Surr)	02	10.2	% 5-141	04/08/2025 13	3:30 04/09/2025 00:	:10						



# **Certificate of Analysis**

Client Name: SCS Engineers - Winchester

Date Issued:

4/21/2025 5:24:05PM

Client Site I.D.:

Bristol LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb

Work Order:

25D0534

Client Sample ID: EW-68 Laboratory Sample ID: 25D0534-02

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Wet Chemistry Analysis												
Ammonia as N	02	7664-41-7	EPA350.1 R2.0	04/17/2025 23:04	04/17/2025 23:04	2580		146	200	2000	mg/L	AAH
BOD	02	E1640606	SM5210B-20 16	04/08/2025 15:45	04/08/2025 15:45	24600	Н	0.2	2.0	1	mg/L	KKB
COD	02	NA	SM5220D-20 11	04/13/2025 22:18	04/13/2025 22:18	24100		6300	10000	1000	mg/L	AAH
Nitrate as N	02	14797-55-8	SM4500-NO 3F-2019CAL C	04/17/2025 11:00	04/17/2025 19:12	BLOD		1.00	5.00	100	mg/L	CET
Nitrate+Nitrite as N	02	E701177	SM4500-NO 3F-2019	04/17/2025 11:00	04/17/2025 19:12	BLOD		0.50	0.50	5	mg/L	BKR
Nitrite as N	02	14797-65-0	SM4500-NO 2B-2021	04/08/2025 12:00	04/08/2025 12:00	7.60	Н	1.00	5.00	100	mg/L	CET
Total Recoverable Phenolics	02	NA	SW9065	04/21/2025 15:45	04/21/2025 15:45	35.0		0.750	1.25	1	mg/L	SPH
TKN as N	02	E17148461	EPA351.2 R2.0	04/19/2025 02:15	04/19/2025 02:15	2600		45.9	250	500	mg/L	AAH



**Certificate of Analysis** 

Client Name: SCS Engineers - Winchester

Date Issued: 4/21/2

4/21/2025 5:24:05PM

Client Site I.D.:

**Bristol LFG-EW Monthly Monitoring** 

Submitted To: Jennifer Robb

Work Order:

25D0534

Client Sample ID: Trip Blank Laboratory Sample ID: 25D0534-03

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	04/09/2025 13:52	04/09/2025 13:52	BLOD		3.00	10.0	1	ug/L	TLH
Acetone	03	67-64-1	SW8260D	04/09/2025 13:52	04/09/2025 13:52	BLOD		7.00	10.0	1	ug/L	TLH
Benzene	03	71-43-2	SW8260D	04/09/2025 13:52	04/09/2025 13:52	BLOD		0.40	1.00	1	ug/L	TLH
Ethylbenzene	03	100-41-4	SW8260D	04/09/2025 13:52	04/09/2025 13:52	BLOD		0.40	1.00	1	ug/L	TLH
Toluene	03	108-88-3	SW8260D	04/09/2025 13:52	04/09/2025 13:52	BLOD		0.50	1.00	1	ug/L	TLH
Xylenes, Total	03	1330-20-7	SW8260D	04/09/2025 13:52	04/09/2025 13:52	BLOD		1.00	3.00	1	ug/L	TLH
Tetrahydrofuran	03	109-99-9	SW8260D	04/09/2025 13:52	04/09/2025 13:52	BLOD		10.0	10.0	1	ug/L	TLH
Surr: 1,2-Dichloroethane-d4 (Surr)	03	103	% 70-120	04/09/2025 13:3	52 04/09/2025 13:52	2						
Surr: 4-Bromofluorobenzene (Surr)	03	96.7	% 75-120	04/09/2025 13:	52 04/09/2025 13:52	2						
Surr: Dibromofluoromethane (Surr)	03	109	% 70-130	04/09/2025 13:	52 04/09/2025 13:52	2						
Surr: Toluene-d8 (Surr)	03	102	% 70-130	04/09/2025 13:3	52 04/09/2025 13:52	2						



# **Certificate of Analysis**

Client Name: SCS Engineers - Winchester

Date Issued:

4/21/2025 5:24:05PM

Client Site I.D.:

**Bristol LFG-EW Monthly Monitoring** 

Submitted To: Jennifer Robb

Work Order:

25D0534

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 BID0461 - EPA20	0.2R2.8/SW30	05A-ICP							
Blank (BID0461-BLK1)				Prepared: 04/09/	2025 Analyzed: (	04/10/2025				
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 (BID0461-BS1)				Prepared: 04/09/	2025 Analyzed: (	04/10/2025				
Arsenic	0.490	0.0200	mg/L	0.500		97.9	80-120			
Barium	0.492	0.0100	mg/L	0.500		98.4	80-120			
Cadmium	0.496	0.0040	mg/L	0.500		99.2	80-120			
Chromium	0.497	0.0100	mg/L	0.500		99.4	80-120			
Copper	0.495	0.0100	mg/L	0.500		99.1	80-120			
Lead	0.496	0.0100	mg/L	0.500		99.1	80-120			
Nickel	0.4968	0.0100	mg/L	0.500		99.4	80-120			
Selenium	0.483	0.0500	mg/L	0.500		96.5	80-120			
Silver	0.103	0.0100	mg/L	0.100		103	80-120			E
Zinc	0.479	0.0100	mg/L	0.500		95.7	80-120			
Matrix Spike (BID0461-MS1)	Sour	ce: 25D0805-0	1	Prepared: 04/09/	2025 Analyzed: (	04/10/2025				
Arsenic	0.500	0.0200	mg/L	0.500	BLOD	100	75-125			
Barium	0.643	0.0100	mg/L	0.500	0.150	98.5	75-125			



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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	BID0461 - EPA20	0.2R2.8/SW3	005A-ICP	)						
Matrix Spike (BID0461-MS1)	Sour	ce: 25D0805-0	1	Prepared: 04/09/	2025 Analyzed: (	04/10/2025				
Cadmium	0.494	0.0040	mg/L	0.500	BLOD	98.7	75-125			
Chromium	0.508	0.0100	mg/L	0.500	BLOD	102	75-125			
Copper	0.503	0.0100	mg/L	0.500	BLOD	101	75-125			
Lead	0.492	0.0100	mg/L	0.500	BLOD	98.3	75-125			
Nickel	0.4952	0.0100	mg/L	0.500	BLOD	99.0	75-125			
Selenium	0.497	0.0500	mg/L	0.500	BLOD	99.5	75-125			
Silver	0.102	0.0100	mg/L	0.100	BLOD	102	75-125			E
Zinc	0.549	0.0100	mg/L	0.500	0.0363	102	75-125			
Matrix Spike Dup (BID0461-MSD1)	Sour	ce: 25D0805-0	1	Prepared: 04/09/	2025 Analyzed: (	04/10/2025				
Arsenic	0.486	0.0200	mg/L	0.500	BLOD	97.2	75-125	2.84	20	
Barium	0.634	0.0100	mg/L	0.500	0.150	96.7	75-125	1.39	20	
Cadmium	0.479	0.0040	mg/L	0.500	BLOD	95.8	75-125	2.98	20	
Chromium	0.496	0.0100	mg/L	0.500	BLOD	99.2	75-125	2.51	20	
Copper	0.491	0.0100	mg/L	0.500	BLOD	98.1	75-125	2.42	20	
Lead	0.478	0.0100	mg/L	0.500	BLOD	95.6	75-125	2.78	20	
Nickel	0.4801	0.0100	mg/L	0.500	BLOD	96.0	75-125	3.10	20	
Selenium	0.483	0.0500	mg/L	0.500	BLOD	96.6	75-125	2.88	20	
Silver	0.0996	0.0100	mg/L	0.100	BLOD	99.6	75-125	2.38	20	
Zinc	0.531	0.0100	mg/L	0.500	0.0363	99.0	75-125	3.20	20	
Batch	BID0462 - EPA20	0.2R2.8/SW3	005A-ICP	MS						
Blank (BID0462-BLK1)				Prepared: 04/09/	2025 Analyzed: (	04/16/2025				
Mercury	ND	0.200	ug/L							
LCS (BID0462-BS1)				Prepared: 04/09/	2025 Analyzed: (	04/16/2025				



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Work Order:

25D0534

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	BID0462 - EPA200	.2R2.8/SW30	05A-ICF	PMS						
LCS (BID0462-BS1)				Prepared: 04/09/	2025 Analyzed: (	04/16/2025				
Mercury	0.862	0.200	ug/L	1.00		86.2	80-120			
Matrix Spike (BID0462-MS1)	Source	ce: 25D0604-01	l	Prepared: 04/09/	2025 Analyzed: (	04/16/2025				
Mercury	0.903	0.200	ug/L	1.00	BLOD	90.3	70-130			
Matrix Spike (BID0462-MS2)	Source	ce: 25D0784-01	l	Prepared: 04/09/	2025 Analyzed: (	04/16/2025				
Mercury	0.887	0.200	ug/L	1.00	BLOD	88.7	70-130			
Matrix Spike Dup (BID0462-MSD1)	Source	ce: 25D0604-01	İ	Prepared: 04/09/	2025 Analyzed: (	04/16/2025				
Mercury	0.900	0.200	ug/L	1.00	BLOD	90.0	70-130	0.283	20	
Matrix Spike Dup (BID0462-MSD2)	Source	ce: 25D0784-01	l	Prepared: 04/09/	2025 Analyzed: (	04/16/2025				
Mercury	0.865	0.200	ug/L	1.00	BLOD	86.5	70-130	2.43	20	·



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25D0534

Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch Bll	00489 - SW5030	B-MS								
Blank (BID0489-BLK1)			P	repared & Anal	yzed: 04/09/2025					
2-Butanone (MEK)	ND	10.0	ug/L							
Acetone	ND	10.0	ug/L							
Benzene	ND	1.00	ug/L							
Ethylbenzene	ND	1.00	ug/L							
Toluene	ND	1.00	ug/L							
Xylenes, Total	ND	3.00	ug/L							
Surr: 1,2-Dichloroethane-d4 (Surr)	49.7		ug/L	50.0		99.5	70-120			
Surr: 4-Bromofluorobenzene (Surr)	48.5		ug/L	50.0		97.0	75-120			
Surr: Dibromofluoromethane (Surr)	53.6		ug/L	50.0		107	70-130			
Surr: Toluene-d8 (Surr)	51.1		ug/L	50.0		102	70-130			
LCS (BID0489-BS1)			P	Prepared & Anal	yzed: 04/09/2025					
1,1,1,2-Tetrachloroethane	61.9		ug/L	50.0	-	124	80-130			
1,1,1-Trichloroethane	59.8		ug/L	50.0		120	65-130			
1,1,2,2-Tetrachloroethane	56.0		ug/L	50.0		112	65-130			
1,1,2-Trichloroethane	57.8		ug/L	50.0		116	75-125			
1,1-Dichloroethane	57.2		ug/L	50.0		114	70-135			
1,1-Dichloroethylene	60.0		ug/L	50.0		120	70-130			
1,1-Dichloropropene	62.8		ug/L	50.0		126	75-135			
1,2,3-Trichlorobenzene	70.4		ug/L	50.0		141	55-140			L
1,2,3-Trichloropropane	56.8		ug/L	50.0		114	75-125			
1,2,4-Trichlorobenzene	68.9		ug/L	50.0		138	65-135			L
1,2,4-Trimethylbenzene	60.5		ug/L	50.0		121	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	46.5		ug/L	50.0		92.9	50-130			
1,2-Dibromoethane (EDB)	58.4		ug/L	50.0		117	80-120			



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25D0534

Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch	n BID0489 - SW5030	B-MS							
.CS (BID0489-BS1)			Prepared & Anal	yzed: 04/09/2025					
1,2-Dichlorobenzene	56.5	ug/L	50.0		113	70-120			
1,2-Dichloroethane	53.0	ug/L	50.0		106	70-130			
1,2-Dichloropropane	57.9	ug/L	50.0		116	75-125			
1,3,5-Trimethylbenzene	60.2	ug/L	50.0		120	75-125			
1,3-Dichlorobenzene	58.1	ug/L	50.0		116	75-125			
1,3-Dichloropropane	59.0	ug/L	50.0		118	75-125			
1,4-Dichlorobenzene	56.8	ug/L	50.0		114	75-125			
2,2-Dichloropropane	60.1	ug/L	50.0		120	70-135			
2-Butanone (MEK)	51.2	ug/L	50.0		102	30-150			
2-Chlorotoluene	57.1	ug/L	50.0		114	75-125			
2-Hexanone (MBK)	56.9	ug/L	50.0		114	55-130			
4-Chlorotoluene	57.4	ug/L	50.0		115	75-130			
4-Isopropyltoluene	63.0	ug/L	50.0		126	75-130			
4-Methyl-2-pentanone (MIBK)	61.1	ug/L	50.0		122	60-135			
Acetone	48.6	ug/L	50.0		97.1	40-140			
Benzene	60.0	ug/L	50.0		120	80-120			L
Bromobenzene	59.1	ug/L	50.0		118	75-125			
Bromochloromethane	60.4	ug/L	50.0		121	65-130			
Bromodichloromethane	58.3	ug/L	50.0		117	75-120			
Bromoform	49.9	ug/L	50.0		99.8	70-130			
Bromomethane	56.7	ug/L	50.0		113	30-145			
Carbon disulfide	52.1	ug/L	50.0		104	35-160			
Carbon tetrachloride	63.0	ug/L	50.0		126	65-140			
Chlorobenzene	57.4	ug/L	50.0		115	80-120			
Chloroethane	57.3	ug/L	50.0		115	60-135			



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25D0534

Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Bato	ch BID0489 - SW5030	OB-MS								
LCS (BID0489-BS1)			F	Prepared & Anal	yzed: 04/09/2025					
Chloroform	52.2		ug/L	50.0		104	65-135			
Chloromethane	55.2		ug/L	50.0		110	40-125			
cis-1,2-Dichloroethylene	57.7		ug/L	50.0		115	70-125			
cis-1,3-Dichloropropene	63.3		ug/L	50.0		127	70-130			
Dibromochloromethane	51.1		ug/L	50.0		102	60-135			
Dibromomethane	55.6		ug/L	50.0		111	75-125			
Dichlorodifluoromethane	55.1		ug/L	50.0		110	30-155			
Ethylbenzene	57.0		ug/L	50.0		114	75-125			
Hexachlorobutadiene	62.7		ug/L	50.0		125	50-140			
Isopropylbenzene	51.8		ug/L	50.0		104	75-125			
m+p-Xylenes	114		ug/L	100		114	75-130			
Methylene chloride	52.2		ug/L	50.0		104	55-140			
Methyl-t-butyl ether (MTBE)	53.6	1.00	ug/L				65-125			
Naphthalene	68.3		ug/L	50.0		137	55-140			
n-Butylbenzene	61.9		ug/L	50.0		124	70-135			
n-Propylbenzene	59.3		ug/L	50.0		119	70-130			
o-Xylene	58.1		ug/L	50.0		116	80-120			
sec-Butylbenzene	62.1		ug/L	50.0		124	70-125			
Styrene	58.6		ug/L	50.0		117	65-135			
tert-Butylbenzene	57.8		ug/L	50.0		116	70-130			
Tetrachloroethylene (PCE)	86.3		ug/L	50.0		173	45-150			L
Toluene	56.5		ug/L	50.0		113	75-120			
trans-1,2-Dichloroethylene	57.8		ug/L	50.0		116	60-140			
trans-1,3-Dichloropropene	52.3		ug/L	50.0		105	55-140			
Trichloroethylene	62.4		ug/L	50.0		125	70-125			



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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 Bli	D0489 - SW5030	B-MS							
LCS (BID0489-BS1)			Prepared & Ana	lyzed: 04/09/2025					
Trichlorofluoromethane	68.8	ug/L	50.0		138	60-145			
Vinyl chloride	48.9	ug/L	50.0		97.9	50-145			
Surr: 1,2-Dichloroethane-d4 (Surr)	47.0	ug/L	50.0		94.0	70-120			
Surr: 4-Bromofluorobenzene (Surr)	48.4	ug/L	50.0		96.9	75-120			
Surr: Dibromofluoromethane (Surr)	51.6	ug/L	50.0		103	70-130			
Surr: Toluene-d8 (Surr)	49.1	ug/L	50.0		98.3	70-130			
Matrix Spike (BID0489-MS1)	Sourc	e: 25D0525-01	Prepared & Ana	lyzed: 04/09/2025					
1,1,1,2-Tetrachloroethane	61.1	ug/L	50.0	BLOD	122	80-130			
1,1,1-Trichloroethane	65.8	ug/L	50.0	BLOD	132	65-130			М
1,1,2,2-Tetrachloroethane	57.2	ug/L	50.0	BLOD	114	65-130			
1,1,2-Trichloroethane	54.7	ug/L	50.0	BLOD	109	75-125			
1,1-Dichloroethane	61.9	ug/L	50.0	BLOD	124	70-135			
1,1-Dichloroethylene	63.6	ug/L	50.0	BLOD	127	50-145			
1,1-Dichloropropene	68.3	ug/L	50.0	BLOD	137	75-135			М
1,2,3-Trichlorobenzene	68.1	ug/L	50.0	BLOD	136	55-140			
1,2,3-Trichloropropane	55.5	ug/L	50.0	BLOD	111	75-125			
1,2,4-Trichlorobenzene	65.0	ug/L	50.0	BLOD	130	65-135			
1,2,4-Trimethylbenzene	56.7	ug/L	50.0	2.40	109	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	40.8	ug/L	50.0	BLOD	81.5	50-130			
1,2-Dibromoethane (EDB)	55.3	ug/L	50.0	BLOD	111	80-120			
1,2-Dichlorobenzene	54.3	ug/L	50.0	BLOD	109	70-120			
1,2-Dichloroethane	57.6	ug/L	50.0	BLOD	115	70-130			
1,2-Dichloropropane	55.9	ug/L	50.0	BLOD	112	75-125			
1,3,5-Trimethylbenzene	56.5	ug/L	50.0	BLOD	113	75-124			



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Work Order:

25D0534

Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch	n BID0489 - SW5030	0B-MS							
Matrix Spike (BID0489-MS1)	Source	ce: 25D0525-01	Prepared & Ana	alyzed: 04/09/2025					
1,3-Dichlorobenzene	56.2	ug	L 50.0	BLOD	112	75-125			
1,3-Dichloropropane	57.0	ug	L 50.0	BLOD	114	75-125			
1,4-Dichlorobenzene	53.5	ug	L 50.0	BLOD	107	75-125			
2,2-Dichloropropane	66.5	ug	L 50.0	BLOD	133	70-135			
2-Butanone (MEK)	53.5	ug	L 50.0	BLOD	107	30-150			
2-Chlorotoluene	52.6	ug	L 50.0	BLOD	105	75-125			
2-Hexanone (MBK)	53.3	ug	L 50.0	BLOD	107	55-130			
4-Chlorotoluene	53.8	ug	L 50.0	BLOD	108	75-130			
4-Isopropyltoluene	59.2	ug	L 50.0	BLOD	118	75-130			
4-Methyl-2-pentanone (MIBK)	55.0	ug	L 50.0	BLOD	110	60-135			
Acetone	45.4	ug	L 50.0	42.0	6.76	40-140			М
Benzene	57.6	ug	L 50.0	BLOD	115	80-120			
Bromobenzene	57.6	ug	L 50.0	BLOD	115	75-125			
Bromochloromethane	65.0	ug	L 50.0	BLOD	130	65-130			М
Bromodichloromethane	55.5	ug	L 50.0	BLOD	111	75-136			
Bromoform	48.2	ug	L 50.0	BLOD	96.4	70-130			
Bromomethane	57.5	ug	L 50.0	BLOD	115	30-145			
Carbon disulfide	56.4	ug	L 50.0	5.80	101	35-160			
Carbon tetrachloride	60.3	ug	L 50.0	BLOD	121	65-140			
Chlorobenzene	55.0	ug	L 50.0	BLOD	110	80-120			
Chloroethane	60.5	ug	L 50.0	BLOD	121	60-135			
Chloroform	57.2	ug	L 50.0	BLOD	114	65-135			
Chloromethane	56.9	ug	L 50.0	BLOD	114	40-125			
cis-1,2-Dichloroethylene	62.1	ug	L 50.0	BLOD	124	70-125			
cis-1,3-Dichloropropene	61.0	ug	L 50.0	BLOD	122	47-136			



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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	BID0489 - SW5030	DB-MS								
Matrix Spike (BID0489-MS1)	Sourc	e: 25D0525-01		Prepared & Anal	yzed: 04/09/2025	5				
Dibromochloromethane	48.7		ug/L	50.0	BLOD	97.5	60-135			
Dibromomethane	53.0		ug/L	50.0	BLOD	106	75-125			
Dichlorodifluoromethane	58.3		ug/L	50.0	BLOD	117	30-155			
Ethylbenzene	55.0		ug/L	50.0	BLOD	110	75-125			
Hexachlorobutadiene	61.3		ug/L	50.0	BLOD	123	50-140			
Isopropylbenzene	49.6		ug/L	50.0	BLOD	99.3	75-125			
m+p-Xylenes	110		ug/L	100	5.60	105	75-130			
Methylene chloride	57.2		ug/L	50.0	91.0	-67.6	55-140			М
Methyl-t-butyl ether (MTBE)	57.9	1.00	ug/L		BLOD		65-125			
Naphthalene	67.5		ug/L	50.0	BLOD	135	55-140			
n-Butylbenzene	58.6		ug/L	50.0	BLOD	117	70-135			
n-Propylbenzene	55.3		ug/L	50.0	BLOD	111	70-130			
o-Xylene	57.0		ug/L	50.0	3.00	108	80-120			
sec-Butylbenzene	57.7		ug/L	50.0	BLOD	115	70-125			
Styrene	56.8		ug/L	50.0	BLOD	114	65-135			
tert-Butylbenzene	54.5		ug/L	50.0	BLOD	109	70-130			
Tetrachloroethylene (PCE)	84.3		ug/L	50.0	32.6	103	51-231			
Toluene	53.5		ug/L	50.0	BLOD	107	75-120			
trans-1,2-Dichloroethylene	62.5		ug/L	50.0	BLOD	125	60-140			
trans-1,3-Dichloropropene	50.0		ug/L	50.0	BLOD	99.9	55-140			
Trichloroethylene	59.7		ug/L	50.0	BLOD	119	70-125			
Trichlorofluoromethane	72.8		ug/L	50.0	BLOD	146	60-145			М
Vinyl chloride	51.2		ug/L	50.0	BLOD	102	50-145			
Surr: 1,2-Dichloroethane-d4 (Surr)	54.8		ug/L	50.0		110	70-120			



# **Certificate of Analysis**

Client Name: SCS Engineers - Winchester

Date Issued:

4/21/2025 5:24:05PM

Client Site I.D.:

**Bristol LFG-EW Monthly Monitoring** 

Submitted To: Jennifer Robb

Work Order:

25D0534

Volatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ U	nits	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch Bl	D0489 - SW5030	OB-MS								
Matrix Spike (BID0489-MS1)	Sourc	ce: 25D0525-01		Prepared & Anal	yzed: 04/09/2025					
Surr: 4-Bromofluorobenzene (Surr)	50.3		ug/L	50.0		101	75-120			
Surr: Dibromofluoromethane (Surr)	59.2		ug/L	50.0		118	70-130			
Surr: Toluene-d8 (Surr)	49.5		ug/L	50.0		99.0	70-130			
Matrix Spike Dup (BID0489-MSD1)	Sourc	ce: 25D0525-01		Prepared & Analy	yzed: 04/09/2025					
1,1,1,2-Tetrachloroethane	63.0		ug/L	50.0	BLOD	126	80-130	3.01	30	
1,1,1-Trichloroethane	68.4		ug/L	50.0	BLOD	137	65-130	3.95	30	М
1,1,2,2-Tetrachloroethane	56.8		ug/L	50.0	BLOD	114	65-130	0.666	30	
1,1,2-Trichloroethane	55.4		ug/L	50.0	BLOD	111	75-125	1.18	30	
1,1-Dichloroethane	64.4		ug/L	50.0	BLOD	129	70-135	3.93	30	
1,1-Dichloroethylene	66.9		ug/L	50.0	BLOD	134	50-145	5.00	30	
1,1-Dichloropropene	70.7		ug/L	50.0	BLOD	141	75-135	3.42	30	М
1,2,3-Trichlorobenzene	67.9		ug/L	50.0	BLOD	136	55-140	0.324	30	
1,2,3-Trichloropropane	56.9		ug/L	50.0	BLOD	114	75-125	2.60	30	
1,2,4-Trichlorobenzene	65.9		ug/L	50.0	BLOD	132	65-135	1.36	30	
1,2,4-Trimethylbenzene	57.7		ug/L	50.0	2.40	111	75-130	1.64	30	
1,2-Dibromo-3-chloropropane (DBCP)	41.2		ug/L	50.0	BLOD	82.3	50-130	1.00	30	
1,2-Dibromoethane (EDB)	57.0		ug/L	50.0	BLOD	114	80-120	3.15	30	
1,2-Dichlorobenzene	54.5		ug/L	50.0	BLOD	109	70-120	0.331	30	
1,2-Dichloroethane	60.7		ug/L	50.0	BLOD	121	70-130	5.24	30	
1,2-Dichloropropane	56.4		ug/L	50.0	BLOD	113	75-125	0.855	30	
1,3,5-Trimethylbenzene	57.1		ug/L	50.0	BLOD	114	75-124	1.13	30	
1,3-Dichlorobenzene	56.6		ug/L	50.0	BLOD	113	75-125	0.834	30	
1,3-Dichloropropane	57.9		ug/L	50.0	BLOD	116	75-125	1.57	30	
1,4-Dichlorobenzene	54.0		ug/L	50.0	BLOD	108	75-125	0.875	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	BID0489 - SW503	0B-MS							
Matrix Spike Dup (BID0489-MSD1)	Source	ce: 25D0525-01	Prepared & Ana	lyzed: 04/09/2025	5				
2,2-Dichloropropane	68.9	ug/L	50.0	BLOD	138	70-135	3.55	30	М
2-Butanone (MEK)	55.8	ug/L	50.0	BLOD	112	30-150		30	
2-Chlorotoluene	53.6	ug/L	50.0	BLOD	107	75-125	1.90	30	
2-Hexanone (MBK)	53.7	ug/L	50.0	BLOD	107	55-130	0.673	30	
4-Chlorotoluene	54.5	ug/L	50.0	BLOD	109	75-130	1.35	30	
4-Isopropyltoluene	59.6	ug/L	50.0	BLOD	119	75-130	0.825	30	
4-Methyl-2-pentanone (MIBK)	56.3	ug/L	50.0	BLOD	113	60-135	2.39	30	
Acetone	48.5	ug/L	50.0	42.0	13.1	40-140		30	М
Benzene	57.9	ug/L	50.0	BLOD	116	80-120	0.485	30	
Bromobenzene	58.5	ug/L	50.0	BLOD	117	75-125	1.59	30	
Bromochloromethane	68.4	ug/L	50.0	BLOD	137	65-130	5.01	30	М
Bromodichloromethane	56.2	ug/L	50.0	BLOD	112	75-136	1.27	30	
Bromoform	49.0	ug/L	50.0	BLOD	98.1	70-130	1.71	30	
Bromomethane	61.0	ug/L	50.0	BLOD	122	30-145	5.88	30	
Carbon disulfide	57.3	ug/L	50.0	5.80	103	35-160		30	
Carbon tetrachloride	60.6	ug/L	50.0	BLOD	121	65-140	0.513	30	
Chlorobenzene	55.0	ug/L	50.0	BLOD	110	80-120	0.0545	30	
Chloroethane	62.9	ug/L	50.0	BLOD	126	60-135	4.02	30	
Chloroform	59.9	ug/L	50.0	BLOD	120	65-135	4.54	30	
Chloromethane	59.2	ug/L	50.0	BLOD	118	40-125	3.93	30	
cis-1,2-Dichloroethylene	64.5	ug/L	50.0	BLOD	129	70-125	3.84	30	М
cis-1,3-Dichloropropene	62.0	ug/L	50.0	BLOD	124	47-136	1.58	30	
Dibromochloromethane	49.8	ug/L	50.0	BLOD	99.6	60-135	2.17	30	
Dibromomethane	53.0	ug/L	50.0	BLOD	106	75-125	0.151	30	
Dichlorodifluoromethane	60.6	ug/L	50.0	BLOD	121	30-155	3.92	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	BID0489 - SW503	OB-MS								
Matrix Spike Dup (BID0489-MSD1)	Sour	ce: 25D0525-0	)1	Prepared & Anal	yzed: 04/09/2025					
Ethylbenzene	55.5		ug/L	50.0	BLOD	111	75-125	0.960	30	
Hexachlorobutadiene	61.6		ug/L	50.0	BLOD	123	50-140	0.455	30	
Isopropylbenzene	50.7		ug/L	50.0	BLOD	101	75-125	2.15	30	
m+p-Xylenes	111		ug/L	100	5.60	106	75-130	0.732	30	
Methylene chloride	59.4		ug/L	50.0	91.0	-63.1	55-140		30	М
Methyl-t-butyl ether (MTBE)	60.6	1.00	ug/L		BLOD		65-125	4.51	30	
Naphthalene	70.2		ug/L	50.0	BLOD	140	55-140	3.81	30	М
n-Butylbenzene	58.8		ug/L	50.0	BLOD	118	70-135	0.392	30	
n-Propylbenzene	55.1		ug/L	50.0	BLOD	110	70-130	0.489	30	
o-Xylene	57.0		ug/L	50.0	3.00	108	80-120	0.158	30	
sec-Butylbenzene	58.5		ug/L	50.0	BLOD	117	70-125	1.27	30	
Styrene	57.4		ug/L	50.0	BLOD	115	65-135	1.03	30	
tert-Butylbenzene	54.6		ug/L	50.0	BLOD	109	70-130	0.128	30	
Tetrachloroethylene (PCE)	84.6		ug/L	50.0	32.6	104	51-231	0.391	30	
Toluene	54.2		ug/L	50.0	BLOD	108	75-120	1.26	30	
trans-1,2-Dichloroethylene	65.1		ug/L	50.0	BLOD	130	60-140	4.06	30	
trans-1,3-Dichloropropene	50.5		ug/L	50.0	BLOD	101	55-140	0.996	30	
Trichloroethylene	59.8		ug/L	50.0	BLOD	120	70-125	0.301	30	
Trichlorofluoromethane	76.2		ug/L	50.0	BLOD	152	60-145	4.60	30	М
Vinyl chloride	53.7		ug/L	50.0	BLOD	107	50-145	4.63	30	
Surr: 1,2-Dichloroethane-d4 (Surr)	55.8		ug/L	50.0		112	70-120			
Surr: 4-Bromofluorobenzene (Surr)	50.5		ug/L	50.0		101	75-120			
Surr: Dibromofluoromethane (Surr)	61.1		ug/L	50.0		122	70-130			
Surr: Toluene-d8 (Surr)	49.3		ug/L	50.0		98.6	70-130			



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25D0534

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch	BID0399 - SW3510	C/EPA600-	MS							
Blank (BID0399-BLK1)			F	Prepared & Analy	zed: 04/08/2025					
Anthracene	ND	10.0	ug/L							
Surr: 2,4,6-Tribromophenol (Surr)	50.2		ug/L	100		50.2	5-136			
Surr: 2-Fluorobiphenyl (Surr)	21.7		ug/L	50.0		43.5	9-117			
Surr: 2-Fluorophenol (Surr)	21.8		ug/L	100		21.8	5-60			
Surr: Nitrobenzene-d5 (Surr)	24.7		ug/L	50.0		49.5	5-151			
Surr: Phenol-d5 (Surr)	20.8		ug/L	100		20.8	5-60			
Surr: p-Terphenyl-d14 (Surr)	30.7		ug/L	50.0		61.4	5-141			
_CS (BID0399-BS1)			F	Prepared & Analy	/zed: 04/08/2025					
1,2,4-Trichlorobenzene	25.2	10.0	ug/L	50.0		50.4	57-130			L
1,2-Dichlorobenzene	24.7	10.0	ug/L	50.0		49.4	22-115			
1,3-Dichlorobenzene	24.3	10.0	ug/L	50.0		48.6	22-112			
1,4-Dichlorobenzene	23.2	10.0	ug/L	50.0		46.3	13-112			
2,4,6-Trichlorophenol	27.3	10.0	ug/L	50.0		54.6	52-129			
2,4-Dichlorophenol	28.9	10.0	ug/L	50.0		57.8	53-122			
2,4-Dimethylphenol	28.3	5.00	ug/L	50.0		56.6	42-120			
2,4-Dinitrophenol	49.9	50.0	ug/L	50.0		99.8	48-127			
2,4-Dinitrotoluene	38.8	10.0	ug/L	50.0		77.6	10-173			
2,6-Dinitrotoluene	33.7	10.0	ug/L	50.0		67.3	68-137			L
2-Chloronaphthalene	26.8	10.0	ug/L	50.0		53.6	65-120			L
2-Chlorophenol	27.3	10.0	ug/L	50.0		54.7	36-120			
2-Nitrophenol	36.4	10.0	ug/L	50.0		72.8	45-167			
3,3'-Dichlorobenzidine	24.5	10.0	ug/L	50.0		48.9	10-213			
4,6-Dinitro-2-methylphenol	54.1	50.0	ug/L	50.0		108	53-130			
4-Bromophenyl phenyl ether	26.9	10.0	ug/L	50.0		53.8	65-120			L



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Work Order:

25D0534

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch	n BID0399 - SW3510	C/EPA600-	MS							
.CS (BID0399-BS1)			F	Prepared & Anal	yzed: 04/08/2025					
4-Chlorophenyl phenyl ether	28.8	10.0	ug/L	50.0		57.5	38-145			
4-Nitrophenol	12.3	50.0	ug/L	50.0		24.7	13-129			
Acenaphthene	28.7	10.0	ug/L	50.0		57.4	60-132			L
Acenaphthylene	30.2	10.0	ug/L	50.0		60.5	54-126			
Acetophenone	28.4	20.0	ug/L	50.0		56.8	0-200			
Anthracene	28.0	10.0	ug/L	50.0		55.9	43-120			
Benzo (a) anthracene	30.8	10.0	ug/L	50.0		61.6	42-133			
Benzo (a) pyrene	33.6	10.0	ug/L	50.0		67.1	32-148			
Benzo (b) fluoranthene	37.6	10.0	ug/L	50.0		75.2	42-140			
Benzo (g,h,i) perylene	36.1	10.0	ug/L	50.0		72.3	10-195			
Benzo (k) fluoranthene	29.1	10.0	ug/L	50.0		58.2	25-146			
bis (2-Chloroethoxy) methane	32.1	10.0	ug/L	50.0		64.2	49-165			
bis (2-Chloroethyl) ether	32.1	10.0	ug/L	50.0		64.3	43-126			
2,2'-Oxybis (1-chloropropane)	30.5	10.0	ug/L	50.0		61.0	63-139			L
bis (2-Ethylhexyl) phthalate	40.6	10.0	ug/L	50.0		81.3	29-137			
Butyl benzyl phthalate	47.8	10.0	ug/L	50.0		95.5	10-140			
Chrysene	31.3	10.0	ug/L	50.0		62.6	44-140			
Dibenz (a,h) anthracene	37.3	10.0	ug/L	50.0		74.6	10-200			
Diethyl phthalate	28.9	10.0	ug/L	50.0		57.8	10-120			
Dimethyl phthalate	29.5	10.0	ug/L	50.0		58.9	10-120			
Di-n-butyl phthalate	30.0	10.0	ug/L	50.0		60.0	10-120			
Di-n-octyl phthalate	43.4	10.0	ug/L	50.0		86.8	19-132			
Fluoranthene	29.2	10.0	ug/L	50.0		58.4	43-121			
Fluorene	28.8	10.0	ug/L	50.0		57.7	70-120			L
Hexachlorobenzene	26.0	1.00	ug/L	50.0		52.1	10-142			



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Submitted To: Jeni

Jennifer Robb

Work Order:

25D0534

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch Bli	D0399 - SW3510	C/EPA600-	MS							
.CS (BID0399-BS1)				Prepared & Analyz	ed: 04/08/2025	;				
Hexachlorobutadiene	25.7	10.0	ug/L	50.0		51.4	38-120			
Hexachlorocyclopentadiene	25.1	10.0	ug/L	50.0		50.3	10-76			
Hexachloroethane	24.6	10.0	ug/L	50.0		49.2	55-120			L
Indeno (1,2,3-cd) pyrene	33.7	10.0	ug/L	50.0		67.4	10-151			
Isophorone	22.7	10.0	ug/L	50.0		45.4	47-180			L
Naphthalene	23.6	5.00	ug/L	50.0		47.1	36-120			
Nitrobenzene	30.4	10.0	ug/L	50.0		60.7	54-158			
n-Nitrosodimethylamine	15.1	10.0	ug/L	50.0		30.2	10-85			
n-Nitrosodi-n-propylamine	25.8	10.0	ug/L	50.0		51.5	14-198			
n-Nitrosodiphenylamine	25.1	10.0	ug/L	50.0		50.2	12-97			
p-Chloro-m-cresol	29.1	10.0	ug/L	50.0		58.1	10-142			
Pentachloronitrobenzene (quintozene)	ND	10.0	ug/L				0-200			
Pentachlorophenol	34.2	20.0	ug/L	50.0		68.3	38-152			
Phenanthrene	30.2	10.0	ug/L	50.0		60.3	65-120			L
Phenol	13.4	10.0	ug/L	50.5		26.5	17-120			
Pyrene	37.6	10.0	ug/L	50.0		75.2	70-120			
Pyridine	22.0	10.0	ug/L	50.0		44.0	10-103			
Surr: 2,4,6-Tribromophenol (Surr)	58.8		ug/L	100		58.8	5-136			
Surr: 2-Fluorobiphenyl (Surr)	27.0		ug/L	50.0		54.1	9-117			
Surr: 2-Fluorophenol (Surr)	37.5		ug/L	100		37.5	5-60			
Surr: Nitrobenzene-d5 (Surr)	31.1		ug/L	50.0		62.2	5-151			
Surr: Phenol-d5 (Surr)	25.0		ug/L	100		25.0	5-60			
Surr: p-Terphenyl-d14 (Surr)	34.3		ug/L	50.0		68.6	5-141			
latrix Spike (BID0399-MS1)	Sourc	e: 25D0126-0	)2	Prepared & Analyz	ed: 04/08/2025	5				



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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
Batc	h BID0399 - SW3510	C/EPA600-N	MS							
Matrix Spike (BID0399-MS1)	Sourc	e: 25D0126-0	2	Prepared & Anal	yzed: 04/08/2025					
1,2,4-Trichlorobenzene	25.9	10.0	ug/L	46.7	BLOD	55.4	44-142			
1,2-Dichlorobenzene	24.9	10.0	ug/L	46.7	BLOD	53.3	22-115			
1,3-Dichlorobenzene	24.6	10.0	ug/L	46.7	BLOD	52.6	22-112			
1,4-Dichlorobenzene	23.8	10.0	ug/L	46.7	BLOD	50.9	13-112			
2,4,6-Trichlorophenol	28.0	10.0	ug/L	46.7	BLOD	59.8	37-144			
2,4-Dichlorophenol	29.0	10.0	ug/L	46.7	BLOD	62.1	39-135			
2,4-Dimethylphenol	27.6	5.00	ug/L	46.7	BLOD	59.1	32-120			
2,4-Dinitrophenol	63.5	50.0	ug/L	46.7	BLOD	136	39-139			
2,4-Dinitrotoluene	42.4	10.0	ug/L	46.7	BLOD	90.8	10-191			
2,6-Dinitrotoluene	37.6	10.0	ug/L	46.7	BLOD	80.4	50-158			
2-Chloronaphthalene	27.1	10.0	ug/L	46.7	BLOD	58.0	60-120			М
2-Chlorophenol	27.2	10.0	ug/L	46.7	BLOD	58.2	23-134			
2-Nitrophenol	36.9	10.0	ug/L	46.7	BLOD	79.0	29-182			
3,3'-Dichlorobenzidine	23.6	10.0	ug/L	46.7	BLOD	50.5	10-262			
4,6-Dinitro-2-methylphenol	61.9	50.0	ug/L	46.7	BLOD	133	10-181			
4-Bromophenyl phenyl ether	28.1	10.0	ug/L	46.7	BLOD	60.2	53-127			
4-Chlorophenyl phenyl ether	30.6	10.0	ug/L	46.7	BLOD	65.4	25-158			
4-Nitrophenol	13.8	50.0	ug/L	46.7	BLOD	29.6	10-132			
Acenaphthene	29.4	10.0	ug/L	46.7	BLOD	63.0	47-145			
Acenaphthylene	31.5	10.0	ug/L	46.7	BLOD	67.5	33-145			
Acetophenone	27.1	20.0	ug/L	46.7	BLOD	58.0	0-200			
Anthracene	29.2	10.0	ug/L	46.7	BLOD	62.5	27-133			
Benzo (a) anthracene	31.9	10.0	ug/L	46.7	BLOD	68.3	33-143			
Benzo (a) pyrene	34.7	10.0	ug/L	46.7	BLOD	74.3	17-163			
Benzo (b) fluoranthene	34.5	10.0	ug/L	46.7	BLOD	73.7	24-159			



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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 BID0399 - SW3510	C/EPA600-I	MS							
Matrix Spike (BID0399-MS1)	Sourc	e: 25D0126-0	2	Prepared & Anal	yzed: 04/08/2025					
Benzo (g,h,i) perylene	36.6	10.0	ug/L	46.7	BLOD	78.3	10-219			
Benzo (k) fluoranthene	30.1	10.0	ug/L	46.7	BLOD	64.3	11-162			
bis (2-Chloroethoxy) methane	32.0	10.0	ug/L	46.7	BLOD	68.6	33-184			
bis (2-Chloroethyl) ether	32.4	10.0	ug/L	46.7	BLOD	69.3	12-158			
2,2'-Oxybis (1-chloropropane)	29.1	10.0	ug/L	46.7	BLOD	62.3	36-166			
bis (2-Ethylhexyl) phthalate	45.9	10.0	ug/L	46.7	12.5	71.4	10-158			
Butyl benzyl phthalate	47.5	10.0	ug/L	46.7	BLOD	102	10-152			
Chrysene	33.0	10.0	ug/L	46.7	BLOD	70.7	17-169			
Dibenz (a,h) anthracene	37.0	10.0	ug/L	46.7	BLOD	79.1	10-227			
Diethyl phthalate	32.8	10.0	ug/L	46.7	BLOD	70.2	10-120			
Dimethyl phthalate	31.8	10.0	ug/L	46.7	BLOD	68.0	10-120			
Di-n-butyl phthalate	30.7	10.0	ug/L	46.7	BLOD	65.8	10-120			
Di-n-octyl phthalate	39.2	10.0	ug/L	46.7	BLOD	83.9	10-146			
Fluoranthene	31.4	10.0	ug/L	46.7	BLOD	67.2	26-137			
Fluorene	31.3	10.0	ug/L	46.7	BLOD	66.9	59-121			
Hexachlorobenzene	27.9	1.00	ug/L	46.7	BLOD	59.7	10-152			
Hexachlorobutadiene	25.9	10.0	ug/L	46.7	BLOD	55.3	24-120			
Hexachlorocyclopentadiene	24.6	10.0	ug/L	46.7	BLOD	52.7	10-90			
Hexachloroethane	24.7	10.0	ug/L	46.7	BLOD	52.9	40-120			
Indeno (1,2,3-cd) pyrene	32.7	10.0	ug/L	46.7	BLOD	69.9	10-171			
Isophorone	23.0	10.0	ug/L	46.7	BLOD	49.3	21-196			
Naphthalene	23.7	5.00	ug/L	46.7	BLOD	50.6	21-133			
Nitrobenzene	30.6	10.0	ug/L	46.7	BLOD	65.5	35-180			
n-Nitrosodimethylamine	14.8	10.0	ug/L	46.7	BLOD	31.7	10-85			
n-Nitrosodi-n-propylamine	24.9	10.0	ug/L	46.7	BLOD	53.2	10-230			



# **Certificate of Analysis**

Client Name: SCS Engineers - Winchester

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4/21/2025 5:24:05PM

Client Site I.D.:

**Bristol LFG-EW Monthly Monitoring** 

Submitted To: Jennifer Robb

Work Order:

25D0534

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BI	00399 - SW3510	0C/EPA600-M	IS							
Matrix Spike (BID0399-MS1)	Sourc	ce: 25D0126-02	2	Prepared & Anal	yzed: 04/08/2025					
n-Nitrosodiphenylamine	26.7	10.0	ug/L	46.7	BLOD	57.2	12-111			
p-Chloro-m-cresol	31.1	10.0	ug/L	46.7	BLOD	66.5	10-127			
Pentachloronitrobenzene (quintozene)	ND	10.0	ug/L		BLOD		0-200			
Pentachlorophenol	38.4	20.0	ug/L	46.7	BLOD	82.2	14-176			
Phenanthrene	31.3	10.0	ug/L	46.7	BLOD	67.1	54-120			
Phenol	13.4	10.0	ug/L	47.2	BLOD	28.3	10-120			
Pyrene	39.9	10.0	ug/L	46.7	BLOD	85.3	52-120			
Pyridine	25.4	10.0	ug/L	46.7	BLOD	54.4	10-110			
Surr: 2,4,6-Tribromophenol (Surr)	64.9		ug/L	93.5		69.5	5-136			
Surr: 2-Fluorobiphenyl (Surr)	25.9		ug/L	46.7		<i>55.4</i>	9-117			
Surr: 2-Fluorophenol (Surr)	24.8		ug/L	93.5		26.5	5-60			
Surr: Nitrobenzene-d5 (Surr)	29.6		ug/L	46.7		63. <i>4</i>	5-151			
Surr: Phenol-d5 (Surr)	24.6		ug/L	93.5		26.3	5-60			
Surr: p-Terphenyl-d14 (Surr)	32.9		ug/L	46.7		70.3	5-141			
Matrix Spike Dup (BID0399-MSD1)	Sourc	ce: 25D0126-02	2	Prepared & Anal	yzed: 04/08/2025					
1,2,4-Trichlorobenzene	28.5	10.2	ug/L	51.0	BLOD	55.9	44-142	9.71	20	
1,2-Dichlorobenzene	27.4	10.2	ug/L	51.0	BLOD	53.6	22-115	9.34	20	
1,3-Dichlorobenzene	27.1	10.2	ug/L	51.0	BLOD	53.1	22-112	9.76	20	
1,4-Dichlorobenzene	24.9	10.2	ug/L	51.0	BLOD	48.9	13-112	4.70	20	
2,4,6-Trichlorophenol	30.0	10.2	ug/L	51.0	BLOD	58.8	37-144	7.03	20	
2,4-Dichlorophenol	32.8	10.2	ug/L	51.0	BLOD	64.3	39-135	12.3	20	
2,4-Dimethylphenol	31.9	5.10	ug/L	51.0	BLOD	62.5	32-120	14.4	20	
2,4-Dinitrophenol	72.4	51.0	ug/L	51.0	BLOD	142	39-139	13.1	20	М
2,4-Dinitrotoluene	46.3	10.2	ug/L	51.0	BLOD	90.8	10-191	8.80	20	



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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	BID0399 - SW3510	C/EPA600-I	MS							
Matrix Spike Dup (BID0399-MSD1)	Sourc	e: 25D0126-0	)2	Prepared & Anal	yzed: 04/08/2025					
2,6-Dinitrotoluene	40.1	10.2	ug/L	51.0	BLOD	78.5	50-158	6.42	20	
2-Chloronaphthalene	29.5	10.2	ug/L	51.0	BLOD	57.9	60-120	8.47	20	М
2-Chlorophenol	31.5	10.2	ug/L	51.0	BLOD	61.7	23-134	14.7	20	
2-Nitrophenol	43.3	10.2	ug/L	51.0	BLOD	84.9	29-182	16.0	20	
3,3'-Dichlorobenzidine	27.6	10.2	ug/L	51.0	BLOD	54.0	10-262	15.6	20	
4,6-Dinitro-2-methylphenol	67.2	51.0	ug/L	51.0	BLOD	132	10-181	8.19	20	
4-Bromophenyl phenyl ether	30.3	10.2	ug/L	51.0	BLOD	59.5	53-127	7.48	20	
4-Chlorophenyl phenyl ether	32.2	10.2	ug/L	51.0	BLOD	63.0	25-158	5.05	20	
4-Nitrophenol	15.7	51.0	ug/L	51.0	BLOD	30.8	10-132	13.0	20	
Acenaphthene	30.9	10.2	ug/L	51.0	BLOD	60.5	47-145	4.80	20	
Acenaphthylene	33.9	10.2	ug/L	51.0	BLOD	66.5	33-145	7.32	20	
Acetophenone	32.0	20.4	ug/L	51.0	BLOD	62.6	0-200	16.4	20	
Anthracene	31.6	10.2	ug/L	51.0	BLOD	62.0	27-133	7.98	20	
Benzo (a) anthracene	35.9	10.2	ug/L	51.0	BLOD	70.3	33-143	11.7	20	
Benzo (a) pyrene	38.5	10.2	ug/L	51.0	BLOD	75.5	17-163	10.3	20	
Benzo (b) fluoranthene	37.9	10.2	ug/L	51.0	BLOD	74.2	24-159	9.40	20	
Benzo (g,h,i) perylene	41.9	10.2	ug/L	51.0	BLOD	82.1	10-219	13.5	20	
Benzo (k) fluoranthene	32.0	10.2	ug/L	51.0	BLOD	62.6	11-162	6.14	20	
bis (2-Chloroethoxy) methane	36.4	10.2	ug/L	51.0	BLOD	71.4	33-184	12.8	20	
bis (2-Chloroethyl) ether	35.3	10.2	ug/L	51.0	BLOD	69.2	12-158	8.67	20	
2,2'-Oxybis (1-chloropropane)	34.1	10.2	ug/L	51.0	BLOD	66.8	36-166	15.7	20	
bis (2-Ethylhexyl) phthalate	49.1	10.2	ug/L	51.0	12.5	71.8	10-158	6.91	20	
Butyl benzyl phthalate	49.3	10.2	ug/L	51.0	BLOD	96.7	10-152	3.80	20	
Chrysene	35.3	10.2	ug/L	51.0	BLOD	69.1	17-169	6.47	20	
Dibenz (a,h) anthracene	41.4	10.2	ug/L	51.0	BLOD	81.2	10-227	11.3	20	



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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 Bli	D0399 - SW3510	C/EPA600-	MS							
Matrix Spike Dup (BID0399-MSD1)	Sourc	e: 25D0126-0	)2	Prepared & Anal	yzed: 04/08/2025					
Diethyl phthalate	33.5	10.2	ug/L	51.0	BLOD	65.7	10-120	2.16	20	
Dimethyl phthalate	32.3	10.2	ug/L	51.0	BLOD	63.3	10-120	1.60	20	
Di-n-butyl phthalate	31.3	10.2	ug/L	51.0	BLOD	61.4	10-120	1.96	20	
Di-n-octyl phthalate	42.6	10.2	ug/L	51.0	BLOD	83.6	10-146	8.35	20	
Fluoranthene	32.2	10.2	ug/L	51.0	BLOD	63.2	26-137	2.53	20	
Fluorene	32.8	10.2	ug/L	51.0	BLOD	64.3	59-121	4.79	20	
Hexachlorobenzene	29.4	1.02	ug/L	51.0	BLOD	57.6	10-152	5.21	20	
Hexachlorobutadiene	27.9	10.2	ug/L	51.0	BLOD	54.7	24-120	7.66	20	
Hexachlorocyclopentadiene	29.0	10.2	ug/L	51.0	BLOD	56.8	10-90	16.1	20	
Hexachloroethane	26.8	10.2	ug/L	51.0	BLOD	52.5	40-120	8.02	20	
Indeno (1,2,3-cd) pyrene	36.6	10.2	ug/L	51.0	BLOD	71.8	10-171	11.5	20	
Isophorone	25.1	10.2	ug/L	51.0	BLOD	49.1	21-196	8.50	20	
Naphthalene	25.7	5.10	ug/L	51.0	BLOD	50.3	21-133	8.15	20	
Nitrobenzene	34.0	10.2	ug/L	51.0	BLOD	66.7	35-180	10.6	20	
n-Nitrosodimethylamine	18.1	10.2	ug/L	51.0	BLOD	35.6	10-85	20.3	20	
n-Nitrosodi-n-propylamine	28.9	10.2	ug/L	51.0	BLOD	56.6	10-230	14.9	20	
n-Nitrosodiphenylamine	28.1	10.2	ug/L	51.0	BLOD	55.2	12-111	5.19	20	
p-Chloro-m-cresol	34.3	10.2	ug/L	51.0	BLOD	67.3	10-127	9.91	20	
Pentachloronitrobenzene (quintozene)	ND	10.2	ug/L		BLOD		0-200		20	
Pentachlorophenol	40.5	20.4	ug/L	51.0	BLOD	79.3	14-176	5.22	20	
Phenanthrene	33.8	10.2	ug/L	51.0	BLOD	66.3	54-120	7.64	20	
Phenol	16.3	10.2	ug/L	51.5	BLOD	31.6	10-120	19.6	20	
Pyrene	41.0	10.2	ug/L	51.0	BLOD	80.3	52-120	2.80	20	
Pyridine	30.1	10.2	ug/L	51.0	BLOD	59.0	10-110	16.9	20	



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25D0534

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

	Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	
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#### Batch BID0399 - SW3510C/EPA600-MS

Matrix Spike Dup (BID0399-MSD1)	Source: 25D01	126-02	Prepared & Analyzed: 04	/08/2025	
Surr: 2,4,6-Tribromophenol (Surr)	70.8	ug/L	102	69.4	5-136
Surr: 2-Fluorobiphenyl (Surr)	28.9	ug/L	51.0	56.6	9-117
Surr: 2-Fluorophenol (Surr)	31.0	ug/L	102	30.4	5-60
Surr: Nitrobenzene-d5 (Surr)	34.1	ug/L	51.0	66.8	5-151
Surr: Phenol-d5 (Surr)	28.1	ug/L	102	27.5	5-60
Surr: p-Terphenyl-d14 (Surr)	36.0	ug/L	51.0	70.6	5-141



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Work Order:

25D0534

Wet Chemistry Analysis - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
-	BID0398 - No Prep	Wet Chem								
Blank (BID0398-BLK1)				Prepared & Analy	zed: 04/08/2025					
BOD	ND	2.0	mg/L							
LCS (BID0398-BS1)				Prepared & Analy	zed: 04/08/2025					
BOD	200		mg/L	198		101	84.6-115.4			
Duplicate (BID0398-DUP1)	Sourc	e: 25D0564-0	2	Prepared & Analy	zed: 04/08/2025					
BOD	45.6	2.0	mg/L		45.6			0.00	20	
Batch	BID0424 - No Prep	Wet Chem								
Blank (BID0424-BLK1)				Prepared & Analy	zed: 04/08/2025					
Nitrite as N	ND	0.05	mg/L							
LCS (BID0424-BS1)				Prepared & Analy	zed: 04/08/2025					
Nitrite as N	0.11	0.05	mg/L	0.100		107	80-120			
Matrix Spike (BID0424-MS1)	Sourc	e: 25D0609-0	1	Prepared & Analy	zed: 04/08/2025					
Nitrite as N	0.10	0.05	mg/L	0.100	BLOD	100	80-120			
Matrix Spike Dup (BID0424-MSD1)	Sourc	e: 25D0609-0	1	Prepared & Analy	zed: 04/08/2025					
Nitrite as N	0.10	0.05	mg/L	0.100	BLOD	100	80-120	0.00	20	
Batch	BID0688 - No Prep	Wet Chem								
Blank (BID0688-BLK1)				Prepared & Analy	zed: 04/13/2025					
COD	ND	10.0	mg/L							



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Jennifer Robb

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**Bristol LFG-EW Monthly Monitoring** 

Work Order: 25D0534

Wet Chemistry Analysis - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch I	BID0688 - No Prep	Wet Chem								
LCS (BID0688-BS1)				Prepared & Anal	yzed: 04/13/2025					
COD	49.5	10.0	mg/L	50.0		99.0	88-119			
Matrix Spike (BID0688-MS1)	Sourc	e: 25D0843-0	1	Prepared & Anal	yzed: 04/13/2025					
COD	48.2	10.0	mg/L	50.0	BLOD	96.4	72.4-130			
Matrix Spike Dup (BID0688-MSD1)	Source	e: 25D0843-0	1	Prepared & Anal	yzed: 04/13/2025					
COD	47.5	10.0	mg/L	50.0	BLOD	95.1	72.4-130	1.36	20	
Batch I	BID0881 - No Prep	Wet Chem								
Blank (BID0881-BLK1)				Prepared & Anal	yzed: 04/17/2025					
TKN as N	ND	0.50	mg/L							
LCS (BID0881-BS1)				Prepared & Anal	yzed: 04/17/2025					
TKN as N	5.15		mg/L	5.00		103	90-110			
Matrix Spike (BID0881-MS1)	Source	e: 25D0470-0	1	Prepared & Anal	yzed: 04/17/2025					
TKN as N	5.93	0.50	mg/L	5.00	1.30	92.6	90-110			
Matrix Spike (BID0881-MS2)	Source	e: 25D0470-0	2	Prepared & Anal	yzed: 04/17/2025					
TKN as N	6.14	0.50	mg/L	5.00	1.11	101	90-110			
Matrix Spike Dup (BID0881-MSD1)	Source	e: 25D0470-0	1	Prepared & Anal	yzed: 04/17/2025					
TKN as N	6.11	0.50	mg/L	5.00	1.30	96.2	90-110	3.01	20	
Matrix Spike Dup (BID0881-MSD2)	Source	e: 25D0470-0	2	Prepared & Anal	yzed: 04/17/2025					
TKN as N	6.21	0.50	mg/L	5.00	1.11	102	90-110	1.21	20	



25D0534

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Work Order: Wet Chemistry Analysis - Quality Control

				Enthalpy Ar	nalytical					
Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch Bi	D0934 - No Prep	Wet Chem								
Blank (BID0934-BLK1)				Prepared & Analy	yzed: 04/19/2025					
TKN as N	ND	0.50	mg/L							
LCS (BID0934-BS1)				Prepared & Analy	yzed: 04/19/2025					
TKN as N	5.10		mg/L	5.00		102	90-110			
Matrix Spike (BID0934-MS1)	Sourc	e: 25D0554-0	1	Prepared & Analy	yzed: 04/19/2025					
TKN as N	6.43	0.50	mg/L	5.00	1.01	108	90-110			
Matrix Spike (BID0934-MS2)	Sourc	e: 25D0554-0	2	Prepared & Analy	yzed: 04/19/2025					
TKN as N	6.60	0.50	mg/L	5.00	1.09	110	90-110			М
Matrix Spike Dup (BID0934-MSD1)	Sourc	e: 25D0554-0	1	Prepared & Analy	yzed: 04/19/2025					
TKN as N	6.58	0.50	mg/L	5.00	1.01	111	90-110	2.29	20	М
Matrix Spike Dup (BID0934-MSD2)	Sourc	e: 25D0554-0	2	Prepared & Analy	yzed: 04/19/2025					
TKN as N	6.67	0.50	mg/L	5.00	1.09	112	90-110	1.13	20	Μ
Batch Bl	D0978 - No Prep	Wet Chem								
Blank (BID0978-BLK1)				Prepared & Analy	yzed: 04/17/2025					
Ammonia as N	ND	0.10	mg/L							
LCS (BID0978-BS1)				Prepared & Analy	yzed: 04/17/2025					
Ammonia as N	1.05		mg/L	1.00		105	90-110			
Matrix Spike (BID0978-MS1)	Sourc	e: 25D1188-0	7	Prepared & Analy	yzed: 04/17/2025					
Ammonia as N	1.09	0.10	mg/L	1.00	BLOD	109	89.3-131			



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25D0534

Wet Chemistry Analysis - Quality Control

Result   LOQ   Units   Spike   Source   Result   %REC   Limits   RPD   Limit											
Matrix Spike (BID0978-MS2)         Source: 25D1269-02         Prepared & Analyzed: 04/17/2025           Ammonia as N         1.15         0.10         mg/L         1.00         BLOD         115         89.3-131           Matrix Spike Dup (BID0978-MSD1)         Source: 25D1188-07         Prepared & Analyzed: 04/17/2025         Universe of the parent	Analyte	Result	LOQ	Units			%REC		RPD	–	Qual
Ammonia as N 1.15 0.10 mg/L 1.00 BLOD 115 89.3-131  Matrix Spike Dup (BID0978-MSD1) Source: 25D1188-07 Prepared & Analyzed: 04/17/2025  Ammonia as N 1.09 0.10 mg/L 1.00 BLOD 109 89.3-131 0.459 20  Matrix Spike Dup (BID0978-MSD2) Source: 25D1269-02 Prepared & Analyzed: 04/17/2025  Ammonia as N 1.16 0.10 mg/L 1.00 BLOD 116 89.3-131 0.605 20  Batch BID1011 - No Prep Wet Chem  Blank (BID1011-BLK1) Prepared & Analyzed: 04/17/2025  Nitrate+Nitrite as N ND 0.10 mg/L  LCS (BID1011-BS1) Prepared & Analyzed: 04/17/2025  Nitrate+Nitrite as N 1.02 mg/L 1.00 102 90-110  Matrix Spike (BID1011-MS1) Source: 25D0472-01 Prepared & Analyzed: 04/17/2025  Nitrate+Nitrite as N 1.06 0.10 mg/L 1.00 BLOD 106 90-120  Matrix Spike Dup (BID1011-MSD1) Source: 25D0472-01 Prepared & Analyzed: 04/17/2025  Nitrate+Nitrite as N 1.16 0.10 mg/L 1.00 BLOD 106 90-120  Matrix Spike Dup (BID1011-MSD1) Source: 25D0472-01 Prepared & Analyzed: 04/17/2025  Nitrate+Nitrite as N 1.16 0.10 mg/L 1.00 BLOD 116 90-120 9.54 20  Batch BID1090 - No Prep Wet Chem  Blank (BID1090-BLK1) Prepared & Analyzed: 04/21/2025	Batch	BID0978 - No Prep	Wet Chem								
Matrix Spike Dup (BID0978-MSD1)         Source: 25D1188-07         Prepared & Analyzed: 04/17/2025           Ammonia as N         1.09         0.10         mg/L         1.00         BLOD         109         89.3-131         0.459         20           Matrix Spike Dup (BID0978-MSD2)         Source: 25D1269-02         Prepared & Analyzed: 04/17/2025	Matrix Spike (BID0978-MS2)	Source	ce: 25D1269-0	2	Prepared & Analy	zed: 04/17/2025					
Ammonia as N 1.09 0.10 mg/L 1.00 BLOD 109 89.3-131 0.459 20  Matrix Spike Dup (BID0978-MSD2) Source: 25D1269-02 Prepared & Analyzed: 04/17/2025  Ammonia as N 1.16 0.10 mg/L 1.00 BLOD 116 89.3-131 0.605 20  Batch BID1011 - No Prep Wet Chem  Blank (BID1011-BLK1) Prepared & Analyzed: 04/17/2025  Nitrate+Nitrite as N ND 0.10 mg/L  LCS (BID1011-BS1) Prepared & Analyzed: 04/17/2025  Nitrate+Nitrite as N 1.02 mg/L 1.00 102 90-110  Matrix Spike (BID1011-MS1) Source: 25D0472-01 Prepared & Analyzed: 04/17/2025  Nitrate+Nitrite as N 1.06 0.10 mg/L 1.00 BLOD 106 90-120  Matrix Spike Dup (BID1011-MSD1) Source: 25D0472-01 Prepared & Analyzed: 04/17/2025  Nitrate+Nitrite as N 1.16 0.10 mg/L 1.00 BLOD 106 90-120  Matrix Spike Dup (BID1011-MSD1) Source: 25D0472-01 Prepared & Analyzed: 04/17/2025  Nitrate+Nitrite as N 1.16 0.10 mg/L 1.00 BLOD 116 90-120 9.54 20  Batch BID1090 - No Prep Wet Chem  Blank (BID1090-BLK1) Prepared & Analyzed: 04/21/2025	Ammonia as N	1.15	0.10	mg/L	1.00	BLOD	115	89.3-131			
Matrix Spike Dup (BID0978-MSD2)         Source: 25D1269-02         Prepared & Analyzed: 04/17/2025           Ammonia as N         1.16         0.10         mg/L         1.00         BLOD         116         89.3-131         0.605         20           Blank (BID1011 - No Prep Wet Chem           Prepared & Analyzed: 04/17/2025           Nitrate+Nitrite as N         ND         0.10         mg/L         Prepared & Analyzed: 04/17/2025           Nitrate+Nitrite as N         1.02         mg/L         1.00         102         90-110           Matrix Spike (BID1011-MS1)         Source: 25D0472-01         Prepared & Analyzed: 04/17/2025         90-120           Matrix Spike Dup (BID1011-MSD1)         Source: 25D0472-01         Prepared & Analyzed: 04/17/2025           Nitrate+Nitrite as N         1.16         0.10         mg/L         1.00         BLOD         106         90-120           Matrix Spike Dup (BID1011-MSD1)         Source: 25D0472-01         Prepared & Analyzed: 04/17/2025         Prepared & Analyzed: 04/17/2025           Nitrate+Nitrite as N         1.16         0.10         mg/L         1.00         BLOD         116         90-120         9.54         20           Blank (BID1090- No Prep Wet Chem	Matrix Spike Dup (BID0978-MSD1)	Source	ce: 25D1188-0	7	Prepared & Analy	zed: 04/17/2025					
Ammonia as N 1.16 0.10 mg/L 1.00 BLOD 116 89.3-131 0.605 20  Batch BID1011 - No Prep Wet Chem  Blank (BID1011-BLK1) Prepared & Analyzed: 04/17/2025  Nitrate+Nitrite as N ND 0.10 mg/L  LCS (BID1011-BS1) Prepared & Analyzed: 04/17/2025  Nitrate+Nitrite as N 1.02 mg/L 1.00 102 90-110  Matrix Spike (BID1011-MS1) Source: 25D0472-01 Prepared & Analyzed: 04/17/2025  Nitrate+Nitrite as N 1.06 0.10 mg/L 1.00 BLOD 106 90-120  Matrix Spike Dup (BID1011-MSD1) Source: 25D0472-01 Prepared & Analyzed: 04/17/2025  Nitrate+Nitrite as N 1.16 0.10 mg/L 1.00 BLOD 116 90-120 9.54 20  Batch BID1090 - No Prep Wet Chem  Blank (BID1090-BLK1) Prepared & Analyzed: 04/21/2025	Ammonia as N	1.09	0.10	mg/L	1.00	BLOD	109	89.3-131	0.459	20	
Blank (BID1011 - No Prep Wet Chem    Prepared & Analyzed: 04/17/2025     Nitrate+Nitrite as N   ND   0.10   mg/L     LCS (BID1011-BS1)   Prepared & Analyzed: 04/17/2025     Nitrate+Nitrite as N   1.02   mg/L   1.00   102   90-110     Matrix Spike (BID1011-MS1)   Source: 25D0472-01   Prepared & Analyzed: 04/17/2025     Nitrate+Nitrite as N   1.06   0.10   mg/L   1.00   BLOD   106   90-120     Matrix Spike Dup (BID1011-MSD1)   Source: 25D0472-01   Prepared & Analyzed: 04/17/2025     Nitrate+Nitrite as N   1.16   0.10   mg/L   1.00   BLOD   116   90-120   9.54   20     Matrix Spike Dup (BID1011-MSD1)   No Prep Wet Chem     Batch BID1090 - No Prep Wet Chem   Prepared & Analyzed: 04/21/2025     Prepared & Analyzed: 04/21/2025   Prepared & Analyzed: 04/21/2025     Prepared & Analyzed: 04/21/2025   Prepared & Analyzed: 04/21/2025   Prepared & Analyzed: 04/21/2025     Blank (BID1090-BLK1)   Prepared & Analyzed: 04/21/2025   Prepared & Analyzed: 04/21/	Matrix Spike Dup (BID0978-MSD2)	Source	e: 25D1269-0	2	Prepared & Analy	zed: 04/17/2025					
Prepared & Analyzed: 04/17/2025   Nitrate+Nitrite as N   ND   0.10   mg/L	Ammonia as N	1.16	0.10	mg/L	1.00	BLOD	116	89.3-131	0.605	20	
Nitrate+Nitrite as N ND 0.10 mg/L  LCS (BID1011-BS1) Prepared & Analyzed: 04/17/2025  Nitrate+Nitrite as N 1.02 mg/L 1.00 102 90-110  Matrix Spike (BID1011-MS1) Source: 25D0472-01 Prepared & Analyzed: 04/17/2025  Nitrate+Nitrite as N 1.06 0.10 mg/L 1.00 BLOD 106 90-120  Matrix Spike Dup (BID1011-MSD1) Source: 25D0472-01 Prepared & Analyzed: 04/17/2025  Nitrate+Nitrite as N 1.16 0.10 mg/L 1.00 BLOD 116 90-120 9.54 20  Batch BID1090 - No Prep Wet Chem  Blank (BID1090-BLK1) Prepared & Analyzed: 04/21/2025	Batch	BID1011 - No Prep	Wet Chem								
Nitrate+Nitrite as N   1.02   mg/L   1.00   102   90-110	Blank (BID1011-BLK1)				Prepared & Analy	zed: 04/17/2025					
Nitrate+Nitrite as N       1.02       mg/L       1.00       102       90-110         Matrix Spike (BID1011-MS1)       Source: 25D0472-01       Prepared & Analyzed: 04/17/2025         Nitrate+Nitrite as N       1.06       0.10       mg/L       1.00       BLOD       106       90-120         Matrix Spike Dup (BID1011-MSD1)       Source: 25D0472-01       Prepared & Analyzed: 04/17/2025         Nitrate+Nitrite as N       1.16       0.10       mg/L       1.00       BLOD       116       90-120       9.54       20         Batch BID1090 - No Prep Wet Chem	Nitrate+Nitrite as N	ND	0.10	mg/L							
Matrix Spike (BID1011-MS1)         Source: 25D0472-01         Prepared & Analyzed: 04/17/2025           Nitrate+Nitrite as N         1.06         0.10         mg/L         1.00         BLOD         106         90-120           Matrix Spike Dup (BID1011-MSD1)         Source: 25D0472-01         Prepared & Analyzed: 04/17/2025         Value of the control of the c	LCS (BID1011-BS1)				Prepared & Analy	zed: 04/17/2025					
Nitrate+Nitrite as N       1.06       0.10       mg/L       1.00       BLOD       106       90-120         Matrix Spike Dup (BID1011-MSD1)       Source: 25D0472-01       Prepared & Analyzed: 04/17/2025         Nitrate+Nitrite as N       1.16       0.10       mg/L       1.00       BLOD       116       90-120       9.54       20         Batch BID1090 - No Prep Wet Chem         Prepared & Analyzed: 04/21/2025	Nitrate+Nitrite as N	1.02		mg/L	1.00		102	90-110			
Matrix Spike Dup (BID1011-MSD1)         Source: 25D0472-01         Prepared & Analyzed: 04/17/2025           Nitrate+Nitrite as N         1.16         0.10         mg/L         1.00         BLOD         116         90-120         9.54         20           Batch BID1090 - No Prep Wet Chem           Prepared & Analyzed: 04/21/2025	Matrix Spike (BID1011-MS1)	Source	ce: 25D0472-0	1	Prepared & Analy	zed: 04/17/2025					
Nitrate+Nitrite as N         1.16         0.10         mg/L         1.00         BLOD         116         90-120         9.54         20           Batch BID1090 - No Prep Wet Chem           Prepared & Analyzed: 04/21/2025	Nitrate+Nitrite as N	1.06	0.10	mg/L	1.00	BLOD	106	90-120			
Batch BID1090 - No Prep Wet Chem  Prepared & Analyzed: 04/21/2025	Matrix Spike Dup (BID1011-MSD1)	Source	ce: 25D0472-0	1	Prepared & Analy	zed: 04/17/2025					
Blank (BID1090-BLK1) Prepared & Analyzed: 04/21/2025	Nitrate+Nitrite as N	1.16	0.10	mg/L	1.00	BLOD	116	90-120	9.54	20	
	Batch	BID1090 - No Prep	Wet Chem								
Total Recoverable Phenolics ND 0.050 mg/L	Blank (BID1090-BLK1)				Prepared & Analy	zed: 04/21/2025					
	Total Recoverable Phenolics	ND	0.050	mg/L							



4/21/2025 5:24:05PM

# **Certificate of Analysis**

Client Name: SCS Engineers - Winchester

gineers - Winchester Date Issued:

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

Submitted To: Jennifer Robb Work Order: 25D0534

Wet Chemistry Analysis - Quality Control

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch	BID1090 - No Prep	Wet Chem								
LCS (BID1090-BS1)				Prepared & Anal	yzed: 04/21/2025					
Total Recoverable Phenolics	0.48	0.050	mg/L	0.510		94.5	80-120			
Matrix Spike (BID1090-MS1)	Source	ce: 25D1494-01	1	Prepared & Anal	yzed: 04/21/2025					
Total Recoverable Phenolics	7.78	0.250	mg/L	2.50	4.79	120	70-130			
Matrix Spike Dup (BID1090-MSD1)	Source	ce: 25D1494-01	1	Prepared & Anal	yzed: 04/21/2025					
Total Recoverable Phenolics	7.80	0.250	mg/L	2.50	4.79	120	70-130	0.257	20	



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Bristol LFG-EW Monthly Monitoring

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Work Order: 25D0534

#### Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA	6000/7000 Series Methods		Preparation Method:	EPA200.2R2.8/SW300	05A-ICP
25D0534-01	50.0 mL / 50.0 mL	SW6010D	BID0461	SID0489	AD50218
25D0534-01RE1	50.0 mL / 50.0 mL	SW6010D	BID0461	SID0489	AD50218
25D0534-02	50.0 mL / 50.0 mL	SW6010D	BID0461	SID0489	AD50218
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA	6000/7000 Series Methods		Preparation Method:	EPA200.2R2.8/SW300	05A-ICPMS
25D0534-01	50.0 mL / 50.0 mL	SW6020B	BID0462	SID0744	AD50261
25D0534-02	50.0 mL / 50.0 mL	SW6020B	BID0462	SID0744	AD50261
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analy	rsis		Preparation Method:	No Prep Wet Chem	
25D0534-01	300 mL / 300 mL	SM5210B-2016	BID0398	SID0582	
25D0534-02	300 mL / 300 mL	SM5210B-2016	BID0398	SID0582	
25D0534-01	1.00 mL / 25.0 mL	SM4500-NO2B-2021	BID0424	SID0384	AJ40362
25D0534-02	25.0 mL / 25.0 mL	SM4500-NO2B-2021	BID0424	SID0384	AJ40362
25D0534-01	2.00 mL / 2.00 mL	SM5220D-2011	BID0688	SID0593	AD50192
25D0534-02	2.00 mL / 2.00 mL	SM5220D-2011	BID0688	SID0593	AD50192
25D0534-01	25.0 mL / 25.0 mL	EPA351.2 R2.0	BID0881	SID0800	AD50269
25D0534-01RE1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BID0881	SID0800	AD50269
25D0534-02	25.0 mL / 25.0 mL	EPA351.2 R2.0	BID0934	SID0890	AD50282
25D0534-01	6.00 mL / 6.00 mL	EPA350.1 R2.0	BID0978	SID0839	AD50275
25D0534-02	6.00 mL / 6.00 mL	EPA350.1 R2.0	BID0978	SID0839	AD50275
25D0534-01	5.00 mL / 5.00 mL	SM4500-NO3F-2019	BID1011	SID0819	AD50274
25D0534-02	5.00 mL / 5.00 mL	SM4500-NO3F-2019	BID1011	SID0819	AD50274



# **Certificate of Analysis**

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Date Issued:

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Client Site I.D.:

Bristol LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb

Work Order: 25D0534

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Anal	ysis		Preparation Method:	No Prep Wet Chem	
25D0534-01	0.100 mL / 10.0 mL	SW9065	BID1090	SID0942	AD50299
25D0534-02	0.200 mL / 10.0 mL	SW9065	BID1090	SID0942	AD50299
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Semivolatile Organi	c Compounds by GCMS		Preparation Method:	SW3510C/EPA600-M	s
25D0534-01	500 mL / 1.00 mL	SW8270E	BID0399	SID0423	AC50298
25D0534-02	500 mL / 0.500 mL	SW8270E	BID0399	SID0423	AC50298
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Volatile Organic Cor	npounds by GCMS		Preparation Method:	SW5030B-MS	
25D0534-01	5.00 mL / 5.00 mL	SW8260D	BID0489	SID0442	AD50231
25D0534-01RE1	5.00 mL / 5.00 mL	SW8260D	BID0489	SID0442	AD50231
25D0534-02	5.00 mL / 5.00 mL	SW8260D	BID0489	SID0442	AD50231
25D0534-02RE1	5.00 mL / 5.00 mL	SW8260D	BID0489	SID0442	AD50231
25D0534-03	5.00 mL / 5.00 mL	SW8260D	BID0489	SID0442	AD50231



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Client Site I.D.:

Bristol LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb Work Order: 25D0534

QC Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EP	A 6000/7000 Series Methods		Preparation Method:	EPA200.2R2.8/SW300	05A-ICP
BID0461-BLK1	50.0 mL / 50.0 mL	SW6010D	BID0461	SID0489	AD50218
BID0461-BS1	50.0 mL / 50.0 mL	SW6010D	BID0461	SID0489	AD50218
BID0461-MS1	50.0 mL / 50.0 mL	SW6010D	BID0461	SID0489	AD50218
BID0461-MSD1	50.0 mL / 50.0 mL	SW6010D	BID0461	SID0489	AD50218
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EP	A 6000/7000 Series Methods		Preparation Method:	EPA200.2R2.8/SW300	05A-ICPMS
BID0462-BLK1	50.0 mL / 50.0 mL	SW6020B	BID0462	SID0744	AD50261
BID0462-BS1	50.0 mL / 50.0 mL	SW6020B	BID0462	SID0744	AD50261
BID0462-MS1	50.0 mL / 50.0 mL	SW6020B	BID0462	SID0744	AD50261
BID0462-MS2	50.0 mL / 50.0 mL	SW6020B	BID0462	SID0744	AD50261
BID0462-MSD1	50.0 mL / 50.0 mL	SW6020B	BID0462	SID0744	AD50261
BID0462-MSD2	50.0 mL / 50.0 mL	SW6020B	BID0462	SID0744	AD50261
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Anal	ysis		Preparation Method:	No Prep Wet Chem	
BID0398-BLK1	300 mL / 300 mL	SM5210B-2016	BID0398	SID0582	
BID0398-BS1	300 mL / 300 mL	SM5210B-2016	BID0398	SID0582	
BID0398-DUP1	300 mL / 300 mL	SM5210B-2016	BID0398	SID0582	
BID0424-BLK1	25.0 mL / 25.0 mL	SM4500-NO2B-2021	BID0424	SID0384	AJ40362
BID0424-BS1	25.0 mL / 25.0 mL	SM4500-NO2B-2021	BID0424	SID0384	AJ40362
BID0424-MRL1	25.0 mL / 25.0 mL	SM4500-NO2B-2021	BID0424	SID0384	AJ40362
BID0424-MS1	25.0 mL / 25.0 mL	SM4500-NO2B-2021	BID0424	SID0384	AJ40362
BID0424-MSD1	25.0 mL / 25.0 mL	SM4500-NO2B-2021	BID0424	SID0384	AJ40362



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

Submitted To: Jennifer Robb

Date Issued: 4/21/2025 5:24:05PM

Work Order: 25D0534

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Anal	ysis		Preparation Method:	No Prep Wet Chem	
BID0688-BLK1	2.00 mL / 2.00 mL	SM5220D-2011	BID0688	SID0593	AD50192
BID0688-BS1	2.00 mL / 2.00 mL	SM5220D-2011	BID0688	SID0593	AD50192
BID0688-MRL1	2.00 mL / 2.00 mL	SM5220D-2011	BID0688	SID0593	AD50192
BID0688-MS1	2.00 mL / 2.00 mL	SM5220D-2011	BID0688	SID0593	AD50192
BID0688-MSD1	2.00 mL / 2.00 mL	SM5220D-2011	BID0688	SID0593	AD50192
BID0881-BLK1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BID0881	SID0800	AD50269
BID0881-BS1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BID0881	SID0800	AD50269
BID0881-MRL1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BID0881	SID0800	AD50269
BID0881-MS1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BID0881	SID0800	AD50269
BID0881-MS2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BID0881	SID0800	AD50269
BID0881-MSD1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BID0881	SID0800	AD50269
BID0881-MSD2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BID0881	SID0800	AD50269
BID0934-BLK1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BID0934	SID0890	AD50282
BID0934-BS1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BID0934	SID0890	AD50282
BID0934-MRL1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BID0934	SID0890	AD50282
BID0934-MS1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BID0934	SID0890	AD50282
BID0934-MS2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BID0934	SID0890	AD50282
BID0934-MSD1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BID0934	SID0890	AD50282
BID0934-MSD2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BID0934	SID0890	AD50282
3ID0978-BLK1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BID0978	SID0839	AD50275
BID0978-BS1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BID0978	SID0839	AD50275
BID0978-MRL1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BID0978	SID0839	AD50275
BID0978-MS1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BID0978	SID0839	AD50275
BID0978-MS2	6.00 mL / 6.00 mL	EPA350.1 R2.0	BID0978	SID0839	AD50275
BID0978-MSD1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BID0978	SID0839	AD50275
3ID0978-MSD2	6.00 mL / 6.00 mL	EPA350.1 R2.0	BID0978	SID0839	AD50275
BID1011-BLK1	5.00 mL / 5.00 mL	SM4500-NO3F-2019	BID1011	SID0819	AD50274
BID1011-BS1	5.00 mL / 5.00 mL	SM4500-NO3F-2019	BID1011	SID0819	AD50274
BID1011-MS1	10.0 mL / 10.0 mL	SM4500-NO3F-2019	BID1011	SID0819	AD50274



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Date Issued:

# **Certificate of Analysis**

Client Name: SCS Engineers - Winchester

Client Site I.D.:

**Bristol LFG-EW Monthly Monitoring** 

Submitted To: Jennifer Robb Work Order: 25D0534

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analy	/sis		Preparation Method:	No Prep Wet Cher	n
BID1011-MSD1	10.0 mL / 10.0 mL	SM4500-NO3F-2019	BID1011	SID0819	AD50274
BID1090-BLK1	5.00 mL / 10.0 mL	SW9065	BID1090	SID0942	AD50299
BID1090-BS1	5.00 mL / 10.0 mL	SW9065	BID1090	SID0942	AD50299
BID1090-MRL1	5.00 mL / 10.0 mL	SW9065	BID1090	SID0942	AD50299
BID1090-MS1	1.00 mL / 10.0 mL	SW9065	BID1090	SID0942	AD50299
BID1090-MSD1	1.00 mL / 10.0 mL	SW9065	BID1090	SID0942	AD50299
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Semivolatile Organic	Compounds by GCMS		Preparation Method:	SW3510C/EPA600	-MS
BID0399-BLK1	1000 mL / 1.00 mL	SW8270E	BID0399	SID0423	AC50298
BID0399-BS1	1000 mL / 1.00 mL	SW8270E	BID0399	SID0423	AC50298
BID0399-MS1	1070 mL / 1.00 mL	SW8270E	BID0399	SID0423	AC50298
BID0399-MSD1	980 mL / 1.00 mL	SW8270E	BID0399	SID0423	AC50298
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Volatile Organic Com	npounds by GCMS		Preparation Method:	SW5030B-MS	
BID0489-BLK1	5.00 mL / 5.00 mL	SW8260D	BID0489	SID0442	AD50231
BID0489-BLK2	0.250 mL / 5.00 mL	SW8260D	BID0489	SID0442	AD50231
BID0489-BS1	5.00 mL / 5.00 mL	SW8260D	BID0489	SID0442	AD50231
BID0489-BS2	0.250 mL / 5.00 mL	SW8260D	BID0489	SID0442	AD50231
BID0489-MS1	5.00 mL / 5.00 mL	SW8260D	BID0489	SID0442	AD50231
BID0489-MSD1	5.00 mL / 5.00 mL	SW8260D	BID0489	SID0442	AD50231



# **Certificate of Analysis**

Client Name: SCS Engineers - Winchester

Date Issued:

4/21/2025 5:24:05PM

Client Site I.D.:

Bristol LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb

Work Order: 25D0534

#### **Certified Analyses included in this Report**

Analyte	Certifications
EPA350.1 R2.0 in Non-Potable Water	
Ammonia as N	VELAP,NCDEQ,PADEP,WVDEP,SCDHEC,TXCEQ
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,TXCEQ
Copper	VELAP,WVDEP,NCDEQ,SCDHEC
ead	VELAP,WVDEP,SCDHEC,NCDEQ
Nickel	VELAP,WVDEP,SCDHEC,NCDEQ
Selenium	VELAP,WVDEP,SCDHEC,NCDEQ
ilver	VELAP,WVDEP,PADEP,SCDHEC,NCDEQ
inc	VELAP,WVDEP,SCDHEC,NCDEQ
W6020B in Non-Potable Water	
Mercury	VELAP,NCDEQ



25D0534

**Certificate of Analysis** 

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Bristol LFG-EW Monthly Monitoring

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Client Site I.D.:

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Work Order:

#### **Certified Analyses included in this Report**

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



# **Certificate of Analysis**

Client Name: SCS Engineers - Winchester

Bristol LFG-EW Monthly Monitoring

Submitted To: Jennifer Robb

Client Site I.D.:

Date Issued:

4/21/2025 5:24:05PM

Work Order: 25D0534

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
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 #13307	460021	06/14/2025
WVDEP	West Virginia DEP Cert ID: WV-C25-00053	350	11/30/2025



4/21/2025 5:24:05PM

#### **Certificate of Analysis**

Client Name: SCS Engineers - Winchester

**Bristol LFG-EW Monthly Monitoring** 

Submitted To: Jennifer Robb

Work Order:

Date Issued:

25D0534

#### **Qualifiers and Definitions**

DS Surrogate concentration reflects a dilution factor.

E Estimated concentration, outside calibration range

H Analysis was performed outside of the method prescribed holding time.

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

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.



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

CHAIN OF CUSTORY

[ <u>-</u>								IIN OF	- 003	10	זטי									PAGE 1 OF 1
COMPANY NAME: SCS En		eers				VOICE TO			City of	Bri	stol, VA		PROJ	EC1	NAM	IE/Quo	te#	:	City	y of Bristol Landfill #588
CONTACT: Jennifer Robb						VOICE CO	·		n Hay	es			SITE			LFG-	EW	Мог	ıthly	Monitoring
ADDRESS: 296 Victory Road	. Wi	nch	este	r. VA	IN	IVOICE A	DRES	<b>S</b> : 26	55 Valley	Drive	, Bristol, VA,	24201	PROJ	EC1	NUN	IBER:	02	2182	208.1	5 Task 4
PHONE #: 703-471-6150					IN	VOICE PH	HONE #	: 27	6-645-	378	8		P.O. #							:
EMAIL: jrobb@scsengineers.co							n.hayes							atm	ent Pr	ogram	:			
is sample for compliance report			YES	S NO Re	gulato	ry State:				_	chlorinate	ed sup	ply?	YE	s/	10 )	P۷	VS I.	D. #:	
SAMPLER NAME (PRINT): M	NO	<i></i>	61	L.TIX	KE	re sa	MPLE	R SIC	W. Let	Ē.	105	-/_	2	12	$\mathcal{I}$	Ti	ırn A	Arou	nd Tir	me: 10 Day(s)
Matrix Codes: WW=Waste Water/Storm Wa	ter G	W=G	round	Water DW=	Drinking	Water S=Soil	/Solids O	R=Organ	ic A=Air	WP=	Wipe OT=Oth	ner		_						COMMENTS
			etals)				Stop					ANAL	YSIS /	(PR	ESER	VATIV	'E)			Preservative Codes: N=Nitric Acid C=Hydrochloric Acid S=Sulfuric Acid H=Sodium Hydroxide A=Ascorbic
CLIENT SAMPLE I.D.	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite S 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	ВОД		Note VOC 8260  NO HCI  PLEASE NOTE PRESERVATIVE(S), INTERFERENCE CHECKS or PUMP
1) EW-60	×	<del>                                     </del>			<u> </u>	20225			GW		9 x	~	20	X	<u> </u>	X	10	m X	+	RATE (L/min)
2) EW-68	X				· · · · ·	1	1215		GW	a	X	X	×		$\frac{1}{x}$	8	X .		$\neg$	
3)									GW			/	/							
4)	$\downarrow$	Ш							GW											
5) Thip BLANK	X	1	Щ			32525	1043	DI	€₩		X							7	31	.20
6)	╂.	$\vdash$							GW								Ľ	Dbse	rved	Temp °C: 10'6
7) 8)		Н							GW					$\sqcup$			<u></u>	Orre	) (C	Temp °C: 18.8
9)	+		+						GW	H				$\dashv$			⊢`	56	,6/6 6/10	Tractor C:
<del>10)</del>	$\pm$								DI								c	orre	cted	Temp °C: 1818 _
RELINQUISHED:		E / 7		RECEIVE		<u> </u>	<u></u>	DATE /		QC	Data Packa	GE LA	USE O	NL.Y	The	rm ID: _	Ш		COC	LER TEMP °C
Land Zul 4/2/2			14		fed 1	er E	-						tody Seals	used	and inta	act? ( Y / N	۷)	_		Received on ice? (Y/N)
RELINQUISHED: Fed ex E	DAT	E / 1	TIME	RECEIVE		~ ~~		DATE /	TIME S 9170	Leve	IIII 🗆		SCS	-W	7				25D	0534
RELINQUISHED:	DAT	E / 1	ΓIME	RECEIVE		<u> </u>		DATE /		Leve	IIV 🗆		Brist	ol I	FG-	EW N	<b>V</b> or	thl	y Mo	onitor
													Recd	: 04	1/07/2	2025	Du	ıe: (	<b>14/2</b> 1	1/2025
																			v	130325002

ENTHALPY
ANALYTICAL
Order ID 250 R534

**Sample Preservation Log** 

Date Performed: 04/07/25 Analyst Performing Check: Pesticide Pest/PCB Metals Cyanide Sulfide **Ammonia** Phos, Tot SVOC NO3+NO2 (8081/608/508) CrVI \* \*\* Phenolid (508) / Sample ID (525/8270/625) PCB DW only SVOC(525) Received Received Received = Received Received 표 Received Received Res. CI 표 Res. CI Received Received > 12 Other > 9 Other < 2 Other < 2 Other < 2 Other < 2 Other <2 F <2 HNO3 ID: 500483 H2SO4 ID: 5003894 CrVI preserved date/time: \_\_\_\_\_ Analyst Initials: \* pH must be adjusted between 9.3 - 9.7 Na2S2O3 ID: \_\_\_\_\_ Ammonia Buffer Sol'n ID: Na<sub>2</sub>SO<sub>3</sub> ID: 5N NaOH ID:

Metals were received with pH = 7 HNO3 was added at 1300 on April 7, 2025, by THT in the Log-In room to bring pH = <2.



4/21/2025 5:24:05PM

Date Issued:

# **Certificate of Analysis**

Client Name: SCS Engineers - Winchester

Client Site I.D.:

**Bristol LFG-EW Monthly Monitoring** 

Submitted To: Jennifer Robb Work Order: 25D0534



4/21/2025 5:24:05PM

Date Issued:

#### **Certificate of Analysis**

Client Name: SCS Engineers - Winchester

Client Site I.D.:

**Bristol LFG-EW Monthly Monitoring** 

Submitted To: Jennifer Robb Work Order: 25D0534

Laboratory Order ID: 25D0534

#### **Sample Conditions Checklist**

Samples Received at:	18.80°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?	No
Are all samples within holding time for requested laboratory tests?	No
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	Yes
Are all volatile organic and TOX containers free of headspace?	Yes
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	Yes
Are all samples received appropriately preserved? 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 samples were receieved on melted ice and outside of the 0-6'C temperature range (18.8). The samples are also outside of the 48hour hold time for BOD and nitrite analysis. HEG 4/7/25 1110



**Certificate of Analysis** 

Client Name: SCS Engineers - Winchester Date Issued: 4/21/2025 5:24:05PM

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

Submitted To: Jennifer Robb Work Order: 25D0534

Jennifer Robb approved to proceed with analysis and was notified the samples were

preserved in the lab to the appropriate pH. HEG 4/7/25 1321

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	LVV-OOA	LW-30	LW-SI	L111-52	L11-30	LW-54	LW-33	L11-57	LW-30	LIV-57	L11-00		ntration	LW-04	L11-03	LW-07	LW-00	LW-70	L11-02	LW-03	LW-O/	LW-00	L11-7-4	L11-70	LOD	LOQ
1 0.101110101	November-2022										1560		1400			1380										50	50
	December-2022		1700		2280				2110		1410	1310					1150	1780								100	100
	Laure care ( 0002		1520							936						1330										50	50
	January-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		1.570																1180							73.1	100
	August 2022		1570				1600		2260 1890															2350 2140	310 222	146	200
	August-2023																		1720							73.1	200 100
	September-2023				1250																					146	200
	October-2023							1980											1730			2890				146	200
			1260		2490	1830		2070											1800			2590				146	200
	November-2023										2440			1170											2080	183 366	250 500
																			1540							73.1	100
Ammonia as N	December-2023				2900													2200								146	200
Ammonia as N (mg/L)	January-2024			2160							2400														1610	146	200
(1119/11)	February-2024			1900		2600															1780		2380			146	200
	March-2024 April-2024				2290									020				2140	1900				2280		968	146	200
	Aprii-2024													928					1800						898	73.1	100
	May-2024										2550								1620		1950	2660				146	200
	June-2024																		1990		2170				1850	146	200
											1860															73.1	100
	July-2024											1950														146	200
	August-2024						1110																			73.1	100
							1440														2130			2550		146	200
	September-2024				2210		1440											2290								73.1 146	100
	0 - 1 - 1 000 4	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		1300																		0.68 1400					0.005	0.01
	February-2025												1160													73.1 199	100 199
	March-2025		1240									1480						2110								146	200
	April-2025											2440						2580								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		7250							8430	35300	2860														0.2	2
	May-2023 June-2023		7350							11900	35300 20000		27400		23100											0.2	2 2
	July-2023		6820						32900		20000								330					31800	937	0.2	2
	August-2023						>33045		>33225															>32805	506	0.2	2
	September-2023				40185.5														659							0.2	2
	October-2023							34600											690			37000				0.2	2
Biologia - I	November-2023		1910		30400	27500		32015			29600			3640				12700	480			32135			21500	0.2	2
Biological Oxygon Domand	December-2023 January-2024			26000	>44105						17100							13700	681						14000	0.2	2
Oxygen Demand (mg/L)	February-2024			23200		26200															21400		34300			0.2	2
(1119/12)	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											4750							421		24400				16200	0.2	2
	July-2024 August-2024						31000				25800	4750									20800			33400		0.2	2
	September-2024				ND		36100											27400			20800			33400		0.2	2
	October-2024		6680		IND															36100						0.2	2
	November-2024		7360																							0.2	2
	December-2024				42600																				20300	0.2	2
	January-2025																				22900					0.2	2
	February-2025		4420									20400	43418.4					22000			16200					0.2	2
	March-2025 April-2025		3490									20400 33900						22000 24600								0.2	2 2
	5111 2020																	<u> </u>								U.Z	

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												Concer	ntration													
	November-2022												9790			10800										1000	1000
											23500															2000	2000
			7440								12200	9000					20200	14100								1000	1000
	December-2022								22400		13200	8000					20300	14100								2000 5000	2000 5000
					86800																					10000	10000
										3630																500	500
	January-2023		14900													8430										2000	2000
	,										47600															5000	5000
	February-2023																	9210								1000	1000
	March-2023									1690																500	500
	/viaicii-2025										10600															2000	2000
	April-2023											7370														1000	1000
	7 (0.11 2020									16800																2000	2000
	May-2023		7590							18700																2000	2000
-	,										44700		44000													4000	4000
	June-2023										41200		44800		 FF000											5000	5000
-											41300				55000										2180	10000	10000
			6480																2460							500 1000	500 1000
	July-2023																							41000		5000	5000
									50100																	10000	10000
	A																								1750	500	500
	August-2023						59000		58600															60600		5000	5000
	September-2023																		6260							1000	1000
-					87400														 F220							10000	10000
	October-2023							51000											5320							500 5000	500 5000
	0010001 2020																					63600				10000	10000
																			4710							1000	1000
	November-2023		6200											5620												2000	2000
					77100	48100		57900			43700														37600	5000	5000
Chemical					77100														4870			63900				10000	10000
Oxygen Demand	December-2023																	19900								5000	5000
(mg/L)					94200																					10000	10000
	January-2024			48600							59800														38200	5000	5000
	February-2024			42700		51200															48900		 49400			5000	5000
-																							68400		14400	10000 2000	10000 2000
	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
											42400															5000	5000
	July-2024											98500														10000	10000
	August-2024																				48100			59500		5000	5000
							56600											24800								10000	10000
	September-2024						55900											26800								4000 5000	4000 5000
	55p10111001 2024				78300																					10000	10000
																										500	500
· ·		951																								2000	2000
	October-2024	951	10700																								
	October-2024	951 	10700		 83300															62000						10000	10000
	October-2024 November-2024	951   9540	10700 		83300 															62000						10000 1000	1000
	November-2024	951 	10700		 83300															62000						10000	1000 2000
		951  9540	10700   8840		83300 	 	  													62000						10000 1000 2000 5000 10000	1000 2000 5000 10000
	November-2024	951  9540  	10700   8840  		83300  				  											62000  	 				  36600	10000 1000 2000 5000 10000 5000	1000 2000 5000 10000 5000
	November-2024 December-2024 January-2025	951  9540   	10700   8840 		83300   81500		  		  	  		  	  	   	   					62000   	   36800	  	  		36600 	10000 1000 2000 5000 10000 5000	1000 2000 5000 10000 5000 1000
	November-2024 December-2024	951  9540   	10700  8840   3630	   	83300   81500 		    		   	   		   	   	   	   			   	   	62000    	36800  23400	   	   	   	36600  	10000 1000 2000 5000 10000 5000 1000 5000	1000 2000 5000 10000 5000 1000 5000
	November-2024 December-2024 January-2025	951  9540   	10700  8840   3630 	   	83300   81500		   	   	   	   		  	   	   	   			  	  	62000    	   36800	  	   	  	36600 	10000 1000 2000 5000 10000 5000 1000 5000	1000 2000 5000 10000 5000 1000 5000
	November-2024 December-2024 January-2025	951  9540   	10700  8840   3630	   	83300   81500  	    		    	   	   	   	   	     447000	    	   			   	   	62000    	36800  23400	   	    	   	36600   	10000 1000 2000 5000 10000 5000 1000 5000	1000 2000 5000 10000 5000 1000 5000 100000
	November-2024 December-2024 January-2025 February-2025 March-2025	951  9540    	10700  8840   3630  8700	    	83300   81500  	    		     		    	    	      74600	     447000	    	   	   		    51500	   	62000     	36800  23400	    		    	36600    	10000 1000 2000 5000 10000 5000 1000 5000 10000 5000 10000	1000 2000 5000 10000 5000 1000 10000 1000 5000 10000
	November-2024 December-2024 January-2025 February-2025	951  9540    	10700  8840  3630  8700		83300   81500  			     				    	    447000		    	   		     51500		62000      	36800  23400			    	36600    	10000 1000 2000 5000 10000 5000 1000 5000 10000 1000 5000	1000 2000 5000 10000 5000 1000 10000 1000 5000

Part	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		
Proof   Proo			<b>211 00</b> 71																2 00								LOD	LOQ
No. 2014	i di di licici	Wilding Eveni																ND						T			0.2	0.2
November 1					+		1																					0.6
Section   Sect		December-2022			+		1																					5.1
NOR 21 1 10 10 10 10 10 10 10 10 10 10 10 10		-																										5.5
Mile Name 20 1											_																	
Section 1986   1987		-									ND																	1.35
February 2524   February 252		January-2023															ND											1.1
Figure 1982		,		3.9																								2.1
Magnetical   Mag												ND																2.2
More than 1																			ND									1.35
Mortical											ND	ND															1.04	5.1
Notice of the control		April-2023									ND		ND														0.6	2.6
Niche circle    Application		May 2023		ND																							1.1	5.1
Marchan A		/vidy-2023									ND	ND															1.2	5.2
April   Apri		L 0000										ND				ND											1.1	5.1
Nitre of No. 2016 19 10 10 10 10 10 10 10 10 10 10 10 10 10		June-2023												ND														5.2
## My 000   10   10   10   10   10   10   10																				0.355								0.35
Marcial   100																												0.75
Agy   750		July-2023					1															1					1	3
Windows Miles Continue Continu					1		1																				1.5	5.5
Fig. 1.00		-			+																							0.35
September 22		August-2023			+																							3.5
Note at N.																												1.1
Colored 202		September-2023			1		1													Î .								1.5
Colorado						T .														ND								1.35
Nitrole can Horsenber-2028		October-2023							ND																		1	3
Note																							ND				1.5	3.5
November 2022   1				ND																ND								0.35
Nitroti of															ND												0.35	1.35
Note		November-2023							ND																		0.75	1.75
December 2023						ND																					1.1	5.1
ImpAL December 2023	Nitrate as N						ND					ND											ND			ND	1.5	5.5
Agricany 2022   201		December-2023				ND														ND								5.1
February 2024	(111972)																		ND									5.5
March-2024		January-2024										ND										-				ND		5.5
Moreh 2024		February-2024			9.1																	ND		ND				5.5
Acid 2024 ND ND ND ND							ND																					7.5
April-2024 ND		March-2024																						ND		ND		1.75
May-2024															ND					ND								0.35
May-2024		April-2024				ND																						5.5
May-2024																			ND									10.5
Moy-2024																				ND							0.15	0.35
19																										ND	0.35	1.35
June-2024		May-2024																				ND					0.6	2.6
June 2024																							1.9				1	3
June 2024												ND															1.1	5.1
September-2024   Sept		luna 2000 f																		0.692								2.6
July-2024		June-2024																				ND				ND		3.5
August-2024		July 2024											ND															2.5
September-2024												6.66															5	25
September-2024		August-2024																				ND			ND			1.25
October-2024 ND						ND		2.42																				1.25
October-2024 ND		30p16111061-2024																	ND									25
November-2024 ND ND ND ND			ND																								0.1	0.5
November-2024 ND		October-2024		ND																	ND						1	5
November-2024 ND					<del> </del>	ND																						50
December-2024 ND ND ND		November-2024	ND		<del> </del>																							1.25
January-2025   -				ND	+	-																						2.5
February-2025 ND						ND																				ND		2.5
Pebruary-2025		January-2025																									0.5	1.25
March-2025 ND ND		February-2025		ND	<del> </del>																	ND					1	5
April-2025 ND 0.5														ND														50
A(y) = A(y) = A(y)		March-2025		ND															ND									10
		April-2025			+																			+			0.5	1.25
		' ' '																	ND									5

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	LW-50A	LW-30	LW-51	L11-32	LW-33	L11-3-	L11-33	LW-57	LW-30	LW-57	L VV - 0.0	Conce		LW-04	LW-03	L11-07	L 44-00	LW-70	L11-02	LW-05	LW-07	L44-00	LW-74	LVV-70	LOD	LOQ
rarameter	Monitoring Eveni						T T					0.12 J														0.1	0.5
	December-2022				ND													ND								1	
			ND		ND				ND		ND						ND	ND								0.05	5
	Lava									ND																0.25	1.25
	January-2023															ND										I	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
	January-2024			1.7 J							ND														ND	1	5
NELSE N	February-2024			ND		ND															ND		ND			1	5
Nitrite as N	March-2024																						ND		0.25 J	0.25	1.25
(mg/L)														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
	0010001 2021				ND																					10	50
		ND																								0.25	1.25
	November-2024		1.35 J																							0.5	2.5
	December-2024				ND																				ND	0.5	2.5
	January-2025																				ND					0.25	1.25
	-		ND																		ND					1	5
	February-2025												ND													10	50
	March-2025		ND									ND						ND								2	10
												ND														0.25	1.25
	April-2025																	7.6								1	5
																		7.0								ı	

Parameter   Monthoring Event	EW-82 EW-85	N-68 EW-78 EW-82	EW-68 EW	W-67	N-65 EW-6	EW-65	EW-64	EW-62	EW-61	EW-60	EW-59	EW-58	EW-57	EW-55	EW-54	EW-53	EW-52	EW-51	EW-50	EW-36A	II ID	We
November 2027	2.11 02   2.11 00																					
November 2022   1510   3570					470	1470																raidificiei
December 2022   1510   3570   -   -   1770   -   1830   1490   -   -     1410   -     -     -																					November-2022	
Content 2022																					D = = = == 0000	
February-2023		940	1940 -	1340						1490	1830		1/90				35/0				December-2022	
February-2022			-		410	1410						881							1840		January-2023	
March-2023											2970										·	
April-2022		870	1870 -																		February-2023	
Moy 2023   1590			-								1920	879									March-2023	
June 2022   1670   16			-							1510		1820		]							April-2023	
1,019-2023											2910	1950		T					1590		May-2023	
1,019-2023							2750				3080											
August 2023									2650												June-2023	
August-2023		1670	16										2960						1670		July-2023	
August-2023																						
September 2023   340																					August-2023	
October-2023																					September-2023	
November-2023																						
November-2023		4630	46																		October-2023	
November 2023														2240							NI	
December 2023		2270	22					1120			2530					2630	3290		1440		November-2023	
January-2024   2450   2890		880	1880 -																		Da a amala ar 2002	
Total Kjeldah Nitrogen (mg/L)    February-2024		1890	18														3130				December-2023	
Nitrogen (mg/L)  March-2024  April-2024  May-2024  May-2024  June-2024  June-2024  August-2024											3020							2450			January-2024	
Nitrogen (mg/L)  April-2024  April-2024  Mary-2024  May-2024  May-	2470															2890		2540			February-2024	Tatal Kialdalal
April-2024																					March-2024	1
April-2024																					74101011-2024	Nitrogen (mg/L)
May-2024		1730	17					1030														
May-2024		320	2320 -											I							April-2024	
May-2024																	3260					
June-2024																						
June-2024	2470	1780	17								3120										May-2024	
July-2024																						
July-2024																					June-2024	
August-2024 1980 1980 1460  September-2024 3320 1870 1870 1870										2680	2840										July-2024	
September-2024 2090	1460														1980							
October 2024 351 1870 1870																						
October-2024 351		650	2650 -																		September-2024	
																	3320					
	1870	1870																		351	October 2024	
1360 2850																	2850					
November-2024 1070 1610																			1610	1070		
December-2024 <b>2790</b>																	2790				December-2024	
January-2025 1960	1960																				January-2025	
February-2025									0.948												February 2025	
February-2025 1190	1520																		1190		1 <del>C</del> DIUUI y-2023	
March-2025 1230																			1230		March-2025	
1920 2700										1920											741G1C11-2023	
April-2025		600	2600 -																		April-2025	
										2240											April-2020	

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
	November-2022												5.68			3										0.3	0.5
	NOVEITIDEI-2022										28.8															0.75	1.25
	December-2022											8.94														0.3	0.5
	December-2022		24.9		54.6				28.3		32						20.2	36								1.5	2.5
	January-2023		27.2							1.3						20.2										0.75	1.25
	Juliudiy-2023										56.5															1.5	2.5
	February-2023																	22.4								1.5	2.5
	March-2023									0.4																0.03	0.05
	March-2023										13.9															0.3	0.5
	April-2023									18.7		5.1														0.3	0.5
	May-2023		18.6							20	50															1.5	2.5
	June-2023										39.1		45.6		80.6											1.5	2.5
																			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
	7.09031-2023						28.6		31.4															40.4		1.5	2.5
	September-2023				20.0														4.58							0.3	0.5
	· .				38.2														4 12							3	5
	October-2023							37											4.13			38.7				0.15	0.25
																			3.65							0.15	0.25
			7.88			36.4								4.76												0.6	1
	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
					34.2																					1.5	2.5
Total	January-2024			38																					22.7	1.5	2.5
Recoverable						40.0					39.2															3	5
Phenolics (mg/L)	February-2024			37.3		42.9															50.2		43.1		10.0	1.5	2.5
	March-2024													1.40					1.1/				46.6		12.8	3	5
	April-2024													1.68					1.16							0.3	0.5
					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
	l 000 4																		0.82							0.3	0.5
	June-2024																				44.0				23.2	1.5 3	2.5
												28.8									44.8					0.75	1.25
	July-2024										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																							0.3	0.5
	00100001-2024																			45.1						1.5	2.5
					37.6																					3	5
	November-2024	5.22																								0.3	0.5
			10.1																						24.4	1.5	2.5
	December-2024				27.2																				26.4	1.5	2.5
					37.2																3//					3	5
	January-2025		8.15																		34.4					0.75	1.25
	February-2025		8.15																		20.8					1.5	2.5
	1 601001y-2023												516								20.8					495	495
			3.88																							0.3	0.5
	March-2025											21.4						25.9								0.75	1.25
	A = 11 0005																	35								0.75	1.25
	April-2025											43														1.5	2.5
					-	-	-						-	-		-				-		-	-	-	-		-

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	LOD	LOQ
Parameter	Monitoring Event	D (ug/l)											Conce	ntration												100	100
SLIVIII- V OLATILL OF													ND			ND										46.7	93.5
	November-2022										ND															93.5	187
											ND	ND						ND								9.35	9.35
	December-2022								ND								ND									11.7	11.7
			ND		ND 																					23.4 485	23.4 971
										ND																243	485
	January-2023															ND										253	505
	January-2023		ND																							490	980
	February-2023										ND							ND								500 187	1000 374
											ND															51	102
	March-2023									ND																117	234
	April-2023									ND																37.4	74.8
	7 (5111 2020											ND														38.8	77.7
	May-2023		ND							ND	ND															93.5	187
										ND 	ND				ND											467 485	935 971
	June-2023												ND													490	980
																									ND	46.7	93.5
	July-2023		ND																							100	200
									 ND										ND					ND		250 1000	500 2000
	4																								ND	19.6	39.2
	August-2023						ND		ND															ND		1000	2000
	September-2023				ND														ND			 ND				40 40	80
	October-2023																		ND							50	100
								ND																		500	1000
			ND 											ND					ND							20 50	100
Anthracene	November-2023																								ND	100	200
						ND		ND			ND											ND				400	800
					ND 														ND							1000 50	2000
	December-2023																	ND								100	200
				 ND	ND																					200 100	400 200
	January-2024																								 ND	250	500
	,										ND															1000	2000
	February-2024					ND																				200	400
	16010019-2024			ND																	ND		ND			250 400000	500 800000
	March-2024																								ND	20	40
														ND									ND			80	160
																			ND							20	40
	April-2024																	ND								100	200
					ND																					400	800
	May-2024										ND								ND		ND				ND	10	10
																			ND			ND 				80 20	160
	June-2024																				ND				ND	100	200
	July-2024										ND															40	80
	·						ND					ND 														80 400	160 800
	August-2024																				ND					500	1000
																								ND		1000	2000
	September-2024				ND		ND											ND 								100 200	200 400
	October-2024	ND	ND																							50	100
					ND															ND						200	400
	November-2024		ND 																						 ND	50 200	100
	December-2024				ND																					400	800

#### Historical LFG-EW Leachate Monitoring Results Summary

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	LOD	LOQ
Parameter	Monitoring Event												Conce	ntration												LOD	LOQ
	January-2025																				ND					100	200
			ND																							100	200
	February-2025																				ND					200	400
Anthracene													ND													4160	4160
(continued)	March-2025		ND															ND								100	200
	March-2025											ND														200	400
	April-2025																	ND								100	200
	Aprii-2025											ND														200	400

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		
	Monitoring Event												Conce													LOD	LOQ
TOTAL METALS (mg													Conce														
TO IN LE MEIN LO (III)	November-2022					T					0.863		0.464			1.3										0.02	0.04
	December-2022		1.02		0.406				0.174		1.69	0.49					0.159	0.574								0.02	0.04
	January-2023		0.285							0.596	0.225					0.846										0.01	0.02
	February-2023																	0.29								0.005	0.01
	March-2023									1.07	1															0.01	0.02
	April-2023											0.11														0.0005	0.001
	Αριιι-2023									0.36																0.005	0.01
	May-2023		0.26							0.3	0.27															0.0025	0.005
	June-2023										0.26		0.5		0.14											0.0025	0.005
			0.23																0.24					0.19	0.06	0.0005	0.001
	July-2023								0.7																	0.0025	0.005
																									0.15	0.0025	0.005
	August-2023						0.32		0.43															0.29		0.0025	0.00
	September-2023				0.42														0.25							0.005	0.01
																			0.24			0.31				0.0005	0.001
	October-2023							0.36																		0.001	0.002
	November-2023		0.23		0.33	0.53		0.43			0.35			0.78					0.34			0.27			0.2	0.003	0.003
					0.4													0.26								0.0025	0.005
Arsenic	December-2023																		0.24							0.001	0.002
	January-2024			0.47							0.23														0.18	0.0025	0.005
	February-2024			0.68		0.42															0.33		0.23			0.002	0.002
	March-2024																								0.12	0.001	0.002
	March-2024																						0.23			0.0025	0.005
	April-2024													0.49					0.18							0.0005	0.001
	Aprii-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
	November-2024	0.18	0.15																							0.005	0.01
	December-2024				0.28																				0.09	0.005	0.01
	January-2025																				1.88					0.01	0.05
			0.17																		0.73					0.005	0.01
	February-2025												0.774 J													0.465	1
	March-2025		0.158									0.344						0.254								0.01	0.02
	April-2025											0.246						0.217								0.01	0.02

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												Conce													LOD	LOQ
	November-2022										0.871		0.485			0.36										0.01	0.02
	December-2022		0.566		0.803				0.978		0.438	0.214					0.856	0.793								0.01	0.02
	January-2023		0.643							0.683	1.92					0.554										0.005	0.01
	February-2023																	1.04								0.00	0.05
										0.404	0.402																
	March-2023									0.406	0.683															0.005	0.01
	April-2023									1.21		0.326														0.01	0.05
	May-2023		0.636																							0.005	0.025
	,									1.2	1.83															0.01	0.05
	June-2023										1.69				1.65											0.005	0.025
	30110-2023												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
																									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
																			0.664							0.002	0.01
	October-2023							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
Banorn	December-2023																		0.672							0.002	0.01
	January-2024										1.92														1.91	0.005	0.025
				3.27																						0.01	0.05
	February-2024			3.03		4.41															2.65		0.925			0.005	0.025
	March-2024																								1.03	0.002	0.01
	1110110112021																						1.54			0.005	0.025
	April-2024													0.4					0.634							0.001	0.005
	7 (5111 202 1				1.02													2.15								0.01	0.05
	May-2024										1.79								0.619		2.8	2.06			0.872	0.01	0.05
	June-2024																		0.6		3.44				1.51	0.01	0.05
	July-2024										1.28	2.75														0.005	0.025
	August-2024						1.27														2.39			0.862		0.01	0.05
	September-2024				1.34		1.33											3.65								0.01	0.05
	October-2024	0.26	0.568		1.17															3.33						0.01	0.05
	November-2024	0.262	0.69																							0.01	0.05
	December-2024				2.4																				1.21	0.01	0.05
	January-2025																				1.88					0.01	0.05
	February-2025		0.633																		1.48					0.01	0.05
													ND													0.465	0.5
	March-2025		0.516									1.05						2.93								0.005	0.01
	April-2025											1.96						2.95								0.005	0.01

W	Vell 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
	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
																									ND	0.0005	0.005
	August-2023						ND		ND															ND		0.001	0.01
	September-2023				ND														ND							0.001	0.01
	October-2023																		0.000171 J			ND				0.0001	0.001
								ND																		0.0002	0.002
	November-2023		ND		ND	ND		ND			ND			ND					ND			ND			ND	0.001	0.003
	December-2023				ND													0.000604 J								0.0005	0.0015
																			ND							0.0002	0.002
Cadmium	January-2024			ND							ND										0.0175				ND	0.0005	0.005
	February-2024			ND		ND															0.0175		ND			0.0005	0.005
	March-2024																						ND		ND	0.0002	0.002
														0.000204 J					0.000195 J							0.0003	0.003
	April-2024				ND													ND								0.001	0.001
	May-2024										ND								ND		0.0483	ND			ND	0.001	0.004
	June-2024																		ND		0.0485				ND	0.001	0.01
	July-2024										ND	ND														0.0005	0.005
	August-2024						ND														0.00508 J			0.00247 J		0.001	0.00
	September-2024				ND		ND											ND								0.001	0.01
	October-2024	0.00117 J	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
			ND																		0.0101					0.001	0.01
	February-2025												ND													0.186	0.2
	March-2025		ND									0.0119						ND								0.002	0.004
	April-2025											0.0284						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		
Parameter	Monitoring Event												Concer													LOD	LOQ
1 4141110101	November-2022										0.208		0.112			0.354										0.016	0.02
	December-2022		0.503		1.08	<u> </u>			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	0.02
	February-2023																	0.277									
										0.012	0.100															0.004	0.01
	March-2023									0.213	0.188															0.008	0.01
	April-2023											0.142														0.0004	0.001
	·									0.306																0.004	0.01
	May-2023		0.422							0.281	0.237															0.002	0.005
	June-2023										0.251		0.191		0.272											0.002	0.005
	July-2023		0.308						0.535										0.231					0.215	0.0265	0.0004	0.001
	August-2023																								0.0276	0.002	0.005
							0.606		0.449															0.259		0.004	0.01
	September-2023				1.17														0.234							0.004	0.01
	October-2023																		0.144			0.194				0.0004	0.001
	00.000. 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 0.005
	January-2024			0.17		0.070															0.002		0.227				
	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
														0.36					0.245							0.002	0.003
	April-2024				0.027													0.000									
	14 0004				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										0.050	0.047							0.226		0.188				0.16	0.004	0.01
	July-2024						0.540				0.252	0.246									0 105			0.222		0.002	0.005
	August-2024				0.040		0.549											0.228			0.185			0.233		0.004	0.01
	September-2024 October-2024		0.246		0.948 0.929		0.541											0.226		0.349						0.004	0.01
	November-2024		0.246																							0.004	0.01
	December-2024				0.773																				0.184	0.004	0.01
																					0.00041						
	January-2025		0.21																		0.00941					0.003	0.01
	February-2025		0.21										0.0002								0.196					0.004	0.01
	March 2025		0.248									0.199	0.0992					0.155								0.0465	0.05
	March-2025 April-2025											0.199						0.155 0.143								0.008	0.01
	7 (0111 2020											U.240						0.143								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	LOD	LOQ
Parameter	Monitoring Event												Concer	ntration												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						0.00343 J		0.0176															 ND	ND	0.0015	0.005
	September-2023				ND														0.00407 J							0.003	0.01
	October-2023																		0.00361			0.000609 J				0.0003	0.001
								0.00806																		0.0006	0.002
	November-2023		0.00607		0.00352	0.0212		0.00756			ND			0.00341					0.00387			ND			ND	0.003	0.003
	December-2023				0.00184													ND	0.0034							0.0015	0.0015
Connor	January-2024			ND							0.019														ND	0.0008	0.002
Copper	February-2024			ND		0.00201															ND		ND			0.0015	0.002
	March-2024																								0.00115 J	0.0006	0.002
	741GICI132024																						0.00184 J			0.0015	0.005
	April-2024													0.00443					0.004							0.0003	0.001
					ND													ND	0.00407.1							0.003	0.004
	May-2024										ND								0.00486 J		0.00688 J	ND			ND	0.003	0.01
	June-2024 July-2024										0.398	 ND							0.00409 J		ND 				ND	0.003	0.01
	August-2024						ND														ND			ND		0.0013	0.003
	September-2024				ND		ND											ND								0.003	0.01
	October-2024		ND		ND															0.00306 J						0.003	0.01
	November-2024	0.00569 J	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										ND								0.00381 J					0.003 0.0465	0.01
	March-2025		0.0087 J									ND						0.0142								0.008	0.01
	April-2025											ND						0.009 J								0.008	0.01
	November-2022										ND		ND			0.017 J										0.012	0.02
	December-2022		ND		0.0381				ND		ND	ND					ND	ND								0.012	0.02
	January-2023		ND							ND	ND					ND										0.006	0.01
	February-2023																	0.006								0.001	0.001
	March-2023 April-2023									0.0022	ND 	0.0067														0.006	0.01
	May-2023		ND							ND	ND															0.005	0.001
	June-2023										ND		ND		0.0069											0.005	0.005
	July-2023		0.0014						0.019										0.0092					ND	0.0017	0.001	0.001
	August-2023																								ND	0.005	0.005
							0.014		ND															0.013		0.01	0.01
	September-2023				0.12														ND 0.0034			0.0034				0.01	0.01
	October-2023							0.0077											0.0036							0.001	0.001
	November-2023		ND		0.13	0.0046		0.014			ND			ND					0.0032			0.0043			ND	0.003	0.003
	December-2023																		0.0043							0.002	0.002
					0.16													0.002								0.0015	0.0015
Lead	January-2024			ND							0.0081												0.010		ND	0.005	0.005
	February-2024			0.0065		0.01															0.051		0.012		ND	0.001	0.002
	March-2024																						0.02			0.002	0.002
	April-2024													0.0013					0.0025							0.001	0.001
	Aprii-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 August-2024						0.031				ND 	ND 									0.027			ND		0.005	0.005
	September-2024				0.098		0.057											ND						ND		0.01	0.01
	October-2024	ND	ND		0.12															ND						0.01	0.01
	November-2024	ND	ND																							0.01	0.01
	December-2024				0.18																				ND	0.01	0.01
	January-2025																				ND					0.002	0.002
	February-2025		ND 										0.0561								0.02					0.01 0.0465	0.01
	March-2025		0.0113									0.0816						0.0229								0.0465	0.03
	April-2025											0.132						0.0207								0.006	0.01

W	Vell 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
													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
	200000. 2022				ND																					0.004	0.004
			ND							ND						ND										0.0004	0.0004
	January-2023					<del> </del>	<del> </del>				ND															0.0004	0.004
	Fobruary 2022																	ND									
	February-2023		<del></del>															ND								0.0004	0.0004
	March-2023									ND																0.0002	0.0002
											ND															0.0004	0.0004
	April-2023											0.00128														0.0002	0.0002
	·									ND																0.0004	0.0004
	May-2023		ND							ND	ND															0.0002	0.0002
	June-2023										ND		ND		ND											0.004	0.004
	July-2023		0.000306																ND						ND	0.0002	0.0002
	301y-2020								0.0107															ND		0.001	0.001
	August-2023																								ND	0.001	0.001
							0.00312		0.00397															ND		0.002	0.002
	September-2023				0.00503														ND							0.002	0.002
	October-2023							0.00165											ND			0.00055				0.0004	0.0004
	N		ND											ND												0.0000002	
Mercury	November-2023																		ND							0.0000004	
					0.00576	0.00606		0.00578			ND											0.00954			ND	0.000004	0.000004
	December-2023				0.00484													ND								0.001	0.001
	January-2024			ND							ND								ND 						ND	0.0004	0.0004
	February-2024			0.00376		0.0115															0.00238		0.00284			0.001	0.001
																									0.00124	0.0004	0.0004
	March-2024																						ND			0.001	0.001
														0.000201					ND							0.0002	0.0002
	April-2024				0.00382													0.00151								0.0008	0.0008
	May-2024										ND								ND		ND	ND			ND	0.002	0.002
	June-2024																		ND		0.0119				ND	0.002	0.002
	July-2024										ND	0.00104														0.001	0.001
	August-2024						ND														0.00671			ND		0.002	0.002
	September-2024				0.00244		ND											ND								0.002	0.002
	October-2024	ND	ND		ND															0.00254						0.002	0.002
	November-2024	ND	ND																							0.002	0.002
	December-2024				0.00213																				ND	0.002	0.002
	January-2025																				0.1047					0.01	0.01
													0.00011													0.000009	0.000009
	February-2025		ND																		ND					0.002	0.002
	March-2025		ND															ND								0.001	0.001
												0.0146														0.002	0.002
	April-2025											0.00169						ND								0.001	0.001

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	211 00/1	211 00	211 01	211 02	111100	211 04	211 00	211 07	211 00	211 07	2.17 00	Conce		211 01	211 00	211 01	211 00	211 70	111 02	211 00	211 07	211 00	<b>2</b> // /-1		LOD	LOQ
1 4.4	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	0.001
	April-2023									0.1234		0.1732														0.007	0.001
	May-2023		0.113							0.09726	0.05657															0.005	0.001
	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
																									0.01403	0.001	0.001
	August-2023						0.1457		0.09673															0.0513		0.003	0.003
	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
	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										0.1017	0.02/24							0.211		0.07664				0.03166	0.01	0.01
	July-2024 August-2024						0.1008				0.1917	0.03634									0.0822			0.02104		0.005	0.005
	September-2024				0.396		0.1008											0.08772								0.01	0.01
	October-2024	0.07251	0.115		0.3536															0.05751						0.01	0.01
	November-2024		0.09665																							0.01	0.01
	December-2024				0.2964																				0.03528	0.01	0.01
	January-2025																				ND					0.0085	0.01
			0.09275																		0.1021					0.01	0.01
	February-2025												ND													0.0465	0.05
	March-2025		0.0933									0.0375						0.0818								0.007	0.01
	April-2025											0.0161						0.0713								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	entration												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	0.00425	
	September-2023				ND		ND 		ND 										ND					ND 		0.0085 0.0085	0.01
																			0.00186			0.0044				0.00085	0.001
	October-2023							0.00332																		0.0017	0.002
	November-2023		ND		0.00425	0.00314		0.00315			ND			ND					ND			0.0032			ND	0.003	0.003
	December-2023				0.00785													0.00253								0.0015	0.0015
											ND								0.00215							0.0017	0.002
Selenium	January-2024 February-2024			ND		ND					ND										0.00571		0.00651		ND	0.00425 0.00425	0.005
				ND		ND 															0.00571		0.00651		ND	0.00425	0.003
	March-2024																						0.00627			0.00425	0.002
	A == =!1 000 (													ND					0.000929 J							0.00085	0.001
	April-2024				ND													ND								0.0085	0.01
	May-2024										ND								ND		ND	ND			ND	0.0085	0.01
	June-2024																		ND		ND				ND	0.0085	0.01
	July-2024										ND	ND														0.00425	0.005
	August-2024						ND														ND			ND		0.0085	0.01
	September-2024		ND		ND		ND											ND								0.0085	0.01
	October-2024 November-2024	ND ND	ND ND		ND 															ND 						0.0085	0.01
	December-2024				ND																				ND	0.0085	
	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
	April-2025											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									ND	ND															0.005	0.01
	April-2023									ND		0.00011 J														0.00006	0.001
	May-2023		ND							ND	ND															0.0003	0.005
	June-2023										ND		ND		ND											0.0003	0.005
	July-2023		ND						ND										ND					ND	ND	0.00006	0.001
	August-2023																								ND	0.0003	0.005
	September-2023				ND		ND 		ND										ND					ND 		0.0006	0.01
																			ND			ND				0.0006	
	October-2023							ND																		0.00012	0.002
	November-2023		ND		ND	ND		ND			ND			ND					ND			ND			ND	0.0006	0.01
	December-2023				ND													ND								0.00025	
				ND							ND								ND						 ND	0.00012	0.002
Silver	January-2024 February-2024			ND ND		ND					ND 										ND		ND		ND 	0.0003	0.005
				ND		ND																			ND	0.0003	0.003
	March-2024																						ND			0.0003	0.005
	A := ::1 000 t													ND					ND							0.00006	0.001
	April-2024				ND													ND								0.0004	0.001
	May-2024										ND								ND		ND	ND			ND	0.0006	0.01
	June-2024																		ND		ND				ND	0.0006	0.01
	July-2024										ND	ND														0.0003	0.0005
	August-2024						ND														ND			ND		0.0006	0.01
	September-2024				ND		ND			 			 		 			ND		ND						0.0006	0.01
	October-2024 November-2024	ND ND	ND ND		ND 															ND 						0.0006	0.01
	December-2024				ND																				ND	0.0006	0.01
	January-2025																				0.789					0.0000	0.05
			ND																		ND					0.0006	0.03
	Eabruan, 2025		,,,,,										ND													0.00232	
	February-2025												IND												,	0.00202	
	March-2025 April-2025		ND									ND						ND								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												Concer	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															0.0023	0.003
	March-2023																									0.0025	
	April-2023									0.0539		0.41.4															0.005
												0.414														0.025	0.05
	May-2023		0.079							0.0635	0.0519															0.0125	0.025
	June-2023										0.0538		0.0253		0.945											0.0125	0.025
	July-2023		0.0488																0.0714					0.354	0.0782	0.0025	0.005
	301y 2020								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																		0.0788							0.025	0.05
	00 000000000000000000000000000000000000				45																					0.25	0.5
	October-2023																		0.0622							0.0025	0.005
			0.0471 1			0.0524		0.203			0.052								0.0700			633				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																					0.25 0.25	0.5
	December-2023				52.7														0.061							0.25	0.01
	December-2023																	0.0462								0.005	0.025
Zinc	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
	7,10 202				24.7																					0.25	0.5
	May-2024										0.165					1			0.0568		1.3	1.43			0.0812		0.05
	June-2024																		0.0505		0.498				ND	0.025	0.05
	July-2024										0.104	0.0451														0.025	0.03
	August-2024						3.49														0.512			0.417		0.0125	0.025
					0.212																					0.0025	0.005
	September-2024						3.68											0.111								0.025	0.05
		0.244	0.077																	0.342						0.025	0.05
	October-2024				20.2																					0.25	0.5
	November-2024	0.0325 J	0.0367 J																							0.025	0.05
																									0.0696	0.025	0.05
	December-2024				14.3																					0.25	0.5
	January-2025																				ND					0.002	0.002
			0.0405 J																		0.527					0.002	0.05
	February-2025												0.136													0.025	0.05
	March-2025		0.0415									0.155						0.0277								0.0483	0.03
						<del> </del>												0.0277								0.01	0.01
	April-2025											0.366														0.01	0.01
												0.500														0.05	0.05

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
	D = = = = = = = = = 00000		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											<b>720</b>			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
	BOCOTTIBOT 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 2004		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				100

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	LOD	LOQ
Parameter	Monitoring Event												Concer	ntration													
	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															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. H. H.	December-2023				2200														ND								250
Butyric Acid	Ignuary 2004			913	3390						1230														594		1000
	January-2024			813 583		1170					1230														574		250 250
	February-2024																				1180		2980				500
	1, 000,4																								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
	30p10111001-2024	ND																									50
	0 -1 -1 000 1		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
											ND					ND										27	250
	December-2022		90 J			0/0		1000			0/0			ND								1170			204	27	250
	November-2023		ND 		6030	968		1800			969			ND 					ND 			1170			324	250 500	500 1000
																		ND									1000
	December-2023																		ND								250
					9050																						1000
	January-2024			629							979														256		250
	February-2024			334		180																	1/50				250
	, -														 						756		1650				500
	March-2024																						ND		ND		20
														 ND					ND				ND 				200
	April-2024													ND				ND	ND								250
Lactic Acid	, ,piii 2027				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																			2590							250
					5630																						1250
			ND																								200
	November-2024	ND	ND																								
																									730		200
	November-2024  December-2024																								730		200 400

New Part	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	IOD	100
March   Marc	Parameter	Monitoring Event												Conce	ntration												LOD	
Section   Sect		November-2022												620														
		Dagarah ar 2000																										
Fractive 18							+																					
March   Marc																												
Professional Content of the conten											ND	ND																
Marchand											600		ND														340	
A		May-2023		520							800	1400															340	500
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		June-2023										2900		2000		2900												
Marie No.   Mari																										ND		
A AL JULY 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		July-2023					+																					
Propertion   Pro		August_2023					+																					
PROPRIATE OF THE PROPRI							+																					
From From From From From From From From		· ·																										
PROBLE AS A CONTRACT OF THE PROBLEM AS A CONT		November-2023		ND			2170		2310			2080			387					ND			3350			1420		500
Page 14 May 15 May 16 M		11010111001 2020																										
Property		December-2023																										
Part	Propionic Acid	Bocombor 2020																										
Martin   M		January-2024			1680							1970														1030		250
ASCINGO		February-2024			1210		1510																					
Month		,																										
Apt 2007		March-2024					+																					
Month   Mont		. "																										
American		April-2024																										
Heat		May-2024										1730								ND		1640	2770			647		250
Applications 2012 240 - 1190 240																				ND		1870				1400		
September 2029																												
Princi Acid    No																												
October 2024		COPTOTIBOT 2021																										
November 2022   100   310   280   100		October-2024		275																								
Privic Acid    November 2024   1300   310																					1470							
December 2022		November-2024																										
Description   April							+																					
November 2022		December-2024				4200																						
Pyru'c Acid  April 2022   N.D.   N.D.		January-2025																				1800						100
December 2022     ND		November-2022												46 J													12	100
Pyukic Acid  November 2022												98 J					ND											
Pyuvic Acid  April 2024  April		December-2022										-																
December 2023		November-2023																										
Pyrtuvic Acid   Pyrtuvic Aci																												
Agril 2024     ND		December-2023																		ND								
February-2024						ND																						
Pyturic Acid  March-2024																												
Pytrvic Acid  April-2024		February-2024																										
Pyruvic Acid  April-2024		March 2004																										
May-2024		March-2024																						460				200
May-2024 ND ND	Pyruvic Acid	April-2024													ND					ND								
June-2024	,																											
July-2024                   ND   ND																												
August-2024 ND																												
October-2024 ND		August-2024																				ND			ND			500
October-2024		September-2024				ND		ND											ND									
Colodi-2024		_																										
November-2024 ND ND ND		October-2024																										
November-2024 ND ND 200  December-2024		-					+																					
December-2024 460 460 400		November-2024		ND																								
460 400		December-2024																								410		
January-2025                      100						460																						
		January-2025																				ND ND						100

The proper series and the proper series of the prop	Wel		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
New Horse Surface   New			// >											Conce	ntration													100
Notice   1966	LATILE ORGANIC	C COMPOUNDS (ug,		l			l	l				2510					1140	1 1					1				20	100
Part		November-2022																									300	100
Section of the content of the cont	-			-																							30	1000
		December-2022																									300	1000
Figure   1979		1		3480							632																30	100
Month		January-2023										7840					5470										300	1000
A-1 - 1		February-2023																	14400								600	2000
No. 12.20   1.55.00   1.50	,										257	2770															30	100
Marchand		April-2023											5530														750	2500
Authorized   Aut		May-2023		5360							5970																150	500
All	-	,																									750	2500
A		June-2023																									750	2500 5000
3.47   2.72	-																										1500	200
A_001-7272   C		July-2023																								13500	750	2500
August 20		55.7 2525																									3000	10000
August   A	-																									5950	60	200
September 2022		August-2023																							7350		150	500
September 2023		7.0300, 2020																									750	2500
September 2023	-																										1500 60	5000 200
October-2022		September-2023																									750	2500
Nevember-2023		October-2023																		211							15	50
November 2023		OC10001 2020																									1500	5000
November 2023   1		-																									30 150	100 500
2 Blutonore   MEK		November-2023																									300	1000
December 2023						25700																					750	2500
January-2022							22300								17600								26700			31200	1500	5000
April - 2024		December-2023																									150	500
February 2024	sutanone	January-2024																								28900	150 1500	500 5000
March-2024	EK)	Fobruary 2024																									150	500
April-2024		rebludly-2024			30500		28900																				1500	5000
April-2024		March-2024																									150	500
April-2024	-																									25200	1500 30	5000 100
May-2024		April-2024																									750	2500
May-2024		7 (0111 2024																									1500	5000
May-2024	-																										60	200
June-2024		May-2024																				7340				18600	150	500
Juny-2024												25700											32700				1500	5000
July-2024																				ND							60	200
July-2024		June-2024					<del> </del>																			22000	150	500
August-2024	-																									33200	15000 150	25000 500
August-2024 17700 17700 17900 September-2024  19000 16600		July-2024																									1500	5000
September-2024		August-2024																				7260			17900		150	500
October-2024 2770 13000		September-2024																									150	500
October-2024 2770 13000	-																										1500 3	5000
November-2024  December-2024		October-2024																									60	200
November-2024  28800																											150	500
December-2024 658		November-2024		4140																							60	200
December-2024	-	7.5.7.5.7.201																									750	2500
		December-2024					-																			41900	150	500 2000
	-	January 2025																				17000				41800	600 1500	5000
January-2025	-	Junuary-2023					<del> </del>		<del>                                     </del>							<del> </del>											60	200
February-2025		February-2025					<del> </del>																				150	500
														ND													24500	24500
March-2025 <b>2540</b>		March-2025		2540																							150	500
30600 33700																											1500	5000
April-2025 20800 28100		April-2025											20800						28100								150	500

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												Concer	ntration												LOD	100
	November 2022															4420										70	100
	November-2022										16100		38300													700	1000
											15600	5170						9800								700	1000
	December-2022		8500																							1750	2500
	3000111301 2022				53100				49900								45600									3500	5000
				<u> </u>		+		<del>                                     </del>								<del> </del>											100
	1									1530						1 4000										70	
	January-2023										22200					14000										700	1000
			8130																							1750	2500
	February-2023																	23900								1400	2000
	March-2023									375																70	100
	March-2023										6810															700	1000
	April-2023									8290		7560														1750	2500
			10700							11700																350	500
	May-2023										29600															1750	2500
											29600															1750	2500
	June-2023																										
													61800		50800				1100							3500	5000
	-																		1180							140	200
	July-2023		9780																							700	100
	55., 2526																								11600	1750	2500
									77200															69700		7000	1000
																									20900	700	1000
	August-2023								18700																	1750	2500
							72500																	87700		3500	5000
	Santambar 2022																		188 J							140	200
	September-2023				40100																					1750	2500
	Ootobor 2022																		79							35	50
	October-2023							66900														92900				3500	5000
																			104							70	100
	November 2022		5560																							700	1000
cetone	November-2023				64700																					1750	2500
						43100		61100			36800			32800								53900			67800	3500	5000
																		ND								140	200
	December-2023																		ND							350	500
					44300																					1750	2500
	January-2024			96600							22800														47300	3500	5000
	February-2024			81600		70200															45600		63100			3500	5000
	March-2024																						50800		57600	3500	5000
																			ND							70	100
	April-2024													24300												1750	2500
					95300													55200								3500	5000
						_													ND							140	200
	May-2024										/2200										20000	01200			22200		
											63200										39000	91300			33300	3500	5000
	June-2024																		ND		04400				04400	140	200
											22200	 52400									94400				84400	35000	5000
	July-2024						 57700				32200	52600									24000			91500		3500	5000
	August-2024				 F0000		57700											40200			36000			81500		3500	5000
	September-2024	20.1			59800		44500											69300								3500	5000
	Optob ar 000 t	30.1	 5220																							7	10
	October-2024		5230		40000															40700						140	200
			9490		49800															40700						3500	5000
	November-2024	44400	8680																							350	500
		44400			 F1700																				40700	1750	2500
	December-2024				51700																				69700	1400	2000
	January-2025																				65300					3500	5000
			9820																							700	100
	February-2025																				46400					3500	5000
													ND													49000	9800
	1		4460																							350	500
	March_2025											=0.400							1							0.500	FOOC
	March-2025 April-2025											72600 61200						86400 78000								3500 3500	5000 5000

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	111 00	211 04	211 00	211 07	211 00	211 07	211 00	Conce		211 0-1	111 00	211 01	211 00	211 70	211 02	211 00	211 07	211 00	211 /-	211 70	LOD	LOQ
raidificier	November-2022										7.4 J		2860			50.4											10
	14046111061-2022		301		2960						6.3 J	622					1750	179								4	10
	December-2022								 / F F O																	4	
	Jana . ana . 0002		040						6550		1,00					1/7										40	100
	January-2023		240							28.7	1620					167										4	10
	February-2023																	1370								4	10
	March-2023									1540	727															4	10
	April-2023									3740		320														4	10
	May-2023		814							4890	3370															20	50
	June-2023										2630															8	20
	30116-2023												1400		1590											20	50
			824																80.8							8	20
	July-2023								4050															1420		20	50
																									11800	100	250
	A																								379	8	20
	August-2023						2320		168															ND		20	50
	September-2023																		193							8	20
	3epiember-2023				468																					100	250
	October-2023																		399							2	5
	0010001-2020							576														3100				20	50
			80.8											31.3												2	5
	November-2023																		323							4	10
						1070		654			982											1960			1190	20	50
					870																					100	250
Benzene	December-2023				1000													932	440							8	20
				1410	1330														463						2000	20	50
	January-2024			1410		004					662										244		40.4		2900	20	50
	February-2024 March-2024			906		884															346		484 226		8910	20 20	50
	March-2024													 <b>5</b> 2.1					12.0								10
	April-2024				2040									52.1				2400	13.8							4	
					2040													3420								20	50
	May-2024																		276							8	20
											3080								170		144	818			2990	20	50
	June-2024																		173		010				0740	8	20
	lulu 0004										1410	1000									210				2740	20	50
	July-2024						929				1410	1820									142			201		20	50
	August-2024 September-2024				960		828 727											2710			162			384		20 20	50
	36016111061-2024	306			760																					0.4	1
	October-2024		429																							2	5
	3310001 2024				1200															828						20	50
	November-2024	119	512																							8	20
	December-2024				675																				3280	20	50
	January-2025																				588					20	50
	3d110d1y-2023		739																							8	20
	February-2025																				443					20	50
	10010019-2025												559000													24500	24500
	March-2025		157									1260	337000					2350								20	50
	April-2025											938						1540								20	50
	, ,5.11 2020											730						1340								20	

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	100	100
Parameter	Monitoring Event												Conce													LOD	LOQ
	December-2022		67.3		172				287		ND	48.5					108	27.4								4	10
1	November-2022										ND		194			16.2										4	10
1	January-2023		65.1							ND	93.9					20.8										4	10
1	February-2023																	151								1	10
1	March-2023									131	71.5															4	10
1	April-2023											43.4															10
1	·		104							186	144															4	
	May-2023		124							276	144															20	50
1	June-2023										104															8	20
1													98		116											20	50
	_																								666	4	10
	July-2023		128																82							8	20
									224															87.5		20	50
	August-2023																								16.8 J	8	20
	7109031 2020						80		ND															ND		20	50
	September-2023																		22.8							8	20
					ND																					100	250
1	October-2023							40.5.1											34.8							2	5
1								42.5 J						45.4								247				20	50
	-		26.3											45.4												2	5
	November-2023					40		 EA			76.5								26.9			224			60.5	4	10
					ND	62		54														224				20 100	50
1					ND 													46								8	250 20
Ethylbenzene	December-2023				69.5														44 J							20	50
	January-2024			99							28 J														248	20	50
	February-2024			51		43 J															31 J		41 J			20	50
	March-2024																						25 J		710	20	50
1														106					ND							4	10
1	April-2024				91.5													186								20	50
1																			35.4							8	20
	May-2024										146										ND	59			225	20	50
																			23.6							8	20
	June-2024																				ND				142	20	50
	July-2024										76	118														20	50
	August-2024						27.5 J														ND			27 J		20	50
	September-2024				46.5 J		44 J											192								20	50
		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
1	January-2025																				54.5					20	50
'	,		164																							8	20
'	February-2025																				158					20	50
'													2090000													24500	24500
	March-2025		61.5									168						117								20	50
1	April-2025											52.5						73.5								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	105	
Parameter	Monitoring Event												Conce													LOD	LOQ
1 41 41110101	_										309					176										100	100
	November-2022												8530													1000	1000
			151								170	1120						663								100	1000
	December-2022				5210				19800								6130									1000	1000
	January 2002		102								1010					350											
	January-2023		183							566	1810					352		27/0								100	100
	February-2023																	3760								2000	2000
	March-2023									353	464															100	100
	April-2023									2410		4790														100	100
	May-2023		ND							2740	2380															500	500
	June-2023										2100															200	200
	30110-2020												7320		6670											500	500
																									2960	100	100
	July-2023		411																616							200	200
									8380															5310		500	500
	A																								2880	200	200
	August-2023						7370		3210															1200		500	500
	September-2023																		343							200	200
	3epiember-2023				ND																					2500	2500
	October-2023																		606							50	50
	OC10001 2020							4870														9140				500	500
			199											325												50	50
	November-2023																		358							100	100
						4780		3320			785											5370			4600	500	500
Tetrahydrofuran					4620													40.40								2500	2500
•	December-2023																	4240	500							200	200
	January 2024			5160	2620						1040								502						10900	500	500
	January-2024 February-2024			3500		4580															3520		4910			500 500	500 500
	March-2024																						3320		8710	500	500
														697					ND							100	100
	April-2024				7290													7680								500	
																											500
	May-2024										0//0								555		1000				7/40	200	200
											2660								 F/0		1880	5860			7640	500	500
	June-2024																		568		3830				13000	200	200
	July-2024										1900	4020														500 500	500 500
	August-2024						3220														2020			4610		500	500
	September-2024				2950		2730											6640								500	500
	30010111001 2024	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
	53.153.7 2020		1020																							200	200
	February-2025																				7490					500	500
													ND													24500	24500
	March-2025		ND									4890						10000								500	500
	April-2025											3660						5920								500	500
	. 10.11 2020					1					-22	3300			_ <del></del>			3720								300	_

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												Concer				1 211 01									LOD	LOQ
rarameter	November-2022										ND		214			32.8										5	10
	December-2022		122		175				195		ND	113					113	48.3								5	10
	January-2023		122							8 J	139					35.3										5	10
																		224									
	February-2023									100	00.1									_ <del></del>						5	10
	March-2023									182	98.1															5	10
	April-2023									303		94.4														5	10
	May-2023		258							371	239															25	50
	June-2023										165															10	20
	30110 2020												67		212											25	50
																									965	5	10
	July-2023		248																107							10	20
									218															118		25	50
	A																								36.6	10	20
	August-2023						105		ND															ND		25	50
	September-2023																		40.6							10	20
	3epiember-2023				ND																					125	250
	October-2023																		59.2							2.5	5
	0010001-2020							37 J														235				25	50
			47.3											50.4												2.5	5
	November-2023																		48.7							5	10
						62.5		51.5			114											167			114	25	50
					ND													70.0								125	250
Toluene	December-2023																	73.2	74.5							10	20
	Louis views ( 2004			05.5	83.5														74.5						210	25	50
	January-2024 February-2024			95.5 49 J		37 J					60										ND		30.5 J		310	25 25	50
	March-2024			47 J																	ND 		73		916	25	50
	March-2024													90.1					ND							5	10
	April-2024				104																						
					104													263								25	50
	May-2024																		53.8							10	20
	,										180										ND	62.5			284	25	50
	June-2024																		34.6							10	20
											07	105									ND				228	25	50
	July-2024						25.1				97	125												 25 I		25	50
	August-2024				90		35 J											224			ND			25 J		25	50
	September-2024	55.7			80		63.5											226								25 0.5	50
	October-2024		173																							2.5	5
	00100001-2024				65.5															72						2.5	50
	November-2024		245																							10	20
	December-2024				42 J																				288	25	50
	January-2025																				36 J					25	50
	January-2023		271														<del>                                     </del>									10	20
	February-2025																				54.5					25	50
	1 0 0 1 0 d 1 y - 2 0 2 0												537000													24500	24500
	March-2025		90.5									150						166								25	50
	April-2025		70.5									51						114								25	50
			1									<u> </u>															

## Historical LFG-EW Leachate Monitoring Results Summary

New Notion   Provide   P	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	100
Procedure of the process	Parameter	Monitoring Event												Conce	ntration												LOD	LOQ
Manual Professional Professio		November-2022										ND		185			37.8										10	30
Percentago		December-2022		161		222				186		ND	112					197	59.9								10	30
Percentago		January-2023		138							ND	134					38.1										10	
Note 1.00																			240								10	
April 2023											240	111																
My 2020   274         441   250                       50   150													97.4															
Menes Lord  Menes Lord  Menes Model  Menes M		·																										
N/enes. total Fig. 1, 100 - 10																												
Ny 2015   1975		June-2023																										
## April 2016 - 287																												
August 2022		July 2022																										
Agent 2022		July-2023																										
Agency 2024 - 102 - 100								<del> </del>									<del> </del>											
September 2023		August-2023																										
March   Marc																												
Xyleres, Iotal  Xyleres, Total	September-2023												<del> </del>															
Nyenes, Total   November 2023   September 2024   Septem														<del> </del>													5	
November 2023		October-2023															<del> </del>										50	
November 2022				56											48												5	
Note																				25.3 J							10	
Xylenes, Total Page 2023		November-2023					116 J		104 J			132 J											306			138 J		
Note						ND																						
Jonuary-2024	Vylonos Total	December-2023																	167								20	
February-2024 63 J 57 J	Ayleries, roldi					224														ND								
March-2024												ND														534		
April-2024					63 J		59 J															ND						
May-2024		March-2024																						ND		1360		
May-2024		April-2024				-									110					ND								
Microber 2024   Microber 202						140 J													352									
June-2024		May-2024																		31.6 J								
July-2024		77.07 202 1										223										ND	105 J			400		
July-2024		June-2024																		ND								
August-2024 90.5 J 120 J																						ND				261		
September-2024																												
S4.3                                 1   3   3   4   4   4   4   4   4   4   4																												
October-2024 201 144 J		september-2024																									30	
November-2024 ND 223		October-2024																									5	
November-2024 ND 223 98.5 J		OC10061-202																									_	
December-2024 98.5 J 98.5 J		November-2024																										
January-2025                                 50   150       267                               20   60       February-2025																												
February-2025 108 J																												
February-2025		3011001 y-2023												<del> </del>														
March-2025 108 J		February-2025																										
March-2025 108 J 50 150		. 35.7531, 2020						<del> </del>									<del>                                     </del>											
		March-2025																										
																	<del>                                     </del>											

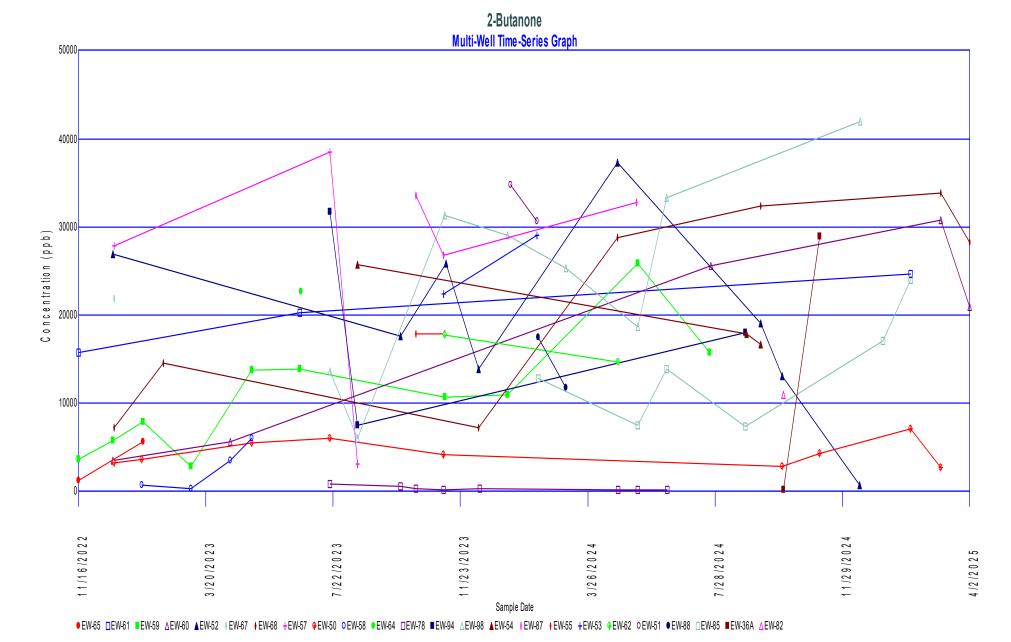
<sup>--- =</sup> not applicable/available

LOQ = laboratory's Limit of Quantitation

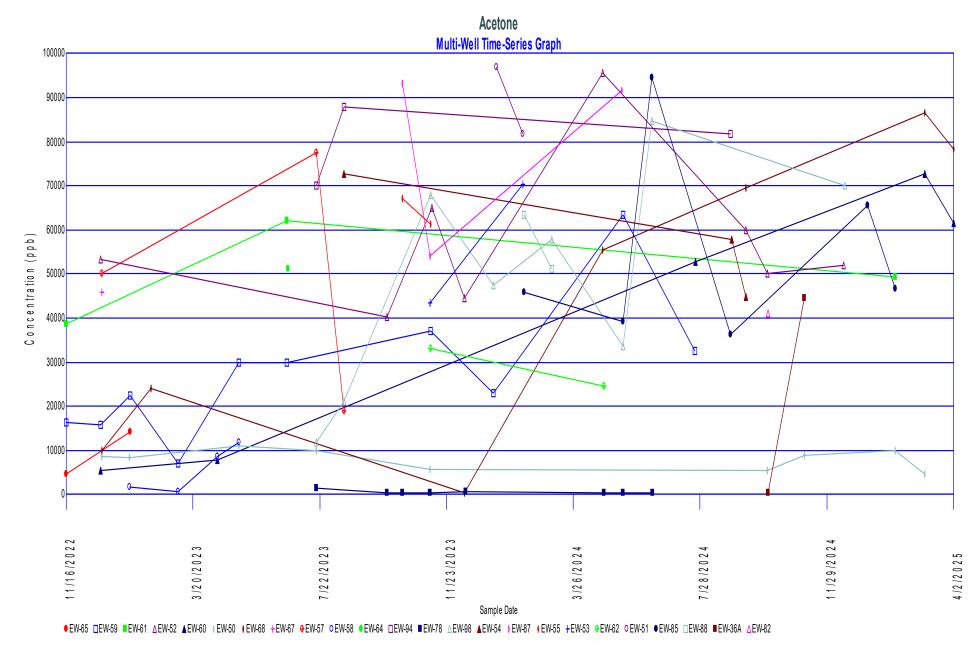
mg/L = milligrams per liter
ND = Not Detected

ug/L = micrograms per liter

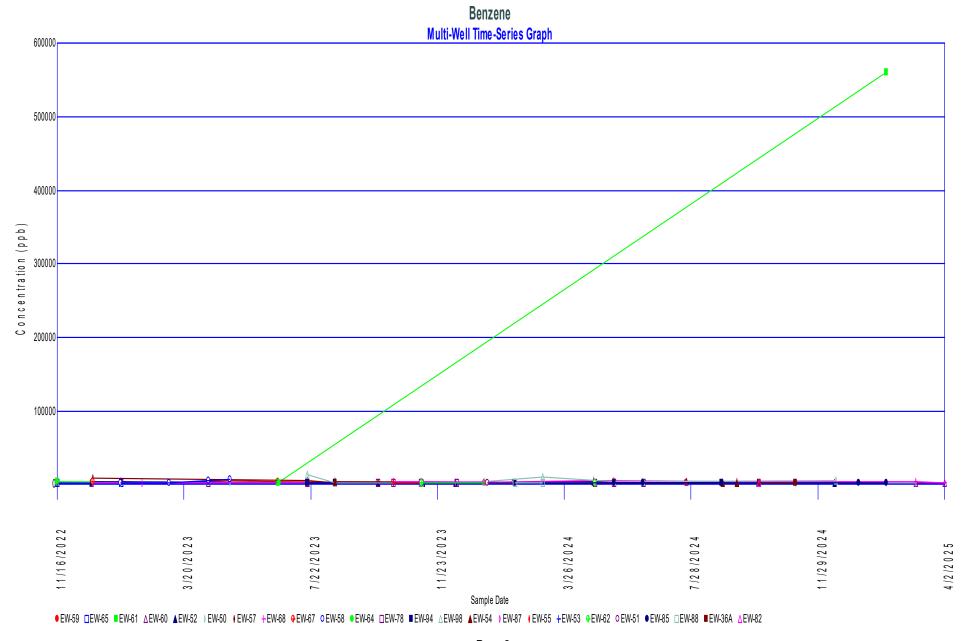
J = Parameter was detected at a concentration greater than the laboratory's LOD, but less than the laboratory's LOQ. Concentration is considered estimated. LOD = laboratory's Limit of Detection



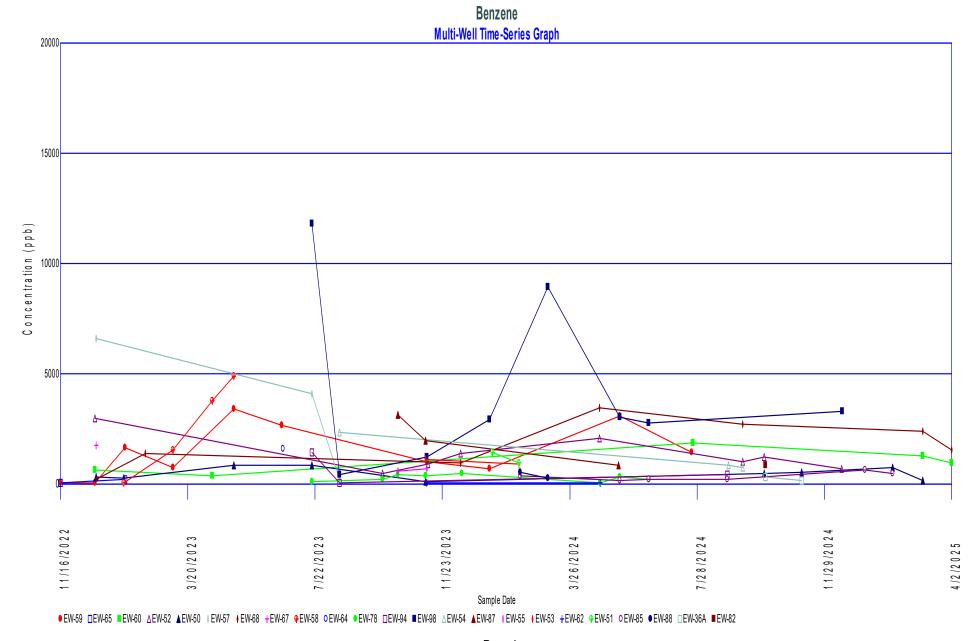
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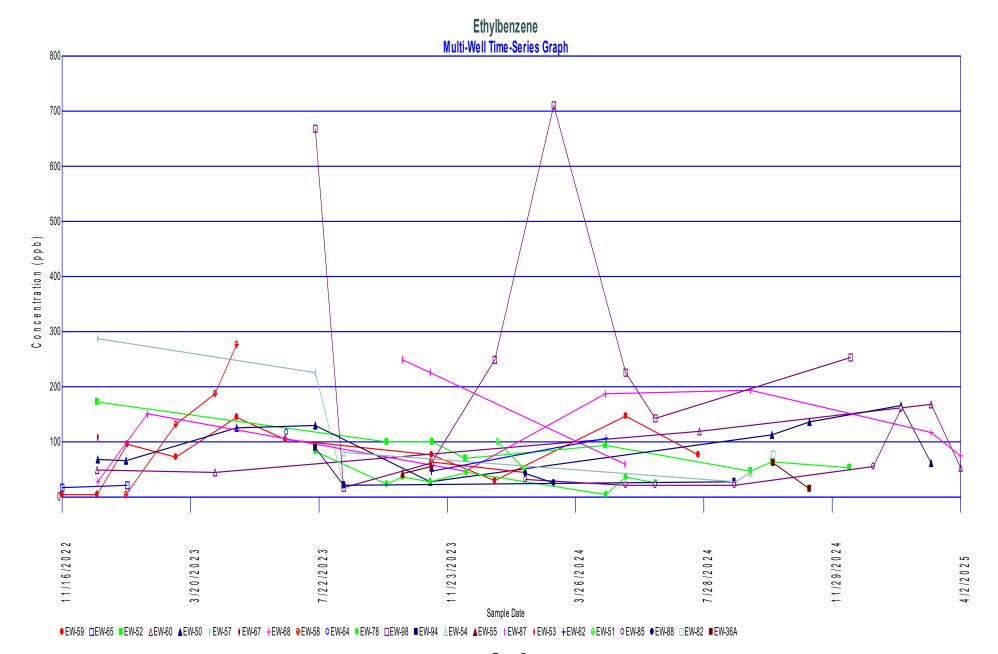
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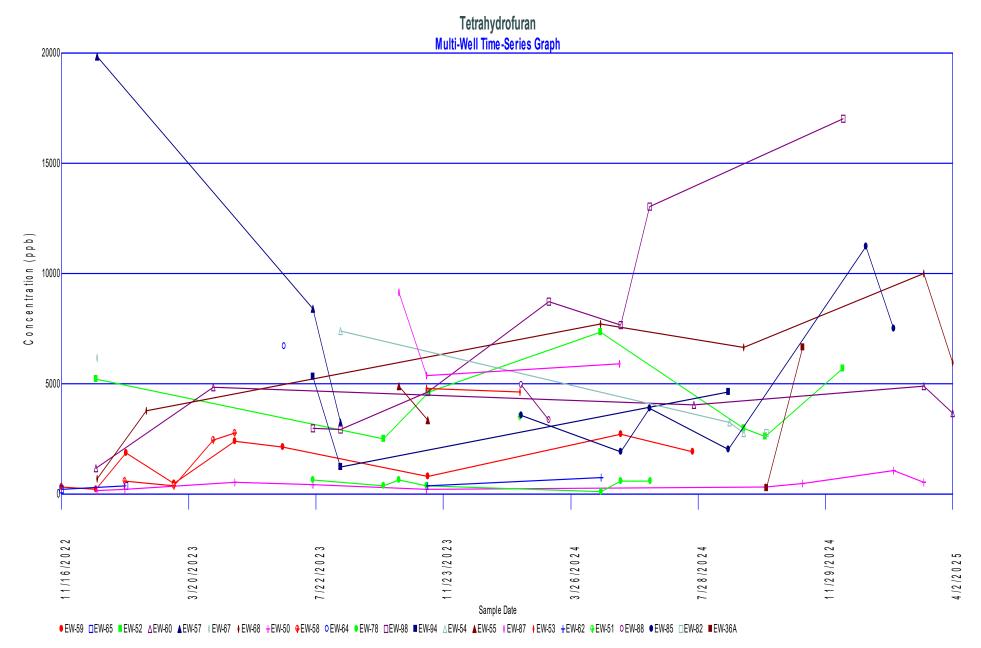
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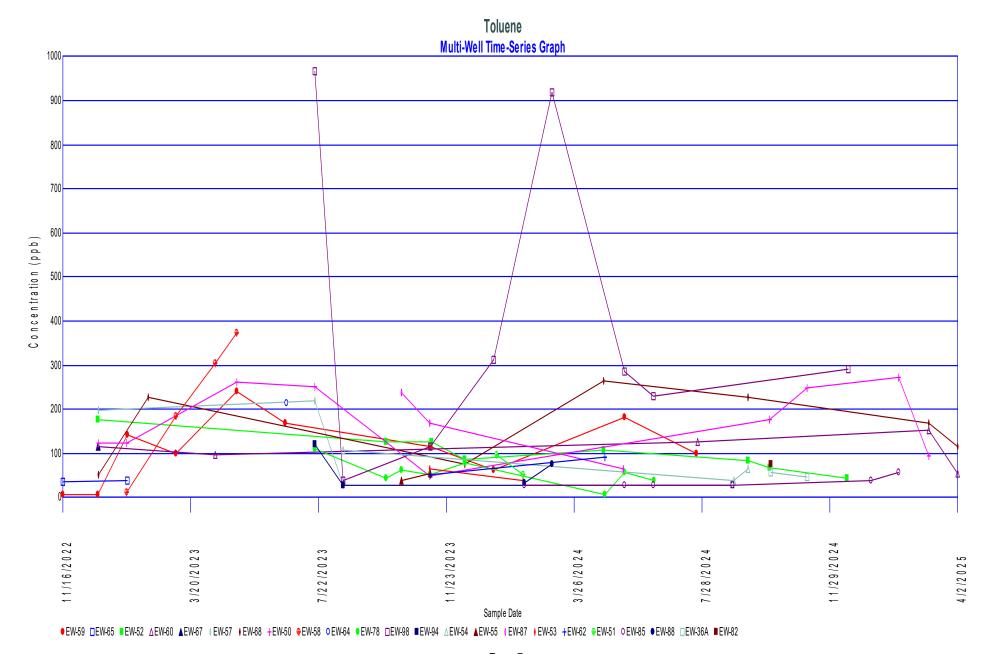
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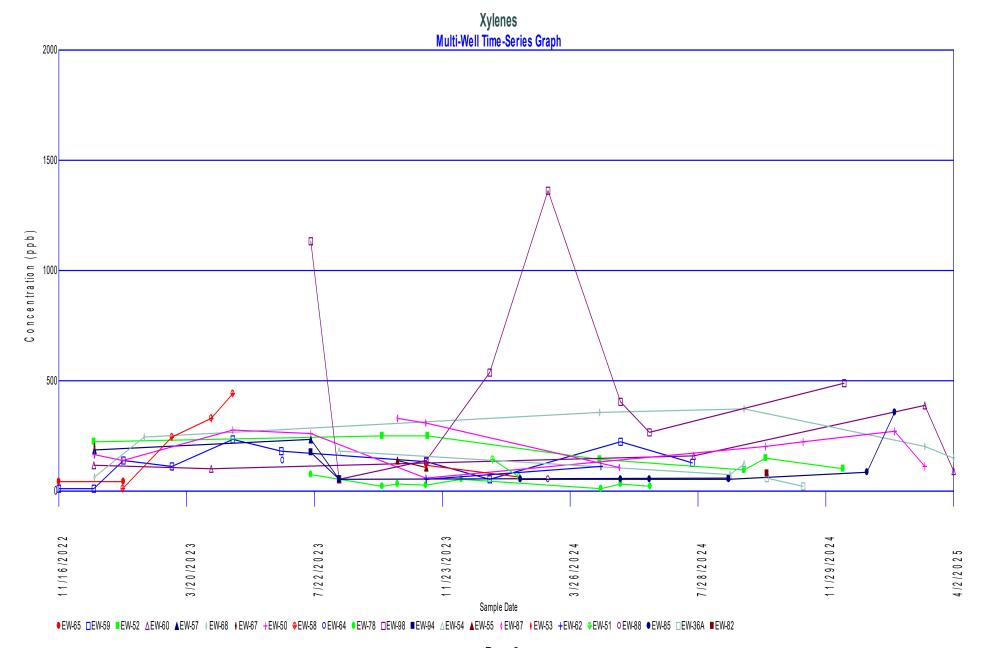
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## Appendix G

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 March 25, 2025 to April 21, 2025. The recorded stroke count data from each well during April 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	3/25/2025	4/8/2025	4/21/2025	# of strokes between measurements	Estimated liquid removed (gallons)			
EW33B				-	-			
EW36A				-	-			
EW49	79565	79565		-	-			
EW50	1548311	1555578	1562073	13,762	4,129			
EW51				-	-			
EW52	1239019	1239183	1239186	167	50			
EW53		3294531	3294531	-	-			
EW54				-	-			
EW55	73374	73384	73384	10	3			
EW57				-	-			
EW59	3536810			-	-			
EW60	140746	152901	161145	20,399	6,120			
EW61		11268	30319	30,319	9,096			
EW62	214599	214599	214599	-	-			
EW64	196791	196791		-	-			
EW65	79659	83180	91595	11,936	3,581			
EW67	288743	288743	288743	-	-			
EW68	2644962	2651319	2658730	13,768	4,130			
EW69				-	-			
EW70				-	-			
EW74				-	-			
EW75				-	-			
EW76				-	-			
EW78	28100	34588	40047	11,947	1,338			
EW81				-	-			
EW82				-	-			
EW83				-	-			
EW85	292827	300412	305085	12,258	1,373			

Well	3/25/2025	4/8/2025	4/21/2025	# of strokes between measurements	Estimated liquid removed (gallons)
EW87		340749	340749	-	-
EW88	254736		291710	36,974	4,141
EW89				-	-
EW90				-	-
EW91				-	-
EW92				-	-
EW93	1292375	1292375	1314252	21,877	2,450
EW94	1096145	1172239	1263742	167,597	18,771
EW96				-	-
EW98	1706410		1771872	65,462	19,639
	74,820				