



May 2026 Monthly Compliance Report

Solid Waste Permit No. 588
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INTRODUCTION

On behalf of the City of Bristol, Virginia (City), SCS Engineers has prepared this report to the Virginia Department of Environmental Quality (VDEQ) in accordance with Item 8.iii in Appendix A of the Consent Decree between the City and VDEQ. This report provides updates regarding the progress towards completion of the items outlined in Appendix A of the Consent Decree between the City and VDEQ. The following sections outline progress during the month of May 2026 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 May 5, 2026; May 14, 2026; May 20, 2026; and May 28, 2026. 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 May Surface Emissions Monitoring

Description	May 5, 2026	May 14, 2026	May 20, 2026	May 28, 2026
Number of Points Sampled	168	168	168	168
Number of Points in Serpentine Route	100	100	100	100
Number of Points at Surface Cover Penetrations	68	68	68	68
Number of Exceedances	2	0	1	0
Number of Serpentine Exceedances	0	0	0	0
Number of Pipe Penetration Exceedances	2	0	1	0

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

- An initial pipe penetration exceedance was recorded at EW-67. After additional bentonite and soil placement, monitoring of this well during a follow-up event did not result in an exceedance.
- An initial pipe penetration exceedance was recorded at EW-52. After replacing the liquids dewatering pump at this well, monitoring of this well during a follow-up event did not result in an exceedance.

1.1.2 Monitoring of Leachate Collection Components

SCS Field Services (SCS-FS) was onsite at the Bristol Landfill on May 5, 2026, and performed monitoring of the leachate, witness zone, northern cleanouts, and gradient control clean-outs at the southern end of the landfill. The results of that monitoring are included in **Table 2**.

Table 2. Leachate Cleanout Pipe Monitoring Results

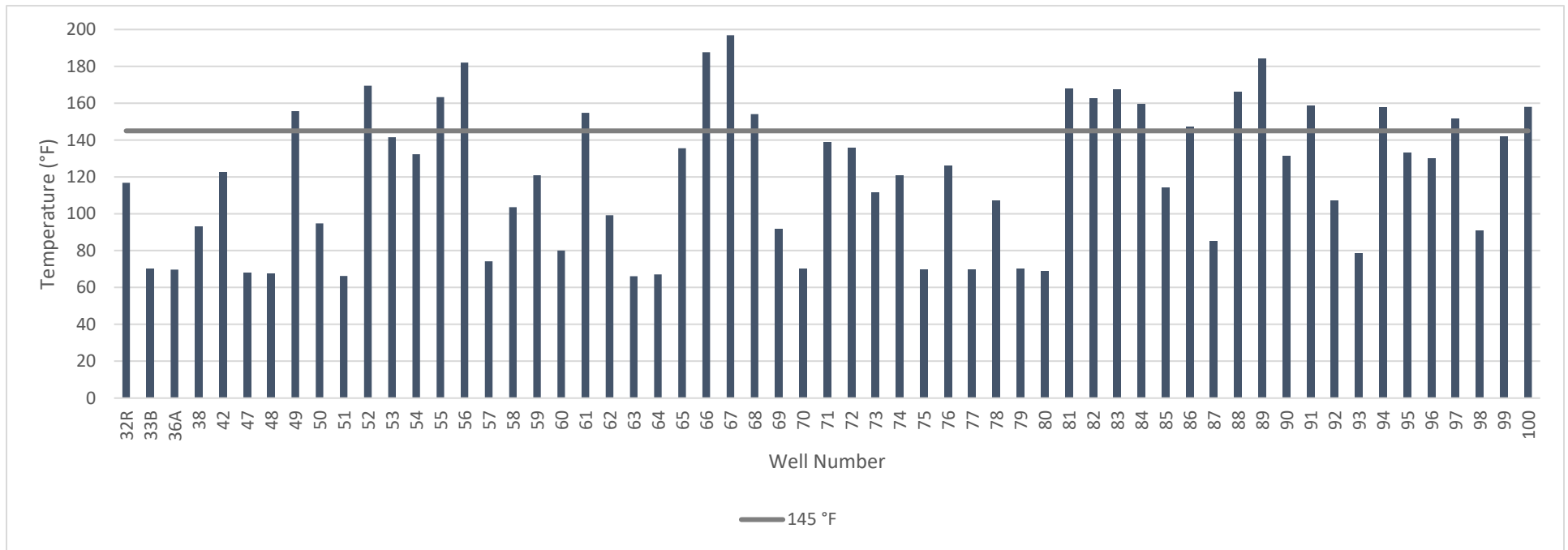
Description	ID#	Record Date	CH4 (% by Vol)	CO2 (% by Vol)	O2 (% by Vol)	Balance Gas (% by Vol)	Initial Temp (°F)	Adj Temp (°F)	Initial Static Pressure (in H2O)	Adj Static Pressure (in H2O)	System Pressure (in H2O)
Southern Cleanouts Gradient West	LC01	5/5/2026 2:14:08 PM	29.2	33.6	0.0	37.2	66.5	66.6	-14.25	-14.43	-17.42
Southern Cleanouts Gradient East	LC02	5/5/2026 2:17:50 PM	34.0	41.3	1.2	23.4	72.9	73.0	-16.64	-16.46	-17.48
Southern Cleanouts Leachate Center	LC03	5/5/2026 2:20:55 PM	2.9	1.0	19.8	76.3	79.2	79.2	-5.38	-5.38	-16.23
Southern Cleanouts Witness East	LC04	5/5/2026 2:24:34 PM	14.6	7.9	14.9	62.7	80.9	81.4	-16.10	-16.29	-17.30
Southern Cleanouts Leachate West	LC05	5/5/2026 2:37:03 PM	31.4	35.8	0.0	32.8	70.7	71.1	-16.01	-17.11	-16.18
Southern Cleanouts Gradient Center West	LC06	5/5/2026 2:40:38 PM	9.6	4.9	17.5	68.0	82.6	83.0	-17.07	-16.99	-17.21
Southern Cleanouts Leachate East	LC08	5/5/2026 2:27:19 PM	36.4	36.7	0.3	26.6	68.3	67.8	-16.88	-16.30	-17.66
Southern Cleanouts Gradient Center East	LC09	5/5/2026 2:31:08 PM	26.5	31.5	0.9	41.1	78.7	78.9	-17.36	-17.39	-17.26
Southern Cleanouts Leachate West	LC10	5/5/2026 2:33:58 PM	25.0	24.7	8.9	41.4	81.3	81.8	-17.43	-17.38	-17.99
Northern Cleanouts Leachate East	NC01	5/5/2026 1:30:22 PM	0.8	0.3	20.8	78.2	84.8	85.0	-0.72	-0.72	-0.17
Northern Cleanouts Leachate Center	NC02	5/5/2026 1:32:50 PM	2.9	1.1	19.9	76.1	83.3	83.4	-0.84	-0.73	-0.16
Northern Cleanouts Leachate West	NC03	5/5/2026 1:35:49 PM	4.3	1.5	19.5	74.7	85.1	85.3	-0.83	-0.71	-0.67
Northern Cleanouts Witness East	NC04	5/5/2026 1:37:49 PM	0.3	0.0	20.8	78.9	78.7	78.7	-3.93	-3.86	-0.67
Northern Cleanouts Witness Center	NC05	5/5/2026 1:39:33 PM	0.3	0.0	20.7	78.9	80.6	80.6	-3.93	-3.85	-0.70
Northern Cleanouts Witness West	NC06	5/5/2026 1:41:25 PM	0.3	0.0	20.8	78.9	79.5	79.5	-3.86	-3.75	-0.67
Northern Cleanouts Gradient East	NC07	5/5/2026 1:43:37 PM	0.3	0.0	20.8	78.9	74.6	74.6	-13.01	-12.99	-0.67
Northern Cleanouts Gradient Center East	NC08	5/5/2026 1:45:52 PM	0.3	0.0	20.8	78.9	74.5	74.5	-13.10	-13.10	-0.67
Northern Cleanouts Gradient Center West	NC09	5/5/2026 1:47:38 PM	0.3	0.0	20.8	78.9	71.1	71.2	-13.08	-13.10	-0.84
Northern Cleanouts Gradient West	NC10	5/5/2026 1:49:59 PM	0.2	0.0	21.0	78.8	82.0	82.3	-0.82	-0.76	-0.67

1.2 EXISTING GAS EXTRACTION SYSTEM PERFORMANCE

SCS reviewed the automated hourly temperature measurements from May 2026, and observed the following:

- The average temperature in May was above the regulatory threshold of 145°F at 19 of the 59 wells (see **Figure 1**).
- The highest average temperature was 196.9°F at EW-67. This well experienced ongoing temperature exceedances in May and is being actively monitored. EW-66 showed the second highest average temperature this month. EW-66 and EW-67 have active dewatering pumps, removing heat via the extracted liquids and creating more open pore spaces for hot gas to be extracted in turn. The pump in EW-66 was most active this month, followed by the pump in EW-67.

Figure 1. Monthly Average Automated Wellhead Temperatures¹



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

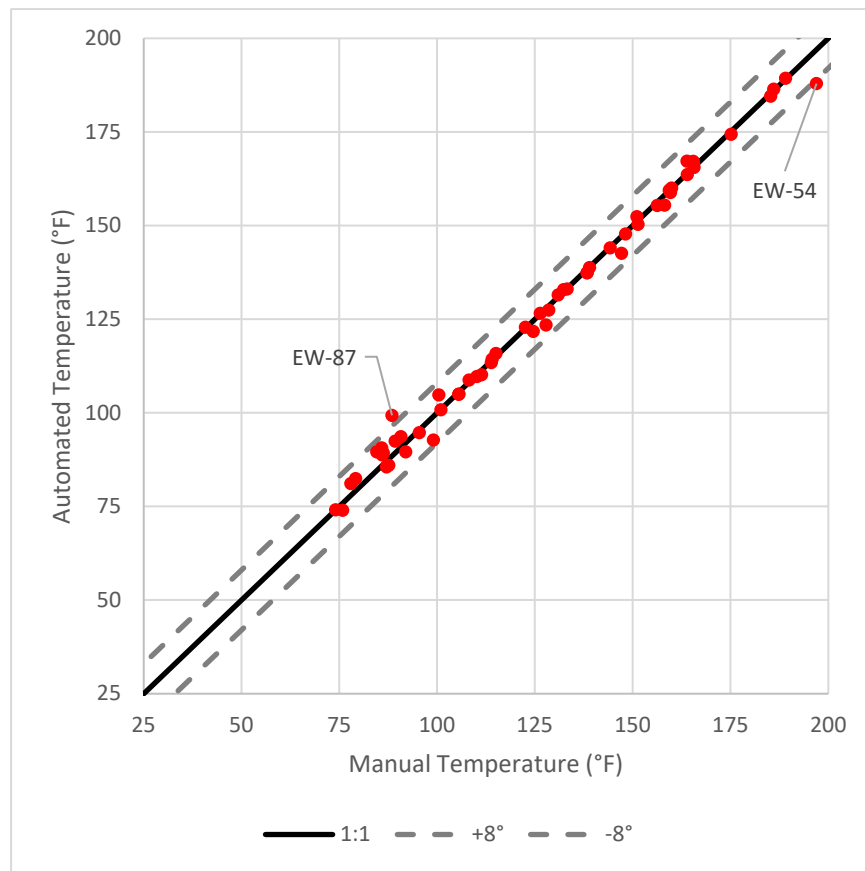
1.2.1 Comparison with Manual Temperature Measurements

Per the approval issued by VDEQ on August 2, 2023, the Facility ceased dedicated daily manual temperature measurements in the Permit No. 588 Landfill. In lieu of these measurements, the City compares instantaneous hourly automated temperature measurements with temperatures measured at each wellhead using a handheld sensor during monthly compliance monitoring. These comparisons are shown in **Figure 2**, with the $\pm 8^{\circ}\text{F}$ deviation thresholds as prescribed in the VDEQ approval.

Temperatures were within the $\pm 8^{\circ}\text{F}$ deviation threshold at all wells except two, EW-54 and EW-87, during this reporting period.

At EW-54, the automated temperature reading was lower than the manual temperature reading by about 9°F . Additional monitoring is ongoing at EW-54 due to an ongoing temperature exceedance, and the performance of the automated temperature sensor will continue to be observed. At EW-87, the automated reading was higher than the manual reading by about 11°F . However, the automated readings show a warming trend during the interval surrounding the manual reading, and the automated reading prior to the manual reading was about 10°F cooler. This warming trend may explain why the difference between the manual and automated readings exceeded the $\pm 8^{\circ}\text{F}$ threshold at EW-87.

Figure 2. Automated vs. Manual Temperature Measurements



1.2.2 Monthly Regulatory Wellhead Temperature Measurements

Routine monthly temperature monitoring was conducted on May 12 and May 26, 2026, to comply with 40 CFR 60.36f(a)(5). **Table 3** provides the status of exceedances recorded during this monitoring period.

Table 3. May Temperature Exceedance Summary

Well ID	Initial Exceedance Date	Compliant Reading	Most Recent Reading	Duration of Exceedance	Status as of 6/1/2026
EW-52	4/27/26	5/5/26 175.2°F	5/26/26 175.7°F	9 days	Resolved within 15-day timeline
EW-54	5/26/26	N/A	5/26/26 197.0°F	7 days	Ongoing, within 15-day timeline
EW-55	5/26/26	N/A	5/26/26 186.1°F	7 days	Ongoing, within 15-day timeline
EW-66	5/12/26	5/13/26 187.7°F	5/26/26 200.4°F	2 days	Resolved within 15-day timeline
EW-66	5/18/26	N/A	5/26/26 200.4°F	15 days	Ongoing, within 15-day timeline
EW-67	4/27/26	N/A	5/26/26 200.0°F	36 days	Ongoing, within 60-day timeline
EW-68	5/12/26	N/A	5/26/26 157.2°F	15 days	Ongoing, within 60-day timeline

1.2.3 LFG Sampling

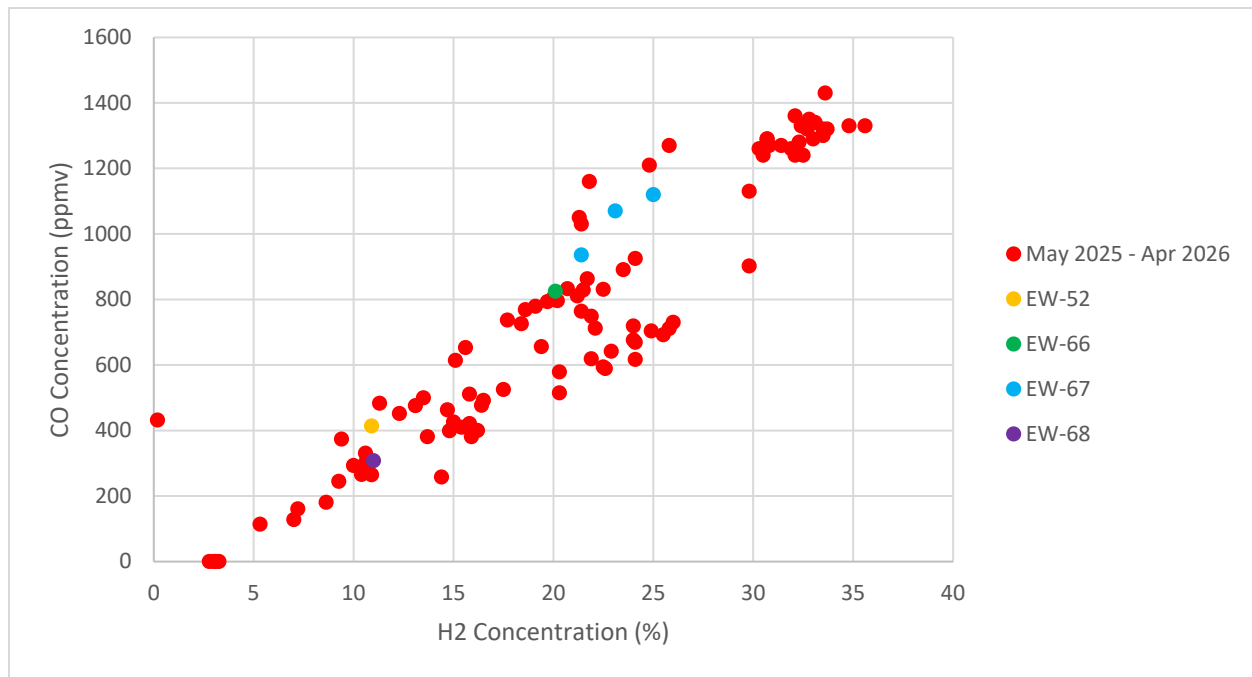
SCS collects weekly LFG samples from wells with temperature exceedances lasting more than seven days using 1.5-L summa canisters. The samples were sent to Enthalpy Analytical for laboratory analysis of carbon monoxide (CO) and hydrogen (H₂) content. As of June 1, 2026, the City has received lab results for sampling on April 28, May 5, and May 13, 2026, 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		4/28/26	5/5/26	5/13/26
EW-52	CO (ppmv)	414		
	H2 (Vol. %)	10.9		
EW-66	CO (ppmv)			825
	H2 (Vol. %)			20.1
EW-67	CO (ppmv)	1070	1120	936
	H2 (Vol. %)	23.1	25.0	21.4
EW-68	CO (ppmv)			308
	H2 (Vol. %)			11.0

As shown in **Figure 3**, the carbon monoxide and hydrogen data collected during this period appear are consistent with the data collected previously in 2025 and 2026.

Figure 3. CO vs H₂ Concentration from gas wells in May 2026 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

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 OPERATION

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

Table 5. Average SOMS Gas Composition

Record Dates	Average CH ₄ [%]	Average CO ₂ [%]	Average O ₂ [%]	Average Bal Gas [%]
5/13/2026	3.1	5.2	17.8	73.9
5/27/2026	3.1	5.0	17.8	74.1

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

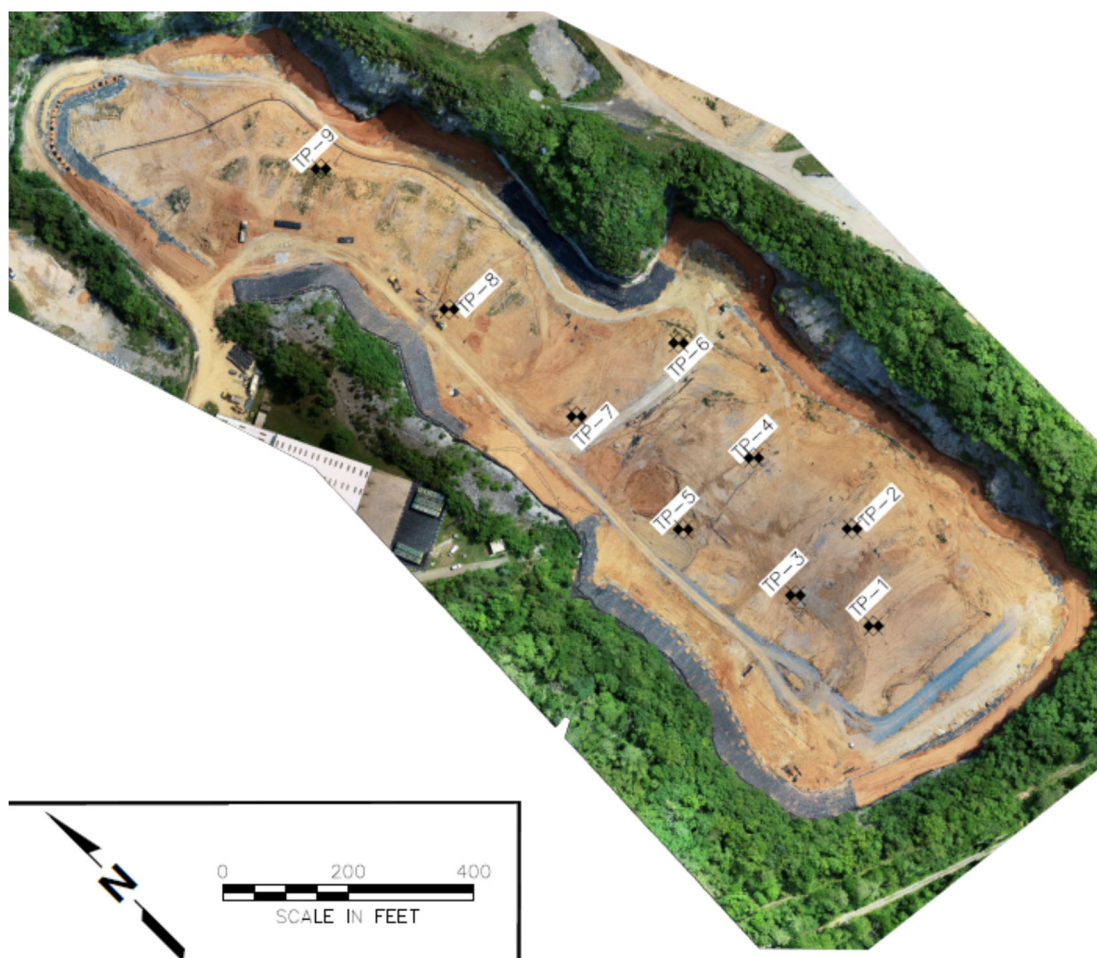
3.0 WASTE TEMPERATURE MONITORING

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

3.1 SUMMARY OF WASTE TEMPERATURE MONITORING

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

Figure 4. Temperature Monitoring Probe Locations



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

Average daily temperatures recorded by the sensors for the month of May 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 May are shown in **Appendix B**. The average temperatures recorded for March 2023, March 2024, March 2025, April 2026, and May 2026 are shown in **Figures 5 through 9** on the following pages.

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

3.1.1 Operational Challenges

Multiple thermocouples in TP-2 and TP-3 started to fault in late 2024/early 2025. SCS coordinated with the City in March to pull the string of thermocouples from TP-2 and TP-3 but were unable to remove the strings in either probe due to suspected pinching of the casings. TP-7 has been malfunctioning and offline since December 4, 2025. SCS-FS relocated equipment that had been part of TP-2 to TP-7 in January, but the sensors at TP-7 still did not function. TP-2, TP-3, and TP-7 have been abandoned. The City is in the process of revising bid documents for the installation of three replacement probes per the Plan of Action Addendum dated February 2, 2026.

3.1.2 Temperature Profiles

Temperature profiles for the operational thermocouple strings are shown in **Figures 5-9**. Temperatures profiles have been consistent throughout 2026, with peak temperatures between 200 and 275°F in TP-1, TP-5, and TP-8 and 150°F in TP-9.

The profile at TP-6 is an exception, where temperatures have declined below 200°F in 2025 and outlying temperature measurements have been recorded at 75 ft. Troubleshooting by field staff indicated that the sensor at the 75-foot level is malfunctioning. Given that the majority of the sensors within this casing are still functioning properly, the sensor at 75 ft will not be retrieved to avoid damaging the other sensors within the casing. Data from the 75-foot level of TP-6 has been excluded from this report.

Figure 5. TP-1 Average Temperatures for the Months of March 2023, March 2024, March 2025, April 2026, and May 2026

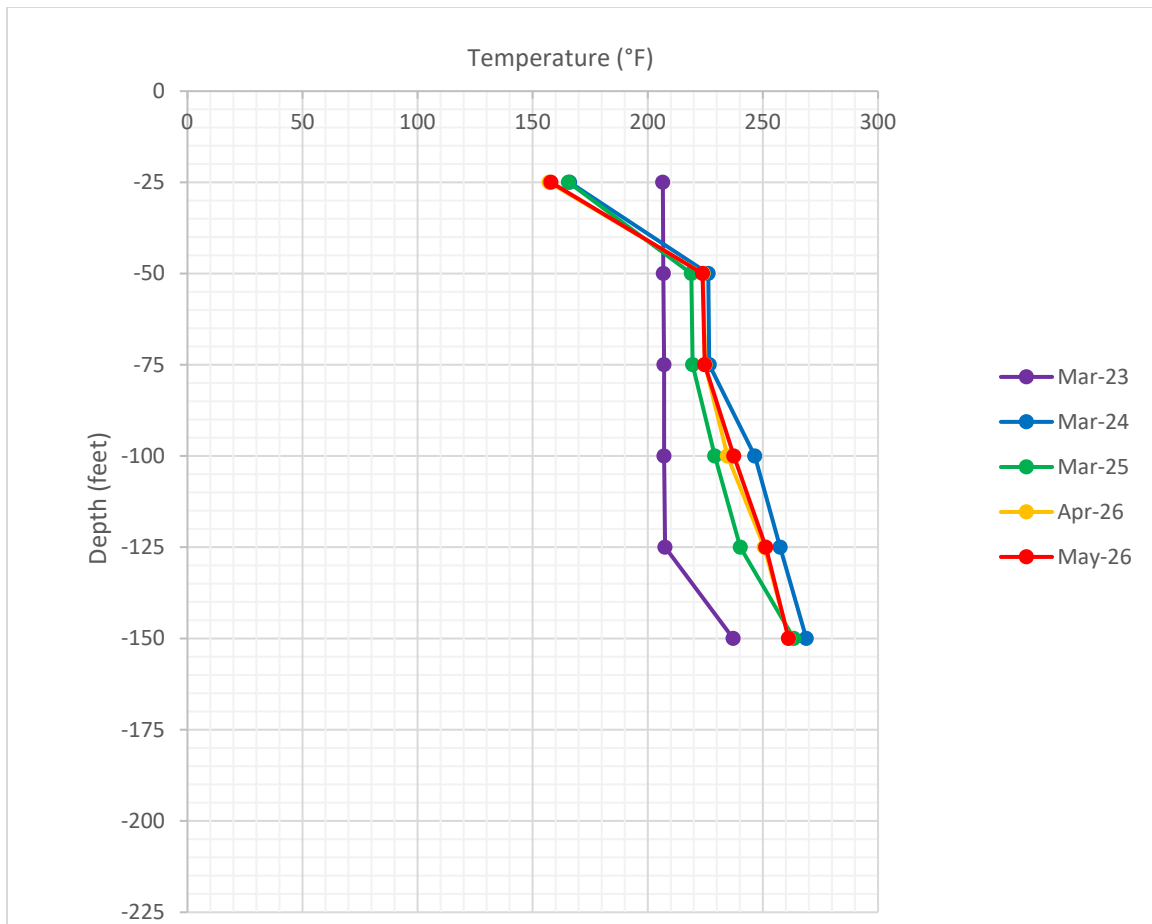


Figure 6. TP-5 Average Temperatures for the Months of March 2023, April 2024, March 2025, April 2026, and May 2026

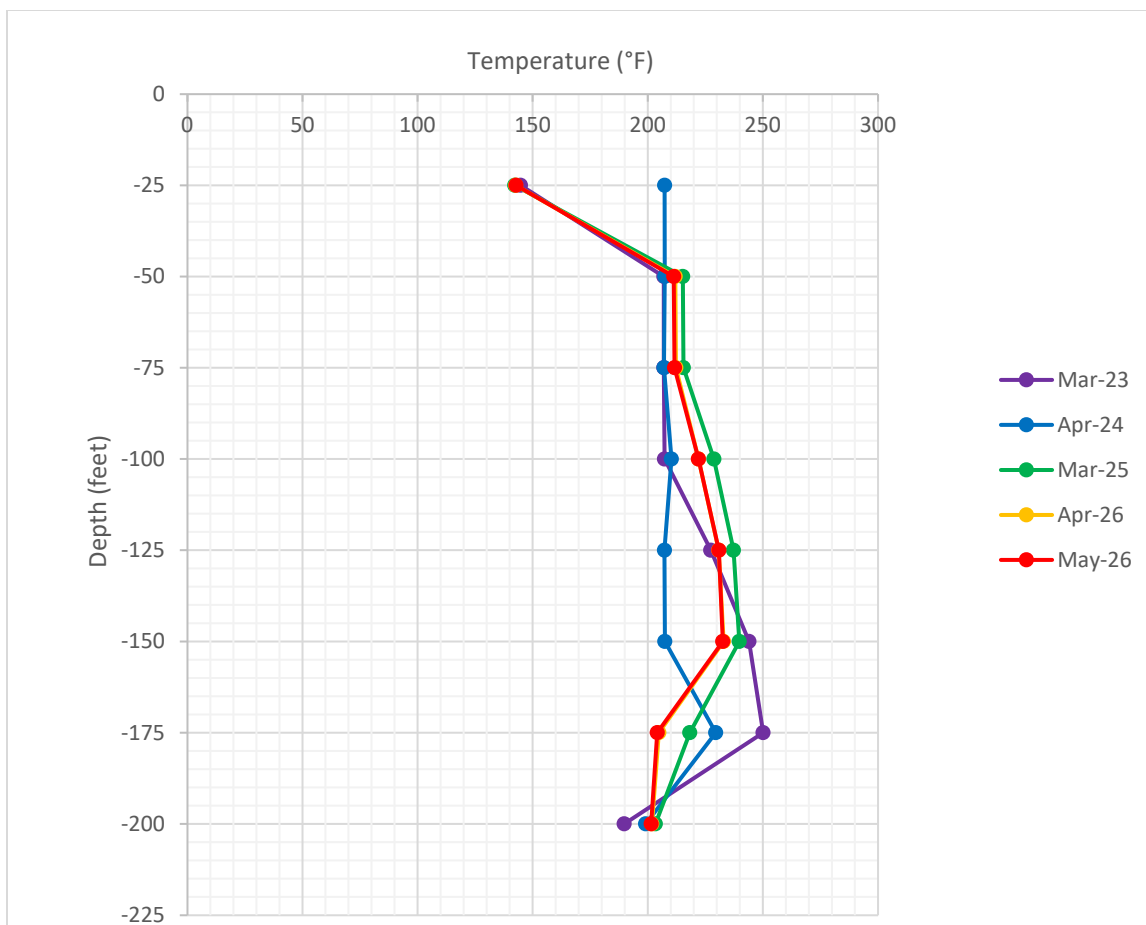


Figure 7. TP-6 Average Temperatures for the Months of March 2023, March 2024, March 2025, April 2026, and May 2026

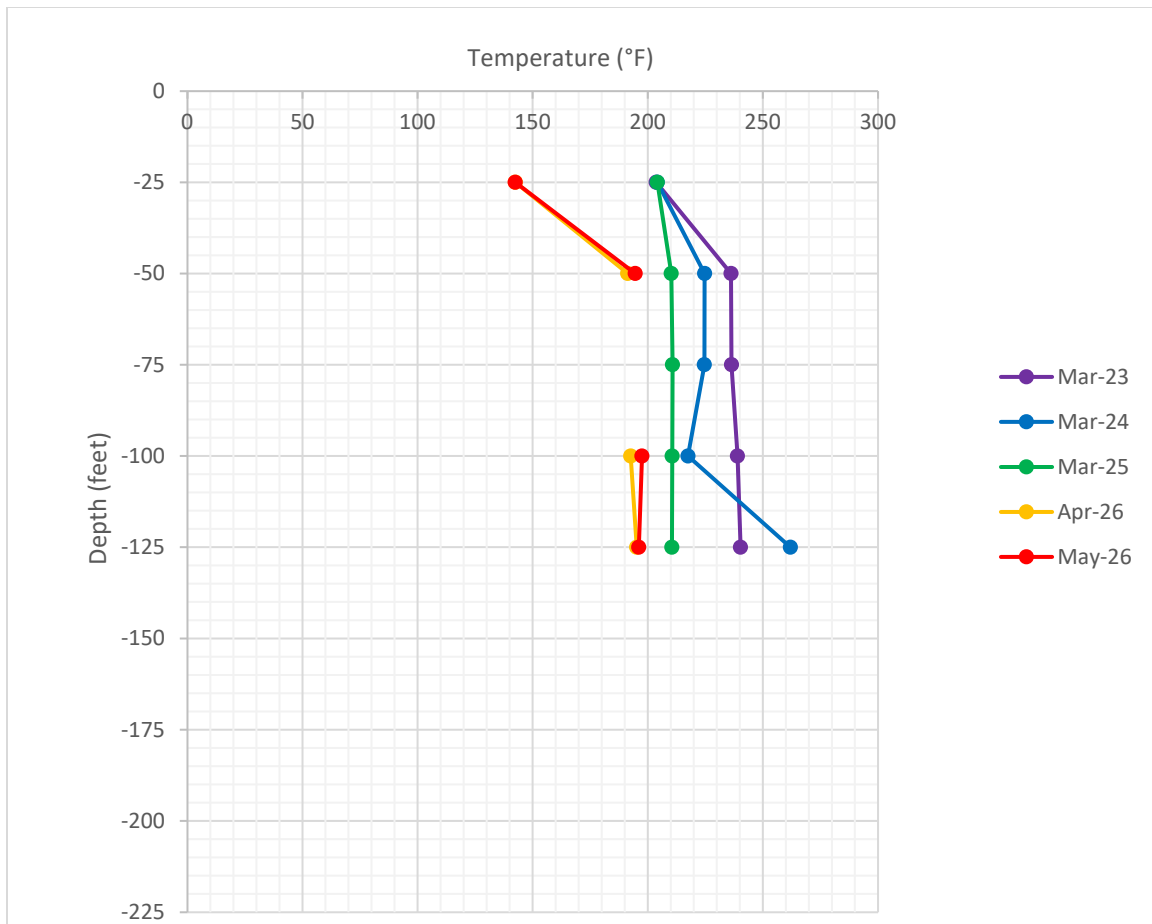


Figure 8. TP-8 Average Temperatures for the Months of March 2023, March 2024, March 2025, April 2026, and May 2026

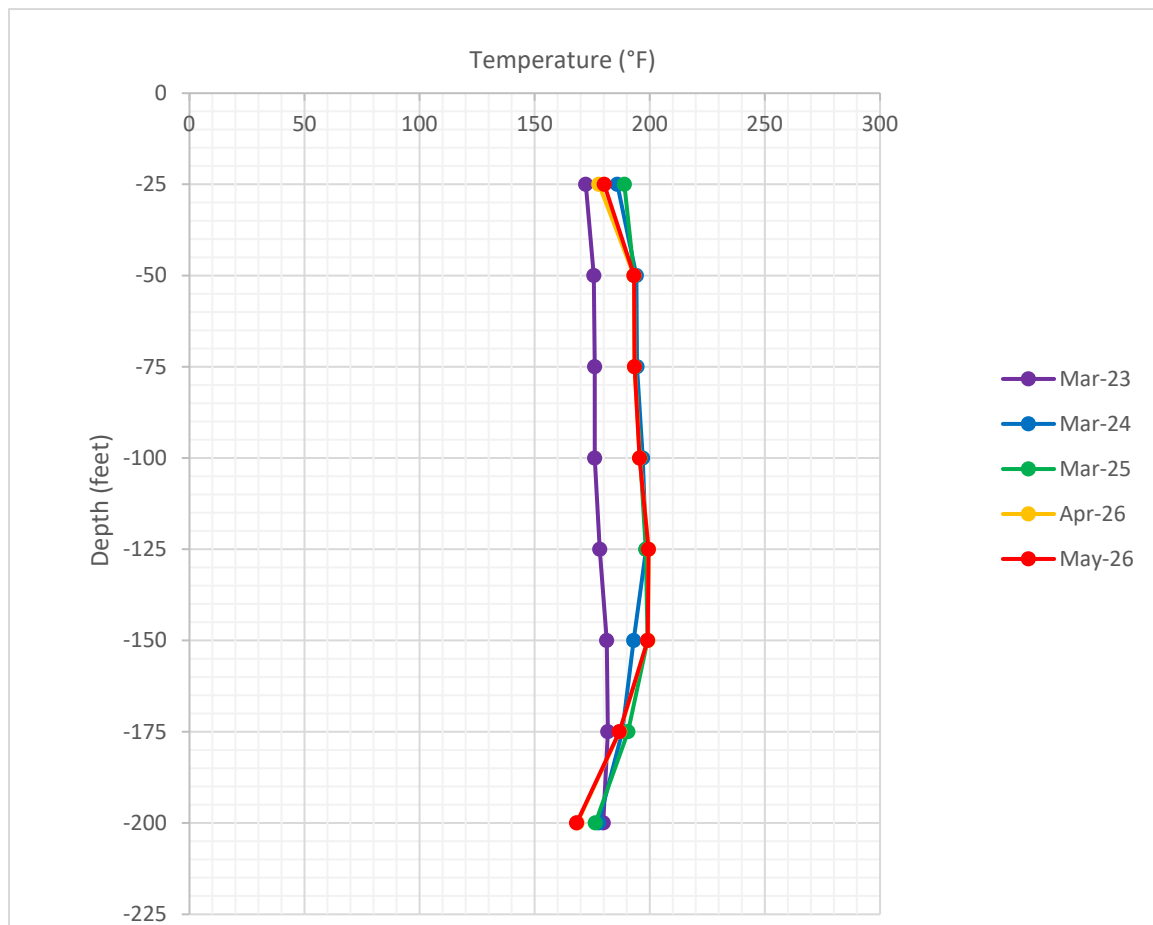
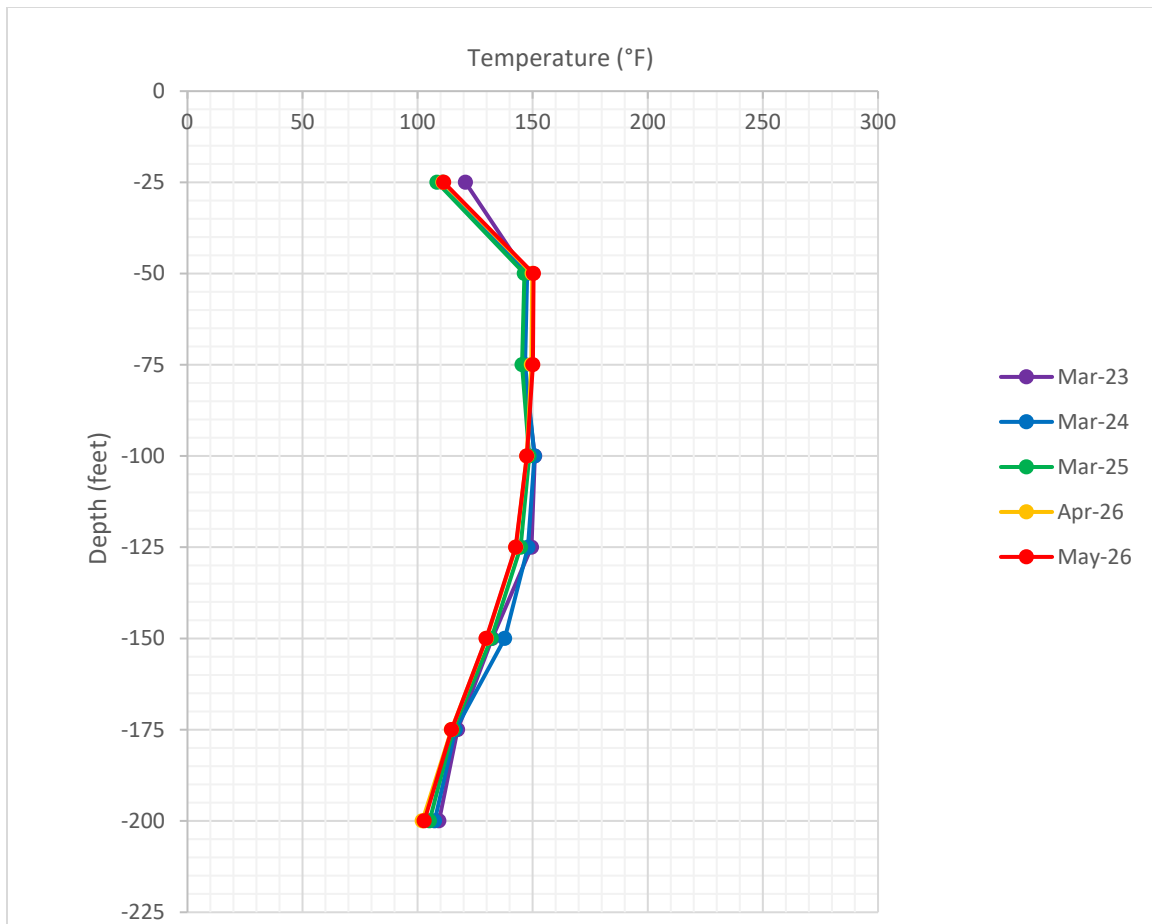


Figure 9. TP-9 Average Temperatures for the Months of March 2023, March 2024, March 2025, April 2026, and May 2026



4.0 LEACHATE EXTRACTION AND MONITORING

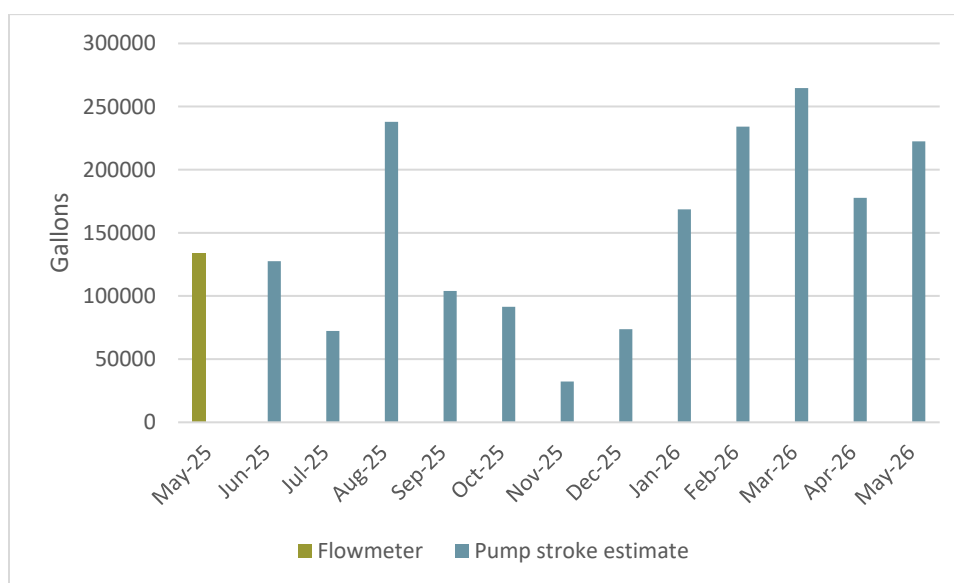
The City is continuously taking steps to maintain and improve the extraction of leachate from the waste mass and collect analytical data on leachate characteristics. The following sections detail steps taken to achieve these goals.

4.1 DEWATERING PUMP OPERATIONS AND MAINTENANCE

4.1.1 Total LFG Liquids Removal

Figure 10 illustrates monthly landfill gas liquids removal over the past year. The volume was estimated from stroke counter data for June 2025 through May 2026 (blue bars in **Figure 10**). A flow meter was used to record the volume in May 2025. Over the past 6 months, the estimated monthly leachate pumped has ranged from 73,700 to 264,600 gallons per month and has averaged 190,189 gallons per month.

Figure 10. Total Dewatering Liquid Removal



The Harnden Group began an LFG expansion construction project in September, which necessitated pauses in the operation of dewatering pump infrastructure in December. During construction of the expansion, the Harnden Group identified forcemain piping that was nearly completely blocked with solids. The City worked with the Harnden Group to replace the blocked forcemain piping as part of the expansion project. Jet cleaning of the clogged leachate lines occurred in March and April. This may contribute to the increasing liquids removal.

4.1.2 LFG Liquids Pump Operations and Maintenance

The City and SCS understand that operations of dewatering pumps are critical to address issues related to heat, odors, and the efficient operation of the GCCS. The landfill conditions present a

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

Estimated volumes of liquids removed at each pump are presented in **Table F-1, Appendix F**. SCS has prepared the summary below regarding operating conditions and specific challenges associated with each pump in May 2026.

Pump Maintenance Activities

- Pulled and swapped pumps in EW-49, EW-52 (four times), EW-54, EW-55, EW-59, EW-60, EW-65, EW-66, EW-67, EW-88, and EW-94 (two times)
- New stroke counter installed at EW-52
- Broke down, descaled, and reinstalled forcemain tees at EW-49 and EW-93

Wells with Inactive Pumps

- The pump in EW-33B is stuck in the well casing and has been disconnected. SCS-FS plans to remove the existing pump with heavy equipment and replace the pump with a new QED pump in June.
- SCS-FS intends to replace the Blackhawk pump in EW-36A with a QED pump, which has been scheduled for June.
- The pumps in EW-51, EW-57, EW-87, EW-90, and EW-100 are permanently stuck in their wells even after attempts to remove them with heavy equipment. They cannot be cleaned or repaired.
- The pump in EW-55 is inactive due to excessive pressure buildup in the forcemain line. The City is exploring additional forcemain pipe cleaning options to alleviate the buildup.
- All pump types deployed in EW-74 and EW-75 have experienced buildup on the intake screens preventing effective pump operation. To conserve resources for pumping in other wells, pumps are no longer being deployed in these wells.
- The casings of EW-81, EW-83, and EW-91 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.
- Removal of the pump in EW-89 was attempted by SCS-FS in January 2026. The pump became stuck about 30 feet down well, and camera equipment showed an apparent collapse in the well at about 31.5 feet. A new pump will not be installed at this well. This pump was permanently removed in April 2026.
- The pump in EW-93 has been removed due to clogging of the tri tubing and forcemain tee. The City is exploring additional forcemain pipe cleaning options to alleviate the buildup.

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.

4.2 SAMPLING AND ANALYSIS PLAN

In accordance with the second amendment to the consent decree dated January 16, 2026, the frequency of landfill gas liquids sampling has been reduced to quarterly. Sampling and analysis of landfill gas liquids was conducted in April 2026 for the Second Quarter 2026 monitoring event. Refer to the April 2026 Monthly Compliance Report for the SWP No. 588 Landfill, for results of the Second Quarter 2026 monitoring event.

5.0 SETTLEMENT MONITORING AND MANAGEMENT

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

5.1 SETTLEMENT MONITORING AND MANAGEMENT PLAN

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 May 12, 2026. Aerial imagery collected on May 12, 2026, is depicted in **Figure 11**. The topographic data collected is shown on Sheet 4 in **Appendix E**.

Figure 11. Aerial Photo of the SWP No. 588 Landfill



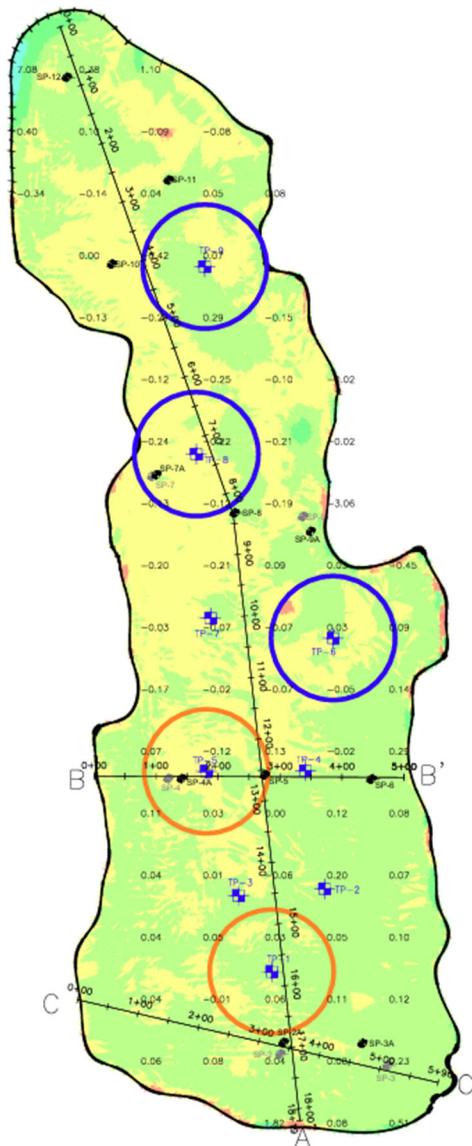
The topography within the landfill footprint was compared to topographic data collected by SCS using photogrammetric methods on April 8, 2026. A drawing depicting the April 8, 2026, topography is included as Sheet 3 in **Appendix E**.

Based on a comparison of the topographic data collected on those two dates, the data shows a fill of 3,300 cubic yards across the site. Fill is placed and spread on the site to address differential settlement, surface emissions, and to provide access to LFG collection vertical wells. Fill was also placed in the northern end of the landfill as part of the installation of a new landfill gas header in that part of the landfill. Vegetation growth, which may occur during the spring and summer months may also be interpreted as fill by the photogrammetric survey methods. In some cases the top of vegetation is measured using this survey method rather than the ground surface.

During that same time period, calculations indicate a “cut” volume of approximately 1,800 cubic yards. Cut volumes are typically attributed to settlement. This resulted in a net increase in volume within the waste footprint of 1,500 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in **Figure 12**. Areas in yellow and orange indicate where elevations decreased and areas in green indicate areas where elevations have increased. Darker colors indicate greater changes in elevation. This drawing is also included as Sheet 5 in **Appendix E**.

Figure 12. 1-Month Elevation Change Map



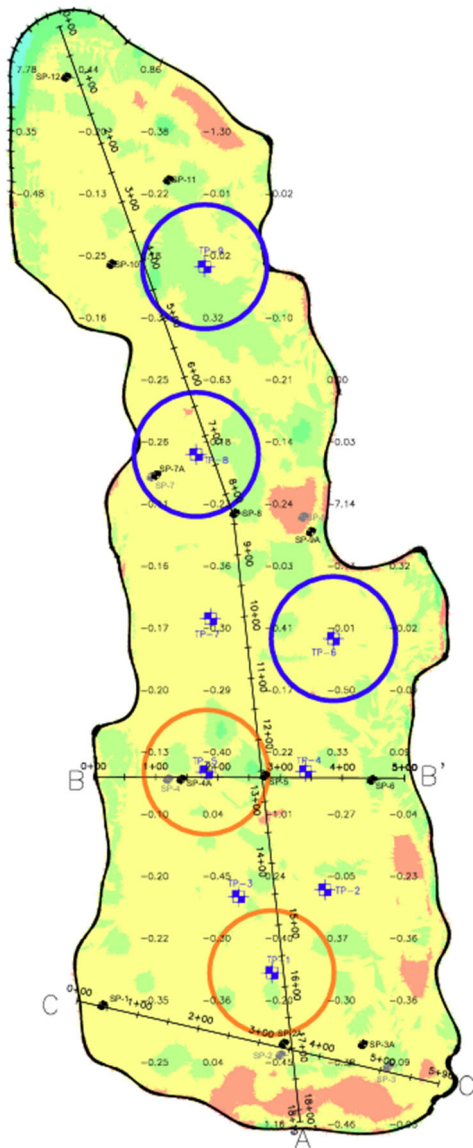
The locations of in-waste temperature monitoring probes are also shown on **Figure 12**, **Figure 13**, and **Figure 14**. The circles around the probes in each of these figures are indicative of the average borehole temperature. The circles shown are offset from the probes for clarity only and do not 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 had no temperature readings for this month due to sensor malfunctions. There were no probes measuring average temperatures greater than 250° F during the month of May 2026.

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 increase between the flyover dates was 0.1 ft.

SCS also compared the topographic data collected in March to the topographic data collected on February 10, 2026. 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 8,200 cubic yards. During that same time period calculations indicate approximately 2,100 cubic yards of fill were placed on the landfill, for a net decrease in waste volume of 6,100 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in **Figure 13**. 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 13. 3-Month Elevation Change Map

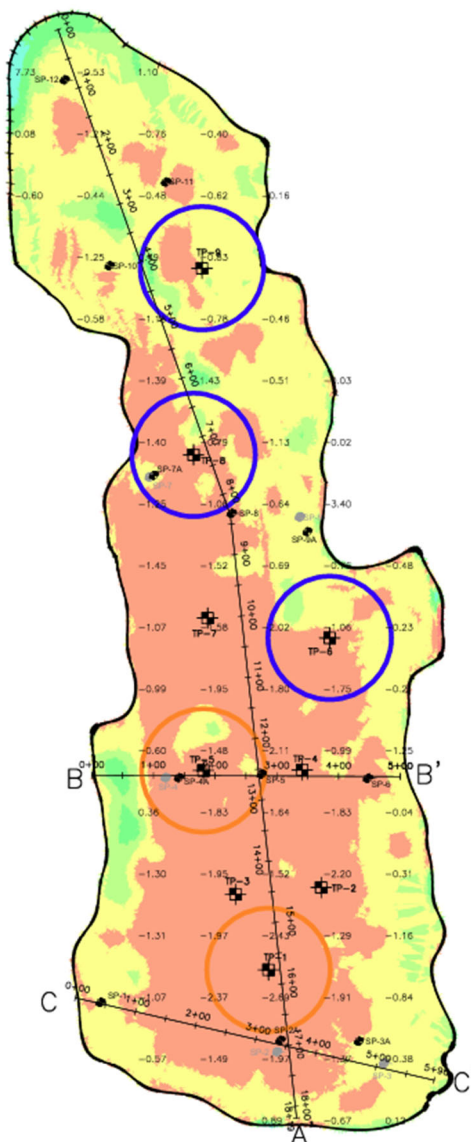


Based on the area of the landfill and the net volume change, the average elevation decrease was approximately 0.2 feet.

SCS also compared the topographic data collected in May 2026 to the drone topographic data collected on May 15, 2025. Based on a comparison of the topographic data collected on those two dates, settlement occurred that reduced the volume of waste in the landfill by approximately 30,000 cubic yards. During that same time period approximately 2,000 cubic yards of construction-related fill were placed on the landfill. This resulted in a net volume decrease of approximately 28,000 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in **Figure 14**. 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 14. 1-Year Elevation Change Map



The largest settlement occurred primarily at the southern end of the landfill where the waste settled by 3 feet or more in some areas. Significant settlements are typical of elevated temperature landfill conditions. The landfill perimeter exhibited an increase in elevation, likely due to soil placement associated with construction and/or ongoing maintenance of the Sidewall Odor Mitigation System. There were variations in elevation associated with soil stockpiling operations.

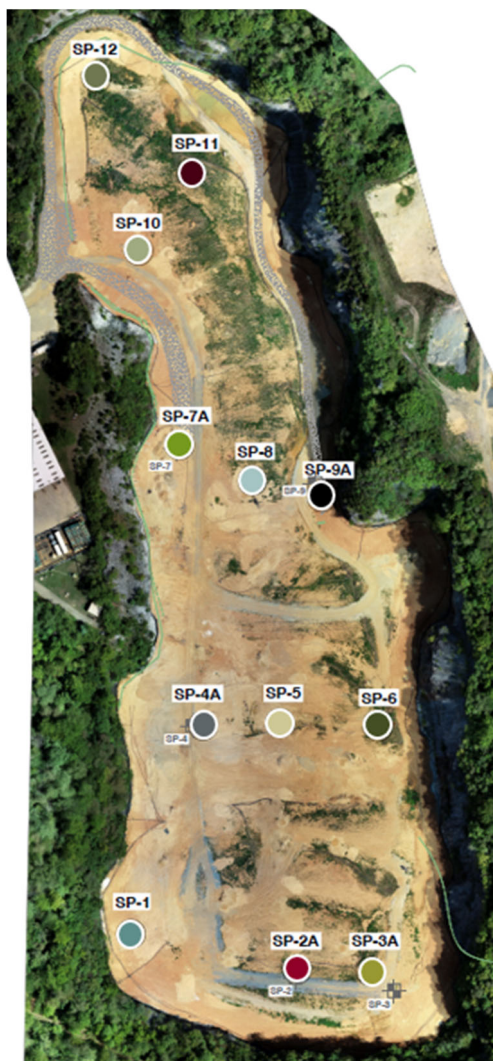
Based on the landfill area and the net volume change, the average elevation decrease was approximately 1.0 feet.

SCS will collect topographic data covering the landfill surface again in June 2026 using photogrammetric methods via UAV. This data will be compared to the data collected in June 2025, March 2026, and May 2026.

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 15** and on Sheet 1 in **Appendix E**. The construction and installation of the settlement plates generally conform to the description in the Settlement Monitoring and Management Plan.

Figure 15. 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 6**.

Table 6. Elevation and Strain Data at Settlement Plate Locations

Settlement Plate	Northing	Easting	Elevation on May 11, 2026 (ft)	Elevation Change Since April 6, 2026 (ft)	Strain ² Since April 6, 2026	Elevation Change Since Installation (ft)
SP-1	3397887.7	10412081.2	1828.0	-0.1	-0.2%	-6.4
SP-2A	3397823.7	10412370.7	1790.8	-0.2	-0.1%	-5.0
SP-3A	3397820.2	10412498.2	1778.0	-0.5	-0.5%	-2.2
SP-4A	3398247.0	10412208.0	1800.9	-0.1	0.0%	-4.2
SP-5	3398255.9	10412339.7	1786.3	0.0	0.0%	-14.4
SP-6	3398248.8	10412510.0	1772.0	-0.1	-0.1%	-5.7
SP-7A	3398731.2	10412158.5	1821.5	0.0	0.0%	-2.0
SP-8	3398678.0	10412290.9	1798.5	0.0	0.0%	-8.8
SP-9A	3398644.0	10412416.2	1787.6	-0.1	-0.1%	-1.1
SP-10	3399079.4	10412095.4	1835.5	0.1	0.0%	-4.0
SP-11	3399216.4	10412183.8	1814.0	0.0	0.0%	-2.4
SP-12	3399381.7	10412019.6	1809.1	-0.2	-0.2%	-1.5

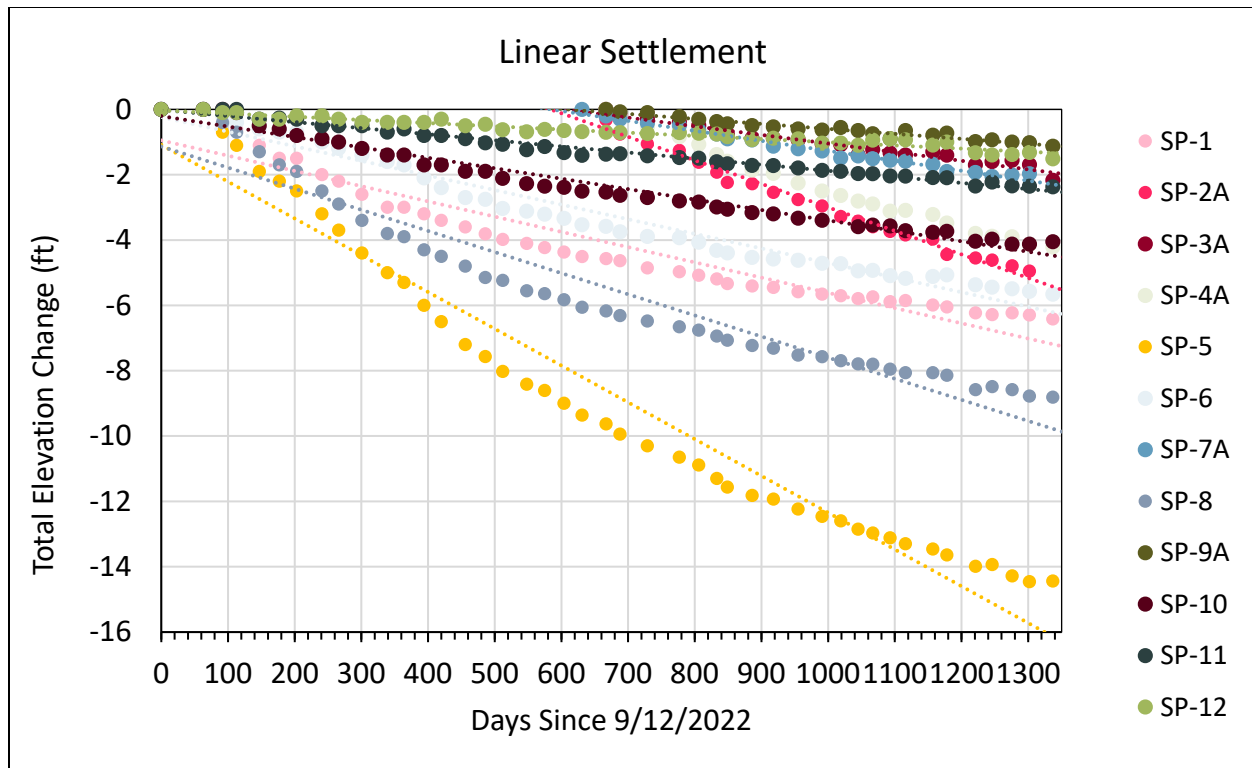
Prior to April 2024, the City's in-house surveyor read the settlement plate elevations. Starting April 2024 through June 2025, the settlement plate elevations were measured by FEI Civil Engineers and Land Surveyors. As of July 2025, the settlement plate elevations are measured by Miller Land Surveying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

Settlement Plate 3A demonstrated the largest strain due to settlement than at other locations. SP-3A is in the southern end of the landfill. This area is near the location of the gas wells and temperature probes exhibiting higher temperatures.

Figure 16 shows the changes in elevation of select settlement plates over time. The data in **Figure 16** are reported in days since the landfill was required to stop accepting waste.

² Strain is defined as the change in elevation divided by the estimated waste depth.

Figure 16. Elevation Change of Select Settlement Plates Over Time



The settlement plates will be surveyed again during June 2026. The elevations surveyed will be compared to the elevations surveyed the previous months.

6.0 INTERMEDIATE COVER AND GEOMEMBRANE 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 GEOMEMBRANE COVER SYSTEM DESIGN

A second amendment to the Consent Decree was issued on January 16, 2026 which requires a geomembrane deployment once the criteria outlined in the consent decree are achieved. The amended Consent Decree also requires regular settlement assessments that will analyze settlement to evaluate if the criteria have been met. The first settlement assessment was submitted to VDEQ on April 11, 2024. The most recent assessment was submitted on January 8, 2026. The next assessment will be submitted on or before July 14, 2026 in accordance with the second amendment to the consent decree dated January 16, 2026.

6.3 GEOMEMBRANE COVER SYSTEM PROCUREMENT

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

6.4 GEOMEMBRANE COVER SYSTEM INSTALLATION

As outlined in the second amendment to the Consent Decree dated January 16, 2026, the deadline for geomembrane cover system installation has been extended until such time as the criteria outline in the consent decree have been met. 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 May 2026, those actions include:

- **Ongoing basis:** Five (5) posts on each the BristolVALandfill.org site and the existing City of Bristol Landfill Notifications and Information page covering important updates including:
 - Progress updates related to remediation efforts and normal maintenance activities at the Quarry Landfill.

- Updates at the Quarry Landfill this month included work on installing the new flare and emergency generator, which arrived on-site this month (installation of the new flare and emergency generator is expected to be completed in June); routine maintenance on the landfill gas system and well heads; six leachate pumps were removed and replaced; and reserve leachate pumps were cleaned and refurbished.
 - On May 21, an update was posted related to the landfill's air monitoring system, which had been taken offline in February to replace equipment that required recalibration. There had been a substantial lapse in posting the air monitoring reports due to the equipment issues and unvalidated data, but the system has been back online and working properly since March. The lag in posting the reports was in part due to the process of collecting and assessing the data.
- **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 May 10, 2026.
 - As noted in the ongoing updates, the air monitoring equipment that was responsible for the period of inactivity due to it not being calibrated correctly has been fixed. The air monitoring system is back online and functioning properly.
- **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 Second Quarter 2026 surface emissions monitoring event on May 28, 2026. The surface emissions monitoring route included the entire waste footprint of the Permit No. 588 landfill. Sampling was conducted with a Thermo Scientific TVA-2020 Flame Ionization Detector (FID) at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint.

No exceedances were detected during this quarterly monitoring event on the serpentine route or at the surface cover penetrations. This monitoring event also represented the weekly monitoring event for the week. A quarterly SEM report will be submitted to the VDEQ as part of the Semi-Annual Report. In addition, monitoring results were presented to the VDEQ in a letter dated June 3, 2026.

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 May monitoring events on May 13, 2026; May 20, 2026; May 27, 2026; and, June 3, 2026. 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.

May 13, 2026
File No. 02218208.04

Ms. Susan "Tracey" Blalock
Air Compliance Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – May 5, 2026
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Ms. Blalock:

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 May 5, 2026. 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 Permit No. 588 Landfill. Sampling was conducted with an Inficon IRwin infrared (IR) Methane Leak Detector 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 horizontal collectors. 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). 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	168
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	68
Number of Exceedances	2
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	2

REMONITORING OF ONGOING EXCEEDANCES

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

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

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

Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	5/5/26 Event	5/5/26 Event Result	Comments
EW-67	4/16/26	1-Month Retest	Failed	Requires 1-Month Follow-Up Retest

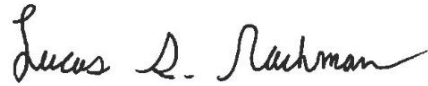
Ms. Susan "Tracey" Blalock
May 13, 2026
Page 3

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

Sincerely,

A handwritten signature in black ink, appearing to read "William J. Fabrie". The signature is written in a cursive style with a large, stylized "F".

William J. Fabrie
Project Professional
SCS Engineers

A handwritten signature in black ink, appearing to read "Lucas S. Nachman". The signature is written in a cursive style with a large, stylized "L".

Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WJF

cc: Jonathan Hayes, City of Bristol
Laura Helander, City of Bristol

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - MAY 5, 2026 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
1	0.0 PPM	OK			Start Serpentine Route
2	0.0 PPM	OK			
3	0.0 PPM	OK			
4	0.0 PPM	OK			
5	0.0 PPM	OK			
6	0.0 PPM	OK			
7	1.0 PPM	OK			
8	0.0 PPM	OK			
9	0.0 PPM	OK			
10	0.0 PPM	OK			
11	0.0 PPM	OK			
12	0.0 PPM	OK			
13	0.0 PPM	OK			
14	0.0 PPM	OK			
15	0.0 PPM	OK			
16	0.0 PPM	OK			
17	0.0 PPM	OK			
18	0.0 PPM	OK			
19	0.0 PPM	OK			
20	0.0 PPM	OK			
21	4.0 PPM	OK			
22	0.0 PPM	OK			
23	0.0 PPM	OK			
24	0.0 PPM	OK			
25	0.0 PPM	OK			
26	0.0 PPM	OK			
27	0.0 PPM	OK			
28	2.0 PPM	OK			
29	1.0 PPM	OK			
30	0.0 PPM	OK			
31	0.0 PPM	OK			
32	0.0 PPM	OK			
33	0.0 PPM	OK			
34	0.0 PPM	OK			
35	0.0 PPM	OK			
36	0.0 PPM	OK			
37	0.0 PPM	OK			
38	1.0 PPM	OK			
39	0.0 PPM	OK			
40	0.0 PPM	OK			
41	0.0 PPM	OK			
42	0.0 PPM	OK			
43	0.0 PPM	OK			
44	0.0 PPM	OK			
45	0.0 PPM	OK			
46	0.0 PPM	OK			
47	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - MAY 5, 2026 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
48	0.0 PPM	OK			
49	0.0 PPM	OK			
50	0.0 PPM	OK			
51	0.0 PPM	OK			
52	0.0 PPM	OK			
53	0.0 PPM	OK			
54	0.0 PPM	OK			
55	0.0 PPM	OK			
56	20.0 PPM	OK			
57	0.0 PPM	OK			
58	0.0 PPM	OK			
59	0.0 PPM	OK			
60	0.0 PPM	OK			
61	0.0 PPM	OK			
62	0.0 PPM	OK			
63	3.0 PPM	OK			
64	0.0 PPM	OK			
65	0.0 PPM	OK			
66	0.0 PPM	OK			
67	0.0 PPM	OK			
68	0.0 PPM	OK			
69	0.0 PPM	OK			
70	0.0 PPM	OK			
71	0.0 PPM	OK			
72	0.0 PPM	OK			
73	0.0 PPM	OK			
74	0.0 PPM	OK			
75	0.0 PPM	OK			
76	0.0 PPM	OK			
77	0.0 PPM	OK			
78	0.0 PPM	OK			
79	0.0 PPM	OK			
80	0.0 PPM	OK			
81	0.0 PPM	OK			
82	0.0 PPM	OK			
83	0.0 PPM	OK			
84	0.0 PPM	OK			
85	0.0 PPM	OK			
86	0.0 PPM	OK			
87	0.0 PPM	OK			
88	0.0 PPM	OK			
89	0.0 PPM	OK			
90	0.0 PPM	OK			
91	0.0 PPM	OK			
92	0.0 PPM	OK			
93	0.0 PPM	OK			
94	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MAY 5, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
95	1.0 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	2.0 PPM	OK			EW-75
102	0.0 PPM	OK			EW-74
103	0.0 PPM	OK			EW-33B
104	0.0 PPM	OK			EW-77
105	0.0 PPM	OK			EW-79
106	0.0 PPM	OK			TP-8
107	0.0 PPM	OK			EW-81
108	0.0 PPM	OK			EW-80
109	0.0 PPM	OK			EW-83
110	0.0 PPM	OK			EW-84
111	0.0 PPM	OK			EW-49
112	0.0 PPM	OK			TP-7
113	0.0 PPM	OK			EW-86
114	0.0 PPM	OK			EW-90
115	0.0 PPM	OK			EW-95
116	0.0 PPM	OK			EW-97
117	0.0 PPM	OK			EW-99
118	4.0 PPM	OK			EW-56
119	0.0 PPM	OK			EW-100
120	0.0 PPM	OK			EW-59
121	0.0 PPM	OK			TP-1
122	0.0 PPM	OK			EW-57
123	3.0 PPM	OK			EW-58
124	0.0 PPM	OK			EW-98
125	0.0 PPM	OK			EW-66
126	0.0 PPM	OK			EW-96
127	0.0 PPM	OK			HC-01
128	0.0 PPM	OK			EW-53
129	1048.0 PPM	HIGH_ALRM	36.59863	-82.147719	EW-67
130	0.0 PPM	OK			EW-47
131	0.0 PPM	OK			EW-54
132	0.0 PPM	OK			EW-55
133	0.0 PPM	OK			EW-94
134	0.0 PPM	OK			EW-93
135	0.0 PPM	OK			EW-92
136	0.0 PPM	OK			EW-91
137	0.0 PPM	OK			EW-51
138	0.0 PPM	OK			TP-5
139	0.0 PPM	OK			EW-68
140	516.0 PPM	HIGH_ALRM	36.599029	-82.147537	EW-52
141	2.0 PPM	OK			TP-4

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MAY 5, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
142	0.0 PPM	OK			HC-02
143	0.0 PPM	OK			EW-89
144	0.0 PPM	OK			EW-60
145	0.0 PPM	OK			EW-87
146	0.0 PPM	OK			EW-38
147	0.0 PPM	OK			EW-48
148	0.0 PPM	OK			EW-88
149	0.0 PPM	OK			EW-85
150	0.0 PPM	OK			EW-61
151	5.0 PPM	OK			TP-6
152	0.0 PPM	OK			EW-50
153	0.0 PPM	OK			EW-36A
154	0.0 PPM	OK			EW-65
155	0.0 PPM	OK			EW-64
156	0.0 PPM	OK			EW-63
157	7.0 PPM	OK			EW-42
158	0.0 PPM	OK			EW-76
159	0.0 PPM	OK			TP-9
160	0.0 PPM	OK			EW-62
161	0.0 PPM	OK			EW-72
162	0.0 PPM	OK			EW-32R
163	0.0 PPM	OK			EW-71
164	0.0 PPM	OK			EW-69
165	0.0 PPM	OK			EW-70
166	5.0 PPM	OK			EW-73
167	0.0 PPM	OK			EW-78
168	5.0 PPM	OK			EW-82

Number of locations sampled:	168
Number of exceedance locations:	2

NOTES:

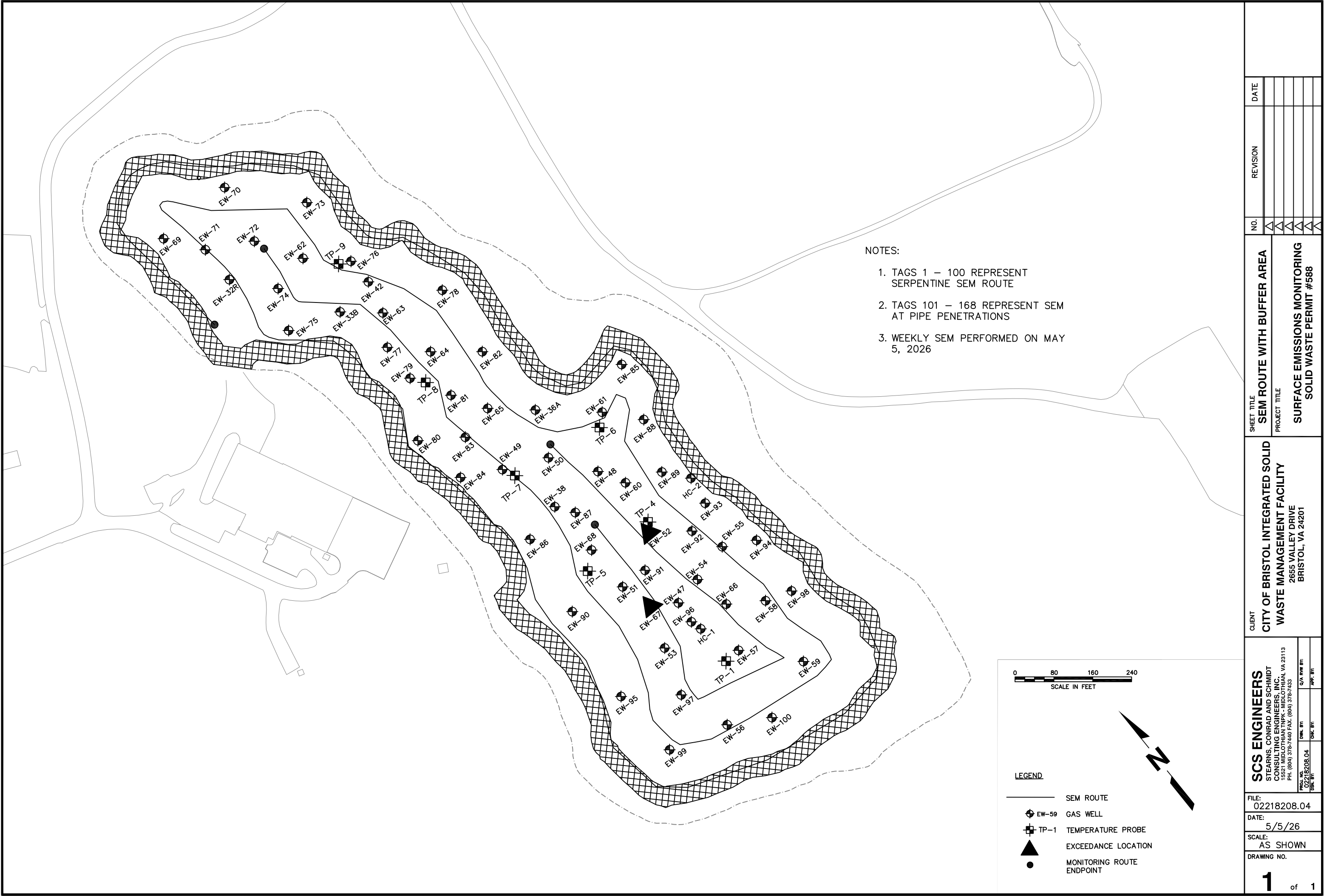
Points 1 through 100 represent serpentine SEM route.
Points 101 through 168 represent SEM at Pipe Penetrations
Weather Conditions: Partly Cloudy, 74°F Wind: 11 mph NE

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

5/5/2026	12:25	ZERO	0.0	PPM
5/5/2026	12:25	SPAN	497.7	PPM

Background Reading:

5/5/2026	15:14	Upwind	0.0	PPM
5/5/2026	15:25	Downwind	0.0	PPM



SHEET TITLE		NO.		REVISION		DATE	
SEM ROUTE WITH BUFFER AREA		1	1				
PROJECT TITLE		1	1				
SURFACE EMISSIONS MONITORING		1	1				
SOLID WASTE PERMIT #588		1	1				

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

SCS ENGINEERS		STEARN, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC.	
		15521 MIDLOTHIAN TRAIL, MIDLOTHIAN, VA 23113	
		PH: (804) 378-7440 FAX: (804) 378-7433	
PROJ. NO.	02218208.04	DRAWN BY:	C/A R/W BY:
DATE:	05/05/26	CHECK BY:	APP. BY:

FILE:	02218208.04
DATE:	5/5/26
SCALE:	AS SHOWN
DRAWING NO.	1 of 1

May 20, 2026
File No. 02218208.04

Ms. Susan "Tracey" Blalock
Air Compliance Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – May 14, 2026
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Ms. Blalock:

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 May 14, 2026. 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 Permit No. 588 Landfill. Sampling was conducted with an Inficon IRwin infrared (IR) Methane Leak Detector 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 horizontal collectors. 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). 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	168
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	68
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 re-tests.

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

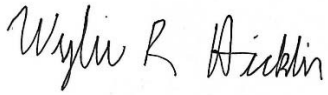
Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	5/14/26 Event	5/14/26 Event Result	Comments
EW-67	4/16/26	1-Month Follow-Up Retest	Passed	Exceedance Resolved
EW-52	5/5/26	10-Day Retest	Passed	Requires 1-Month Retest

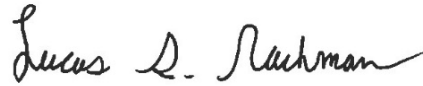
Ms. Susan "Tracey" Blalock
May 20, 2026
Page 3

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

Sincerely,



Wylie R Hicklin
Staff Professional
SCS Engineers



Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WRH

cc: Jonathan Hayes, City of Bristol
Laura Helander, City of Bristol

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MAY 14, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
1	0.0 PPM	OK			Start Serpentine Route
2	0.0 PPM	OK			
3	0.0 PPM	OK			
4	0.0 PPM	OK			
5	0.0 PPM	OK			
6	0.0 PPM	OK			
7	0.0 PPM	OK			
8	3.0 PPM	OK			
9	1.0 PPM	OK			
10	0.0 PPM	OK			
11	0.0 PPM	OK			
12	2.0 PPM	OK			
13	0.0 PPM	OK			
14	0.0 PPM	OK			
15	0.0 PPM	OK			
16	1.0 PPM	OK			
17	0.0 PPM	OK			
18	0.0 PPM	OK			
19	0.0 PPM	OK			
20	0.0 PPM	OK			
21	0.0 PPM	OK			
22	1.0 PPM	OK			
23	0.0 PPM	OK			
24	2.0 PPM	OK			
25	0.0 PPM	OK			
26	0.0 PPM	OK			
27	0.0 PPM	OK			
28	0.0 PPM	OK			
29	0.0 PPM	OK			
30	0.0 PPM	OK			
31	1.0 PPM	OK			
32	0.0 PPM	OK			
33	6.0 PPM	OK			
34	0.0 PPM	OK			
35	0.0 PPM	OK			
36	0.0 PPM	OK			
37	0.0 PPM	OK			
38	0.0 PPM	OK			
39	0.0 PPM	OK			
40	0.0 PPM	OK			
41	0.0 PPM	OK			
42	0.0 PPM	OK			
43	0.0 PPM	OK			
44	0.0 PPM	OK			
45	0.0 PPM	OK			
46	0.0 PPM	OK			
47	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MAY 14, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
48	0.0 PPM	OK			
49	0.0 PPM	OK			
50	0.0 PPM	OK			
51	0.0 PPM	OK			
52	0.0 PPM	OK			
53	0.0 PPM	OK			
54	0.0 PPM	OK			
55	0.0 PPM	OK			
56	0.0 PPM	OK			
57	46.0 PPM	OK			
58	0.0 PPM	OK			
59	0.0 PPM	OK			
60	0.0 PPM	OK			
61	0.0 PPM	OK			
62	0.0 PPM	OK			
63	0.0 PPM	OK			
64	0.0 PPM	OK			
65	0.0 PPM	OK			
66	0.0 PPM	OK			
67	1.0 PPM	OK			
68	1.0 PPM	OK			
69	0.0 PPM	OK			
70	0.0 PPM	OK			
71	0.0 PPM	OK			
72	0.0 PPM	OK			
73	0.0 PPM	OK			
74	0.0 PPM	OK			
75	2.0 PPM	OK			
76	0.0 PPM	OK			
77	0.0 PPM	OK			
78	0.0 PPM	OK			
79	0.0 PPM	OK			
80	0.0 PPM	OK			
81	0.0 PPM	OK			
82	0.0 PPM	OK			
83	0.0 PPM	OK			
84	0.0 PPM	OK			
85	0.0 PPM	OK			
86	0.0 PPM	OK			
87	0.0 PPM	OK			
88	0.0 PPM	OK			
89	0.0 PPM	OK			
90	0.0 PPM	OK			
91	0.0 PPM	OK			
92	0.0 PPM	OK			
93	3.0 PPM	OK			
94	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MAY 14, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
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	51.0 PPM	OK			EW-75
102	0.0 PPM	OK			EW-74
103	0.0 PPM	OK			EW-33B
104	0.0 PPM	OK			EW-77
105	0.0 PPM	OK			EW-79
106	0.0 PPM	OK			TP-8
107	0.0 PPM	OK			EW-81
108	0.0 PPM	OK			EW-80
109	0.0 PPM	OK			EW-83
110	0.0 PPM	OK			EW-84
111	0.0 PPM	OK			EW-49
112	0.0 PPM	OK			TP-7
113	30.0 PPM	OK			EW-86
114	0.0 PPM	OK			EW-90
115	0.0 PPM	OK			EW-95
116	0.0 PPM	OK			EW-97
117	0.0 PPM	OK			EW-99
118	0.0 PPM	OK			EW-56
119	0.0 PPM	OK			EW-100
120	0.0 PPM	OK			EW-59
121	0.0 PPM	OK			TP-1
122	0.0 PPM	OK			EW-57
123	0.0 PPM	OK			EW-58
124	2.0 PPM	OK			EW-98
125	0.0 PPM	OK			EW-66
126	0.0 PPM	OK			EW-96
127	0.0 PPM	OK			HC-01
128	0.0 PPM	OK			EW-53
129	370.0 PPM	OK			EW-67
130	0.0 PPM	OK			EW-47
131	0.0 PPM	OK			EW-54
132	0.0 PPM	OK			EW-55
133	0.0 PPM	OK			EW-94
134	0.0 PPM	OK			EW-93
135	0.0 PPM	OK			EW-92
136	0.0 PPM	OK			EW-91
137	0.0 PPM	OK			EW-51
138	0.0 PPM	OK			TP-5
139	0.0 PPM	OK			EW-68
140	337.0 PPM	OK			EW-52
141	0.0 PPM	OK			TP-4

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MAY 14, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
142	0.0 PPM	OK			HC-02
143	0.0 PPM	OK			EW-89
144	7.0 PPM	OK			EW-60
145	0.0 PPM	OK			EW-87
146	0.0 PPM	OK			EW-38
147	0.0 PPM	OK			EW-48
148	0.0 PPM	OK			EW-88
149	0.0 PPM	OK			EW-85
150	0.0 PPM	OK			EW-61
151	7.0 PPM	OK			TP-6
152	0.0 PPM	OK			EW-50
153	0.0 PPM	OK			EW-36A
154	0.0 PPM	OK			EW-65
155	0.0 PPM	OK			EW-64
156	0.0 PPM	OK			EW-63
157	0.0 PPM	OK			EW-42
158	0.0 PPM	OK			EW-76
159	0.0 PPM	OK			TP-9
160	0.0 PPM	OK			EW-62
161	0.0 PPM	OK			EW-72
162	0.0 PPM	OK			EW-32R
163	0.0 PPM	OK			EW-71
164	0.0 PPM	OK			EW-69
165	0.0 PPM	OK			EW-70
166	0.0 PPM	OK			EW-73
167	0.0 PPM	OK			EW-78
168	0.0 PPM	OK			EW-82

Number of locations sampled: 168

Number of exceedance locations: 0

NOTES:

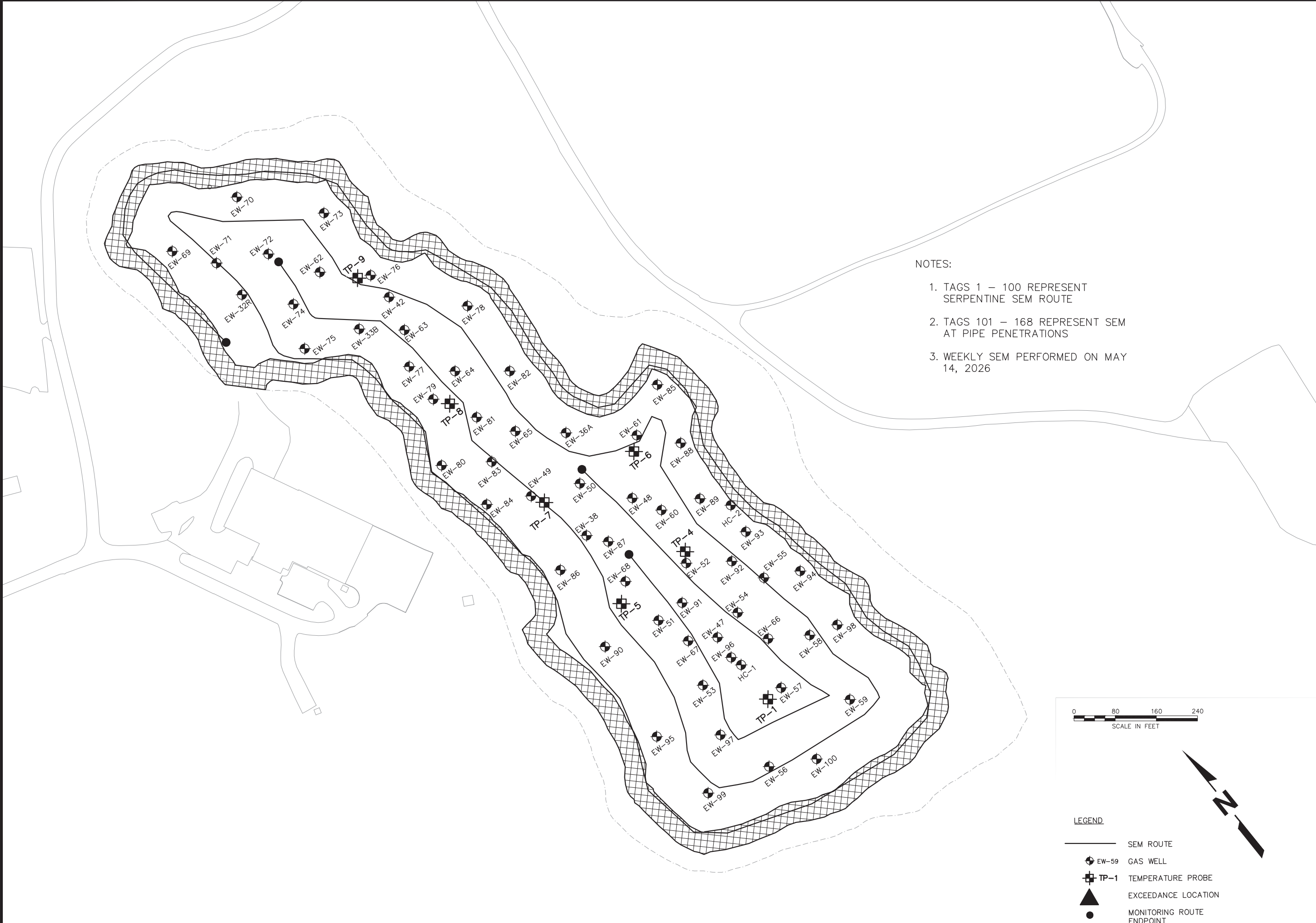
Points 1 through 100 represent serpentine SEM route.
Points 101 through 168 represent SEM at Pipe Penetrations
Weather Conditions: Mostly Sunny, 50°F Wind: 15 mph NW

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

5/14/2026	7:46	ZERO	0.0	PPM
5/14/2026	7:46	SPAN	501.0	PPM

Background Reading:

5/14/2026	7:48	Upwind	0.0	PPM
5/14/2026	7:55	Downwind	0.0	PPM



SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 2655 VALLEY DRIVE BRISTOL, VA 24201 PH. (804) 378-7440 FAX. (804) 378-7433		FILE: 02218208.04	
DATE: 5/14/26		DATE: 5/14/26	
SCALE: AS SHOWN		SCALE: AS SHOWN	
DRAWING NO.		DRAWING NO.	
1 of 1		1 of 1	
CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VA 24201		SHEET TITLE SEM ROUTE WITH BUFFER AREA	
PROJECT TITLE SURFACE EMISSIONS MONITORING SOLID WASTE PERMIT #588		NO. REVISION DATE	

May 27, 2026
File No. 02218208.04

Ms. Susan "Tracey" Blalock
Air Compliance Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – May 20, 2026
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Ms. Blalock:

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 May 20, 2026. 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 Permit No. 588 Landfill. Sampling was conducted with an Inficon IRwin infrared (IR) Methane Leak Detector 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 horizontal collectors. 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). 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	168
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	68
Number of Exceedances	1
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	1

REMONITORING OF ONGOING EXCEEDANCES

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

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

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

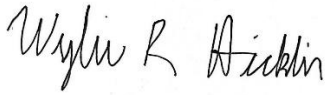
Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	5/20/26 Event	5/20/26 Event Result	Comments
EW-52	5/5/26	N/A	Passed	Requires 1-Month Retest

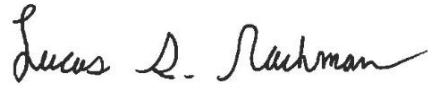
Ms. Susan "Tracey" Blalock
May 27, 2026
Page 3

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

Sincerely,



Wylie R Hicklin
Staff Professional
SCS Engineers



Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WRH

cc: Jonathan Hayes, City of Bristol
Laura Helander, City of Bristol

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MAY 20, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
1	0.0 PPM	OK			Start Serpentine Route
2	0.0 PPM	OK			
3	0.0 PPM	OK			
4	0.0 PPM	OK			
5	0.0 PPM	OK			
6	0.0 PPM	OK			
7	0.0 PPM	OK			
8	0.0 PPM	OK			
9	0.0 PPM	OK			
10	0.0 PPM	OK			
11	0.0 PPM	OK			
12	0.0 PPM	OK			
13	0.0 PPM	OK			
14	5.0 PPM	OK			
15	0.0 PPM	OK			
16	0.0 PPM	OK			
17	0.0 PPM	OK			
18	0.0 PPM	OK			
19	0.0 PPM	OK			
20	0.0 PPM	OK			
21	6.0 PPM	OK			
22	1.0 PPM	OK			
23	0.0 PPM	OK			
24	0.0 PPM	OK			
25	0.0 PPM	OK			
26	0.0 PPM	OK			
27	0.0 PPM	OK			
28	4.0 PPM	OK			
29	3.0 PPM	OK			
30	1.0 PPM	OK			
31	0.0 PPM	OK			
32	72.0 PPM	OK			
33	0.0 PPM	OK			
34	0.0 PPM	OK			
35	0.0 PPM	OK			
36	0.0 PPM	OK			
37	0.0 PPM	OK			
38	0.0 PPM	OK			
39	0.0 PPM	OK			
40	0.0 PPM	OK			
41	1.0 PPM	OK			
42	0.0 PPM	OK			
43	0.0 PPM	OK			
44	0.0 PPM	OK			
45	0.0 PPM	OK			
46	0.0 PPM	OK			
47	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MAY 20, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
48	0.0 PPM	OK			
49	0.0 PPM	OK			
50	0.0 PPM	OK			
51	8.0 PPM	OK			
52	0.0 PPM	OK			
53	0.0 PPM	OK			
54	1.0 PPM	OK			
55	390.0 PPM	OK			
56	0.0 PPM	OK			
57	0.0 PPM	OK			
58	0.0 PPM	OK			
59	0.0 PPM	OK			
60	0.0 PPM	OK			
61	0.0 PPM	OK			
62	0.0 PPM	OK			
63	0.0 PPM	OK			
64	0.0 PPM	OK			
65	0.0 PPM	OK			
66	0.0 PPM	OK			
67	0.0 PPM	OK			
68	0.0 PPM	OK			
69	0.0 PPM	OK			
70	18.0 PPM	OK			
71	0.0 PPM	OK			
72	0.0 PPM	OK			
73	0.0 PPM	OK			
74	0.0 PPM	OK			
75	0.0 PPM	OK			
76	0.0 PPM	OK			
77	0.0 PPM	OK			
78	0.0 PPM	OK			
79	0.0 PPM	OK			
80	0.0 PPM	OK			
81	0.0 PPM	OK			
82	0.0 PPM	OK			
83	0.0 PPM	OK			
84	0.0 PPM	OK			
85	0.0 PPM	OK			
86	0.0 PPM	OK			
87	0.0 PPM	OK			
88	0.0 PPM	OK			
89	0.0 PPM	OK			
90	2.0 PPM	OK			
91	0.0 PPM	OK			
92	0.0 PPM	OK			
93	0.0 PPM	OK			
94	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MAY 20, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
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	1.0 PPM	OK			End Serpentine Route
101	0.0 PPM	OK			EW-74
102	26.0 PPM	OK			EW-75
103	0.0 PPM	OK			EW-33B
104	0.0 PPM	OK			EW-77
105	0.0 PPM	OK			EW-79
106	0.0 PPM	OK			TP-8
107	0.0 PPM	OK			EW-81
108	0.0 PPM	OK			EW-80
109	0.0 PPM	OK			EW-83
110	0.0 PPM	OK			EW-84
111	0.0 PPM	OK			EW-49
112	0.0 PPM	OK			TP-7
113	0.0 PPM	OK			EW-86
114	0.0 PPM	OK			EW-90
115	0.0 PPM	OK			EW-95
116	0.0 PPM	OK			EW-97
117	0.0 PPM	OK			EW-99
118	0.0 PPM	OK			EW-56
119	0.0 PPM	OK			EW-100
120	0.0 PPM	OK			EW-59
121	0.0 PPM	OK			TP-1
122	11.0 PPM	OK			EW-57
123	0.0 PPM	OK			EW-58
124	0.0 PPM	OK			EW-98
125	0.0 PPM	OK			EW-66
126	0.0 PPM	OK			HC-01
127	0.0 PPM	OK			EW-53
128	0.0 PPM	OK			EW-96
129	1202.0 PPM	HIGH_ALRM			EW-67
130	0.0 PPM	OK			EW-47
131	0.0 PPM	OK			EW-54
132	0.0 PPM	OK			EW-55
133	0.0 PPM	OK			EW-94
134	0.0 PPM	OK			EW-93
135	0.0 PPM	OK			EW-92
136	0.0 PPM	OK			EW-91
137	0.0 PPM	OK			EW-51
138	463.0 PPM	OK			EW-52
139	0.0 PPM	OK			TP-4
140	0.0 PPM	OK			HC-02
141	9.0 PPM	OK			EW-89

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MAY 20, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
142	0.0 PPM	OK			EW-60
143	0.0 PPM	OK			EW-68
144	0.0 PPM	OK			TP-5
145	0.0 PPM	OK			EW-38
146	0.0 PPM	OK			EW-87
147	0.0 PPM	OK			EW-48
148	0.0 PPM	OK			EW-88
149	0.0 PPM	OK			EW-85
150	0.0 PPM	OK			EW-61
151	7.0 PPM	OK			TP-7
152	0.0 PPM	OK			EW-50
153	0.0 PPM	OK			EW-36A
154	0.0 PPM	OK			EW-65
155	36.0 PPM	OK			EW-64
156	0.0 PPM	OK			EW-63
157	0.0 PPM	OK			EW-42
158	0.0 PPM	OK			EW-76
159	0.0 PPM	OK			TP-9
160	0.0 PPM	OK			EW-62
161	0.0 PPM	OK			EW-32R
162	0.0 PPM	OK			EW-72
163	0.0 PPM	OK			EW-71
164	0.0 PPM	OK			EW-69
165	0.0 PPM	OK			EW-70
166	0.0 PPM	OK			EW-73
167	0.0 PPM	OK			EW-78
168	0.0 PPM	OK			EW-82

Number of locations sampled: 168

Number of exceedance locations: 1

NOTES:

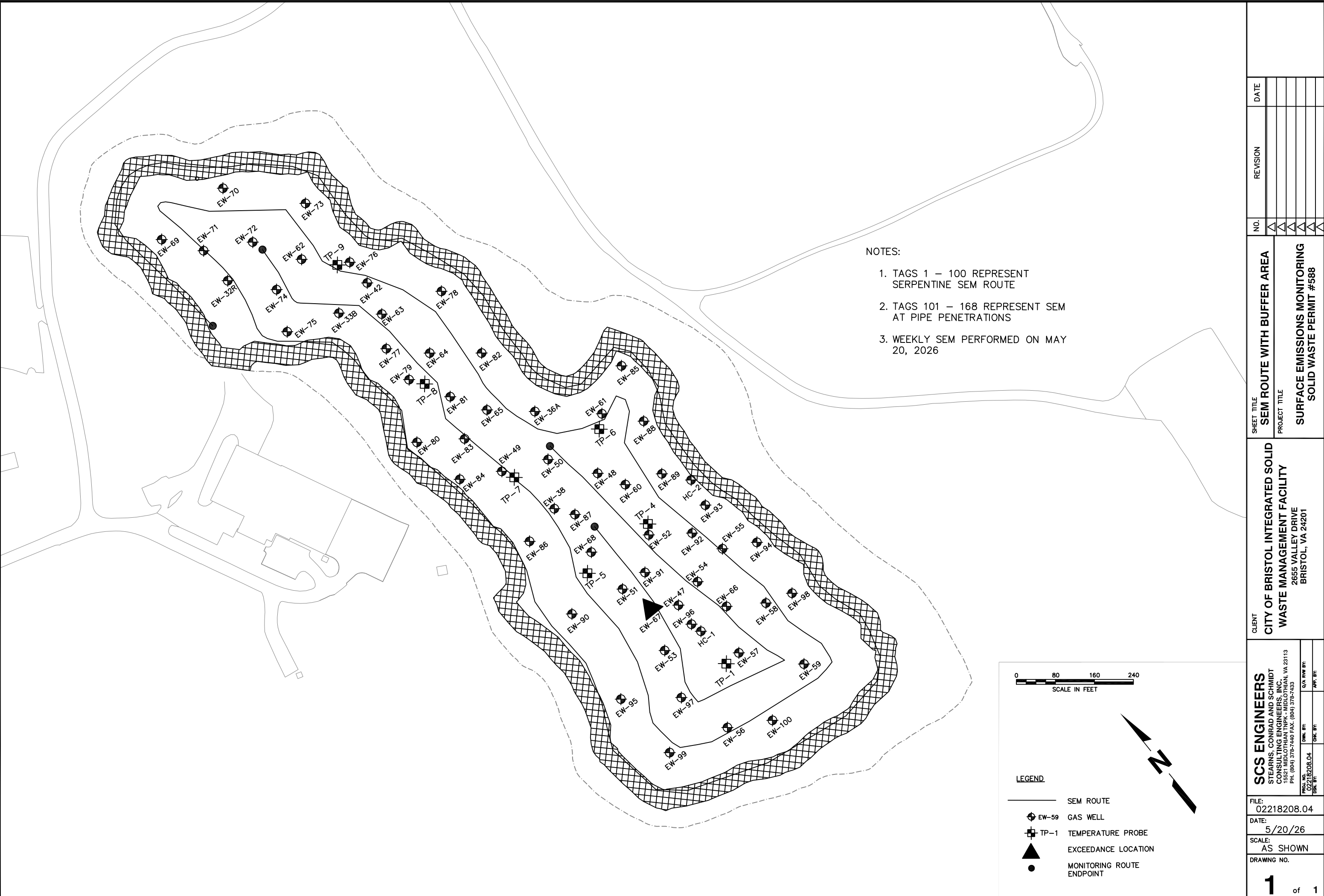
Points 1 through 100 represent serpentine SEM route.
Points 101 through 168 represent SEM at Pipe Penetrations
Weather Conditions: Mostly Sunny, 68°F Wind: 3 mph N

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

5/20/2026	7:12	ZERO	0.0	PPM
5/20/2026	7:12	SPAN	499.0	PPM

Background Reading:

5/20/2026	7:20	Upwind	2.0	PPM
5/20/2026	7:14	Downwind	0.0	PPM



June 3, 2026
File No. 02218208.04

Ms. Susan "Tracey" Blalock
Air Compliance Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – May 28, 2026
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Ms. Blalock:

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 May 28, 2026. 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 Permit No. 588 Landfill. Sampling was conducted with an Inficon IRwin infrared (IR) Methane Leak Detector 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 horizontal collectors. 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). 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	168
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	68
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 re-tests.

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

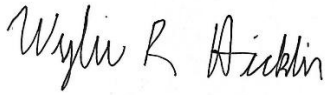
Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	5/28/26 Event	5/28/26 Event Result	Comments
EW-52	5/5/26	N/A	Passed	Requires 1-Month Retest
EW-67	5/20/26	10-Day Retest	Passed	Requires 1-Month Retest

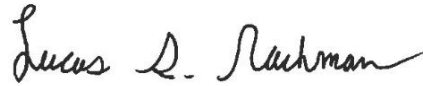
Ms. Susan "Tracey" Blalock
June 3, 2026
Page 3

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

Sincerely,



Wylie R Hicklin
Staff Professional
SCS Engineers



Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WRH

cc: Jonathan Hayes, City of Bristol
Laura Helander, City of Bristol

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - MAY 28, 2026 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
1	0.0 PPM	OK			Start Serpentine Route
2	0.0 PPM	OK			
3	0.0 PPM	OK			
4	0.0 PPM	OK			
5	0.0 PPM	OK			
6	0.0 PPM	OK			
7	0.0 PPM	OK			
8	0.0 PPM	OK			
9	0.0 PPM	OK			
10	0.0 PPM	OK			
11	0.0 PPM	OK			
12	0.0 PPM	OK			
13	0.0 PPM	OK			
14	0.0 PPM	OK			
15	0.0 PPM	OK			
16	0.0 PPM	OK			
17	1.0 PPM	OK			
18	0.0 PPM	OK			
19	0.0 PPM	OK			
20	11.0 PPM	OK			
21	0.0 PPM	OK			
22	0.0 PPM	OK			
23	0.0 PPM	OK			
24	0.0 PPM	OK			
25	0.0 PPM	OK			
26	0.0 PPM	OK			
27	0.0 PPM	OK			
28	0.0 PPM	OK			
29	0.0 PPM	OK			
30	0.0 PPM	OK			
31	0.0 PPM	OK			
32	0.0 PPM	OK			
33	4.0 PPM	OK			
34	0.0 PPM	OK			
35	0.0 PPM	OK			
36	0.0 PPM	OK			
37	0.0 PPM	OK			
38	0.0 PPM	OK			
39	0.0 PPM	OK			
40	0.0 PPM	OK			
41	0.0 PPM	OK			
42	1.0 PPM	OK			
43	0.0 PPM	OK			
44	0.0 PPM	OK			
45	0.0 PPM	OK			
46	0.0 PPM	OK			
47	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MAY 28, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
48	2.0 PPM	OK			
49	0.0 PPM	OK			
50	0.0 PPM	OK			
51	0.0 PPM	OK			
52	0.0 PPM	OK			
53	0.0 PPM	OK			
54	0.0 PPM	OK			
55	0.0 PPM	OK			
56	0.0 PPM	OK			
57	0.0 PPM	OK			
58	0.0 PPM	OK			
59	0.0 PPM	OK			
60	0.0 PPM	OK			
61	0.0 PPM	OK			
62	0.0 PPM	OK			
63	0.0 PPM	OK			
64	0.0 PPM	OK			
65	0.0 PPM	OK			
66	0.0 PPM	OK			
67	0.0 PPM	OK			
68	0.0 PPM	OK			
69	0.0 PPM	OK			
70	0.0 PPM	OK			
71	0.0 PPM	OK			
72	0.0 PPM	OK			
73	0.0 PPM	OK			
74	3.0 PPM	OK			
75	0.0 PPM	OK			
76	0.0 PPM	OK			
77	0.0 PPM	OK			
78	0.0 PPM	OK			
79	0.0 PPM	OK			
80	0.0 PPM	OK			
81	2.0 PPM	OK			
82	0.0 PPM	OK			
83	0.0 PPM	OK			
84	0.0 PPM	OK			
85	0.0 PPM	OK			
86	0.0 PPM	OK			
87	0.0 PPM	OK			
88	0.0 PPM	OK			
89	0.0 PPM	OK			
90	0.0 PPM	OK			
91	1.0 PPM	OK			
92	0.0 PPM	OK			
93	0.0 PPM	OK			
94	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - MAY 28, 2026 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
95	0.0 PPM	OK			
96	0.0 PPM	OK			
97	0.0 PPM	OK			
98	2.0 PPM	OK			
99	2.0 PPM	OK			
100	0.0 PPM	OK			End Serpentine Route
101	6.0 PPM	OK			EW-75
102	0.0 PPM	OK			EW-74
103	0.0 PPM	OK			EW-33B
104	0.0 PPM	OK			EW-77
105	0.0 PPM	OK			EW-79
106	0.0 PPM	OK			TP-8
107	0.0 PPM	OK			EW-81
108	0.0 PPM	OK			EW-80
109	0.0 PPM	OK			EW-83
110	0.0 PPM	OK			EW-84
111	0.0 PPM	OK			EW-49
112	0.0 PPM	OK			TP-7
113	0.0 PPM	OK			EW-86
114	0.0 PPM	OK			EW-90
115	0.0 PPM	OK			EW-95
116	0.0 PPM	OK			EW-97
117	0.0 PPM	OK			EW-99
118	0.0 PPM	OK			EW-56
119	0.0 PPM	OK			EW-100
120	0.0 PPM	OK			EW-59
121	0.0 PPM	OK			TP-1
122	0.0 PPM	OK			EW-57
123	0.0 PPM	OK			EW-58
124	0.0 PPM	OK			EW-98
125	0.0 PPM	OK			EW-66
126	3.0 PPM	OK			EW-96
127	0.0 PPM	OK			EW-53
128	0.0 PPM	OK			EW-67
129	0.0 PPM	OK			EW-47
130	0.0 PPM	OK			EW-54
131	0.0 PPM	OK			EW-55
132	0.0 PPM	OK			EW-94
133	0.0 PPM	OK			EW-93
134	0.0 PPM	OK			EW-92
135	4.0 PPM	OK			EW-91
136	0.0 PPM	OK			EW-51
137	0.0 PPM	OK			TP-5
138	0.0 PPM	OK			EW-68
139	28.0 PPM	OK			EW-52
140	0.0 PPM	OK			TP-4
141	0.0 PPM	OK			HC-01

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MAY 28, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
142	0.0 PPM	OK			HC-02
143	0.0 PPM	OK			EW-89
144	87.0 PPM	OK			EW-60
145	0.0 PPM	OK			EW-48
146	0.0 PPM	OK			EW-87
147	0.0 PPM	OK			EW-38
148	0.0 PPM	OK			EW-88
149	0.0 PPM	OK			EW-85
150	0.0 PPM	OK			EW-61
151	0.0 PPM	OK			TP-6
152	0.0 PPM	OK			EW-50
153	0.0 PPM	OK			EW-36A
154	0.0 PPM	OK			EW-65
155	0.0 PPM	OK			EW-64
156	0.0 PPM	OK			EW-63
157	0.0 PPM	OK			EW-42
158	6.0 PPM	OK			EW-76
159	0.0 PPM	OK			TP-9
160	0.0 PPM	OK			EW-62
161	0.0 PPM	OK			EW-32R
162	0.0 PPM	OK			EW-72
163	0.0 PPM	OK			EW-71
164	0.0 PPM	OK			EW-69
165	0.0 PPM	OK			EW-70
166	0.0 PPM	OK			EW-73
167	0.0 PPM	OK			EW-78
168	18.0 PPM	OK			EW-82

Number of locations sampled:	168
Number of exceedance locations:	0

NOTES:

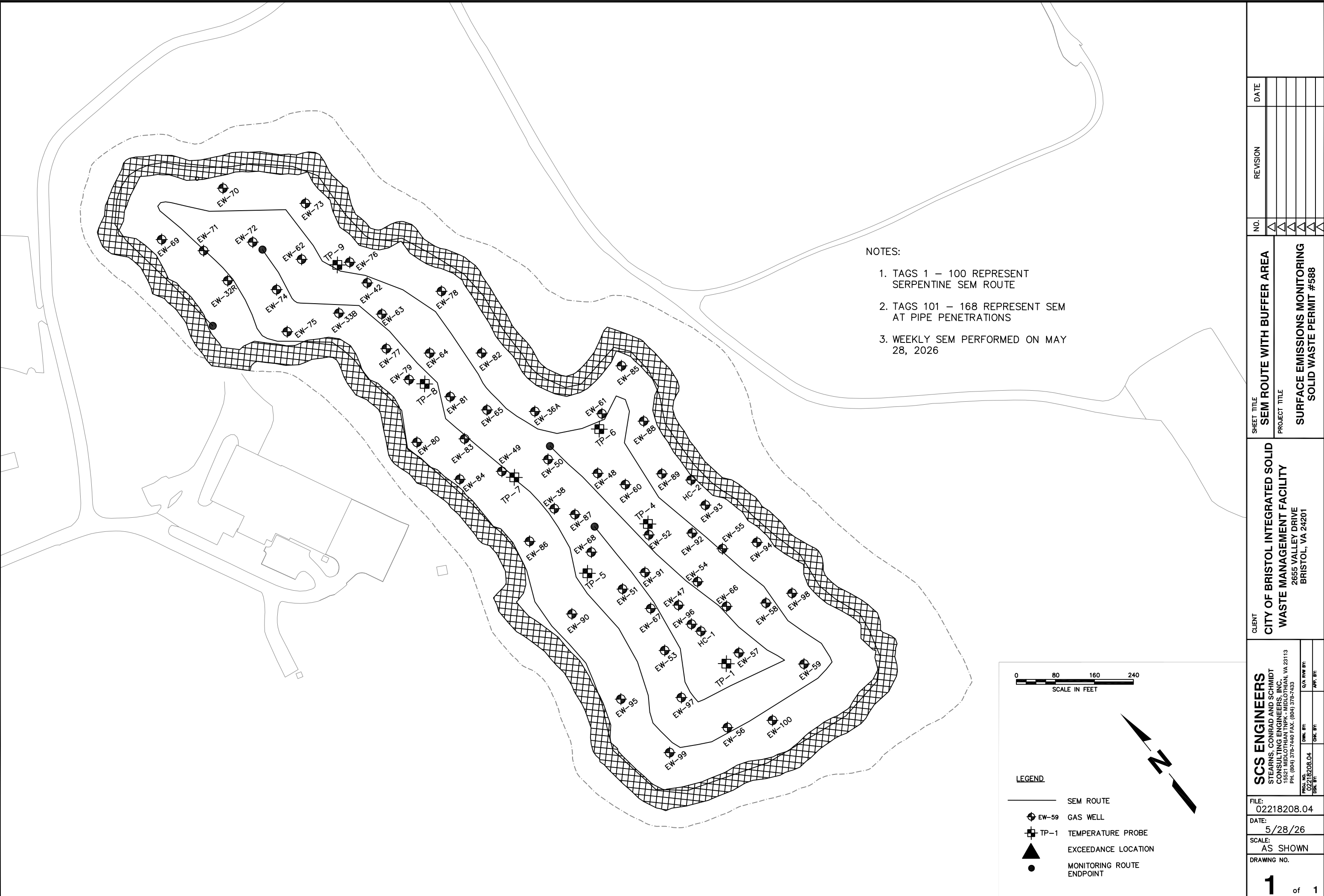
Points 1 through 100 represent serpentine SEM route.
Points 101 through 168 represent SEM at Pipe Penetrations
Weather Conditions: Cloudy, 68°F Wind: 6 mph SW

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

5/28/2026	7:21	ZERO	0.0	PPM
5/28/2026	7:21	SPAN	497.7	PPM

Background Reading:

5/28/2026	7:44	Upwind	0.0	PPM
5/28/2026	7:51	Downwind	0.0	PPM



SHEET TITLE		NO.		REVISION		DATE	
SEM ROUTE WITH BUFFER AREA		1					
PROJECT TITLE		1					
SURFACE EMISSIONS MONITORING		1					
SOLID WASTE PERMIT #588		1					

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

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

PROJ. NO.	DRAW. BY:	Q/A R/W BY:
02218208.04	CHK. BY:	APP. BY:
DATE:		

FILE:	02218208.04
DATE:	5/28/26
SCALE:	AS SHOWN
DRAWING NO.	1 of 1



Appendix B

In-Waste Temperatures on Select Days in May

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Figure B - 20 Average Temperatures Recorded by TP-9 on May 27, 2026	12

Figure B - 1 Average Temperatures Recorded by TP-1 on May 6, 2026

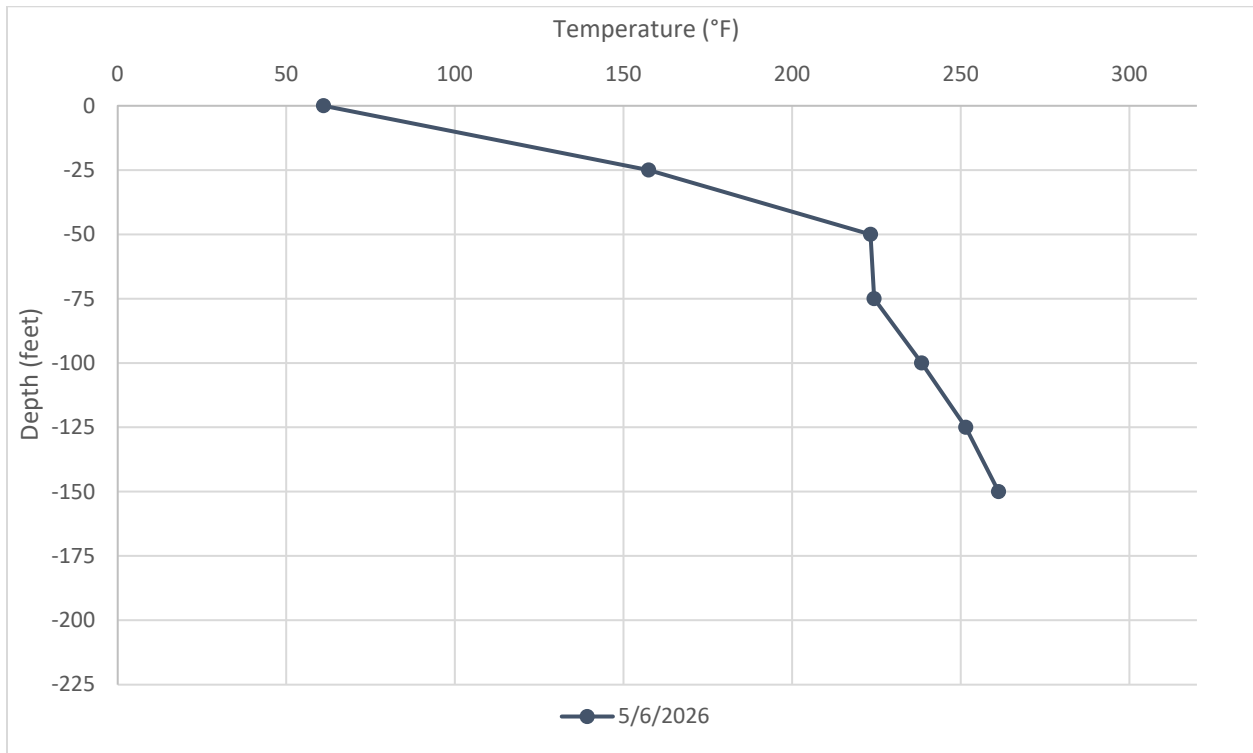


Figure B - 2 Average Temperatures Recorded by TP-1 on May 13, 2026

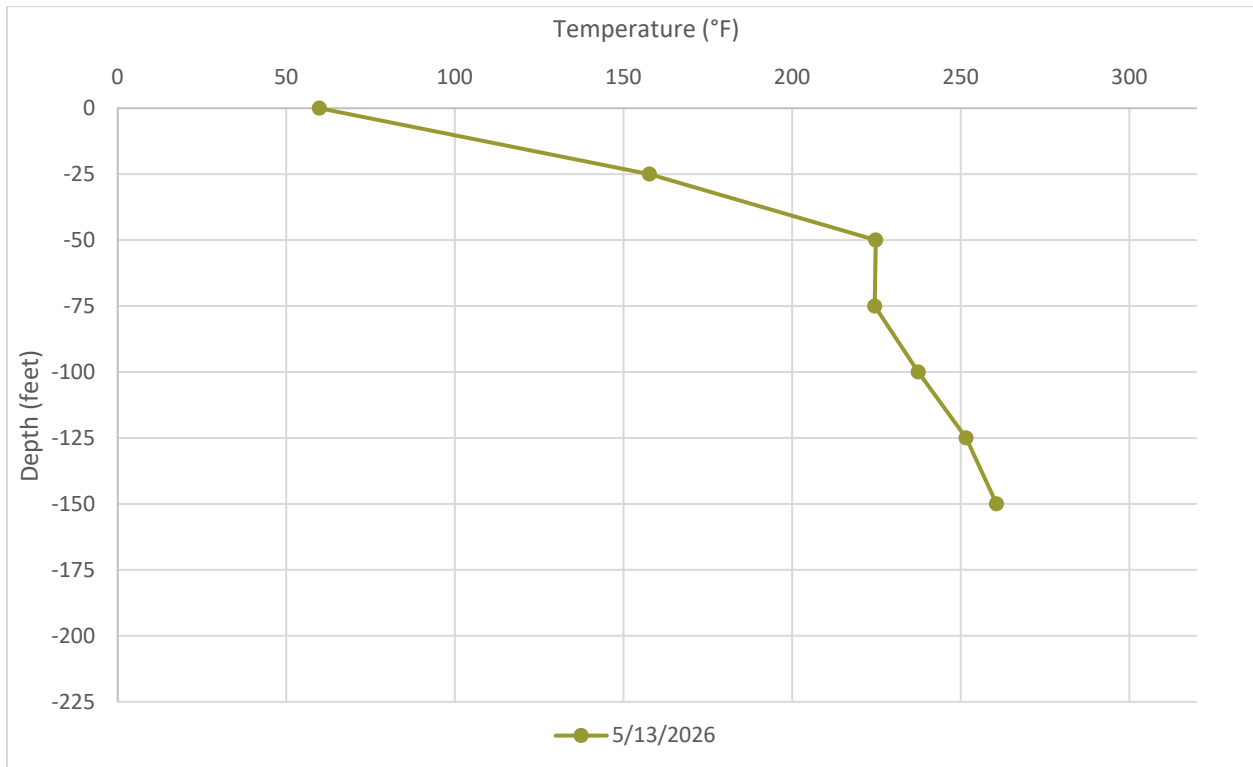


Figure B - 3 Average Temperatures Recorded by TP-1 on May 20, 2026

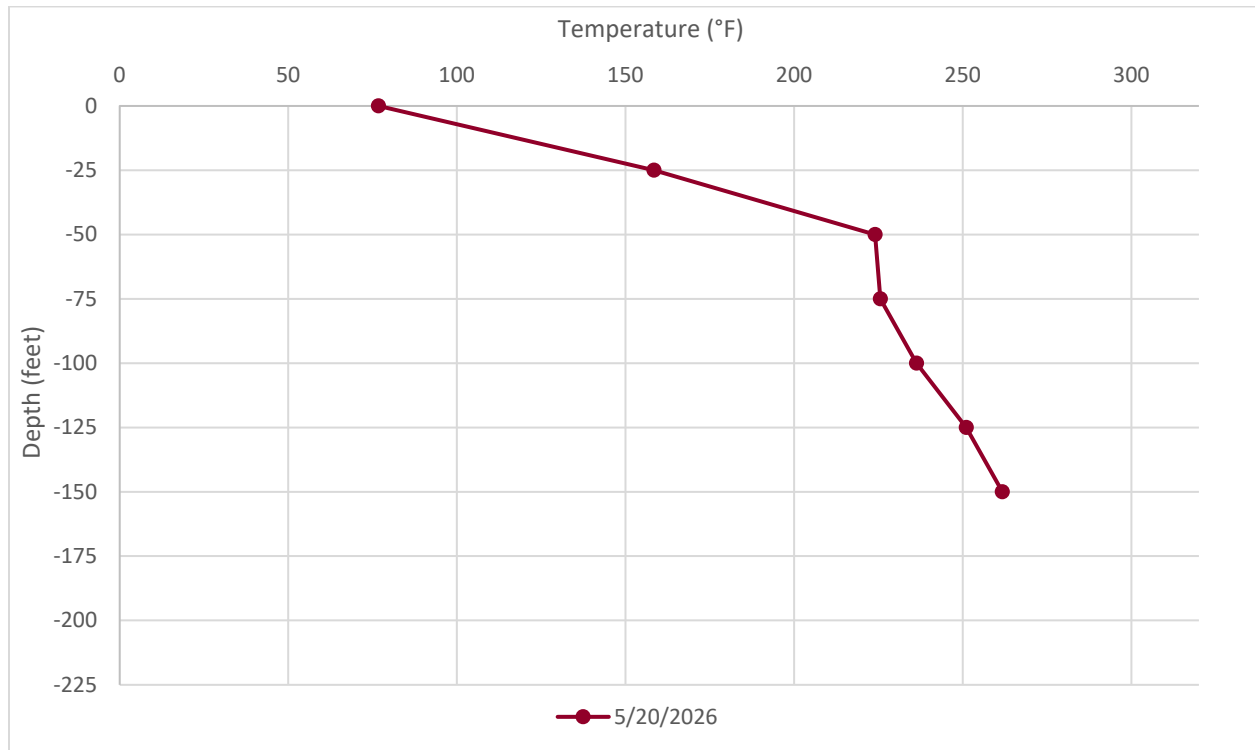


Figure B - 4 Average Temperatures Recorded by TP-1 on May 27, 2026

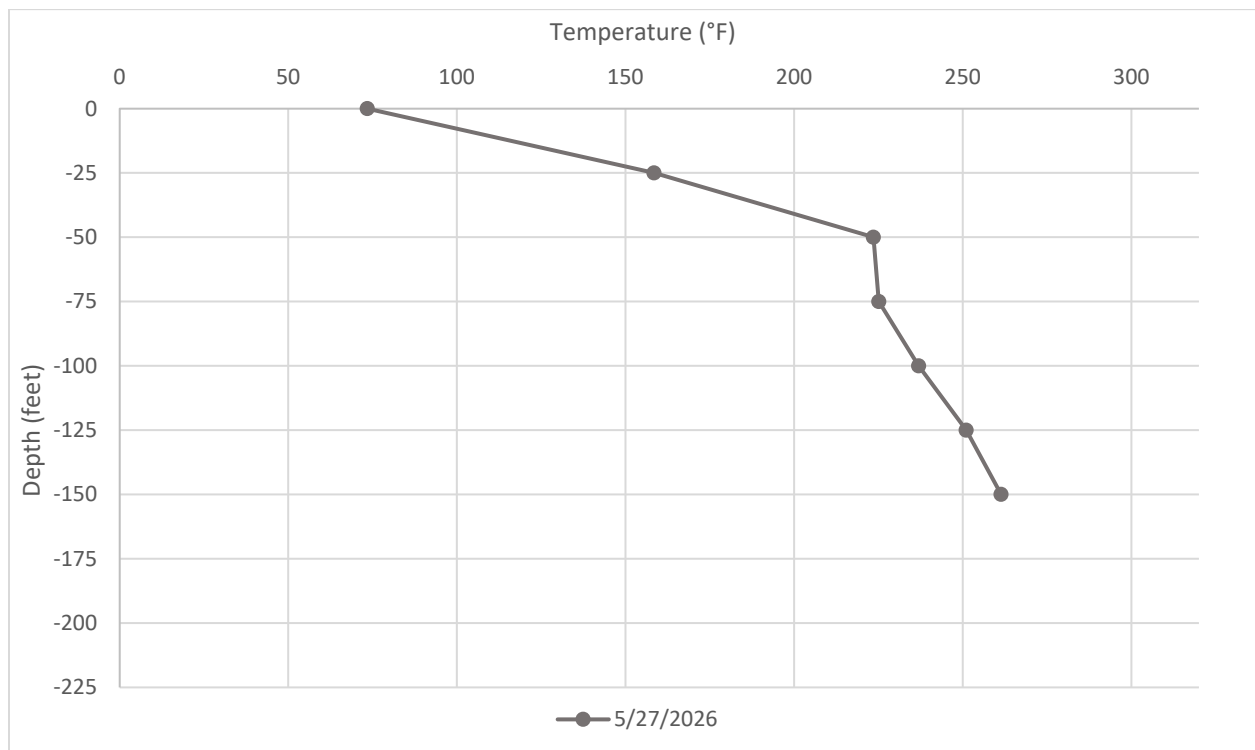


Figure B - 5 Average Temperatures Recorded by TP-5 on May 6, 2026

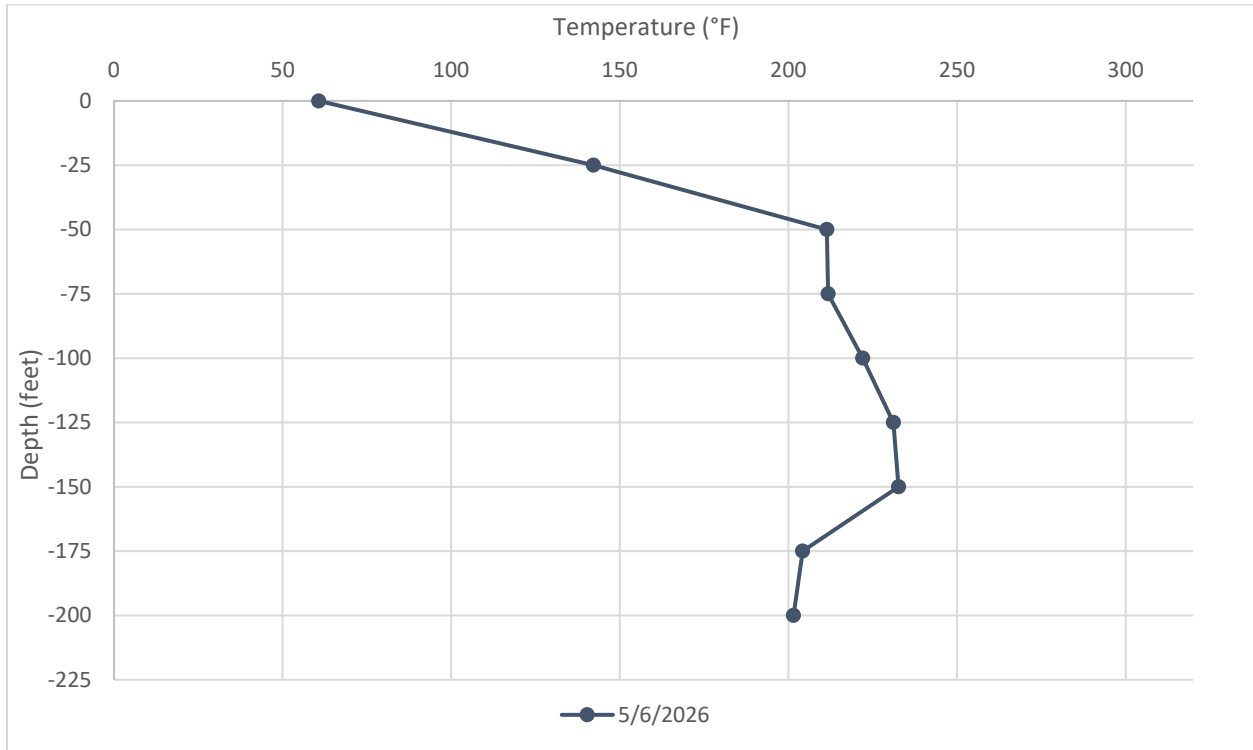


Figure B - 6 Average Temperatures Recorded by TP-5 on May 13, 2026

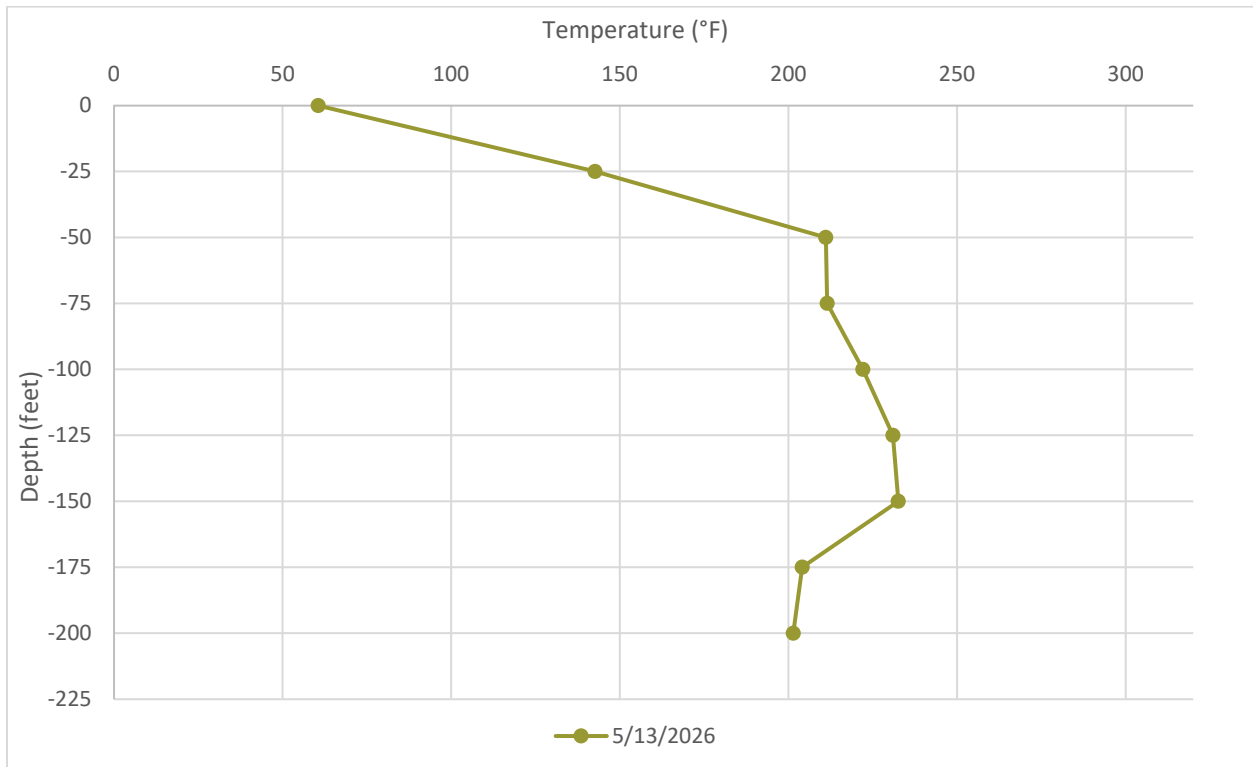


Figure B - 7 Average Temperatures Recorded by TP-5 on May 20, 2026

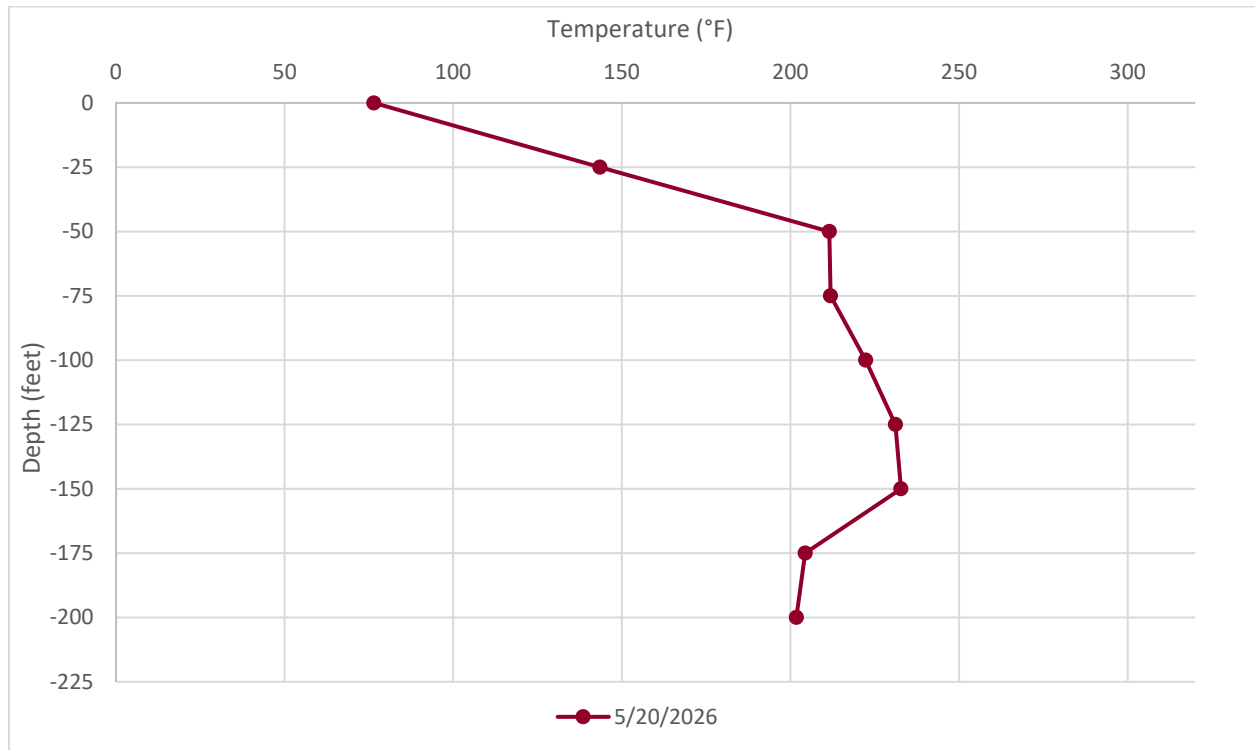


Figure B - 8 Average Temperatures Recorded by TP-5 on May 27, 2026

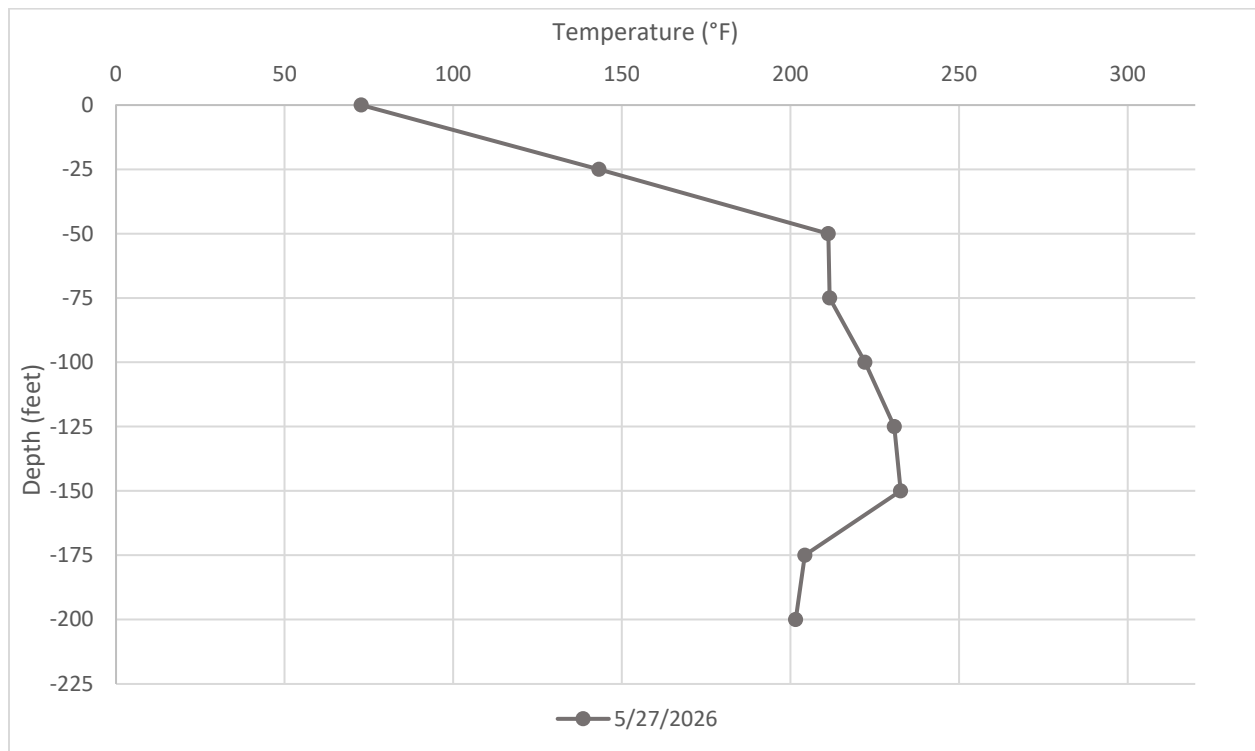


Figure B - 9 Average Temperatures Recorded by TP-6 on May 6, 2026

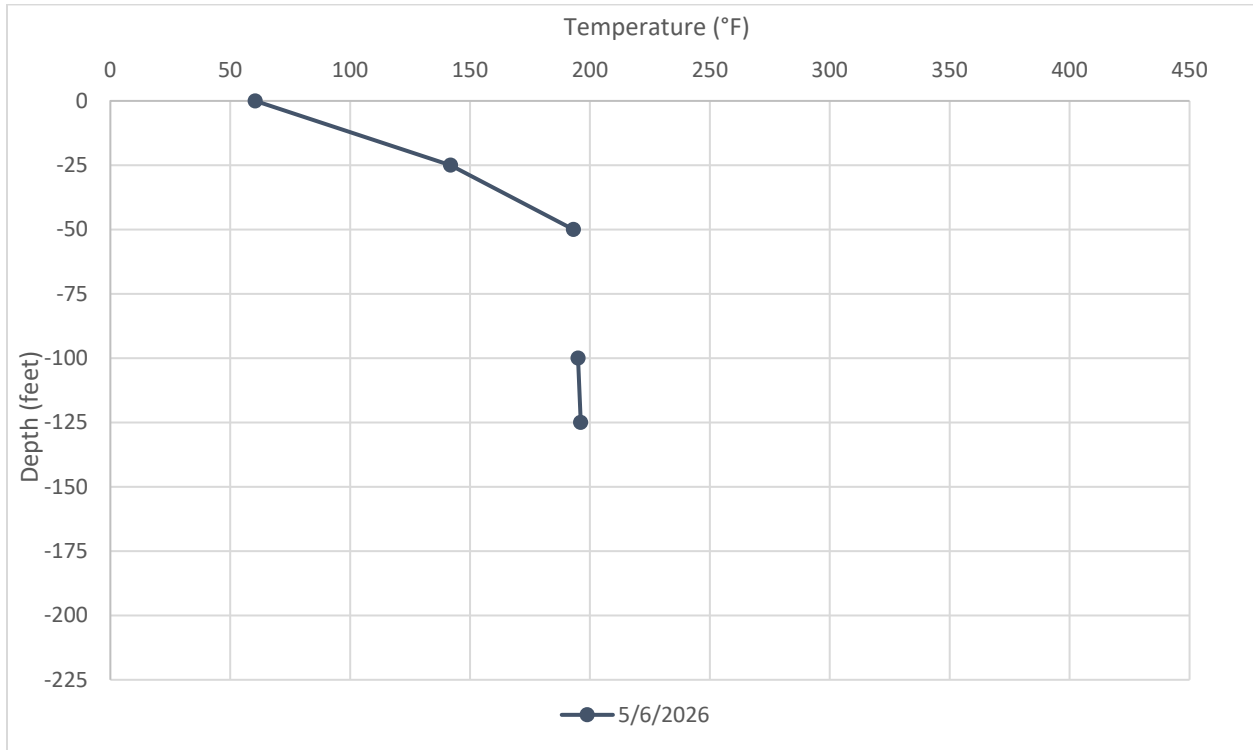


Figure B - 10 Average Temperatures Recorded by TP-6 on May 13, 2026

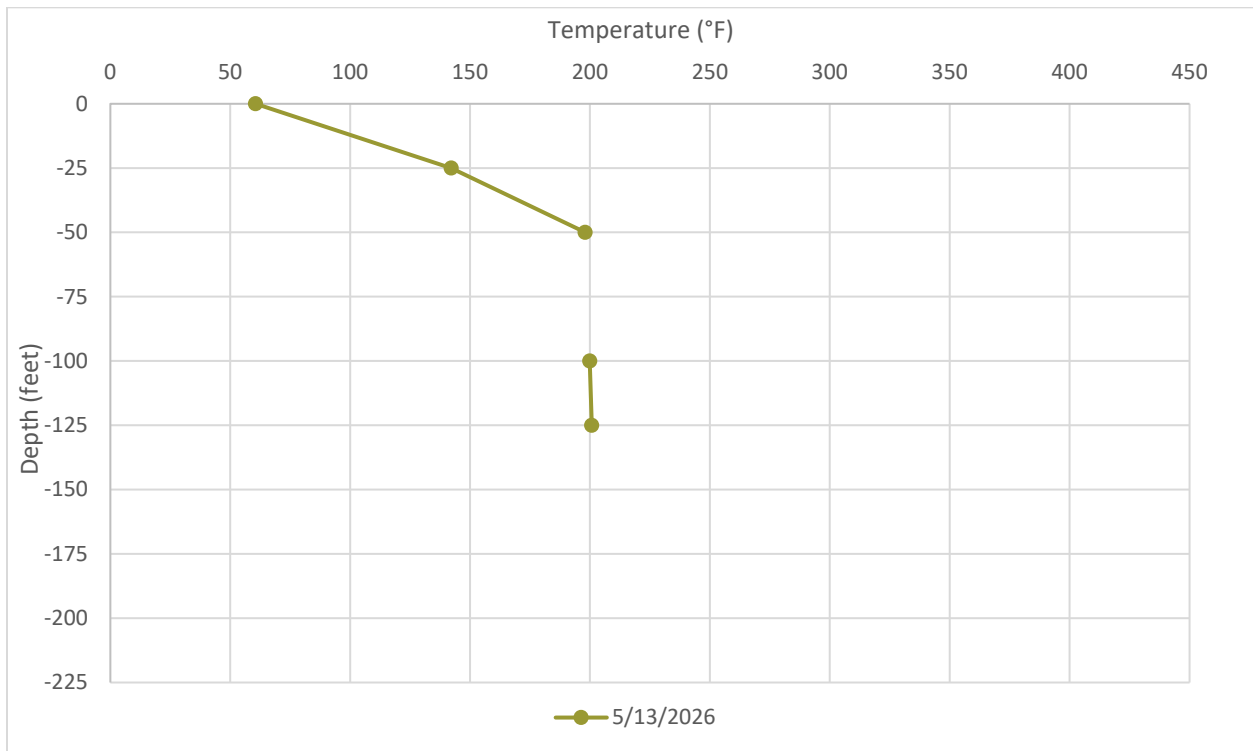


Figure B - 11 Average Temperatures Recorded by TP-6 on May 20, 2026

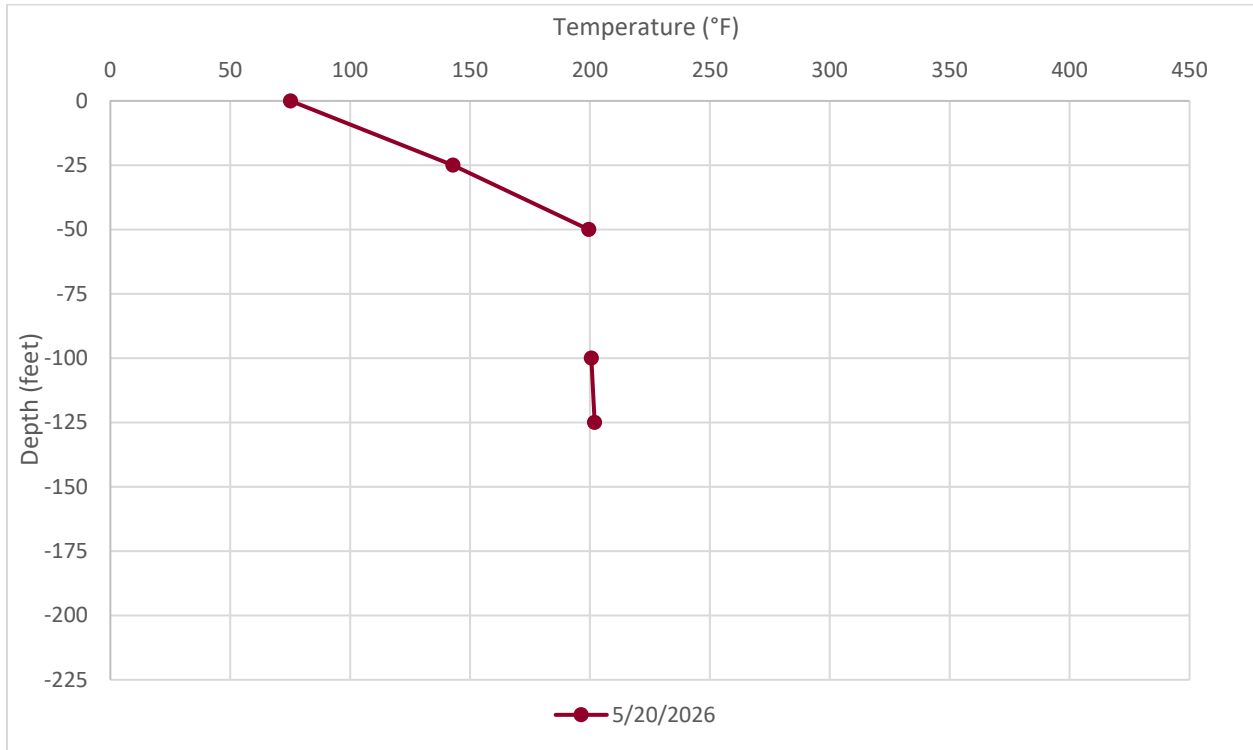


Figure B - 12 Average Temperatures Recorded by TP-6 on May 27, 2026

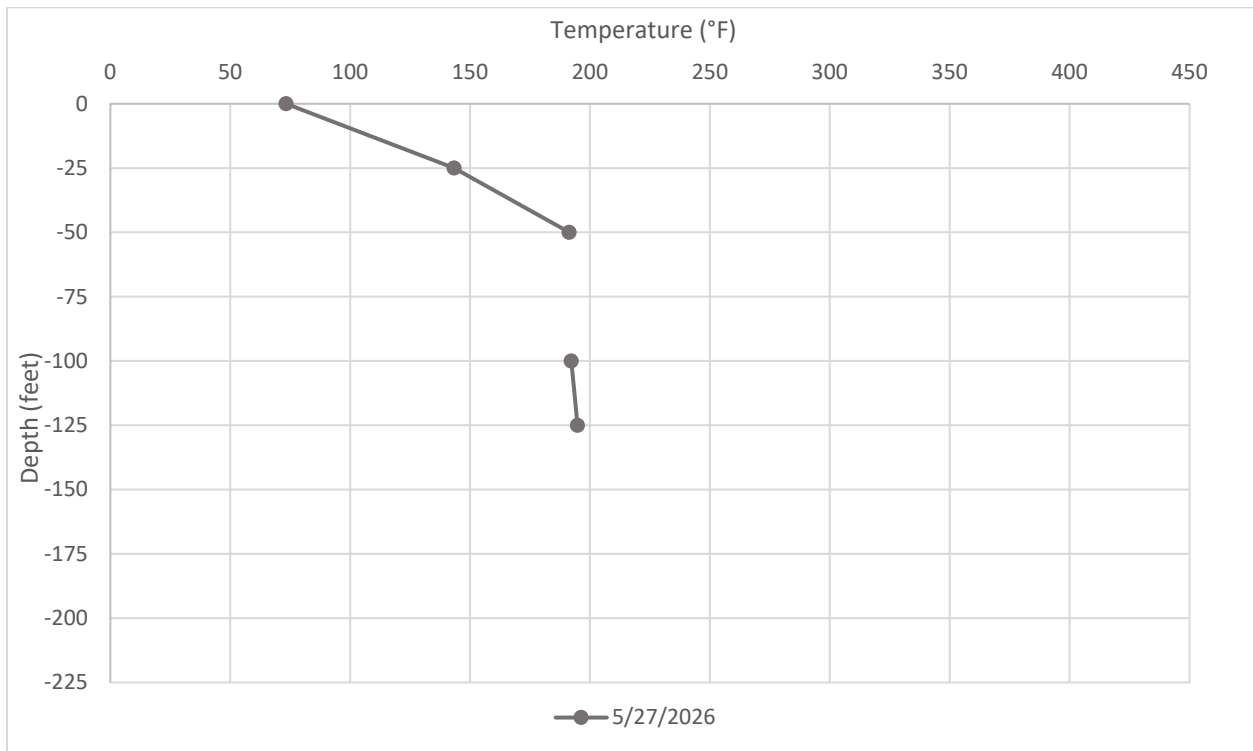


Figure B - 13 Average Temperatures Recorded by TP-8 on May 6, 2026

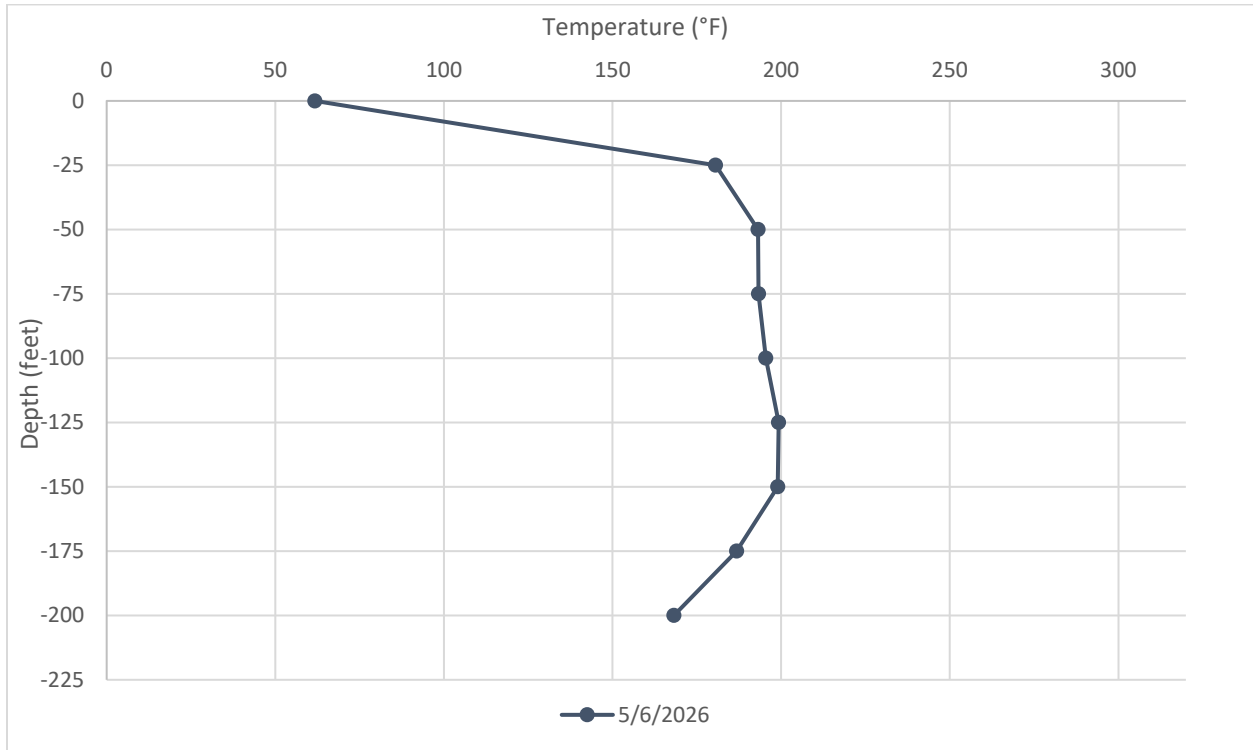


Figure B - 14 Average Temperatures Recorded by TP-8 on May 13, 2026

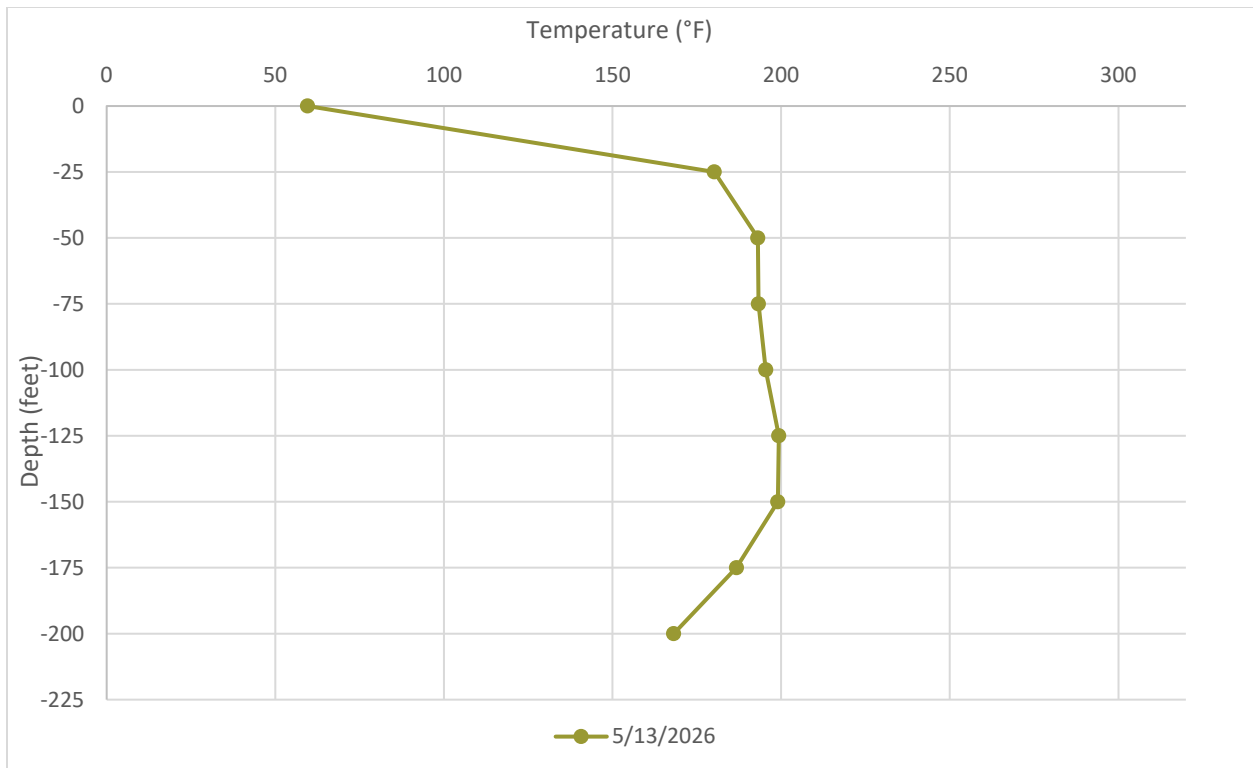


Figure B - 15 Average Temperatures Recorded by TP-8 on May 20, 2026

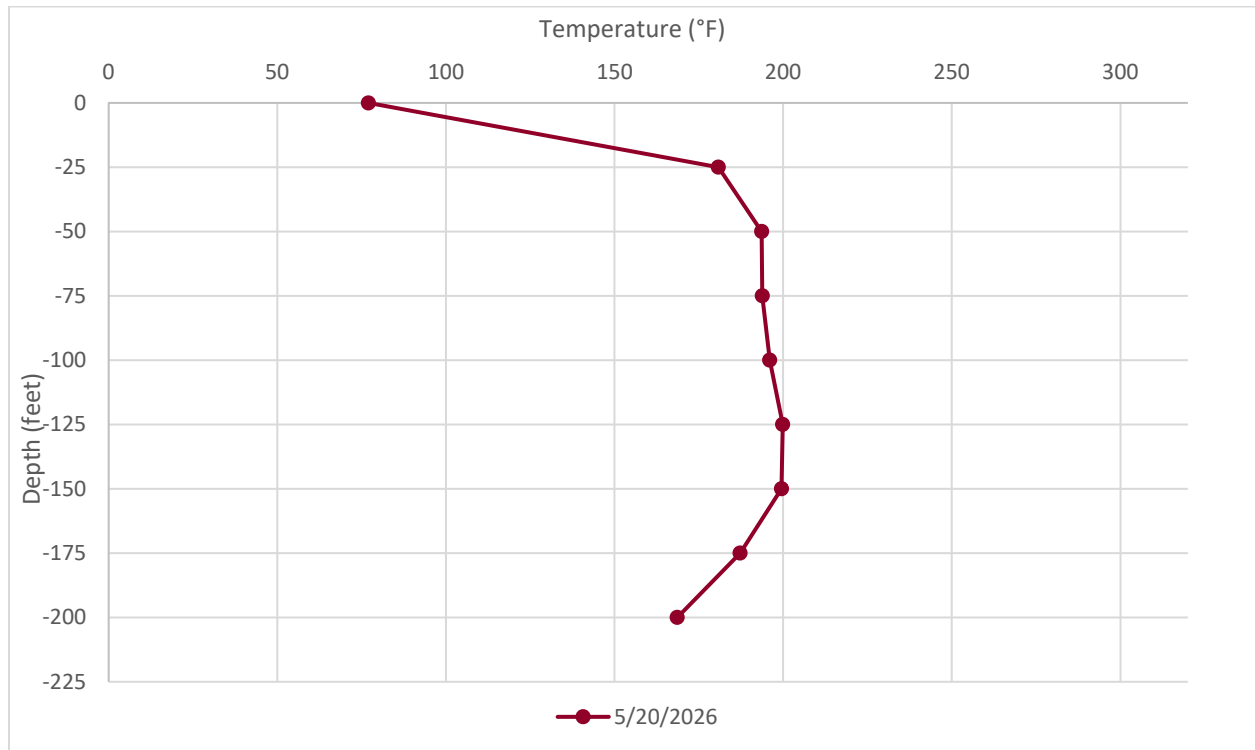


Figure B - 16 Average Temperatures Recorded by TP-8 on May 27, 2026

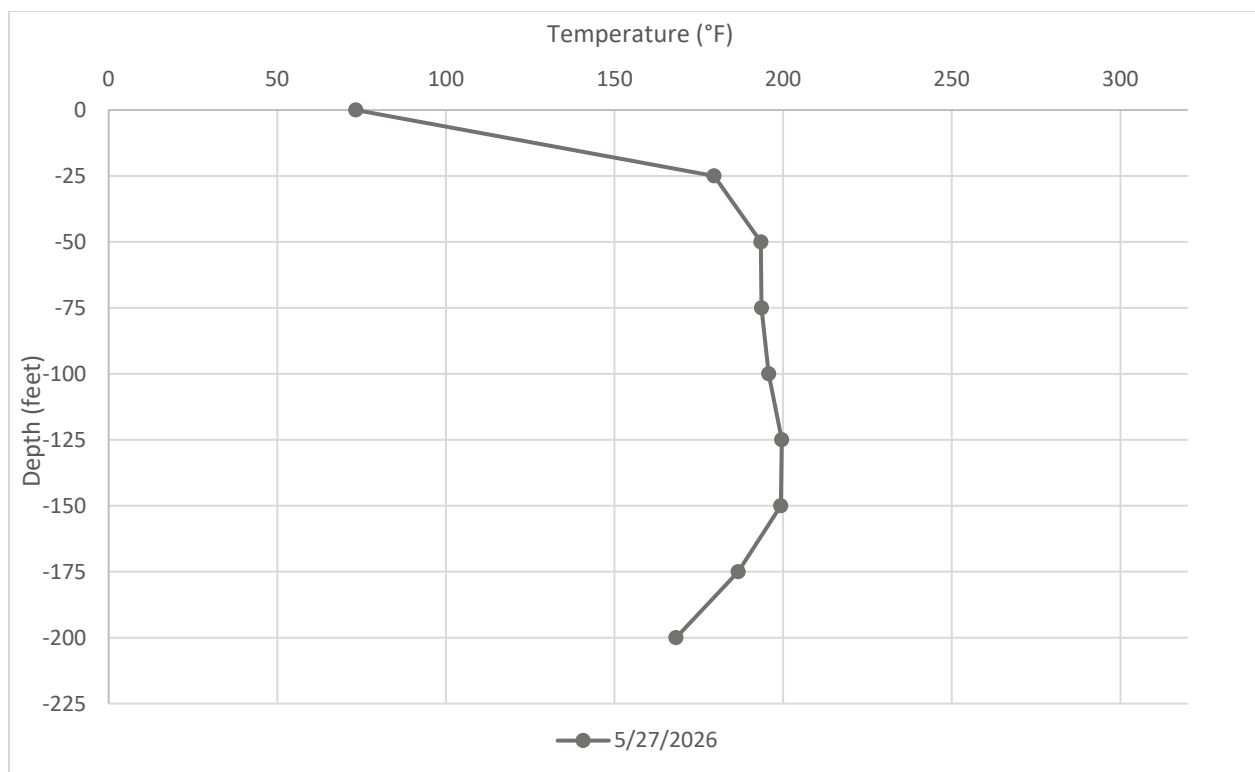


Figure B - 17 Average Temperatures Recorded by TP-9 on May 6, 2026

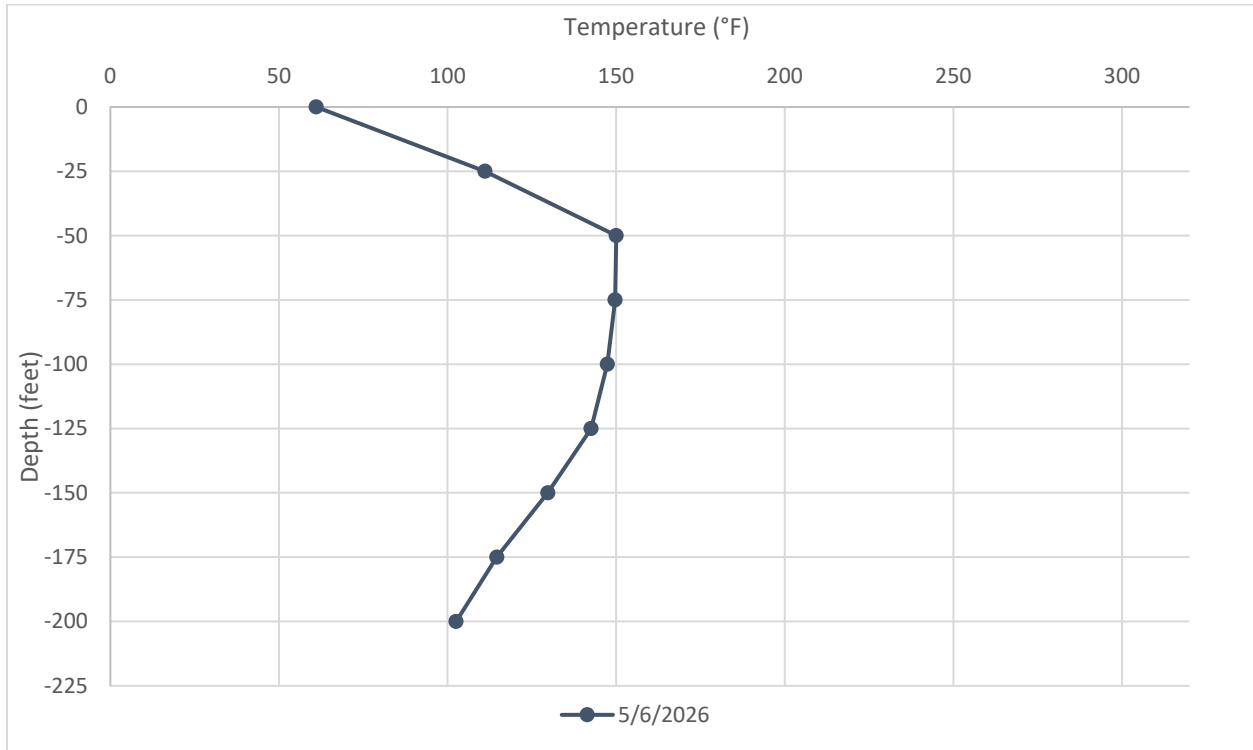


Figure B - 18 Average Temperatures Recorded by TP-9 on May 13, 2026

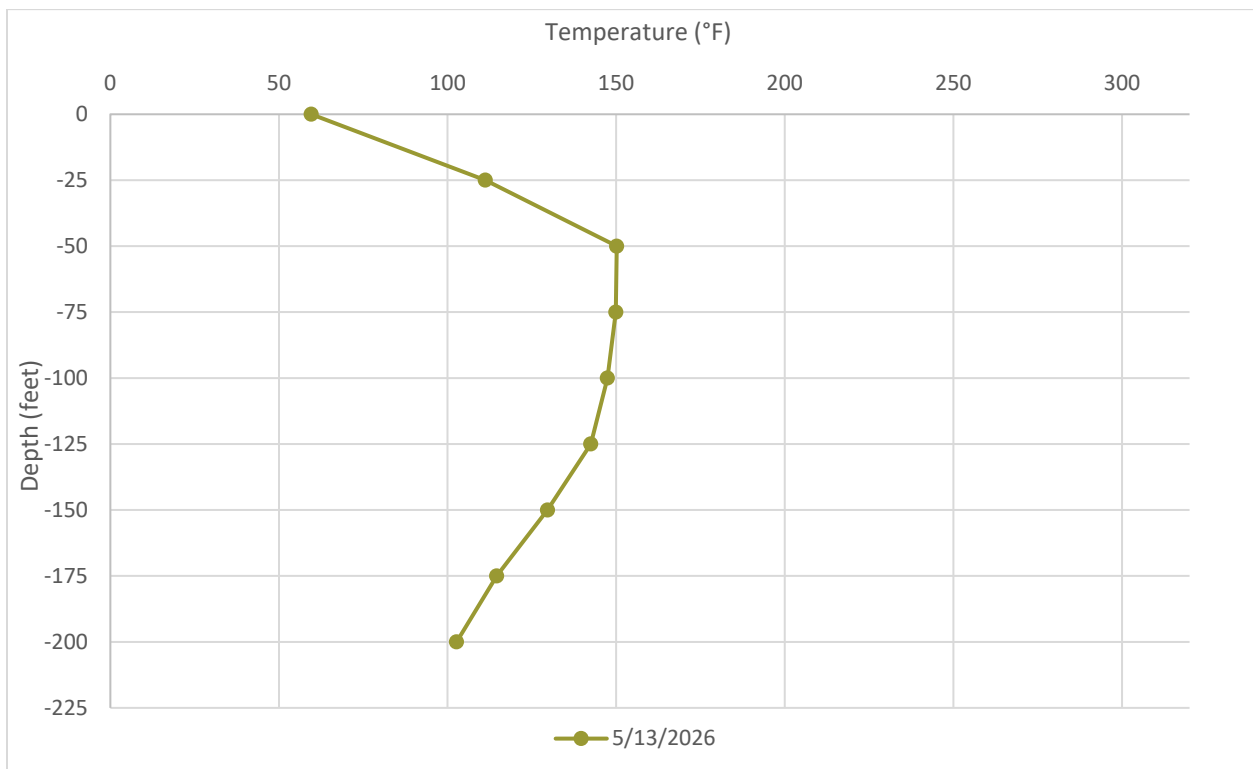


Figure B - 19 Average Temperatures Recorded by TP-9 on May 20, 2026

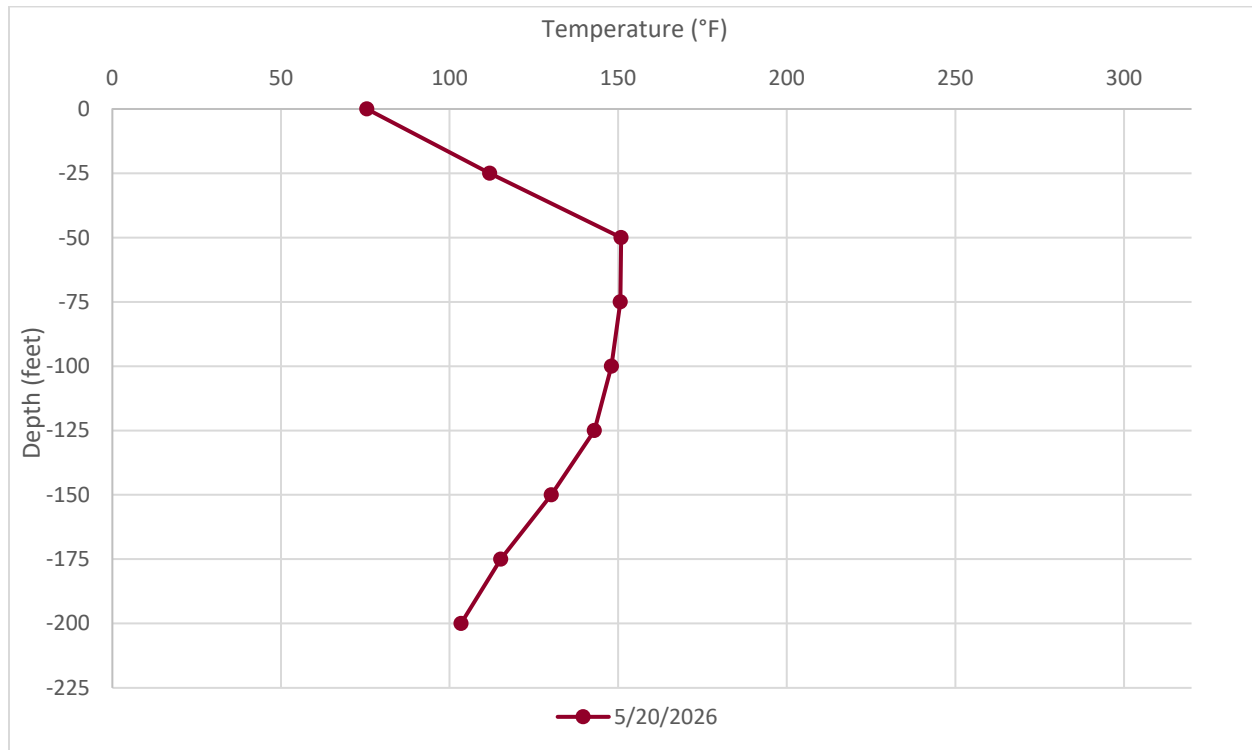
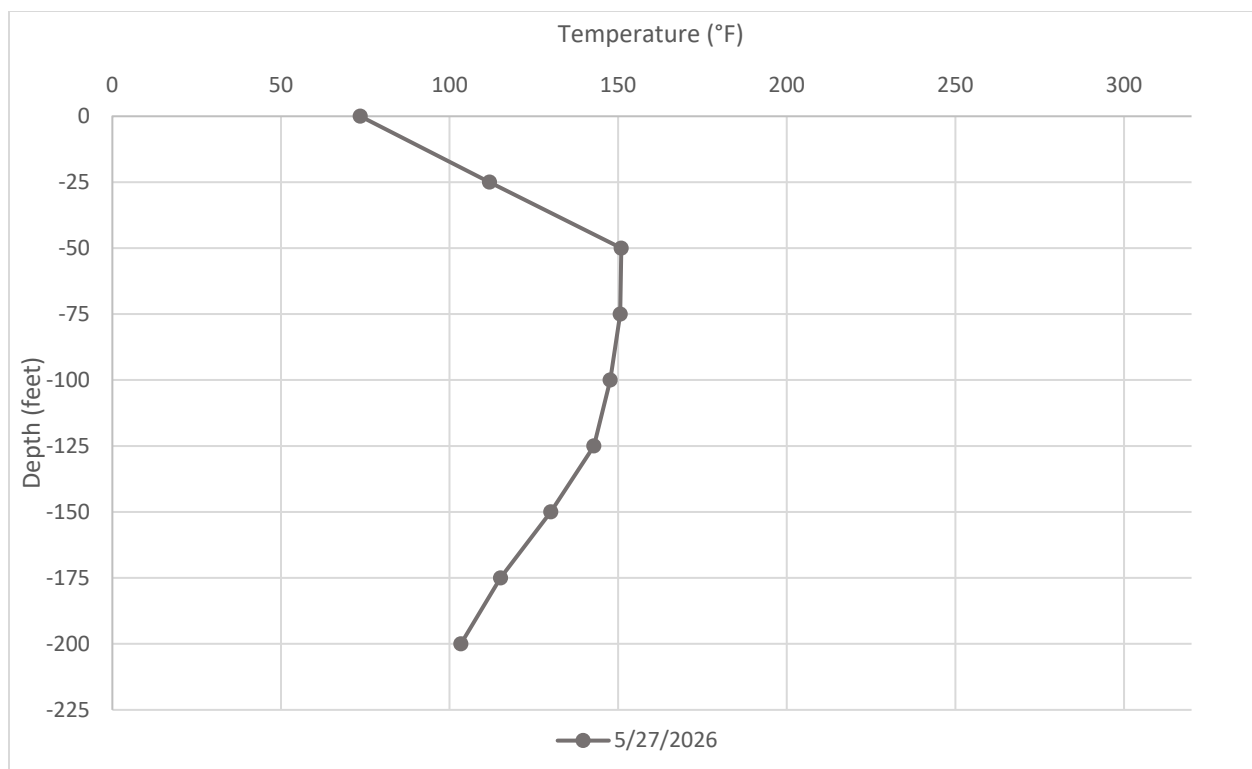


Figure B - 20 Average Temperatures Recorded by TP-9 on May 27, 2026





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 | June 4, 2026

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

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	112.3	109.9	114.7
May 2	111.7	110.1	113.7
May 3	112.5	110.1	115.2
May 4	113.7	111.3	116.9
May 5	114.7	112.6	117.2
May 6	114.5	112.4	115.7
May 7	113.7	112.7	115.1
May 8	114.6	112.3	118.0
May 9	115.4	113.6	117.1
May 10	115.6	113.2	118.1
May 11	114.9	112.5	116.3
May 12	116.1	113.4	118.9
May 13	116.8	115.1	118.8
May 14	114.9	113.5	116.3
May 15	116.1	113.4	118.9
May 16	117.4	114.6	120.0
May 17	118.3	115.7	120.9
May 18	118.6	116.4	121.5
May 19	119.2	116.9	121.5
May 20	119.3	116.1	122.0
May 21	118.5	117.0	119.9
May 22	118.5	117.3	120.0
May 23	118.2	116.6	120.4
May 24	119.0	116.9	121.6
May 25	118.8	117.6	120.9
May 26	119.5	117.4	121.8
May 27	119.7	117.5	121.9
May 28	119.5	118.0	121.6
May 29	119.8	117.2	122.4
May 30	119.6	117.8	121.3
Summary	116.7	111.7	119.8

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

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	61.3	45.3	80.9
May 2	57.2	45.6	71.7
May 3	56.5	36.8	78.7
May 4	62.2	41.3	90.8
May 5	68.2	47.8	90.3
May 6	64.9	57.5	72.6
May 7	56.7	49.4	65.5
May 8	62.3	40.2	87.3
May 9	64.8	47.0	85.6
May 10	69.8	47.6	91.5
May 11	61.5	52.9	75.1
May 12	65.5	41.9	91.7
May 13	65.9	51.0	82.7
May 14	58.3	45.1	70.8
May 15	62.7	37.9	87.6
May 16	71.2	48.7	94.9
May 17	80.2	56.8	104.0
May 18	82.5	61.3	105.0
May 19	83.9	62.5	104.0
May 20	81.1	63.0	102.3
May 21	73.0	65.0	86.4
May 22	73.1	64.7	87.2
May 23	71.1	62.0	89.2
May 24	76.7	60.6	95.7
May 25	73.3	66.1	88.2
May 26	76.7	67.1	93.5
May 27	77.9	67.4	93.4
May 28	78.7	67.1	93.5
May 29	79.8	59.6	99.6
May 30	77.5	65.0	92.6
Summary	69.8	56.5	83.9

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

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	61.3	46.8	77.4
May 2	57.4	47.6	71.3
May 3	56.5	38.8	77.2
May 4	61.2	43.4	87.6
May 5	67.4	48.6	85.4
May 6	64.4	58.3	72.4
May 7	57.4	51.3	65.4
May 8	62.3	43.0	86.4
May 9	63.8	48.5	83.2
May 10	69.1	49.2	90.7
May 11	62.8	54.5	79.2
May 12	65.2	44.6	90.8
May 13	65.0	52.5	83.2
May 14	58.1	47.1	67.4
May 15	63.7	40.4	88.2
May 16	70.0	50.6	95.7
May 17	79.7	57.9	103.9
May 18	81.6	61.9	107.4
May 19	81.9	63.4	104.6
May 20	81.1	63.8	104.4
May 21	73.2	66.4	83.8
May 22	73.3	66.0	88.0
May 23	71.5	63.6	86.8
May 24	75.4	62.4	95.8
May 25	73.4	67.0	88.1
May 26	76.7	68.2	94.8
May 27	77.3	68.6	92.3
May 28	78.2	68.3	95.3
May 29	79.1	61.2	98.7
May 30	76.4	66.1	93.4
Summary	69.5	56.5	81.9

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 38
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	88.6	83.8	94.3
May 2	86.5	83.6	91.9
May 3	87.6	81.9	94.5
May 4	89.5	83.8	97.8
May 5	92.0	86.0	97.5
May 6	90.8	87.5	92.8
May 7	88.5	86.0	91.6
May 8	90.1	83.8	97.9
May 9	90.9	85.7	97.4
May 10	92.2	85.9	98.1
May 11	90.1	86.6	95.1
May 12	90.9	83.8	98.9
May 13	91.2	86.6	96.1
May 14	88.5	84.8	92.3
May 15	90.3	82.9	98.2
May 16	93.3	86.5	100.7
May 17	95.7	88.9	102.2
May 18	96.9	91.2	103.0
May 19	97.4	92.2	103.2
May 20	97.3	91.7	102.6
May 21	95.1	92.5	98.4
May 22	94.7	90.9	99.8
May 23	93.8	90.9	98.8
May 24	95.3	90.1	101.4
May 25	95.0	92.0	99.3
May 26	96.6	93.2	101.0
May 27	96.8	93.2	100.7
May 28	97.0	94.1	101.3
May 29	97.1	91.3	102.3
May 30	96.7	93.0	101.3
Summary	92.9	86.5	97.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 42

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	119.0	117.4	121.0
May 2	118.3	116.9	120.6
May 3	119.0	117.4	120.9
May 4	119.9	117.7	123.0
May 5	120.6	118.6	122.7
May 6	120.3	118.8	120.9
May 7	119.7	118.8	121.6
May 8	120.7	118.6	123.5
May 9	120.7	119.0	122.8
May 10	121.4	119.2	123.5
May 11	120.8	119.1	122.6
May 12	121.5	118.8	124.1
May 13	121.4	119.7	123.2
May 14	120.5	119.1	121.5
May 15	121.3	119.0	124.0
May 16	122.5	120.2	125.0
May 17	123.4	121.4	125.9
May 18	124.0	121.6	126.4
May 19	124.3	122.6	126.7
May 20	124.4	122.3	126.9
May 21	123.8	122.9	125.4
May 22	124.2	122.7	125.9
May 23	124.2	122.9	126.3
May 24	125.1	123.5	127.4
May 25	125.0	123.5	127.2
May 26	125.9	124.0	128.1
May 27	125.9	124.3	127.7
May 28	126.3	124.9	128.0
May 29	126.5	124.6	128.5
May 30	126.4	124.8	128.1
Summary	122.6	118.3	126.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 47

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	60.9	45.8	77.6
May 2	56.7	45.9	71.6
May 3	54.8	36.7	74.7
May 4	59.4	42.2	86.3
May 5	66.9	47.0	86.9
May 6	64.2	59.0	72.4
May 7	56.8	48.1	64.4
May 8	59.4	40.3	84.0
May 9	62.5	45.6	82.5
May 10	66.5	45.7	89.1
May 11	59.2	46.0	72.0
May 12	61.6	39.8	89.0
May 13	63.2	48.1	82.4
May 14	55.0	40.5	67.0
May 15	58.9	34.7	86.5
May 16	68.5	46.2	93.2
May 17	76.4	54.4	101.9
May 18	79.3	58.7	104.6
May 19	79.6	59.9	103.4
May 20	79.4	60.8	101.3
May 21	72.4	65.0	82.1
May 22	73.2	64.7	92.2
May 23	69.3	61.7	83.7
May 24	75.0	60.7	95.1
May 25	72.4	66.2	89.2
May 26	76.2	66.9	95.8
May 27	76.3	67.6	93.4
May 28	76.8	63.9	95.3
May 29	76.3	57.7	96.7
May 30	74.5	62.2	92.8
Summary	67.7	54.8	79.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 48

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	59.0	42.5	75.6
May 2	55.1	43.6	69.9
May 3	52.5	33.1	72.4
May 4	57.4	38.7	83.2
May 5	64.7	44.8	85.1
May 6	63.3	57.0	72.1
May 7	55.3	48.4	63.0
May 8	58.1	38.6	81.5
May 9	62.4	44.5	81.1
May 10	66.4	44.5	86.2
May 11	59.5	48.3	78.5
May 12	62.3	39.8	87.7
May 13	63.5	48.3	82.1
May 14	55.4	42.3	68.2
May 15	57.9	34.8	84.8
May 16	69.9	46.6	92.8
May 17	76.8	55.0	100.2
May 18	79.2	58.2	101.9
May 19	79.7	60.0	101.4
May 20	79.1	60.5	98.4
May 21	72.6	64.6	84.4
May 22	72.9	64.2	86.3
May 23	70.4	60.6	87.0
May 24	74.4	59.6	94.6
May 25	72.1	65.9	89.2
May 26	76.1	66.5	96.4
May 27	76.0	67.4	90.6
May 28	77.1	64.4	92.5
May 29	76.5	57.0	96.0
May 30	74.7	62.2	92.4
Summary	67.3	52.5	79.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 49

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	155.9	152.6	157.1
May 2	154.8	153.4	156.2
May 3	155.4	154.0	157.4
May 4	156.0	154.6	157.8
May 5	156.5	154.9	158.0
May 6	156.4	154.9	157.9
May 7	155.5	153.3	156.5
May 8	155.7	154.4	157.1
May 9	156.1	155.0	157.1
May 10	155.8	154.3	156.9
May 11	155.0	152.7	156.7
May 12	155.3	153.3	157.4
May 13	155.8	154.4	157.3
May 14	154.1	152.4	155.3
May 15	152.9	98.9	157.3
May 16	155.4	153.6	156.8
May 17	155.9	154.3	157.4
May 18	156.1	154.6	157.7
May 19	156.1	154.7	158.0
May 20	156.2	153.4	157.8
May 21	156.0	154.7	157.5
May 22	155.9	154.0	157.0
May 23	155.7	154.2	157.8
May 24	155.2	153.3	157.0
May 25	155.4	154.6	156.2
May 26	156.1	152.8	157.7
May 27	156.2	155.1	157.3
May 28	156.3	155.3	158.1
May 29	156.5	154.2	158.1
May 30	156.2	154.9	157.5
Summary	155.7	152.9	156.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 50

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	91.3	86.6	97.4
May 2	88.8	85.7	93.6
May 3	90.2	85.6	96.4
May 4	92.5	86.1	99.5
May 5	94.5	88.8	99.2
May 6	94.0	91.2	97.9
May 7	90.9	88.6	93.8
May 8	93.1	87.3	99.3
May 9	92.8	87.5	98.3
May 10	94.1	88.0	99.8
May 11	92.9	87.5	96.1
May 12	93.7	86.2	100.8
May 13	94.1	89.1	100.8
May 14	90.1	86.6	95.2
May 15	93.0	84.9	100.0
May 16	95.2	88.9	101.7
May 17	97.4	90.8	103.2
May 18	98.5	92.8	104.3
May 19	98.6	93.2	104.1
May 20	98.4	92.6	103.3
May 21	96.1	93.7	98.8
May 22	96.5	93.5	99.4
May 23	95.9	93.3	100.1
May 24	97.0	92.4	102.0
May 25	96.4	94.0	100.6
May 26	97.5	93.8	102.3
May 27	97.1	93.5	101.1
May 28	97.0	93.5	101.9
May 29	97.1	90.8	102.5
May 30	96.6	92.8	101.7
Summary	94.7	88.8	98.6

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

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	58.2	42.7	74.8
May 2	53.7	43.0	65.9
May 3	51.0	33.4	69.0
May 4	56.6	38.8	80.7
May 5	64.9	44.8	83.6
May 6	62.6	56.9	70.5
May 7	54.5	47.8	60.9
May 8	56.3	37.5	77.2
May 9	60.5	44.9	77.5
May 10	65.3	45.3	85.4
May 11	58.4	47.3	69.8
May 12	60.0	39.6	83.0
May 13	62.1	48.2	79.8
May 14	54.4	41.8	62.8
May 15	57.3	35.1	81.3
May 16	67.4	46.7	88.8
May 17	75.2	54.6	96.2
May 18	78.0	58.9	99.9
May 19	78.1	60.1	98.2
May 20	77.5	60.7	96.6
May 21	70.9	64.2	81.0
May 22	71.8	64.1	84.9
May 23	68.1	61.1	84.0
May 24	73.9	60.2	90.5
May 25	70.8	65.1	83.1
May 26	74.5	66.1	89.9
May 27	75.0	66.8	87.1
May 28	74.5	65.5	88.6
May 29	75.2	58.9	92.8
May 30	73.0	62.8	86.8
Summary	66.0	51.0	78.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 52

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	189.3	187.2	192.3
May 2	188.4	187.2	190.9
May 3	188.3	187.1	190.6
May 4	185.8	175.3	192.1
May 5	173.5	170.0	177.3
May 6	168.8	167.1	170.2
May 7	168.2	165.3	173.0
May 8	168.9	165.2	175.0
May 9	166.5	163.8	170.4
May 10	166.8	163.8	171.6
May 11	167.7	162.4	174.6
May 12	170.5	165.2	177.3
May 13	167.7	163.3	175.5
May 14	165.2	161.8	169.4
May 15	165.3	85.5	186.8
May 16	171.8	168.0	179.3
May 17	169.5	159.8	178.8
May 18	172.4	165.4	181.1
May 19	166.3	72.1	178.7
May 20	162.4	96.5	173.5
May 21	162.6	161.3	163.6
May 22	161.4	160.2	164.2
May 23	160.3	159.3	161.5
May 24	160.8	158.6	164.7
May 25	159.8	158.8	161.0
May 26	167.1	159.1	180.8
May 27	171.4	165.2	178.7
May 28	166.4	76.6	175.4
May 29	171.1	163.7	178.2
May 30	165.6	163.3	168.8
Summary	169.7	159.8	189.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 53

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	127.1	119.3	136.9
May 2	122.8	117.0	133.4
May 3	124.4	112.6	136.9
May 4	128.6	118.4	143.5
May 5	134.7	121.2	145.3
May 6	132.2	122.0	137.6
May 7	128.2	122.0	133.2
May 8	132.0	117.6	148.7
May 9	135.2	126.6	146.5
May 10	137.4	125.4	150.2
May 11	131.4	119.0	137.4
May 12	137.1	121.3	154.5
May 13	140.5	133.0	149.8
May 14	133.9	125.1	139.0
May 15	139.1	125.6	154.6
May 16	144.9	133.1	156.6
May 17	149.7	139.7	161.3
May 18	151.0	143.4	161.4
May 19	151.5	143.2	159.6
May 20	152.3	140.1	162.8
May 21	150.4	146.0	154.2
May 22	148.9	137.8	154.8
May 23	148.8	144.2	155.0
May 24	150.6	142.8	159.2
May 25	145.6	140.8	151.5
May 26	150.7	141.5	159.3
May 27	147.0	139.5	154.5
May 28	151.1	146.7	156.3
May 29	152.6	144.4	160.6
May 30	153.8	147.8	158.9
Summary	141.1	122.8	153.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 54

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	68.6	54.6	90.8
May 2	61.1	52.4	74.6
May 3	58.2	39.1	77.4
May 4	65.7	45.5	91.2
May 5	115.4	52.9	165.7
May 6	96.7	78.4	128.7
May 7	73.9	63.4	81.5
May 8	117.8	49.8	169.6
May 9	166.6	130.5	178.1
May 10	114.3	104.2	126.9
May 11	93.5	72.4	109.0
May 12	112.3	63.3	177.4
May 13	123.3	84.4	181.3
May 14	99.8	74.4	133.4
May 15	83.3	61.3	104.8
May 16	87.3	67.6	107.4
May 17	94.4	74.9	113.5
May 18	96.7	79.3	114.4
May 19	137.5	79.1	180.0
May 20	180.3	177.7	182.7
May 21	181.7	180.2	183.1
May 22	183.0	181.3	184.0
May 23	184.2	181.8	186.2
May 24	185.9	184.5	188.1
May 25	186.4	184.8	189.0
May 26	187.3	185.9	188.9
May 27	188.5	186.7	190.0
May 28	188.8	187.3	190.5
May 29	189.3	187.3	191.6
May 30	189.9	187.2	191.3
Summary	130.4	58.2	189.9

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

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	129.8	124.9	137.3
May 2	125.2	120.5	129.7
May 3	125.0	121.0	129.3
May 4	126.5	121.4	131.8
May 5	129.1	125.3	138.4
May 6	126.8	117.6	133.4
May 7	123.6	119.8	126.9
May 8	123.9	119.7	129.7
May 9	124.5	117.6	131.4
May 10	126.2	117.6	132.7
May 11	126.8	116.9	133.1
May 12	145.3	116.0	188.6
May 13	189.0	181.8	192.5
May 14	188.9	185.9	192.2
May 15	188.0	184.8	191.4
May 16	188.9	186.7	192.7
May 17	189.2	186.9	192.1
May 18	188.4	185.5	191.7
May 19	187.0	183.8	191.6
May 20	186.8	184.0	191.4
May 21	185.2	183.8	186.9
May 22	183.4	178.9	186.3
May 23	181.5	169.9	184.4
May 24	182.7	178.7	189.0
May 25	181.8	179.5	183.2
May 26	184.8	181.3	191.0
May 27	184.8	182.2	190.3
May 28	184.6	181.7	189.7
May 29	185.5	177.4	191.7
May 30	185.2	182.1	189.1
Summary	162.6	123.6	189.2

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 56
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	178.7	177.9	179.7
May 2	178.5	177.8	179.4
May 3	178.9	178.3	180.0
May 4	179.6	178.8	180.6
May 5	180.0	179.4	180.6
May 6	179.9	178.7	180.4
May 7	179.8	179.1	180.5
May 8	180.2	179.4	181.3
May 9	180.7	180.0	181.3
May 10	180.9	180.3	181.5
May 11	180.6	179.4	181.1
May 12	181.0	180.3	182.1
May 13	181.6	180.8	182.6
May 14	181.3	180.7	181.6
May 15	181.8	181.0	182.5
May 16	182.3	181.5	183.1
May 17	182.7	182.1	183.4
May 18	182.9	182.4	183.6
May 19	183.0	182.5	183.7
May 20	183.3	182.3	183.9
May 21	183.3	182.8	183.7
May 22	183.3	182.7	183.8
May 23	183.4	183.0	184.1
May 24	183.7	182.9	184.6
May 25	183.7	183.1	184.2
May 26	184.1	183.2	184.8
May 27	184.3	183.2	184.8
May 28	184.4	184.2	184.9
May 29	184.7	183.9	185.2
May 30	184.9	184.3	185.2
Summary	181.9	178.5	184.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 57

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	65.4	49.7	83.4
May 2	61.7	51.4	77.4
May 3	59.2	39.7	78.7
May 4	63.8	45.1	89.2
May 5	71.6	50.5	92.3
May 6	68.8	61.6	78.5
May 7	61.0	52.0	70.4
May 8	64.3	43.5	86.8
May 9	68.2	50.6	87.4
May 10	72.0	50.7	95.2
May 11	64.7	51.8	79.2
May 12	67.5	45.3	91.8
May 13	69.2	54.8	85.7
May 14	61.5	46.4	73.7
May 15	64.9	40.4	89.0
May 16	75.5	52.9	97.5
May 17	82.6	62.3	105.2
May 18	85.7	65.6	106.9
May 19	85.8	67.3	106.5
May 20	85.9	68.4	105.2
May 21	79.8	72.7	89.2
May 22	80.3	70.5	96.7
May 23	76.5	69.3	92.2
May 24	82.2	67.8	101.8
May 25	80.2	72.1	94.9
May 26	84.5	73.7	100.1
May 27	84.0	74.1	98.8
May 28	84.7	72.9	99.9
May 29	84.2	67.2	101.9
May 30	83.0	71.9	99.3
Summary	74.0	59.2	85.9

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

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	101.1	100.1	103.3
May 2	101.0	99.9	102.5
May 3	100.9	99.2	102.5
May 4	101.1	100.0	102.4
May 5	101.7	100.4	103.4
May 6	102.0	101.0	102.7
May 7	101.3	100.3	102.0
May 8	100.4	97.2	102.6
May 9	101.3	99.6	103.1
May 10	101.8	99.8	104.0
May 11	101.6	99.1	102.7
May 12	100.7	96.2	105.1
May 13	102.7	101.7	104.0
May 14	101.9	100.2	103.4
May 15	101.7	98.6	104.5
May 16	103.0	100.6	105.2
May 17	100.9	27.7	106.7
May 18	105.5	104.3	106.9
May 19	105.4	104.0	106.6
May 20	105.2	104.1	107.1
May 21	105.6	105.1	106.3
May 22	105.5	104.8	106.3
May 23	105.5	104.8	106.6
May 24	105.7	104.7	107.5
May 25	105.7	105.1	106.7
May 26	105.8	104.5	106.8
May 27	106.1	105.6	106.7
May 28	106.9	106.2	107.6
May 29	106.8	105.7	108.1
May 30	107.2	106.3	108.1
Summary	103.4	100.4	107.2

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 59
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	120.9	111.0	131.4
May 2	130.5	120.0	133.6
May 3	115.6	112.2	118.6
May 4	122.8	111.3	132.1
May 5	124.5	117.0	133.6
May 6	118.1	114.4	128.7
May 7	115.2	112.2	123.6
May 8	115.6	110.8	126.8
May 9	112.9	110.9	115.0
May 10	112.7	109.8	114.8
May 11	111.9	109.5	113.6
May 12	112.0	108.8	115.8
May 13	111.9	109.4	114.8
May 14	116.8	109.1	125.8
May 15	129.3	125.8	131.7
May 16	131.6	129.0	133.8
May 17	121.2	115.3	131.7
May 18	124.3	114.1	132.7
May 19	124.4	116.4	132.5
May 20	126.2	116.0	133.4
May 21	124.8	116.4	133.9
May 22	126.4	117.0	135.2
May 23	118.1	115.5	120.0
May 24	116.5	113.5	119.3
May 25	111.2	26.1	117.1
May 26	117.7	114.1	127.0
May 27	115.6	114.4	117.6
May 28	124.5	114.4	132.9
May 29	133.4	130.8	135.7
May 30	131.8	119.6	136.0
Summary	120.6	111.2	133.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 60

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	70.7	51.0	85.8
May 2	63.8	49.9	73.4
May 3	56.6	39.9	73.5
May 4	64.6	44.6	87.1
May 5	69.7	53.7	86.8
May 6	66.7	60.9	74.1
May 7	66.1	55.6	81.7
May 8	71.2	59.4	85.2
May 9	67.6	53.5	83.7
May 10	71.1	53.4	88.7
May 11	73.3	64.3	92.8
May 12	79.3	61.8	98.6
May 13	76.0	61.7	94.5
May 14	70.9	57.5	79.8
May 15	80.9	63.5	98.8
May 16	90.7	75.9	104.1
May 17	86.1	70.8	101.6
May 18	88.5	71.6	105.0
May 19	91.8	74.3	109.9
May 20	95.7	77.0	108.2
May 21	91.1	77.8	101.8
May 22	91.1	79.0	100.3
May 23	81.4	75.3	94.5
May 24	84.1	72.8	98.2
May 25	82.7	76.2	94.5
May 26	92.3	80.6	108.3
May 27	97.6	91.6	104.4
May 28	95.9	82.6	104.4
May 29	91.1	71.9	106.1
May 30	89.2	75.7	95.8
Summary	79.9	56.6	97.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 61

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	156.3	155.4	157.4
May 2	155.5	154.8	156.7
May 3	155.1	153.6	156.2
May 4	155.8	154.5	157.3
May 5	156.2	155.3	157.0
May 6	156.4	155.3	157.4
May 7	155.3	154.4	156.2
May 8	155.2	153.7	156.8
May 9	156.1	155.5	156.7
May 10	155.7	154.7	156.5
May 11	154.7	153.0	155.7
May 12	154.7	153.0	156.0
May 13	155.7	154.7	157.0
May 14	154.6	153.6	156.1
May 15	154.7	153.4	156.0
May 16	155.3	154.1	156.3
May 17	155.7	154.4	156.9
May 18	155.7	154.5	156.8
May 19	156.0	154.9	157.1
May 20	156.1	154.7	157.3
May 21	156.2	155.4	156.9
May 22	154.4	152.0	156.7
May 23	152.1	150.6	153.5
May 24	150.4	147.4	152.0
May 25	147.9	146.4	149.1
May 26	151.6	146.6	155.5
May 27	154.2	153.0	154.6
May 28	154.4	153.9	155.4
May 29	155.2	153.8	156.5
May 30	155.7	155.0	156.6
Summary	154.8	147.9	156.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 62

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	93.1	85.3	100.3
May 2	89.5	84.6	96.1
May 3	89.9	81.4	99.6
May 4	93.3	84.3	104.9
May 5	96.9	88.3	104.9
May 6	95.7	91.8	98.2
May 7	91.6	87.3	95.7
May 8	94.1	83.6	104.3
May 9	95.4	88.1	104.5
May 10	97.8	88.6	107.2
May 11	95.9	90.3	101.7
May 12	97.5	86.7	107.3
May 13	98.0	91.0	104.9
May 14	94.1	88.6	99.1
May 15	95.1	85.0	106.0
May 16	99.2	90.2	109.1
May 17	102.9	94.8	111.6
May 18	103.9	97.0	112.0
May 19	104.1	96.9	113.6
May 20	104.6	97.3	112.8
May 21	102.7	98.6	107.0
May 22	102.6	98.0	108.2
May 23	101.7	97.6	109.5
May 24	103.3	97.7	110.5
May 25	102.6	98.4	110.0
May 26	105.2	98.3	113.4
May 27	104.7	98.1	111.4
May 28	105.3	100.8	112.1
May 29	105.4	97.3	113.8
May 30	105.0	99.5	111.7
Summary	99.0	89.5	105.4

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

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	58.2	42.4	75.9
May 2	54.4	42.1	69.8
May 3	51.5	32.9	68.7
May 4	56.7	38.3	79.6
May 5	64.4	44.6	83.6
May 6	62.9	56.5	71.7
May 7	54.6	46.2	61.0
May 8	57.4	37.8	77.7
May 9	60.8	44.5	78.4
May 10	65.5	44.6	86.6
May 11	58.3	45.7	68.3
May 12	60.4	39.2	82.7
May 13	62.3	48.2	80.3
May 14	53.9	40.3	65.6
May 15	56.6	34.8	80.5
May 16	67.1	46.1	88.5
May 17	74.8	54.4	95.9
May 18	73.6	26.6	99.5
May 19	78.0	60.1	99.1
May 20	77.3	60.5	96.2
May 21	70.7	63.8	83.2
May 22	71.5	63.7	83.6
May 23	68.3	59.9	84.3
May 24	73.3	58.9	90.7
May 25	71.4	65.2	86.7
May 26	74.5	66.0	88.3
May 27	75.5	66.8	87.6
May 28	75.8	65.5	91.0
May 29	74.6	56.4	95.2
May 30	73.3	63.1	87.0
Summary	65.9	51.5	78.0

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 64
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	58.6	42.8	77.2
May 2	54.7	43.3	69.6
May 3	52.3	33.2	72.2
May 4	58.0	38.8	85.1
May 5	65.5	44.8	87.0
May 6	63.0	56.8	71.2
May 7	54.8	46.7	63.6
May 8	58.4	37.4	82.2
May 9	61.7	44.6	81.0
May 10	65.8	44.3	90.2
May 11	59.3	46.3	79.1
May 12	61.2	39.1	87.1
May 13	62.8	48.5	83.7
May 14	54.7	40.7	66.6
May 15	58.3	34.7	85.3
May 16	68.2	46.5	93.4
May 17	76.2	54.8	101.6
May 18	79.4	58.6	103.2
May 19	78.9	60.3	101.0
May 20	78.9	60.4	100.9
May 21	71.6	64.1	82.5
May 22	72.3	63.9	87.6
May 23	69.0	59.8	86.9
May 24	74.4	59.0	93.4
May 25	71.7	65.3	90.1
May 26	75.5	66.1	93.6
May 27	76.1	66.8	92.7
May 28	76.9	64.3	93.7
May 29	75.9	56.5	98.4
May 30	73.8	62.1	91.3
Summary	66.9	52.3	79.4

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 65
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	135.7	134.4	136.6
May 2	134.8	134.1	135.6
May 3	135.0	133.8	136.6
May 4	135.0	133.1	136.9
May 5	135.9	134.5	137.6
May 6	135.7	134.5	136.4
May 7	134.6	133.7	135.7
May 8	134.8	133.3	136.7
May 9	134.9	133.6	136.5
May 10	135.1	134.1	135.8
May 11	134.6	132.9	135.6
May 12	134.7	133.0	136.6
May 13	135.0	133.2	136.3
May 14	133.7	132.3	134.9
May 15	134.5	132.7	136.1
May 16	135.1	133.4	136.6
May 17	135.8	134.3	137.4
May 18	132.1	43.7	137.3
May 19	136.4	134.7	137.9
May 20	136.8	135.1	137.8
May 21	136.5	136.0	137.1
May 22	136.4	135.5	136.8
May 23	136.4	135.1	137.4
May 24	136.4	135.3	137.8
May 25	136.3	135.2	137.2
May 26	136.7	135.4	137.8
May 27	136.6	135.4	137.4
May 28	136.8	136.1	137.8
May 29	136.9	135.9	137.8
May 30	136.7	135.6	137.6
Summary	135.5	132.1	136.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 66

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	173.2	166.9	180.5
May 2	164.8	159.7	168.8
May 3	162.9	157.9	167.4
May 4	161.8	158.3	165.0
May 5	139.2	61.8	196.8
May 6	149.6	56.3	197.7
May 7	196.7	196.3	197.2
May 8	197.5	196.7	198.9
May 9	197.7	197.3	198.3
May 10	198.3	197.4	199.7
May 11	193.1	73.8	198.7
May 12	197.3	189.1	198.7
May 13	189.8	182.5	197.6
May 14	197.3	196.9	197.7
May 15	191.7	50.1	199.1
May 16	198.0	197.2	198.8
May 17	198.3	197.5	199.1
May 18	195.8	187.7	198.8
May 19	198.2	197.3	199.0
May 20	198.2	197.6	198.9
May 21	197.1	189.2	198.1
May 22	192.9	183.4	197.9
May 23	197.3	197.0	197.7
May 24	197.5	197.0	198.3
May 25	197.2	194.1	197.8
May 26	192.8	185.3	198.3
May 27	190.3	183.2	197.9
May 28	193.4	183.8	198.0
May 29	192.3	184.5	196.9
May 30	185.8	181.6	196.3
Summary	187.9	139.2	198.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 67

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	199.6	199.4	199.8
May 2	199.4	195.7	199.8
May 3	189.4	186.8	193.4
May 4	194.4	184.8	199.6
May 5	199.6	199.3	199.9
May 6	199.7	199.4	199.8
May 7	197.9	191.3	199.8
May 8	200.0	199.7	200.3
May 9	200.0	199.8	200.2
May 10	200.2	200.0	200.5
May 11	200.3	200.1	200.5
May 12	196.7	107.0	200.9
May 13	200.0	195.8	200.2
May 14	200.1	199.9	200.3
May 15	200.3	200.1	200.6
May 16	200.5	200.2	200.8
May 17	200.6	200.3	200.9
May 18	196.5	188.5	200.5
May 19	194.6	187.8	200.2
May 20	200.3	200.0	200.7
May 21	200.3	200.2	200.4
May 22	199.3	193.9	200.4
May 23	191.0	187.5	193.7
May 24	188.8	186.3	190.5
May 25	187.4	182.9	189.4
May 26	194.6	186.1	199.6
May 27	199.8	199.4	200.1
May 28	192.4	184.6	199.6
May 29	195.8	186.9	200.1
May 30	197.0	187.8	200.0
Summary	197.2	187.4	200.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 68

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	154.9	148.2	167.1
May 2	146.4	142.6	149.7
May 3	142.9	138.6	146.1
May 4	140.8	137.7	146.3
May 5	158.0	135.3	172.7
May 6	158.7	151.4	167.0
May 7	156.8	146.8	166.2
May 8	162.2	151.1	173.8
May 9	155.5	152.3	160.8
May 10	151.1	147.9	153.0
May 11	153.7	144.9	165.2
May 12	161.4	147.3	172.3
May 13	162.8	153.8	173.8
May 14	159.6	149.7	169.6
May 15	159.8	150.8	168.8
May 16	155.2	151.4	158.7
May 17	152.1	149.9	155.6
May 18	155.5	147.7	167.2
May 19	155.6	148.3	166.4
May 20	156.9	149.9	164.1
May 21	157.3	150.3	168.8
May 22	155.8	149.4	165.5
May 23	150.5	147.4	152.7
May 24	148.4	146.4	151.3
May 25	146.0	143.9	147.6
May 26	155.7	145.8	170.2
May 27	157.2	151.6	165.1
May 28	155.2	151.2	163.0
May 29	155.3	150.2	161.4
May 30	147.2	82.0	152.5
Summary	154.3	140.8	162.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 69

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	70.1	54.0	89.4
May 2	65.5	54.1	80.7
May 3	65.2	47.3	86.7
May 4	68.6	51.1	93.2
May 5	75.4	57.1	93.9
May 6	71.9	65.6	80.0
May 7	65.0	58.7	72.7
May 8	68.3	49.2	91.5
May 9	71.4	55.1	89.2
May 10	74.7	55.6	96.8
May 11	68.0	58.0	83.2
May 12	82.1	49.1	112.3
May 13	107.6	104.7	111.0
May 14	106.2	103.6	109.2
May 15	107.2	101.3	113.3
May 16	108.9	103.4	114.4
May 17	110.4	105.4	116.1
May 18	110.8	105.8	116.3
May 19	111.0	106.5	116.2
May 20	110.1	104.5	115.7
May 21	106.8	104.5	110.6
May 22	105.3	101.5	110.9
May 23	103.0	99.6	109.9
May 24	104.5	98.8	111.9
May 25	102.4	98.0	110.2
May 26	103.7	99.4	111.0
May 27	103.8	99.6	111.6
May 28	103.0	98.3	110.7
May 29	101.5	91.5	111.0
May 30	100.3	95.2	108.6
Summary	91.7	65.0	111.0

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 70
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	63.7	46.2	90.9
May 2	61.2	47.4	85.2
May 3	59.0	38.5	87.1
May 4	61.6	42.7	92.9
May 5	67.4	46.9	95.0
May 6	63.9	58.9	72.5
May 7	58.9	51.5	65.6
May 8	63.9	42.4	91.9
May 9	65.4	47.6	88.3
May 10	69.3	47.3	99.9
May 11	61.7	52.2	77.0
May 12	66.1	43.2	97.2
May 13	65.5	50.5	88.6
May 14	60.1	47.3	81.7
May 15	63.5	40.0	94.3
May 16	70.4	48.7	99.0
May 17	77.9	55.4	109.0
May 18	80.5	58.5	111.6
May 19	81.3	60.2	111.4
May 20	81.6	61.2	109.2
May 21	73.6	65.2	85.7
May 22	74.8	65.6	93.2
May 23	71.3	62.5	86.6
May 24	77.3	60.4	103.5
May 25	74.6	67.0	92.8
May 26	78.2	67.7	100.6
May 27	78.1	68.6	96.8
May 28	80.5	67.1	102.7
May 29	79.5	59.3	106.7
May 30	77.3	64.9	100.3
Summary	70.3	58.9	81.6

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

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	138.2	136.8	139.1
May 2	137.5	136.8	138.2
May 3	138.3	137.8	139.2
May 4	138.6	137.6	139.7
May 5	139.0	138.1	139.7
May 6	138.5	136.9	139.1
May 7	138.2	137.4	138.9
May 8	138.6	137.5	139.5
May 9	138.6	137.8	139.5
May 10	138.9	138.0	139.9
May 11	138.3	136.6	139.0
May 12	138.7	137.6	140.2
May 13	138.5	137.4	139.3
May 14	137.6	136.7	138.6
May 15	138.4	137.3	139.6
May 16	138.9	138.0	139.7
May 17	139.4	138.4	140.7
May 18	139.5	138.6	140.6
May 19	139.6	138.5	140.5
May 20	139.4	137.6	140.5
May 21	138.8	138.1	139.3
May 22	138.4	137.5	139.4
May 23	138.3	137.3	140.0
May 24	138.8	137.8	140.1
May 25	138.5	137.1	139.6
May 26	139.0	136.8	140.3
May 27	138.9	137.4	140.0
May 28	138.9	138.3	139.7
May 29	139.0	137.2	140.5
May 30	138.8	138.2	139.8
Summary	138.7	137.5	139.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 72

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	133.8	128.9	135.8
May 2	131.6	129.0	133.8
May 3	134.0	131.8	137.3
May 4	135.5	133.1	139.4
May 5	136.1	134.7	138.6
May 6	135.2	132.1	136.8
May 7	133.9	131.7	135.8
May 8	135.6	133.2	138.9
May 9	135.8	134.5	138.0
May 10	136.0	134.2	138.4
May 11	134.6	130.2	137.4
May 12	136.1	133.2	139.3
May 13	136.3	135.0	138.7
May 14	133.1	130.3	135.6
May 15	135.5	132.2	138.6
May 16	136.6	134.1	139.5
May 17	137.4	134.8	140.4
May 18	137.6	135.1	140.7
May 19	137.9	136.0	140.4
May 20	137.9	133.3	141.2
May 21	136.6	134.4	138.0
May 22	136.6	134.2	138.8
May 23	136.0	133.1	139.2
May 24	136.7	130.0	139.6
May 25	135.9	129.6	138.2
May 26	137.3	133.6	140.3
May 27	136.9	131.1	139.6
May 28	137.0	135.5	138.7
May 29	137.5	134.5	141.0
May 30	136.9	134.2	138.4
Summary	135.9	131.6	137.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 73

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	109.6	108.3	111.4
May 2	109.1	108.1	110.7
May 3	109.3	108.0	111.3
May 4	109.7	108.2	112.1
May 5	109.9	108.5	111.7
May 6	109.1	108.2	109.7
May 7	108.0	107.2	108.9
May 8	108.6	106.5	110.9
May 9	108.3	106.8	110.4
May 10	108.7	106.8	111.2
May 11	107.5	106.1	109.0
May 12	109.7	104.9	115.0
May 13	113.1	112.6	114.2
May 14	112.4	111.8	113.0
May 15	112.9	111.6	114.4
May 16	113.3	112.1	114.9
May 17	113.9	112.7	115.3
May 18	114.0	112.8	115.4
May 19	114.0	112.9	115.4
May 20	113.9	112.5	115.4
May 21	113.1	112.6	113.7
May 22	113.1	112.3	114.5
May 23	112.8	112.1	114.3
May 24	113.0	112.1	114.3
May 25	112.9	112.1	114.3
May 26	113.1	111.9	114.4
May 27	113.0	112.0	114.3
May 28	113.1	112.1	114.4
May 29	112.9	111.6	114.3
May 30	112.6	111.5	114.1
Summary	111.5	107.5	114.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 74

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	118.0	113.9	121.7
May 2	114.9	111.6	117.5
May 3	117.3	115.2	120.6
May 4	119.8	115.1	124.3
May 5	121.3	118.3	124.4
May 6	119.1	112.1	123.0
May 7	117.4	113.7	119.6
May 8	119.2	114.5	124.3
May 9	120.7	118.3	123.9
May 10	120.1	116.8	123.7
May 11	117.9	112.8	120.4
May 12	119.6	114.8	124.9
May 13	121.1	116.8	124.3
May 14	116.3	112.3	120.8
May 15	119.2	114.7	124.1
May 16	121.2	115.5	124.7
May 17	122.9	118.0	127.3
May 18	122.9	120.0	127.3
May 19	123.4	119.0	127.5
May 20	123.8	117.5	128.2
May 21	121.8	116.9	123.8
May 22	121.0	117.7	122.7
May 23	120.9	117.3	125.2
May 24	121.7	116.7	125.2
May 25	120.9	118.3	124.1
May 26	122.9	113.2	127.4
May 27	122.9	117.9	126.7
May 28	122.6	120.7	126.6
May 29	123.4	118.0	128.8
May 30	123.2	119.7	125.7
Summary	120.6	114.9	123.8

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 75
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	62.0	44.3	83.7
May 2	57.0	46.5	74.4
May 3	55.6	35.8	77.6
May 4	61.8	40.9	88.7
May 5	68.9	47.3	91.4
May 6	64.7	57.6	73.5
May 7	56.7	50.3	65.1
May 8	60.0	39.6	85.6
May 9	65.2	46.7	85.7
May 10	69.8	47.1	94.7
May 11	61.2	52.2	74.8
May 12	64.5	41.1	90.3
May 13	66.2	51.0	85.7
May 14	58.5	45.4	70.0
May 15	61.5	37.2	88.1
May 16	71.8	48.7	95.6
May 17	78.6	57.1	104.8
May 18	83.4	61.6	107.9
May 19	83.4	63.0	107.8
May 20	81.2	63.0	104.2
May 21	73.5	64.8	87.7
May 22	73.8	64.4	92.2
May 23	70.7	61.5	87.5
May 24	75.8	60.5	96.6
May 25	73.2	65.7	89.5
May 26	77.1	66.9	93.4
May 27	77.0	67.5	92.7
May 28	78.4	66.8	96.5
May 29	79.1	59.5	101.7
May 30	78.1	64.9	95.8
Summary	69.6	55.6	83.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 76

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	126.2	125.9	126.6
May 2	126.1	125.8	126.6
May 3	126.2	125.9	126.6
May 4	126.3	125.9	126.8
May 5	126.3	126.0	126.7
May 6	126.2	125.9	126.4
May 7	126.1	125.9	126.4
May 8	126.3	125.9	126.8
May 9	126.2	125.9	126.5
May 10	126.3	126.0	126.7
May 11	126.2	126.0	126.5
May 12	126.2	125.8	126.7
May 13	126.1	125.9	126.4
May 14	125.9	125.7	126.2
May 15	126.1	125.6	126.5
May 16	126.2	125.7	126.7
May 17	126.4	125.9	126.8
May 18	126.4	126.0	126.9
May 19	126.4	126.0	126.8
May 20	126.3	125.9	127.1
May 21	126.1	125.9	126.4
May 22	126.1	125.9	126.3
May 23	126.1	125.8	126.6
May 24	126.2	125.8	126.7
May 25	126.1	125.7	126.6
May 26	126.1	125.9	126.8
May 27	126.1	125.8	126.5
May 28	126.1	125.8	126.6
May 29	126.1	125.7	126.7
May 30	126.0	125.6	126.4
Summary	126.2	125.9	126.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 77

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	62.0	44.4	82.2
May 2	56.8	46.5	74.6
May 3	55.8	35.5	76.5
May 4	60.5	40.7	87.4
May 5	68.7	46.9	88.0
May 6	64.4	57.2	73.9
May 7	56.3	49.7	66.1
May 8	61.1	39.2	86.4
May 9	64.7	46.6	83.1
May 10	68.9	47.2	88.8
May 11	61.2	50.9	75.6
May 12	66.0	41.5	89.4
May 13	65.3	50.6	81.9
May 14	57.3	44.3	68.1
May 15	61.7	37.3	87.1
May 16	71.1	48.4	94.2
May 17	79.6	56.6	101.6
May 18	82.1	61.1	102.8
May 19	81.7	62.6	101.3
May 20	82.4	62.7	101.0
May 21	73.0	65.1	83.5
May 22	73.6	64.8	86.6
May 23	71.0	61.8	89.6
May 24	76.3	60.6	97.4
May 25	72.7	66.0	87.0
May 26	77.4	67.2	95.4
May 27	76.9	67.9	91.8
May 28	78.7	66.9	93.6
May 29	78.7	59.1	99.3
May 30	76.9	64.9	92.6
Summary	69.4	55.8	82.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 78

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	104.2	99.8	108.3
May 2	103.7	100.5	108.0
May 3	103.1	98.3	108.2
May 4	105.5	101.0	111.6
May 5	106.6	103.1	111.1
May 6	105.6	102.8	107.7
May 7	104.1	101.8	106.3
May 8	105.1	99.9	110.7
May 9	105.8	103.3	109.5
May 10	106.2	101.7	111.0
May 11	105.0	101.2	109.0
May 12	105.7	99.6	112.4
May 13	106.6	103.6	110.4
May 14	103.8	100.6	106.4
May 15	104.9	99.5	111.4
May 16	107.1	101.7	112.5
May 17	109.0	104.5	114.8
May 18	109.4	104.8	115.2
May 19	110.0	106.0	114.9
May 20	109.8	104.5	115.0
May 21	108.5	106.3	110.6
May 22	108.7	106.4	111.4
May 23	107.7	104.2	111.9
May 24	108.3	104.6	113.3
May 25	108.0	105.2	112.5
May 26	109.7	104.6	113.3
May 27	108.8	105.1	112.1
May 28	109.7	106.5	114.0
May 29	109.4	105.3	114.1
May 30	109.1	104.0	113.7
Summary	107.0	103.1	110.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 79

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	62.0	45.3	82.4
May 2	57.5	47.1	69.0
May 3	56.1	37.2	79.5
May 4	61.1	42.0	89.5
May 5	68.8	48.0	90.1
May 6	64.7	57.8	73.3
May 7	57.4	50.8	70.8
May 8	61.5	40.7	89.3
May 9	64.9	47.4	86.9
May 10	69.0	48.2	93.0
May 11	61.9	52.2	79.1
May 12	65.5	42.5	94.6
May 13	65.9	51.4	85.1
May 14	58.2	45.9	68.4
May 15	62.3	38.4	90.6
May 16	72.0	49.4	97.7
May 17	79.7	57.5	105.3
May 18	82.5	61.6	108.8
May 19	83.7	62.9	105.7
May 20	82.0	63.0	104.0
May 21	73.7	66.0	85.5
May 22	73.8	65.2	87.9
May 23	71.3	62.7	86.7
May 24	76.0	61.6	95.5
May 25	73.3	66.2	91.4
May 26	77.4	67.6	97.9
May 27	78.1	67.9	96.6
May 28	78.5	67.5	97.8
May 29	79.3	59.7	100.2
May 30	76.8	65.4	94.8
Summary	69.8	56.1	83.7

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 80
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	60.4	42.5	81.4
May 2	55.4	41.4	75.4
May 3	54.8	32.7	75.3
May 4	58.7	38.5	84.5
May 5	67.1	44.3	90.4
May 6	63.3	57.7	73.1
May 7	56.1	47.4	65.2
May 8	58.8	37.5	84.3
May 9	63.3	44.6	82.3
May 10	68.3	44.9	91.8
May 11	60.0	46.5	74.7
May 12	62.9	39.8	90.7
May 13	65.0	47.9	84.8
May 14	57.2	42.5	72.2
May 15	59.8	35.1	86.3
May 16	70.8	46.6	97.1
May 17	78.4	54.8	101.3
May 18	80.7	59.7	105.0
May 19	81.6	60.0	105.5
May 20	81.3	60.9	103.1
May 21	72.7	64.4	86.8
May 22	73.1	64.2	87.4
May 23	69.9	60.6	91.1
May 24	76.1	59.6	97.4
May 25	72.9	65.7	87.2
May 26	76.8	66.5	94.4
May 27	77.2	67.3	92.6
May 28	77.0	66.0	98.5
May 29	78.0	57.7	100.7
May 30	76.2	63.6	93.8
Summary	68.5	54.8	81.6

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

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	167.9	165.3	169.2
May 2	166.2	164.1	167.9
May 3	167.2	165.5	168.7
May 4	167.9	165.9	169.7
May 5	168.7	166.6	169.7
May 6	168.3	166.0	170.3
May 7	167.5	165.8	168.5
May 8	167.8	166.4	169.4
May 9	168.3	167.1	169.7
May 10	168.1	167.1	169.3
May 11	167.5	165.0	168.9
May 12	167.7	166.0	169.2
May 13	168.4	166.6	169.8
May 14	166.3	163.9	168.6
May 15	167.6	166.1	168.9
May 16	167.9	165.5	169.7
May 17	168.7	167.4	169.9
May 18	168.7	167.6	169.9
May 19	168.9	167.1	169.7
May 20	168.7	166.0	170.1
May 21	168.7	167.5	169.8
May 22	167.9	165.1	169.6
May 23	168.4	165.6	169.7
May 24	167.9	165.6	169.6
May 25	167.8	163.5	169.4
May 26	168.7	167.0	169.6
May 27	168.2	161.3	169.5
May 28	168.3	167.2	169.3
May 29	169.0	166.8	170.2
May 30	168.5	167.0	169.7
Summary	168.1	166.2	169.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 82

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	160.5	156.8	162.8
May 2	159.5	156.9	161.7
May 3	160.5	156.1	162.5
May 4	162.1	159.3	165.5
May 5	162.6	157.2	164.7
May 6	162.1	156.4	165.7
May 7	161.4	158.7	163.5
May 8	162.1	158.3	165.4
May 9	162.2	157.2	165.0
May 10	161.4	155.0	164.5
May 11	161.9	154.4	164.7
May 12	162.2	159.0	165.0
May 13	162.4	155.5	166.2
May 14	159.9	155.3	164.6
May 15	162.3	160.0	165.0
May 16	163.4	161.2	166.0
May 17	164.5	163.0	167.2
May 18	164.1	162.3	166.4
May 19	164.0	160.6	166.9
May 20	164.3	155.9	167.5
May 21	163.4	158.4	165.4
May 22	162.7	157.9	164.9
May 23	163.8	158.9	166.1
May 24	163.0	157.8	165.0
May 25	162.7	158.5	165.1
May 26	164.1	155.6	166.2
May 27	162.0	157.8	165.1
May 28	163.0	160.1	165.7
May 29	163.8	161.4	165.6
May 30	163.3	158.2	165.3
Summary	162.5	159.5	164.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 83

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	166.2	163.6	168.3
May 2	164.6	162.5	166.5
May 3	166.0	164.1	167.5
May 4	166.7	164.3	168.9
May 5	167.5	165.1	169.4
May 6	166.6	160.7	168.9
May 7	165.9	162.8	167.4
May 8	166.8	164.9	168.2
May 9	166.7	164.0	168.8
May 10	166.8	165.8	168.5
May 11	166.3	162.4	168.2
May 12	166.9	164.7	168.9
May 13	166.9	164.6	168.5
May 14	164.7	161.0	167.4
May 15	166.4	164.3	168.2
May 16	167.2	165.6	168.7
May 17	168.5	166.2	170.0
May 18	169.2	167.2	170.9
May 19	169.2	165.4	170.5
May 20	169.1	164.6	170.5
May 21	168.7	166.6	170.2
May 22	167.5	165.1	169.4
May 23	168.1	165.2	169.8
May 24	167.7	163.7	169.6
May 25	167.9	162.9	169.9
May 26	169.1	165.9	170.2
May 27	168.4	160.4	170.0
May 28	168.7	167.2	169.9
May 29	169.1	165.9	170.3
May 30	168.8	167.2	170.0
Summary	167.4	164.6	169.2

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 84
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	159.0	158.2	159.7
May 2	158.5	158.0	159.5
May 3	158.7	157.8	159.9
May 4	159.0	158.0	160.6
May 5	159.4	158.5	160.3
May 6	159.2	158.4	159.6
May 7	158.7	158.0	159.2
May 8	158.9	158.0	160.3
May 9	159.2	158.5	159.9
May 10	159.2	158.3	160.2
May 11	158.7	157.6	159.5
May 12	159.0	157.7	160.2
May 13	159.4	158.5	160.5
May 14	158.7	158.0	159.5
May 15	159.0	157.9	160.4
May 16	159.5	158.4	160.5
May 17	159.9	158.9	161.1
May 18	159.9	159.0	161.1
May 19	160.0	159.1	161.1
May 20	160.1	159.0	161.3
May 21	159.9	159.0	160.5
May 22	159.8	159.2	160.6
May 23	159.6	159.2	160.5
May 24	159.8	158.8	161.1
May 25	159.6	159.2	160.3
May 26	159.9	159.4	160.9
May 27	159.9	159.0	160.8
May 28	159.9	159.2	160.7
May 29	160.0	158.8	161.2
May 30	160.1	159.5	161.0
Summary	159.4	158.5	160.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 85

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	125.1	120.9	130.1
May 2	127.4	121.9	131.9
May 3	129.5	124.3	136.3
May 4	132.7	126.7	140.1
May 5	132.5	128.9	137.7
May 6	130.3	126.4	133.1
May 7	127.0	123.3	129.0
May 8	126.1	121.0	132.3
May 9	118.8	114.1	125.3
May 10	112.3	105.0	119.7
May 11	99.5	85.6	108.6
May 12	96.6	82.8	114.7
May 13	102.7	91.4	121.6
May 14	108.3	98.6	114.1
May 15	104.9	92.9	119.8
May 16	103.1	92.5	119.4
May 17	104.9	93.6	121.7
May 18	104.1	92.3	122.1
May 19	102.5	91.1	117.2
May 20	98.0	83.7	117.3
May 21	95.1	85.6	105.0
May 22	97.5	89.6	109.8
May 23	96.1	85.4	116.1
May 24	98.5	87.7	113.8
May 25	96.0	88.3	109.9
May 26	116.5	94.7	149.9
May 27	143.2	141.3	145.7
May 28	141.7	138.9	145.3
May 29	139.3	138.0	141.8
May 30	133.3	94.3	138.4
Summary	114.8	95.1	143.2

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 86

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	146.3	145.5	147.2
May 2	145.8	145.2	146.5
May 3	146.2	145.4	147.1
May 4	146.5	145.6	147.9
May 5	146.9	146.0	147.7
May 6	146.6	145.9	147.1
May 7	146.2	145.6	146.6
May 8	146.5	145.7	147.9
May 9	146.9	146.1	147.6
May 10	146.9	146.0	147.9
May 11	146.6	145.9	147.3
May 12	146.8	145.6	148.2
May 13	147.1	146.4	148.2
May 14	146.3	145.7	147.0
May 15	146.8	145.7	148.1
May 16	147.2	146.0	148.3
May 17	147.7	146.4	148.9
May 18	147.7	146.7	149.1
May 19	147.7	146.8	148.8
May 20	147.7	146.4	149.1
May 21	147.5	146.8	147.9
May 22	147.3	146.7	148.1
May 23	147.3	146.7	148.2
May 24	147.5	146.5	148.6
May 25	147.4	146.9	148.0
May 26	147.7	146.8	148.7
May 27	147.7	146.7	148.6
May 28	147.7	147.2	148.7
May 29	147.9	146.8	149.0
May 30	147.9	147.3	148.7
Summary	147.1	145.8	147.9

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 87
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	76.0	63.2	90.8
May 2	69.1	61.7	84.6
May 3	72.0	56.0	89.1
May 4	76.9	60.4	101.9
May 5	83.7	65.8	98.7
May 6	79.0	69.0	84.1
May 7	71.2	65.3	79.9
May 8	78.3	60.7	103.3
May 9	80.6	65.6	95.5
May 10	84.7	66.8	101.1
May 11	78.3	66.3	97.4
May 12	82.8	62.2	105.0
May 13	82.7	71.1	97.0
May 14	72.8	63.8	79.7
May 15	79.7	58.1	100.9
May 16	88.2	67.9	106.1
May 17	96.2	76.4	115.4
May 18	98.4	80.7	116.9
May 19	97.6	80.9	114.4
May 20	97.3	80.0	114.4
May 21	90.0	78.9	99.6
May 22	87.9	78.1	100.0
May 23	87.0	78.8	104.5
May 24	90.5	76.4	108.8
May 25	86.7	79.3	101.3
May 26	93.5	81.9	110.1
May 27	91.4	79.9	103.8
May 28	92.6	83.9	105.5
May 29	94.0	74.5	110.5
May 30	91.8	79.7	107.1
Summary	85.0	69.1	98.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 88

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	165.8	165.1	166.4
May 2	165.8	165.1	166.6
May 3	165.5	164.5	166.4
May 4	165.8	165.0	166.6
May 5	166.0	165.4	166.5
May 6	166.2	165.0	166.8
May 7	165.9	165.4	166.4
May 8	165.8	165.0	166.5
May 9	166.2	165.8	166.6
May 10	165.8	165.3	166.3
May 11	165.7	164.5	166.4
May 12	165.7	165.0	166.7
May 13	166.4	165.9	167.2
May 14	166.0	165.3	166.7
May 15	165.9	165.2	166.8
May 16	166.2	165.7	166.7
May 17	166.5	165.4	167.2
May 18	166.5	165.6	167.3
May 19	166.6	165.8	167.4
May 20	166.8	166.1	167.6
May 21	166.8	166.2	167.4
May 22	166.8	166.4	167.4
May 23	166.9	166.2	167.6
May 24	167.0	166.3	167.6
May 25	166.9	165.8	167.7
May 26	164.0	97.8	168.0
May 27	166.7	166.3	167.2
May 28	166.8	166.0	167.5
May 29	167.0	166.8	167.5
May 30	167.0	166.4	167.6
Summary	166.2	164.0	167.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 89

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	174.2	170.2	176.5
May 2	171.1	169.4	173.4
May 3	171.1	168.0	174.5
May 4	172.9	169.6	177.8
May 5	174.0	171.2	178.9
May 6	173.2	171.4	174.8
May 7	172.6	170.4	174.7
May 8	181.0	170.9	188.3
May 9	187.4	186.5	188.8
May 10	187.7	186.1	188.9
May 11	187.6	185.7	188.5
May 12	187.9	185.6	189.4
May 13	187.7	186.8	188.8
May 14	186.8	185.6	188.4
May 15	187.7	186.2	189.4
May 16	188.1	186.7	190.2
May 17	186.6	171.6	191.5
May 18	173.4	170.9	179.5
May 19	174.2	172.4	179.2
May 20	184.2	172.8	191.9
May 21	190.9	190.2	191.4
May 22	190.6	189.8	191.0
May 23	190.8	189.8	191.9
May 24	190.9	190.1	191.8
May 25	190.9	189.9	191.6
May 26	191.4	190.1	192.3
May 27	191.4	190.6	192.1
May 28	191.7	191.0	192.4
May 29	191.9	190.7	192.6
May 30	191.8	190.7	192.6
Summary	184.1	171.1	191.9

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

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	131.6	130.9	132.3
May 2	131.2	130.8	131.8
May 3	131.4	130.8	131.9
May 4	131.5	130.9	132.5
May 5	131.8	131.1	132.3
May 6	131.5	131.1	131.8
May 7	131.1	130.7	131.4
May 8	131.2	130.6	132.2
May 9	131.3	130.7	132.0
May 10	131.4	130.5	131.9
May 11	130.9	130.3	131.6
May 12	131.1	130.3	132.0
May 13	131.2	130.7	131.8
May 14	130.6	130.0	131.1
May 15	130.9	129.9	131.7
May 16	131.2	130.3	132.1
May 17	131.4	130.6	132.3
May 18	131.5	130.8	132.2
May 19	131.4	130.7	132.1
May 20	131.4	130.6	132.4
May 21	131.1	130.7	131.5
May 22	131.0	130.3	131.6
May 23	130.9	130.6	131.7
May 24	131.1	130.4	132.0
May 25	130.9	130.5	131.5
May 26	131.2	130.5	132.0
May 27	131.1	130.5	132.0
May 28	131.0	130.5	131.6
May 29	131.1	130.1	131.8
May 30	130.9	130.5	131.6
Summary	131.2	130.6	131.8

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 91
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	155.2	152.3	157.6
May 2	153.6	151.2	156.1
May 3	155.0	151.2	157.4
May 4	156.8	154.9	160.5
May 5	157.7	154.2	160.4
May 6	157.1	155.0	159.2
May 7	155.7	153.2	158.3
May 8	157.3	154.1	161.7
May 9	157.6	153.8	160.5
May 10	158.2	154.1	161.9
May 11	157.5	153.6	159.8
May 12	158.9	155.5	163.3
May 13	158.9	155.2	161.8
May 14	156.0	148.7	160.5
May 15	158.7	156.2	163.7
May 16	160.0	156.9	165.0
May 17	161.3	158.8	165.3
May 18	161.0	158.8	164.0
May 19	160.9	159.1	165.1
May 20	161.2	156.4	166.1
May 21	159.9	158.5	161.0
May 22	158.6	156.7	160.3
May 23	158.7	154.2	160.6
May 24	159.8	157.3	162.5
May 25	159.6	158.6	160.9
May 26	161.0	158.8	163.9
May 27	160.4	158.2	163.6
May 28	160.4	158.6	161.9
May 29	161.4	157.8	165.5
May 30	160.3	158.4	161.8
Summary	158.6	153.6	161.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 92

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	88.2	73.5	106.3
May 2	78.3	68.7	97.9
May 3	85.1	75.9	95.6
May 4	89.6	77.4	103.6
May 5	96.0	90.1	105.2
May 6	92.1	77.7	108.5
May 7	86.4	75.0	98.6
May 8	95.7	82.2	106.7
May 9	96.1	84.8	109.8
May 10	100.4	92.1	111.5
May 11	96.3	75.0	104.5
May 12	100.7	82.1	123.5
May 13	97.4	86.9	111.7
May 14	89.2	74.5	105.4
May 15	102.4	93.1	116.0
May 16	106.9	94.0	123.3
May 17	116.9	102.2	129.0
May 18	120.4	109.3	129.2
May 19	122.0	112.0	129.7
May 20	121.9	89.6	131.8
May 21	119.8	99.8	131.4
May 22	118.2	104.6	127.9
May 23	120.4	89.6	135.7
May 24	120.0	98.3	137.5
May 25	120.4	106.9	135.3
May 26	131.7	121.2	139.3
May 27	117.4	98.9	129.8
May 28	119.1	109.0	130.2
May 29	124.8	114.7	136.0
May 30	122.5	103.1	134.4
Summary	106.5	78.3	131.7

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 93
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	61.8	47.6	82.9
May 2	58.5	46.2	77.0
May 3	57.7	37.9	80.7
May 4	63.6	48.0	90.8
May 5	70.2	54.2	91.6
May 6	68.6	63.9	74.5
May 7	62.0	53.6	69.5
May 8	64.5	45.5	90.0
May 9	65.5	51.4	86.7
May 10	70.1	51.1	94.2
May 11	66.9	54.2	79.5
May 12	67.8	45.9	95.9
May 13	68.8	57.3	84.7
May 14	61.0	51.5	73.0
May 15	67.1	47.7	93.0
May 16	75.8	59.6	98.3
May 17	83.9	67.2	107.7
May 18	88.0	72.4	108.6
May 19	91.3	80.1	109.7
May 20	90.8	80.1	105.4
May 21	89.2	77.1	97.0
May 22	91.8	85.0	100.9
May 23	93.9	87.6	107.1
May 24	93.8	85.5	108.0
May 25	95.3	89.6	107.5
May 26	95.5	80.0	106.2
May 27	92.1	83.4	99.7
May 28	94.8	88.7	104.0
May 29	92.4	81.6	106.0
May 30	93.5	83.8	104.4
Summary	77.9	57.7	95.5

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 94
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	156.5	153.9	158.3
May 2	156.2	153.6	158.4
May 3	157.6	156.0	159.5
May 4	158.5	155.9	160.5
May 5	158.8	157.1	160.4
May 6	158.4	156.1	161.1
May 7	157.3	156.1	159.1
May 8	157.3	155.6	159.1
May 9	157.6	154.7	159.7
May 10	157.9	155.8	159.2
May 11	156.7	150.8	159.5
May 12	157.1	148.0	161.4
May 13	158.6	154.7	160.7
May 14	157.4	154.3	159.7
May 15	158.1	150.5	162.5
May 16	159.6	155.8	162.2
May 17	154.7	152.7	156.8
May 18	155.5	154.2	157.5
May 19	153.4	108.6	158.0
May 20	153.6	150.3	155.4
May 21	154.3	153.0	155.6
May 22	155.0	152.2	156.6
May 23	155.7	152.3	158.9
May 24	156.0	153.9	159.6
May 25	156.6	154.4	158.7
May 26	160.3	147.9	167.2
May 27	162.6	160.4	163.6
May 28	163.6	160.8	165.5
May 29	163.6	162.3	166.0
May 30	164.3	163.0	166.3
Summary	157.8	153.4	164.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 95

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	133.0	131.8	134.6
May 2	132.3	131.6	133.7
May 3	132.7	131.9	134.7
May 4	133.3	131.8	135.4
May 5	133.8	132.7	135.3
May 6	133.3	132.3	133.9
May 7	132.6	131.5	133.4
May 8	133.3	132.3	135.2
May 9	133.1	132.0	134.3
May 10	133.5	132.2	135.0
May 11	132.9	131.6	134.0
May 12	133.1	131.1	135.3
May 13	133.4	132.8	134.7
May 14	132.2	131.5	132.9
May 15	132.9	131.2	134.7
May 16	133.5	131.9	135.3
May 17	133.9	132.5	135.8
May 18	134.0	132.5	136.2
May 19	133.9	132.5	135.4
May 20	134.0	132.6	135.9
May 21	133.3	132.6	133.9
May 22	133.0	131.4	134.5
May 23	133.0	132.3	134.4
May 24	133.4	132.3	134.9
May 25	133.1	132.1	134.2
May 26	133.8	132.9	135.4
May 27	133.7	132.4	135.0
May 28	133.4	132.9	134.7
May 29	133.6	131.9	135.3
May 30	133.3	132.6	134.6
Summary	133.3	132.2	134.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 96

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	125.2	122.4	127.7
May 2	124.1	120.9	126.7
May 3	125.6	123.8	127.7
May 4	126.3	124.7	128.5
May 5	127.1	122.9	129.7
May 6	127.6	124.9	129.3
May 7	126.3	123.8	128.0
May 8	126.5	121.9	129.4
May 9	127.5	123.2	130.5
May 10	128.5	121.8	131.9
May 11	127.9	122.9	130.5
May 12	127.8	121.9	132.9
May 13	129.7	126.7	131.3
May 14	127.5	120.4	131.1
May 15	128.5	123.7	133.7
May 16	130.1	126.2	134.2
May 17	131.7	126.0	135.6
May 18	133.1	131.0	135.5
May 19	132.6	130.9	134.9
May 20	132.1	125.4	135.9
May 21	132.5	130.7	133.6
May 22	131.7	130.0	133.2
May 23	131.7	127.8	133.5
May 24	132.1	126.2	134.8
May 25	132.0	129.1	133.3
May 26	133.3	131.8	135.1
May 27	133.4	130.4	135.0
May 28	133.6	131.8	134.7
May 29	133.9	131.5	137.2
May 30	133.8	131.8	134.9
Summary	129.8	124.1	133.9

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 97
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	147.8	145.3	152.4
May 2	145.7	143.9	147.1
May 3	146.7	144.9	150.0
May 4	148.5	145.0	154.2
May 5	150.9	147.0	158.1
May 6	148.8	145.0	150.8
May 7	147.3	143.9	149.4
May 8	151.2	146.2	161.0
May 9	152.1	148.6	158.1
May 10	153.4	148.9	161.5
May 11	151.6	147.5	155.8
May 12	155.4	150.7	164.1
May 13	152.7	150.0	156.6
May 14	149.9	146.8	152.5
May 15	153.0	147.9	163.0
May 16	155.1	149.7	166.3
May 17	157.3	150.6	171.0
May 18	154.8	151.0	163.6
May 19	153.8	149.4	163.0
May 20	155.5	151.1	165.1
May 21	151.8	150.6	152.8
May 22	150.4	145.3	154.6
May 23	149.2	147.8	150.4
May 24	150.5	147.0	156.2
May 25	149.5	147.8	151.1
May 26	152.6	149.2	159.2
May 27	153.4	150.5	158.4
May 28	152.4	150.1	156.0
May 29	154.4	149.2	162.1
May 30	152.9	151.3	157.2
Summary	151.6	145.7	157.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 98

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	79.4	72.3	88.0
May 2	78.3	72.2	88.0
May 3	74.4	62.9	86.1
May 4	78.2	67.2	92.8
May 5	83.5	73.4	94.1
May 6	83.6	80.0	87.6
May 7	80.7	76.7	85.1
May 8	82.4	71.8	93.1
May 9	83.6	75.3	93.1
May 10	86.5	76.3	97.9
May 11	84.2	76.5	93.4
May 12	83.8	71.8	97.0
May 13	87.1	81.0	95.3
May 14	84.2	79.3	89.8
May 15	86.3	74.9	97.8
May 16	91.1	82.0	100.0
May 17	95.9	86.7	106.4
May 18	98.5	91.0	108.0
May 19	99.1	92.1	108.3
May 20	99.1	91.9	107.0
May 21	99.5	95.3	103.0
May 22	101.0	97.9	106.2
May 23	101.1	98.4	107.2
May 24	102.7	98.2	108.8
May 25	103.1	100.4	108.3
May 26	104.6	100.4	110.0
May 27	102.8	99.9	105.2
May 28	101.0	95.2	105.5
May 29	96.9	90.9	104.8
May 30	94.9	89.3	102.2
Summary	90.9	74.4	104.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 99

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	140.2	138.2	142.1
May 2	138.8	137.7	140.9
May 3	139.7	138.1	141.8
May 4	140.7	138.9	143.2
May 5	141.4	139.4	143.3
May 6	140.4	138.1	141.3
May 7	139.5	138.3	140.9
May 8	140.3	138.5	142.7
May 9	140.6	138.7	142.2
May 10	141.0	139.3	142.9
May 11	139.8	137.7	141.2
May 12	142.3	137.8	145.5
May 13	143.7	143.0	144.9
May 14	142.4	141.5	143.1
May 15	143.0	141.7	144.3
May 16	143.4	142.1	144.7
May 17	143.7	142.5	145.1
May 18	143.7	142.2	145.3
May 19	143.7	142.7	144.9
May 20	143.6	141.9	144.8
May 21	142.9	141.9	143.7
May 22	142.5	141.7	143.6
May 23	142.4	141.6	143.5
May 24	142.8	141.3	144.6
May 25	142.4	141.4	143.3
May 26	142.9	142.1	144.2
May 27	142.8	141.5	143.8
May 28	142.7	142.0	143.8
May 29	142.7	140.9	144.1
May 30	142.5	141.8	143.7
Summary	141.9	138.8	143.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 100

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
May 1	156.4	155.9	157.0
May 2	146.4	142.6	149.7
May 3	156.3	155.7	157.0
May 4	140.8	137.7	146.3
May 5	157.2	156.5	157.7
May 6	158.7	151.4	167.0
May 7	156.8	156.4	157.2
May 8	162.2	151.1	173.8
May 9	157.3	156.6	157.9
May 10	151.1	147.9	153.0
May 11	157.2	156.6	157.6
May 12	161.4	147.3	172.3
May 13	157.7	157.1	158.2
May 14	159.6	149.7	169.6
May 15	157.5	156.7	158.4
May 16	155.2	151.4	158.7
May 17	158.4	157.7	159.1
May 18	155.5	147.7	167.2
May 19	158.6	158.0	159.2
May 20	156.9	149.9	164.1
May 21	158.6	158.3	159.0
May 22	155.8	149.4	165.5
May 23	158.6	158.0	159.4
May 24	148.4	146.4	151.3
May 25	158.8	158.2	159.3
May 26	155.7	145.8	170.2
May 27	159.2	158.7	159.8
May 28	155.2	151.2	163.0
May 29	159.4	158.7	160.1
May 30	147.2	82.0	152.5
Summary	157.9	156.1	159.5

Appendix D

Solid Waste Permit 588 Daily Borehole Temperature Averages

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Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 1

Date	Depth from Surface					
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft
1-May	157.4	223.7	224.2	237.6	251.3	261.0
2-May	157.2	223.4	224.1	237.5	251.2	260.9
3-May	157.2	222.9	223.9	237.8	251.1	260.8
4-May	157.3	223.4	224.1	237.7	251.1	260.9
5-May	157.7	223.5	224.5	238.2	251.5	261.3
6-May	157.5	223.3	224.3	238.4	251.5	261.2
7-May	157.3	222.6	224.1	238.6	251.2	260.9
8-May	157.5	223.0	224.4	238.6	251.3	261.1
9-May	157.6	224.2	224.5	237.7	251.6	261.2
10-May	157.8	224.4	224.6	237.8	251.9	261.2
11-May	157.5	224.6	224.3	237.1	251.5	260.6
12-May	157.7	225.3	224.6	236.9	251.6	260.4
13-May	157.7	224.8	224.5	237.4	251.6	260.6
14-May	157.5	224.4	224.4	237.2	251.3	260.6
15-May	157.5	224.7	224.3	237.2	251.3	260.7
16-May	158.0	224.8	224.7	238.1	251.8	261.2
17-May	158.3	224.4	224.9	239.0	252.1	261.4
18-May	158.4	224.4	225.3	238.1	251.9	261.7
19-May	158.5	224.0	225.6	236.8	251.3	261.9
20-May	158.5	224.0	225.6	236.3	251.1	261.8
21-May	158.2	224.1	225.3	235.6	250.7	261.4
22-May	158.3	224.0	225.4	236.0	250.8	261.5
23-May	158.2	223.6	225.2	235.7	250.6	261.4
24-May	158.4	223.0	225.3	235.5	250.6	261.4
25-May	158.2	223.2	225.2	235.7	250.6	261.3
26-May	158.5	223.6	225.2	236.0	250.7	261.4
27-May	158.5	223.5	225.1	236.9	251.0	261.4
28-May	158.5	223.5	225.0	237.6	251.3	261.3
29-May	158.6	223.3	224.9	238.5	251.7	261.3
30-May	158.5	223.3	224.8	238.9	251.8	261.3
31-May	158.5	223.3	224.8	239.2	251.8	261.3
Average	157.9	223.8	224.7	237.4	251.3	261.2

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 5

Date	Depth from Surface							
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-May	142.1	211.6	211.8	221.9	231.0	232.7	204.2	201.5
2-May	141.9	211.5	211.8	221.8	230.9	232.6	204.1	201.5
3-May	142.0	211.3	211.7	221.9	230.8	232.6	204.0	201.4
4-May	142.0	211.4	211.7	222.0	231.0	232.7	204.2	201.5
5-May	142.1	211.5	211.9	222.1	231.2	232.8	204.3	201.6
6-May	142.2	211.4	211.8	222.0	231.1	232.6	204.2	201.5
7-May	142.1	211.2	211.5	221.9	230.9	232.4	204.0	201.3
8-May	142.2	211.2	211.6	221.9	231.0	232.5	204.1	201.4
9-May	142.4	211.3	211.6	221.9	231.0	232.6	204.1	201.4
10-May	142.3	211.2	211.6	222.0	231.1	232.7	204.2	201.5
11-May	142.3	211.0	211.4	221.8	230.9	232.4	203.9	201.3
12-May	142.7	211.1	211.5	222.0	231.1	232.5	204.1	201.4
13-May	142.7	211.1	211.5	222.1	231.0	232.6	204.1	201.4
14-May	142.6	210.9	211.3	221.8	230.7	232.3	203.8	201.2
15-May	142.9	211.0	211.4	222.0	230.8	232.4	204.0	201.3
16-May	142.8	211.3	211.7	222.1	231.0	232.8	204.3	201.6
17-May	143.4	211.5	211.9	222.2	231.2	232.8	204.3	201.8
18-May	143.4	211.6	211.9	222.3	231.1	232.9	204.3	201.7
19-May	143.4	211.6	211.9	222.3	231.2	233.0	204.5	201.8
20-May	143.5	211.6	211.9	222.3	231.1	232.8	204.4	201.8
21-May	143.4	211.3	211.8	222.1	231.0	232.6	204.2	201.6
22-May	143.4	211.4	211.7	222.2	231.0	232.6	204.2	201.6
23-May	143.2	211.2	211.6	222.0	230.7	232.4	204.0	201.3
24-May	143.3	211.5	211.8	222.2	231.0	232.7	204.2	201.7
25-May	143.1	211.2	211.6	222.0	230.8	232.5	204.1	201.5
26-May	143.2	211.2	211.6	222.0	230.8	232.5	204.2	201.5
27-May	143.3	211.2	211.7	222.1	230.8	232.7	204.3	201.6
28-May	143.2	211.2	211.6	222.2	230.7	232.5	204.2	201.5
29-May	143.2	211.2	211.6	222.1	230.6	232.5	204.2	201.4
30-May	143.2	211.2	211.6	222.2	230.2	232.6	204.2	201.5
31-May	143.3	211.2	211.5	221.9	230.0	232.5	204.2	201.4
Average	142.8	211.3	211.7	222.0	230.9	232.6	204.2	201.5

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 6

Date	Depth from Surface				
	25 ft	50 ft	75 ft	100 ft	125 ft
1-May	141.9	193.5	*	197.3	195.6
2-May	141.8	193.9	*	197.6	195.8
3-May	141.9	192.7	*	195.8	194.4
4-May	142.0	194.4	*	197.5	196.3
5-May	142.1	196.7	*	200.3	198.5
6-May	141.9	193.2	*	196.1	195.1
7-May	141.7	191.8	*	194.6	193.9
8-May	142.1	192.8	*	195.7	194.8
9-May	142.0	193.8	*	197.0	195.8
10-May	142.2	194.2	*	197.3	196.1
11-May	142.4	193.9	*	196.6	195.8
12-May	142.5	194.3	*	196.9	196.0
13-May	142.2	198.2	*	200.9	200.1
14-May	141.8	196.5	*	199.2	198.6
15-May	142.2	196.6	*	199.2	198.4
16-May	142.5	196.2	*	198.7	198.0
17-May	142.8	194.4	*	196.9	196.2
18-May	143.0	194.5	*	197.1	196.2
19-May	143.0	198.3	*	200.9	199.7
20-May	142.9	199.5	*	201.9	200.6
21-May	142.5	198.4	*	200.6	199.3
22-May	142.5	196.1	*	198.2	197.0
23-May	142.5	194.1	*	196.2	195.1
24-May	142.6	194.1	*	196.2	195.1
25-May	142.7	193.1	*	195.4	194.3
26-May	142.4	193.3	*	195.9	194.2
27-May	143.4	191.4	*	194.9	192.3
28-May	143.8	191.2	*	194.5	191.8
29-May	143.0	191.9	*	195.7	192.9
30-May	142.7	193.2	*	196.7	194.8
31-May	142.4	195.3	*	199.4	197.2
Average	142.4	194.6	*	197.5	196.1

* Indicates sensor reading issues

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 8

Date	Depth from Surface							
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-May	180.8	192.9	193.2	195.3	199.1	198.8	186.8	168.1
2-May	180.6	192.9	193.1	195.2	199.0	198.7	186.7	168.0
3-May	180.1	192.8	193.0	195.2	199.0	198.7	186.7	168.0
4-May	180.5	193.0	193.2	195.4	199.2	198.9	186.8	168.2
5-May	180.6	193.2	193.4	195.6	199.4	199.1	186.9	168.4
6-May	180.6	193.2	193.3	195.5	199.3	199.0	186.8	168.2
7-May	180.0	192.9	193.0	195.2	199.0	198.7	186.5	167.9
8-May	179.8	193.0	193.2	195.4	199.2	199.0	186.7	168.1
9-May	180.2	193.1	193.3	195.4	199.3	199.0	186.8	168.2
10-May	179.7	193.1	193.3	195.5	199.3	199.0	186.8	168.2
11-May	179.4	193.1	193.3	195.5	199.3	199.0	186.8	168.2
12-May	179.3	193.0	193.2	195.5	199.3	199.0	186.8	168.1
13-May	180.2	193.1	193.3	195.4	199.3	199.0	186.8	168.1
14-May	179.8	192.8	193.0	195.2	199.0	198.7	186.5	167.7
15-May	179.7	192.9	193.2	195.4	199.2	198.9	186.7	168.0
16-May	180.0	193.2	193.4	195.7	199.5	199.1	186.9	168.3
17-May	180.1	193.5	193.7	195.9	199.7	199.4	187.1	168.4
18-May	180.2	193.6	193.8	196.0	199.8	199.5	187.2	168.6
19-May	180.3	193.5	193.7	195.9	199.7	199.4	187.1	168.5
20-May	180.8	193.6	193.8	196.0	199.9	199.5	187.3	168.6
21-May	181.0	193.5	193.6	195.8	199.6	199.3	187.0	168.3
22-May	181.1	193.4	193.6	195.8	199.6	199.2	187.0	168.3
23-May	180.8	193.3	193.5	195.7	199.5	199.2	186.9	168.2
24-May	180.7	193.4	193.5	195.7	199.6	199.3	186.9	168.2
25-May	180.3	193.4	193.6	195.7	199.6	199.2	186.5	168.2
26-May	180.1	193.4	193.6	195.7	199.7	199.3	186.7	168.3
27-May	179.5	193.4	193.6	195.7	199.6	199.3	186.7	168.3
28-May	179.6	193.4	193.6	195.7	199.6	199.3	186.7	168.3
29-May	180.0	193.3	193.6	195.7	199.6	199.3	186.8	168.3
30-May	180.3	193.3	193.6	195.7	199.6	199.3	186.8	168.3
31-May	180.5	193.3	193.5	195.6	199.5	199.2	186.7	168.1
Average	180.2	193.2	193.4	195.6	199.4	199.1	186.8	168.2

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 9

Date	Depth from Surface							
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-May	111.0	149.9	149.6	147.1	142.5	129.6	114.5	102.3
2-May	110.9	149.8	149.5	147.0	142.4	129.5	114.4	102.3
3-May	110.7	149.6	149.4	146.8	142.2	129.3	114.3	102.1
4-May	110.9	149.8	149.5	147.0	142.3	129.5	114.4	102.3
5-May	111.2	150.1	149.8	147.4	142.6	129.9	114.7	102.6
6-May	111.1	150.0	149.7	147.4	142.6	129.7	114.6	102.5
7-May	110.8	149.7	149.4	147.1	142.3	129.4	114.4	102.3
8-May	111.0	149.9	149.6	147.1	142.4	129.5	114.4	102.4
9-May	111.1	149.9	149.6	147.2	142.4	129.6	114.5	102.5
10-May	111.4	150.3	150.0	147.3	142.7	129.8	114.7	102.8
11-May	111.0	150.0	149.8	147.0	142.4	129.5	114.5	102.5
12-May	111.1	150.1	149.9	147.1	142.4	129.5	114.5	102.6
13-May	111.2	150.1	149.9	147.4	142.5	129.7	114.6	102.7
14-May	110.9	149.9	149.6	147.2	142.3	129.4	114.4	102.4
15-May	111.0	150.0	149.8	147.2	142.3	129.5	114.4	102.5
16-May	111.4	150.4	150.1	147.6	142.6	129.7	114.7	102.8
17-May	111.7	150.8	150.5	147.9	143.0	130.1	115.1	103.3
18-May	112.0	150.9	150.7	148.0	143.0	130.2	115.2	103.4
19-May	112.0	150.9	150.7	147.9	143.0	130.2	115.2	103.4
20-May	111.9	150.9	150.7	148.0	143.0	130.2	115.2	103.4
21-May	111.7	150.6	150.4	147.8	142.7	130.0	115.0	103.2
22-May	111.7	150.7	150.5	147.8	142.7	130.0	115.0	103.2
23-May	111.6	150.6	150.4	147.6	142.7	129.9	114.9	103.1
24-May	111.8	150.8	150.5	147.7	142.8	130.0	115.0	103.4
25-May	111.7	150.7	150.4	147.6	142.7	129.9	114.9	103.2
26-May	111.8	150.8	150.6	147.7	142.8	130.0	115.1	103.4
27-May	111.9	150.9	150.6	147.7	142.8	130.0	115.1	103.4
28-May	111.9	150.9	150.7	147.8	142.9	130.1	115.2	103.5
29-May	111.8	150.8	150.5	147.7	142.8	130.0	115.1	103.4
30-May	111.8	150.7	150.5	147.7	142.7	130.0	115.0	103.3
31-May	111.6	150.6	150.5	147.6	142.6	129.8	114.9	103.1
Average	111.4	150.4	150.1	147.5	142.6	129.8	114.8	102.9

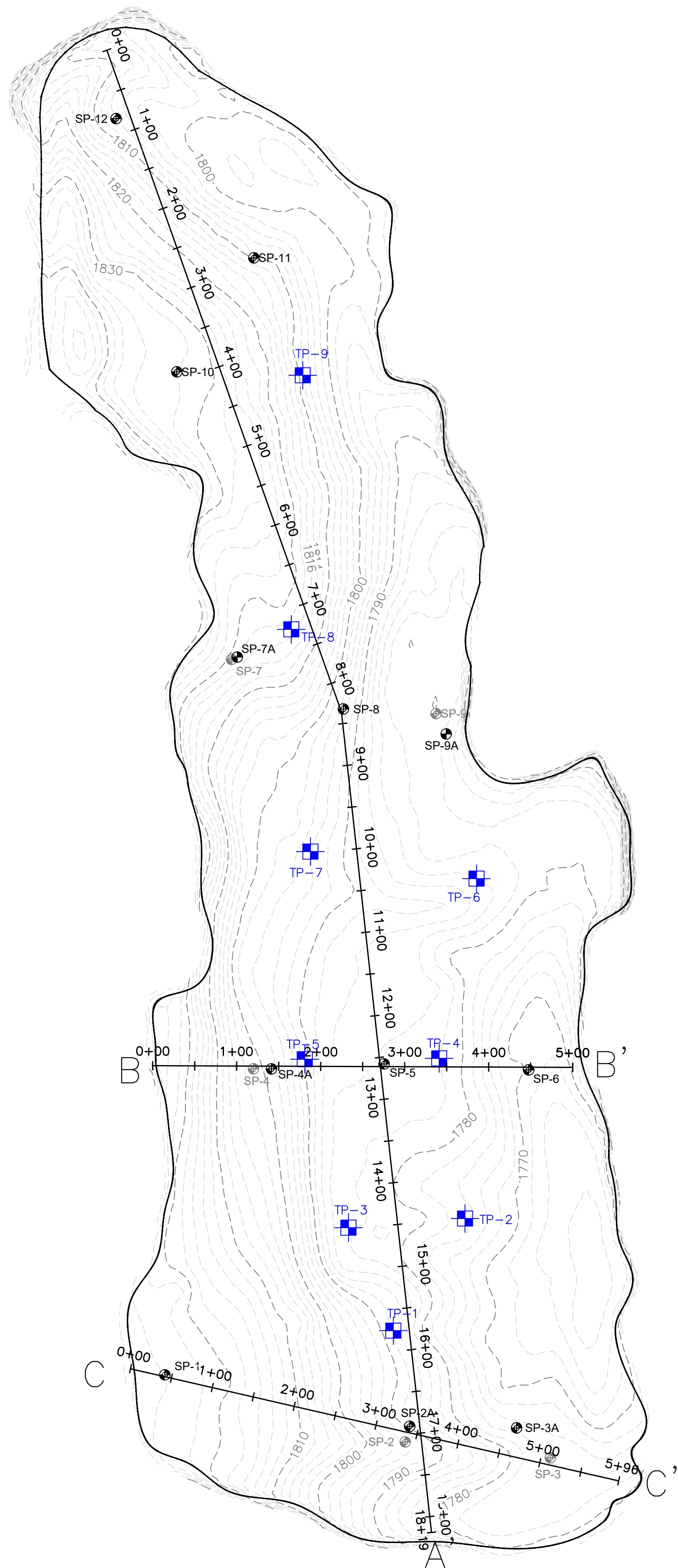
Appendix E

Monthly Topography Analysis



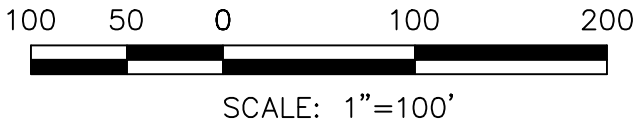
Appendix F

LFG Dewatering Pump Stroke Counter Data Analysis

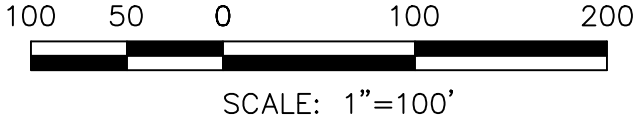


- LEGEND
- MAJOR CONTOURS (EVERY 10')
 - MINOR CONTOURS (EVERY 2')
 - APPROXIMATE SIDEWALL LOCATION
 - SP-8 SETTLEMENT PLATE
 - SP-9 DECOMMISSIONED SETTLEMENT PLATE
 - TP-3 TEMPERATURE MONITORING PROBE

- NOTES:
- GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY. REPRESENT THE TOPOGRAPHY CAPTURED ON MAY 15, 2025 BY SCS ENGINEERS.
 - ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FLOOD PLAIN DETERMINATION.
 - THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
 - THE VERTICAL DATUM IS BASED UPON NAVD-88.

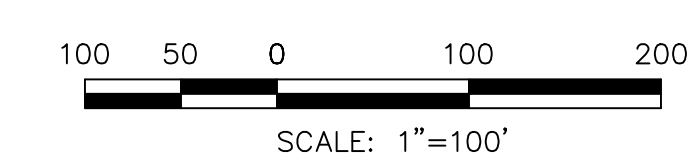


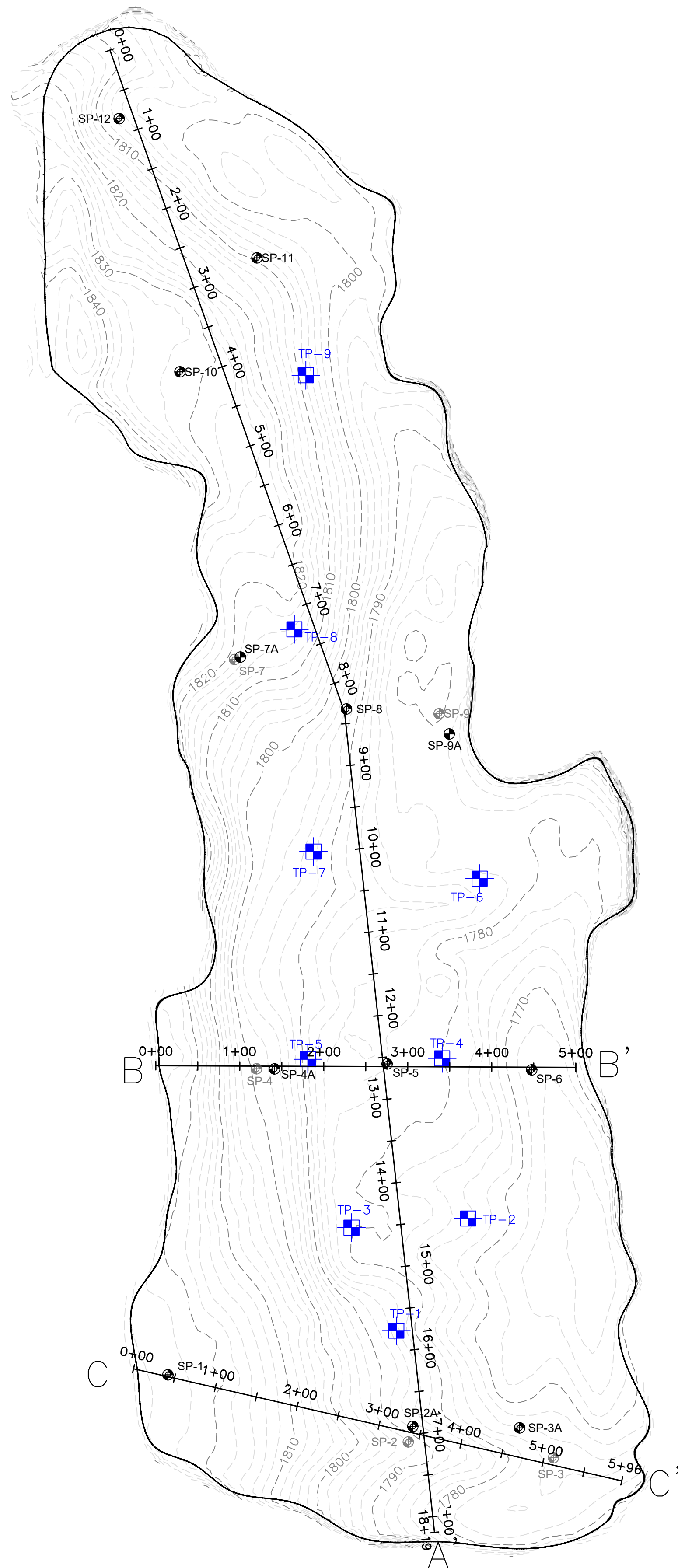
SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 18521 MIDLOTHIAN TPK., MIDLOTHIAN, VA 23113 PH. (804) 378-7440 FAX. (804) 378-7433		O/A R/W BY: C.J.W.		DATE: 6/1/2026		NO.		REVISION		DATE	
		PROJ. NO. 02218208.05	DWN. BY: MM	CHK. BY: C.J.W.	APP. BY: C.J.W.	△	△	△	△	△	△
CADD FILE: SURF1 COMP		SCALE:		DRAWING NO.		SHEET TITLE		MAY 2025		LANDFILL TOPOGRAPHY	
PROJECT TITLE		MONTHLY TOPOGRAPHY ANALYSIS		SOLID WASTE PERMIT #588		PROJECT TITLE		MAY 2025		LANDFILL TOPOGRAPHY	
CLIENT		CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY		2655 VALLEY DRIVE		BRISTOL, VIRGINIA 24201		PROJECT TITLE		MONTHLY TOPOGRAPHY ANALYSIS	
CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY		2655 VALLEY DRIVE		BRISTOL, VIRGINIA 24201		PROJECT TITLE		MONTHLY TOPOGRAPHY ANALYSIS		SOLID WASTE PERMIT #588	



- NOTES:
1. GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON FEBRUARY 10, 2026 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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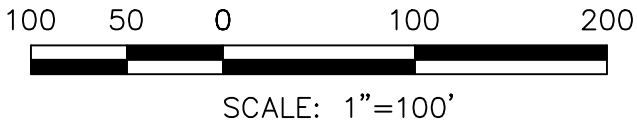




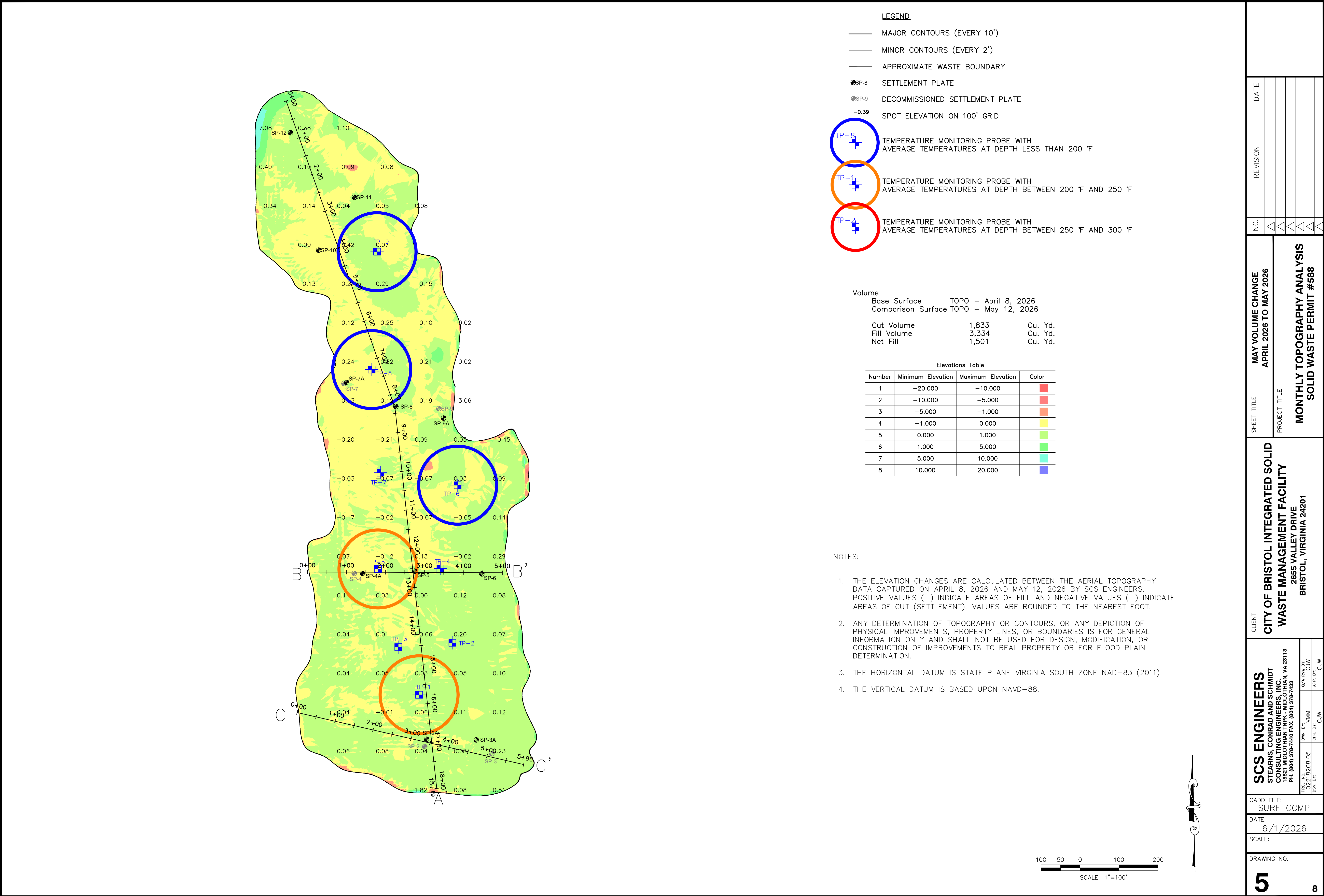
- LEGEND**
- MAJOR CONTOURS (EVERY 10')
 - MINOR CONTOURS (EVERY 2')
 - APPROXIMATE SIDEWALL LOCATION
 - SP-8 SETTLEMENT PLATE
 - SP-9 DECOMMISSIONED SETTLEMENT PLATE
 - TP-3 TEMPERATURE MONITORING PROBE

NOTES:

- GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON MAY 12, 2026 BY SCS ENGINEERS.
- ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FLOOD PLAIN DETERMINATION.
- THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
- THE VERTICAL DATUM IS BASED UPON NAVD-88.



CLIENT CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VIRGINIA 24201		SHEET TITLE MAY 2026 LANDFILL TOPOGRAPHY		NO.		REVISION		DATE	
		PROJECT TITLE MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588		△		△		△	
SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 1523 MIDLOTHIAN TPK - MIDLOTHIAN, VA 23113 PH: (804) 378-7440 FAX: (804) 378-7433		CADD FILE: SURF COMP		DATE: 6/1/2026		DRAWING NO. 4		8	
		DATE: 6/1/2026		SCALE:		DRAWING NO.		8	
PROJ. NO. 220208.05 DWN. BY: C.J.W. CHK. BY: C.J.W.		O/A RW BY: C.J.W. APP. BY: C.J.W.							



LEGEND

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

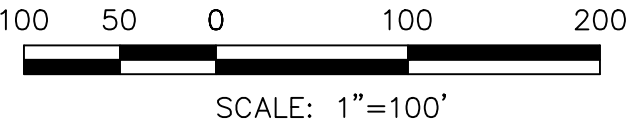
Volume

Base Surface	TOPO	April 8, 2026
Comparison Surface	TOPO	May 12, 2026

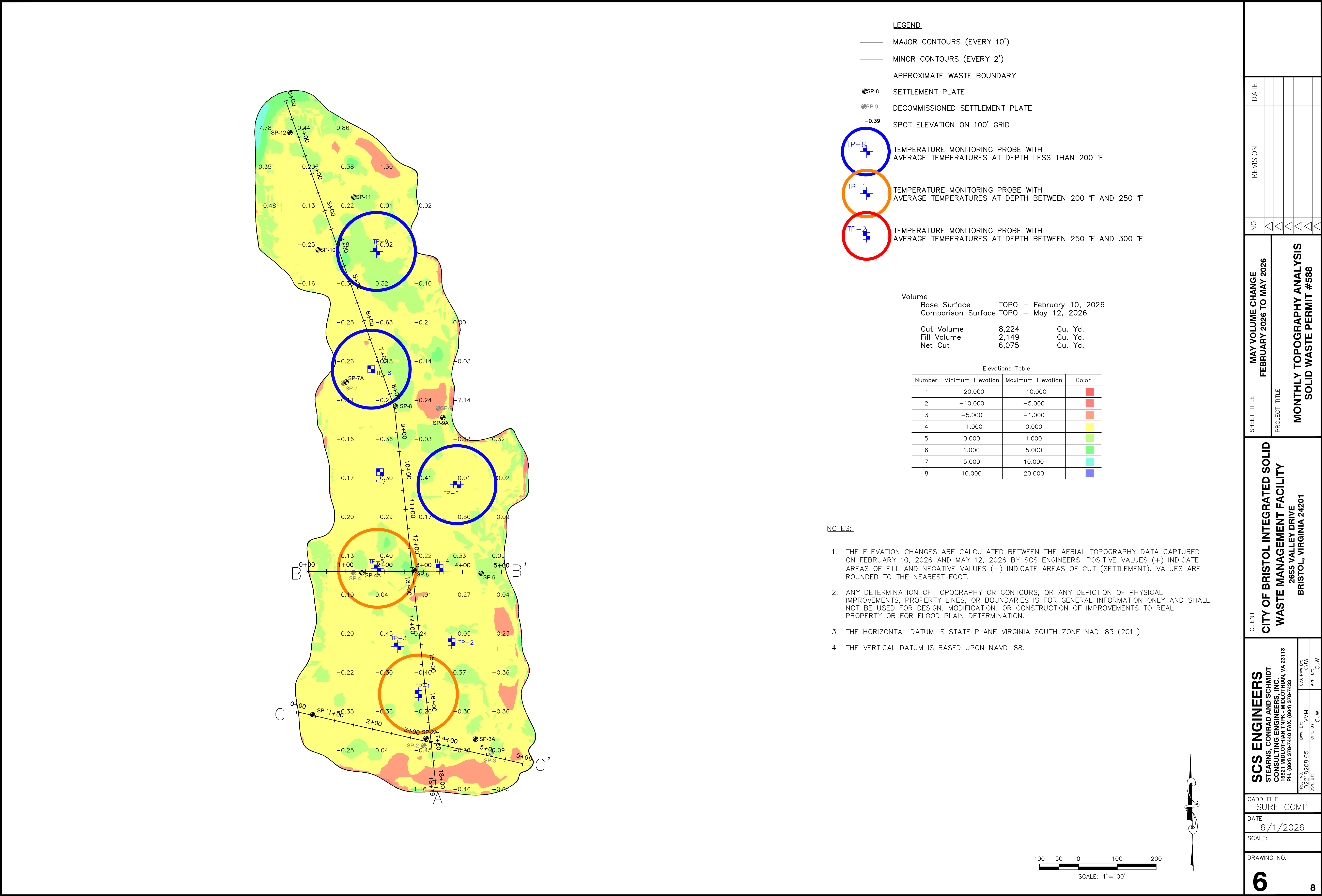
Cut Volume	1,833	Cu. Yd.
Fill Volume	3,334	Cu. Yd.
Net Fill	1,501	Cu. Yd.

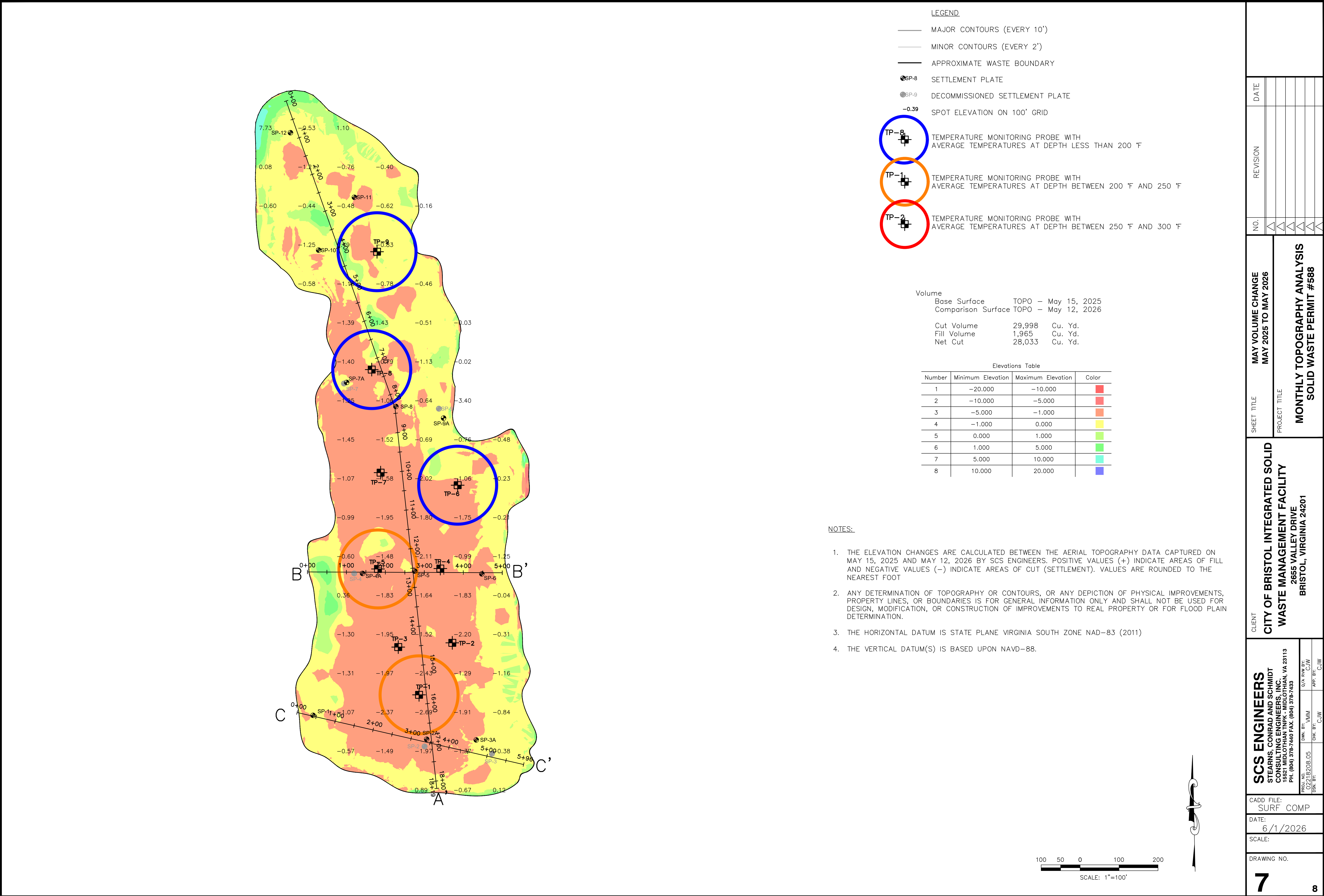
Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	-20.000	-10.000	
2	-10.000	-5.000	
3	-5.000	-1.000	
4	-1.000	0.000	
5	0.000	1.000	
6	1.000	5.000	
7	5.000	10.000	
8	10.000	20.000	

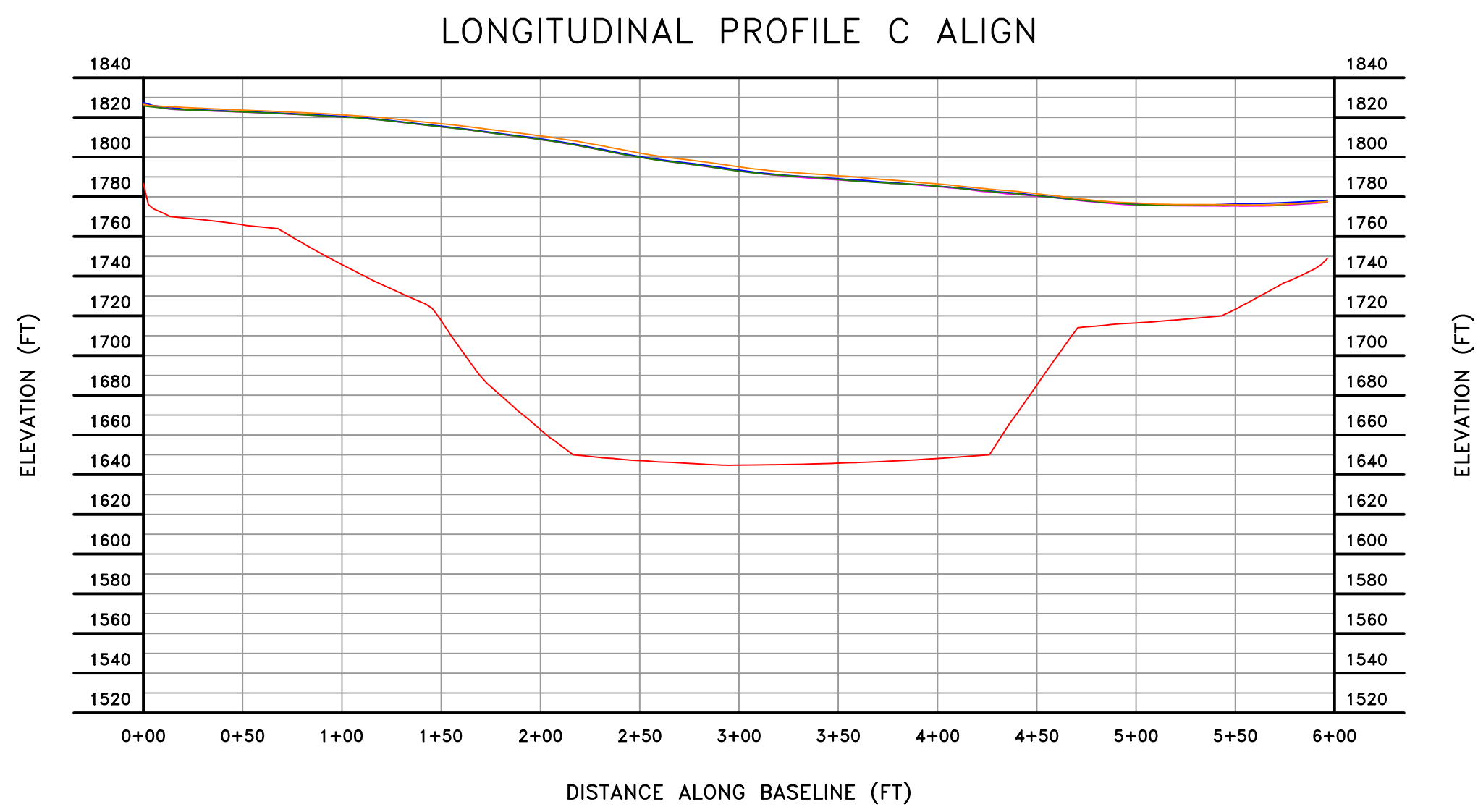
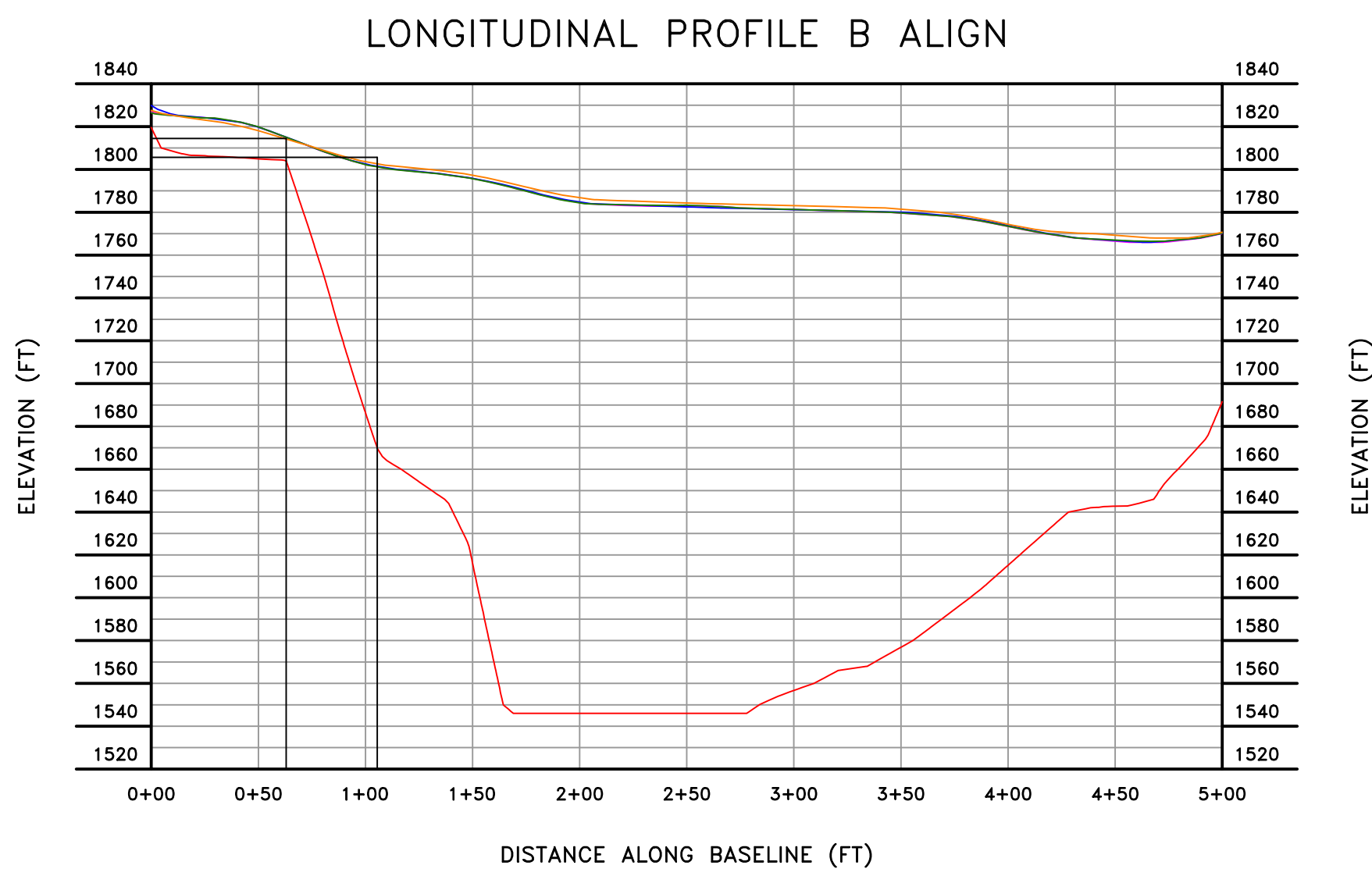
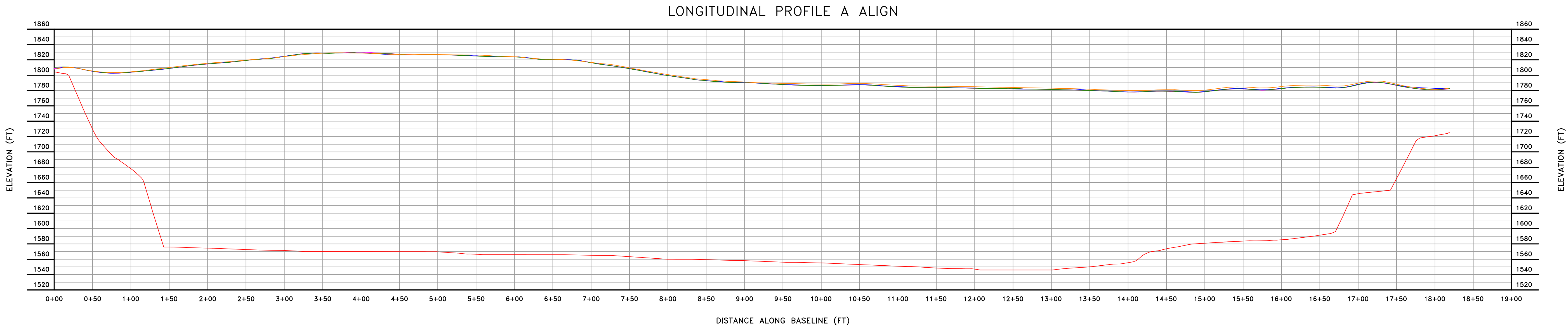
- NOTES:
- THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON APRIL 8, 2026 AND MAY 12, 2026 BY SCS ENGINEERS. POSITIVE VALUES (+) INDICATE AREAS OF FILL AND NEGATIVE VALUES (-) INDICATE AREAS OF CUT (SETTLEMENT). VALUES ARE ROUNDED TO THE NEAREST FOOT.
 - ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FOR FLOOD PLAIN DETERMINATION.
 - THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011)
 - THE VERTICAL DATUM IS BASED UPON NAVD-88.



CLIENT	CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VIRGINIA 24201	SHEET TITLE MAY VOLUME CHANGE APRIL 2026 TO MAY 2026	PROJECT TITLE MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588	NO.	REVISION	DATE				
SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 1523 MIDLOTHIAN TPK - MIDLOTHIAN, VA 23113 PH: (804) 378-7440 FAX: (804) 378-7433		CADD FILE: SURF COMP		DRAWING NO. 8						
PROJ. NO. 2208.05 DATE: 6/1/2026 SCALE:		DATE: 6/1/2026		SCALE:						
DWN. BY: JMM CHK. BY: C.JW APP. BY: C.JW		DATE: 6/1/2026		SCALE:						







- LEGEND**
- BOTTOM LINER ELEVATION
 - MAY 2025 TOPO
 - FEBRUARY 2025 TOPO
 - APRIL 2026 TOPO
 - MAY 2026 TOPO

SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TPK - MIDLOTHIAN, VA 23113 PH: (804) 378-7440 FAX: (804) 378-7433		CADD FILE: SURF COMP	
PROJ. NO.: 2208.05 DATE: 6/1/2026	DWG. BY: JMW CHK. BY: C.JW	DATE: 6/1/2026	DRAWING NO. 8
CLIENT CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VIRGINIA 24201		SHEET TITLE PROFILES PROJECT TITLE MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588	
NO.		REVISION	
DATE			

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 21 wells from May 1, to June 1, 2026. The recorded stroke count data from each well during March is included in **Table F-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 F-1 Summary of Dual Extraction Well Pump Stroke Counter Data

Well	5/1/2026	6/1/2026	# of strokes between measurements	Estimated liquid removed (gallons)
EW36A			-	0
EW49	158973	161659	2,686	806
EW50	1728696	1733480	4,784	1,435
EW52	1530640	116326	62,461	18,738
EW53			-	0
EW54	858968	935932	76,964	23,089
EW55	149047	190122	41,075	12,323
EW59	4020901	4083348	62,447	18,734
EW60	444147	456363	12,216	3,665
EW61	324723	337348	12,625	3,788
EW62	259709	262260	2,551	765
EW65	252671	256177	3,506	1,052
EW66	903024	1088907	185,883	55,765
EW67	141763	305492	163,729	49,119
EW68	2724428	2743896	19,468	5,840
EW76			-	0
EW78	485272	525537	40,265	12,080
EW82			-	0
EW85	392668	394200	1,532	460
EW87	340749	340749	-	0
EW88	490436	490470	34	10
EW93	1409957	1409957	-	0
EW94	1993412	2013255	19,843	5,953
EW98	3251210	3280632	29,422	8,827
TP-4	27713	27743	30	9
Total Estimated Liquid Removal				222,456