

March 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 March 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 March 3, 2026; March 12, 2026; March 19, 2026; and March 27, 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 March Surface Emissions Monitoring

Description	March 3, 2026	March 12, 2026	March 19, 2026	March 27, 2026
Number of Points Sampled	166	166	166	166
Number of Points in Serpentine Route	100	100	100	100
Number of Points at Surface Cover Penetrations	66	66	66	66
Number of Exceedances	0	0	0	0
Number of Serpentine Exceedances	0	0	0	0
Number of Pipe Penetration Exceedances	0	0	0	0

During the four weekly monitoring events conducted in March, there were no locations where a methane concentration above the regulatory threshold was recorded.

1.1.2 Monitoring of Leachate Collection Components

SCS Field Services (SCS-FS) was onsite at the Bristol Landfill on March 3, 4, and 31, 2026, and performed monitoring of the leachate, witness zone, northern cleanouts, and gradient control cleanouts at the southern end of the landfill. The results of that monitoring are included in **Table 2**.

Table 2. Leachate Cleanout Pipe Monitoring Results

Description	ID#	Record Date	CH4 (% by Vol)	CO2 (% by Vol)	O2 (% by Vol)	Balance Gas (% by Vol)	Initial Temp (°F)	Adj Temp (°F)	Initial Static Pressure (in H2O)	Adj Static Pressure (in H2O)	System Pressure (in H2O)
Southern Cleanouts Gradient West	LC01	3/3/2026 1:49:52 PM	26.0	31.6	0.0	42.4	61.3	61.3	-12.20	-12.08	-14.38
Southern Cleanouts Gradient East	LC02	3/3/2026 1:53:16 PM	29.4	39.0	0.0	31.6	58.5	58.6	-13.02	-13.23	-14.70
Southern Cleanouts Leachate Center	LC03	3/3/2026 2:14:01 PM	6.3	2.7	18.7	72.3	68.5	68.5	-6.88	-6.89	-14.45
Southern Cleanouts Witness East	LC04	3/3/2026 2:11:04 PM	0.4	0.1	20.9	78.7	70.0	70.0	-0.09	-0.09	-15.96
Southern Cleanouts Leachate West	LC05	3/31/2026 2:14:57 PM	43.0	28.2	5.2	23.6	77.4	77.4	0.03	0.06	-15.31
Southern Cleanouts Gradient Center West	LC06	3/3/2026 1:57:18 PM	9.9	5.8	17.8	66.5	66.5	67.7	-13.86	-14.02	-14.25
Southern Cleanouts Leachate East	LC08	3/3/2026 2:06:12 PM	31.0	36.0	0.0	33.1	57.7	57.7	-13.32	-12.62	-13.72
Southern Cleanouts Gradient Center East	LC09	3/3/2026 2:00:54 PM	25.7	26.0	4.4	44.0	66.4	66.3	-14.27	-14.20	-14.27
Southern Cleanouts Leachate West	LC10	3/3/2026 2:03:44 PM	3.1	1.5	20.0	75.4	70.5	70.9	-3.08	-3.07	-6.99
Northern Cleanouts Leachate East	NC01	3/4/2026 2:12:38 PM	7.3	3.7	17.6	71.4	75.9	76.1	-0.29	-0.29	-0.63
Northern Cleanouts Leachate Center	NC02	3/4/2026 2:15:42 PM	8.5	4.5	17.5	69.6	75.9	75.9	-0.29	-0.29	-0.40
Northern Cleanouts Leachate West	NC03	3/4/2026 1:51:29 PM	9.8	5.0	17.3	67.9	77.8	77.9	-0.44	-0.43	-0.67
Northern Cleanouts Witness East	NC04	3/4/2026 2:09:47 PM	0.0	0.0	20.8	79.1	73.4	73.4	-0.84	-0.83	-0.35
Northern Cleanouts Witness Center	NC05	3/4/2026 2:19:24 PM	0.1	0.1	20.8	79.1	72.5	72.5	-0.84	-0.82	-0.58
Northern Cleanouts Witness West	NC06	3/4/2026 1:55:04 PM	0.0	0.0	20.9	79.1	73.0	73.0	-0.08	-0.04	-0.64
Northern Cleanouts Gradient East	NC07	3/4/2026 2:04:38 PM	0.1	0.0	21.0	79.0	68.3	68.5	-11.66	-11.66	-0.55
Northern Cleanouts Gradient Center East	NC08	3/4/2026 2:01:27 PM	0.1	0.0	20.9	79.0	63.2	63.3	-11.65	-11.63	-0.64
Northern Cleanouts Gradient Center West	NC09	3/4/2026 1:58:29 PM	0.1	0.0	20.9	79.0	62.1	62.3	-11.92	-11.64	-0.67
Northern Cleanouts Gradient West	NC10	3/4/2026 1:48:34 PM	0.0	0.0	20.9	79.1	82.5	82.5	-0.47	-0.46	-0.67

1.2 EXISTING GAS EXTRACTION SYSTEM PERFORMANCE

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

Additional actions taken by SCS-FS include the following:

- Adjustments to LFGCCS
- Maintenance of air lines and pressurized air infrastructure
- Maintenance of wellhead and other gas collection infrastructure
- Removal of liquids from landfill gas headers
- Replacement of a section of blocked forcemain
- Temporary relocation of header pipes to facilitate placement of additional soil.

1.3 REMOTE MONITORING SYSTEM

In the Fall of 2022, SCS Remote Monitoring & Control (SCS-RMC) installed 25 industrial internet of things (IIoT) temperature sensors in the landfill gas wellheads. The purpose of the sensors is to record and transmit wellhead gas temperatures via cellular connection to a database managed by SCS-RMC. Since the initial installation, some sensors have been relocated and additional sensors have been added to the network. There are currently 59 wellhead temperature sensors operating within the wellfield.

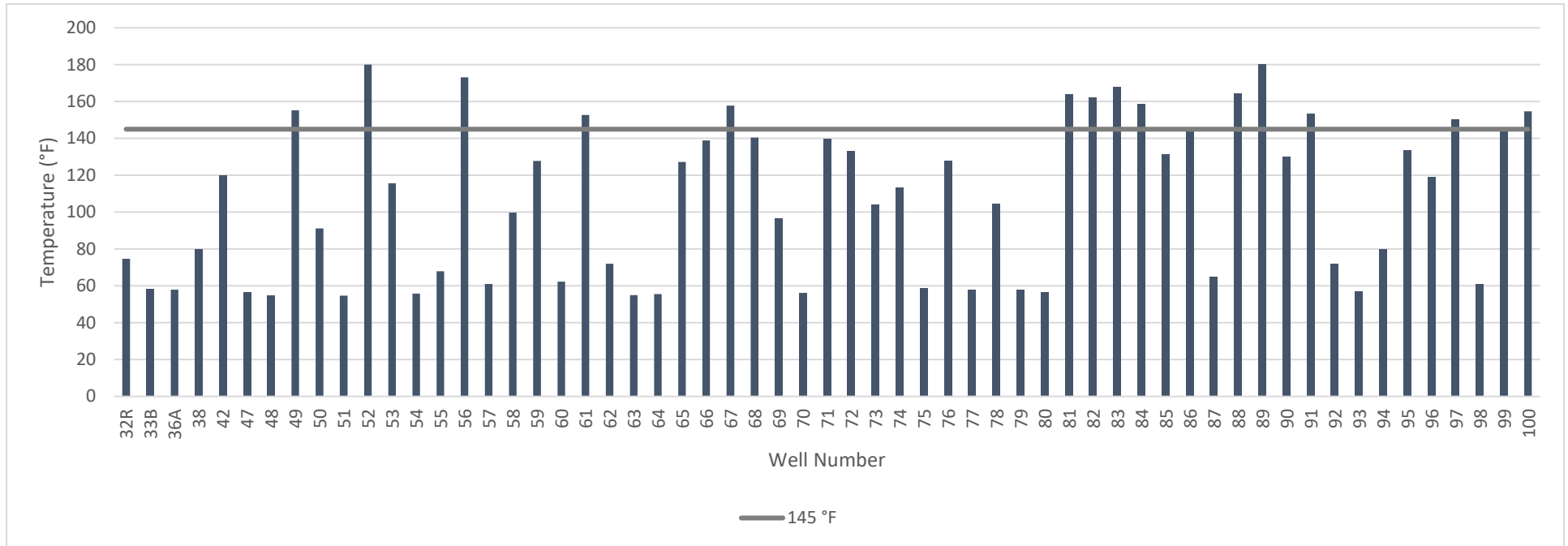
The City is providing the minimum, maximum, and average daily temperature recorded by each sensor to VDEQ on a daily basis via email. Minimum, maximum, and average daily temperatures recorded by the remote monitoring system during the month of March are included in **Appendix C**. In addition, SCS previously prepared semi-monthly status updates to satisfy the conditions of compliance provision no. 2 of the Environmental Protection Agency (EPA) Region III letter, Approval of Higher Operating Temperature Values for Landfill Gas Wells and Submission of Gas Treatment Alternatives at the Bristol Virginia Integrated Solid Waste Management Facility, dated August 23, 2021. On August 2, 2023, VDEQ requested that such updates be included in the monthly compliance reports. Accordingly, this section is a summary of temperature monitoring activities during the monthly monitoring period of March 2026.

1.3.1 Automated Wellhead Temperature Measurements

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

- The average temperature in March was above the regulatory threshold of 145°F at 14 wells (see **Figure 1**).
- The highest average temperature was 180.2°F at EW-89. While temperatures have been high at this well, they have been stable for 6 months.
- Beginning on 2/22, EW-62 began to read 0°F, which continued until 3/4. Troubleshooting by field staff has returned the sensor to normal performance.
- Beginning on 3/29, EW-32R began to read 0°F, and it was fixed the following morning.

Figure 1. Monthly Average Automated Wellhead Temperatures¹



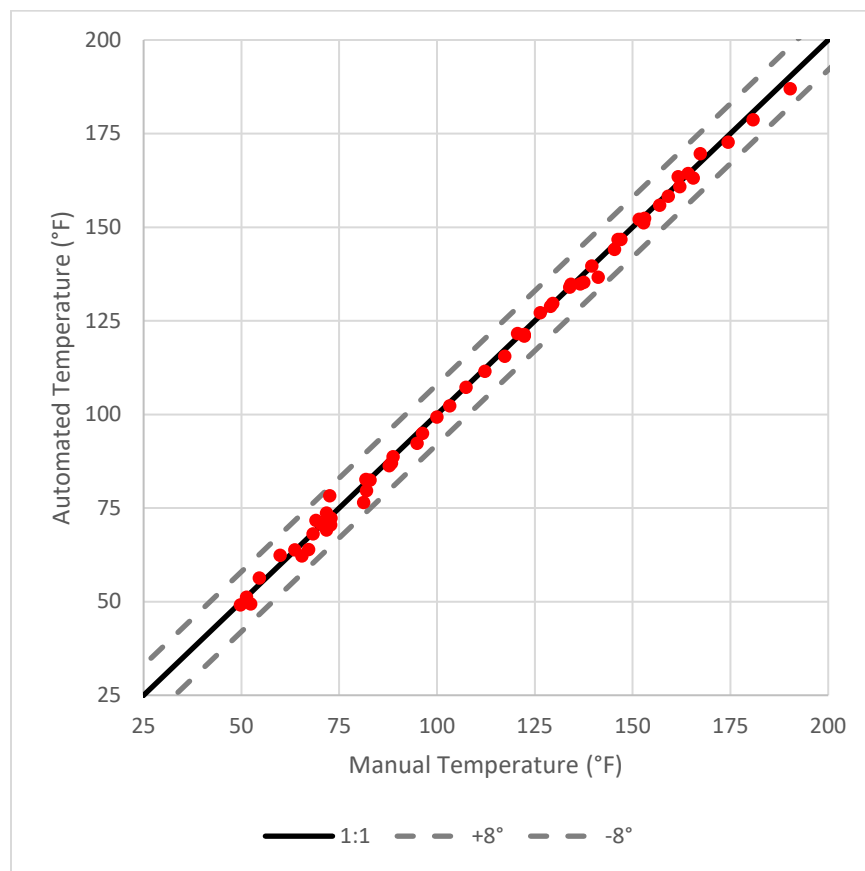
¹ 145 °F is the NESHA AAAA compliance threshold for well temperature, included here for reference.

1.3.2 Comparison with Manual Temperature Measurements

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

Temperatures were within the $\pm 8^\circ\text{F}$ deviation threshold at all wells during this reporting period.

Figure 2. Automated vs. Manual Temperature Measurements



1.3.3 Monthly Regulatory Wellhead Temperature Measurements

Routine monthly temperature monitoring was conducted on March 10 and March 30, 2026, to comply with 40 CFR 60.36f(a)(5). **Table 3** provides the status of exceedances recorded during this monitoring period.

Table 3. March Temperature Exceedance Summary

Well ID	Initial Exceedance Date	Compliant Reading	Most Recent Reading	Duration of Exceedance	Status as of 3/1/2026
EW-52	2/11/26	3/10/26 170.3°F	3/30/26 169.6°F	28 days	Resolved within 60-day timeline
EW-66	3/10/26	3/19/26 199.2°F	3/30/26 97.3°F	10 days	Resolved within 15-day timeline
EW-68	3/30/26	N/A	3/30/26 161.5°F	2 days	Ongoing, within 15-day timeline

1.3.4 LFG Sampling

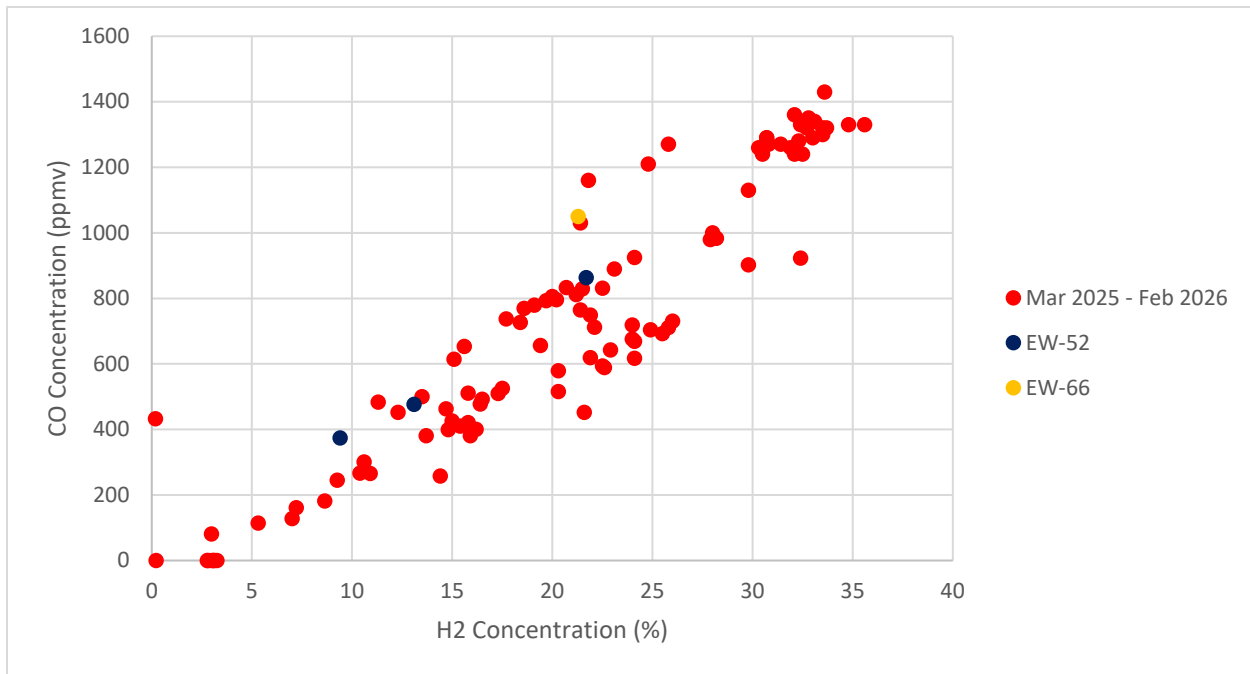
SCS collects weekly LFG samples from wells with temperature exceedances lasting more than seven days using 1.5-L summa canisters. The samples were sent to Enthalpy Analytical for laboratory analysis of carbon monoxide (CO) and hydrogen (H₂) content. As of April 1, 2026, the City has received lab results for sampling on February 19, February 26, March 5, and March 12, 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		2/19/26	2/26/26	3/5/26	3/12/26
EW-52	CO (ppmv)	863	374	476	
	H2 (Vol. %)	21.7	9.40	13.1	
EW-66	CO (ppmv)				1050
	H2 (Vol. %)				21.3

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

Figure 3. CO vs H₂ Concentration from gas wells in March 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 March. 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 [%]
3/5/2026	2.2	4.0	18.7	75.4
3/30/2026	2.4	4.3	17.8	75.5

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.

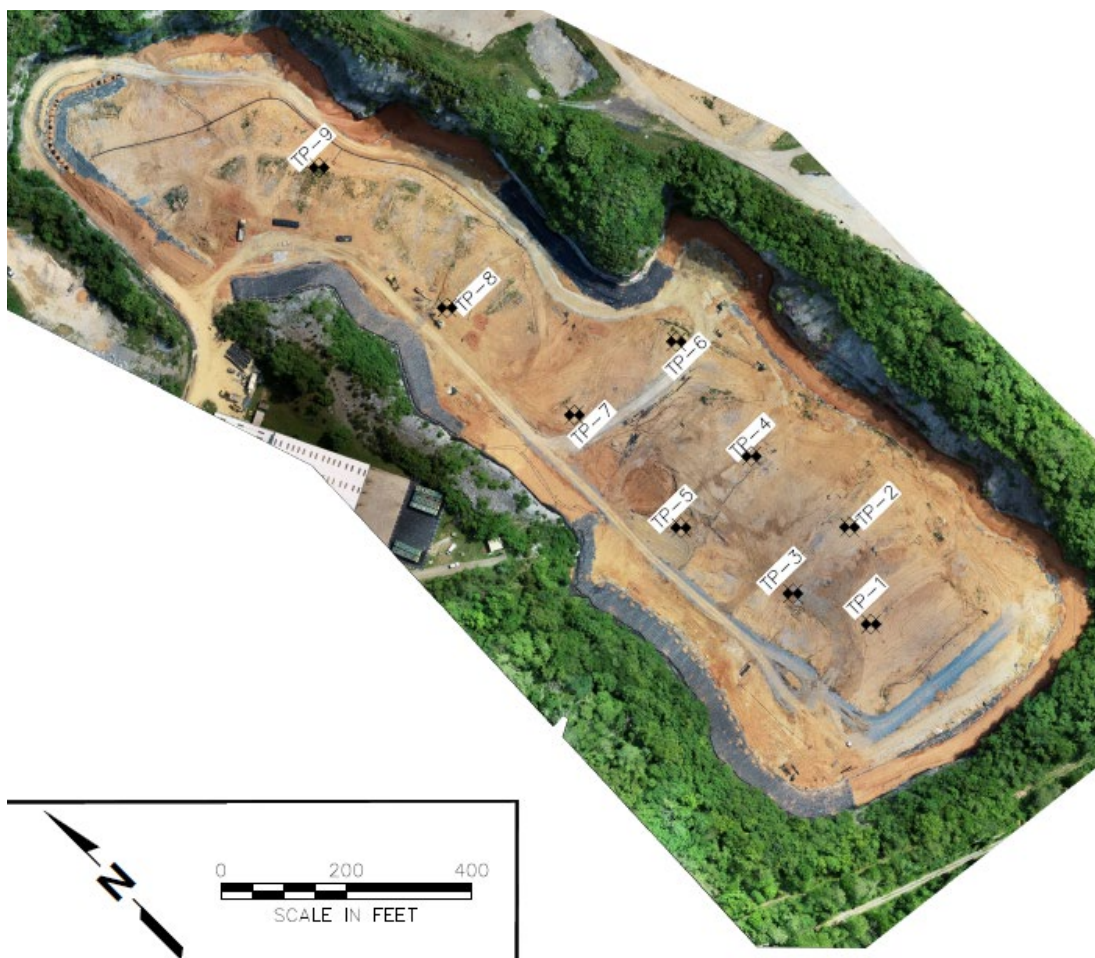
3.0 WASTE TEMPERATURE MONITORING

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 March are included in **Appendix D**. Each week the average temperatures from a select day of that week are downloaded and compared to temperatures recorded during the previous week. Average daily temperatures recorded on select days during the month of February are shown in **Appendix B**. The average temperatures recorded for March 2023, March 2024, March 2025, February 2026, and March 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 2025 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 finalizing 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 2025, 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, February 2026, and March 2026

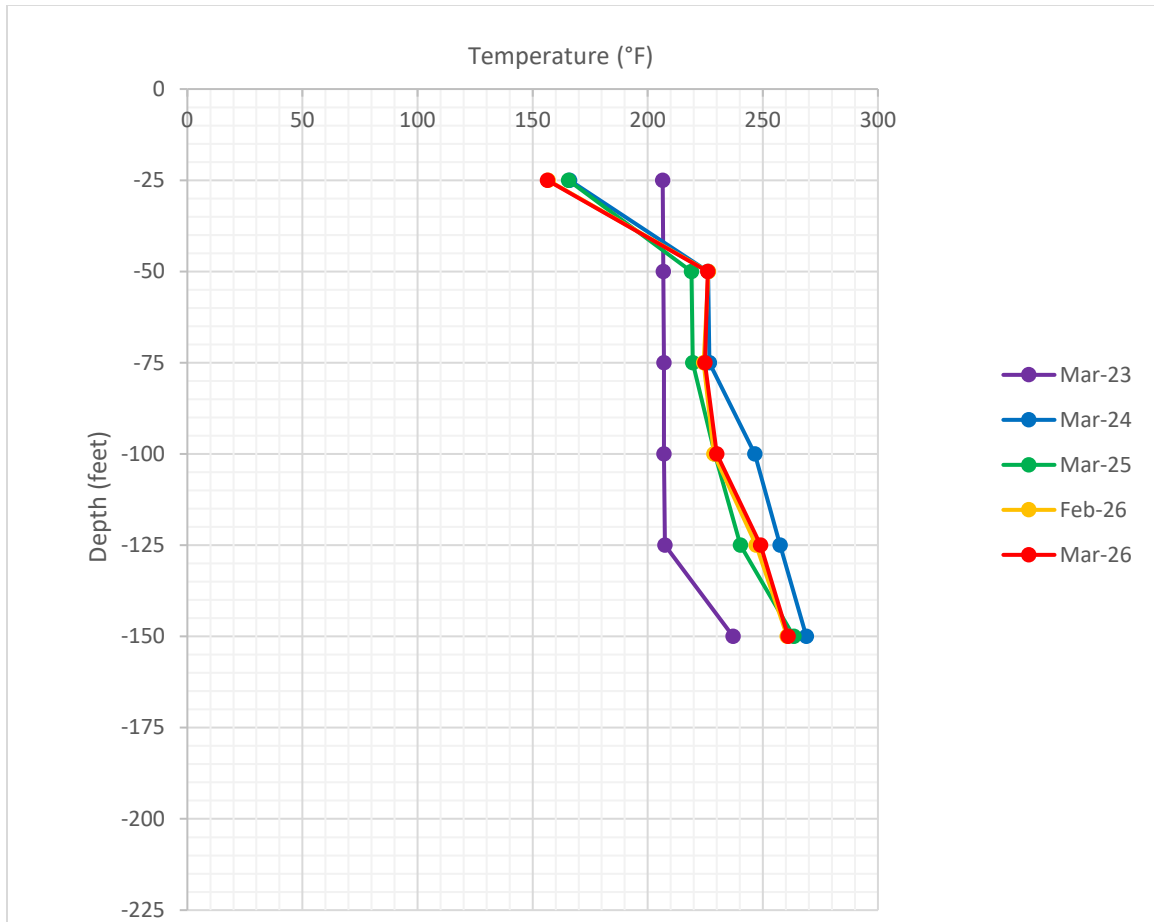


Figure 6. TP-5 Average Temperatures for the Months of March 2023, April 2024, March 2025, February 2026, and March 2026

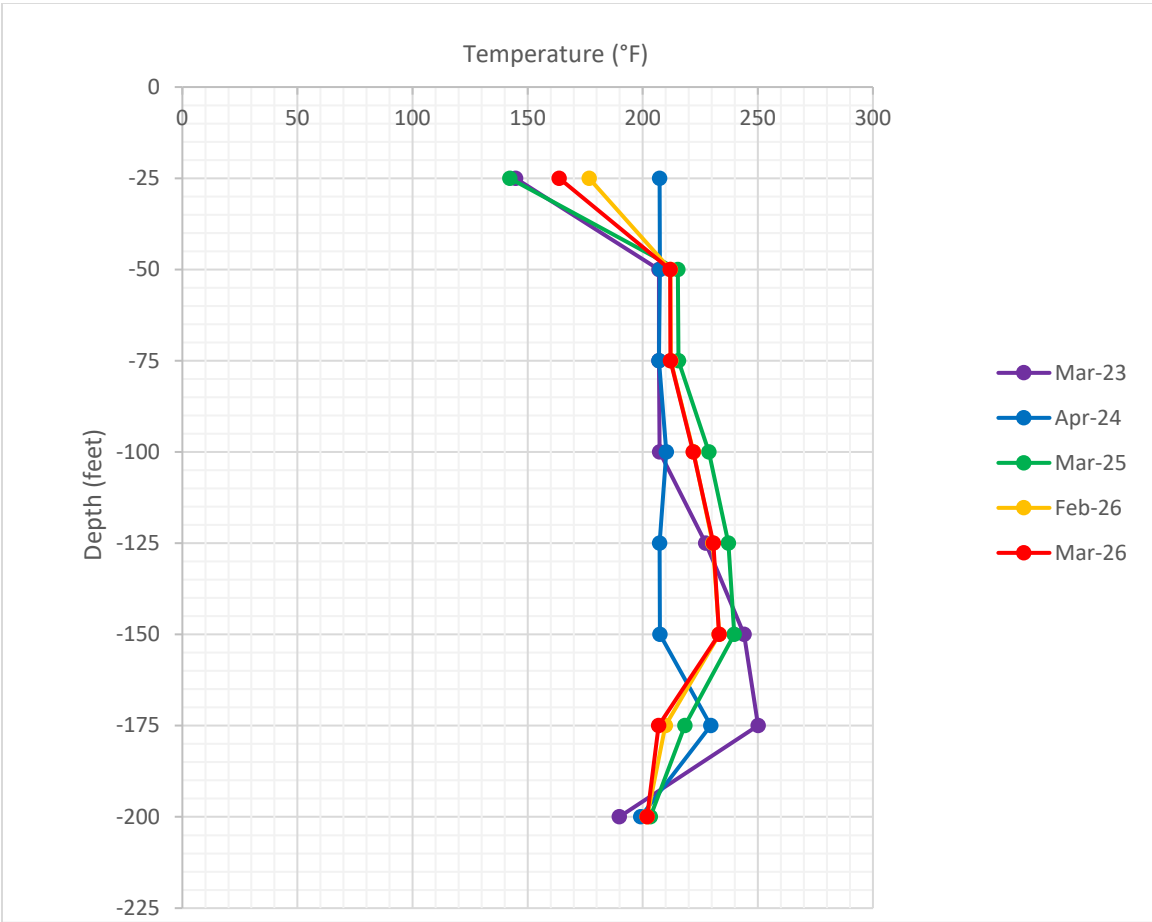


Figure 7. TP-6 Average Temperatures for the Months of March 2023, March 2024, March 2025, February 2026, and March 2026

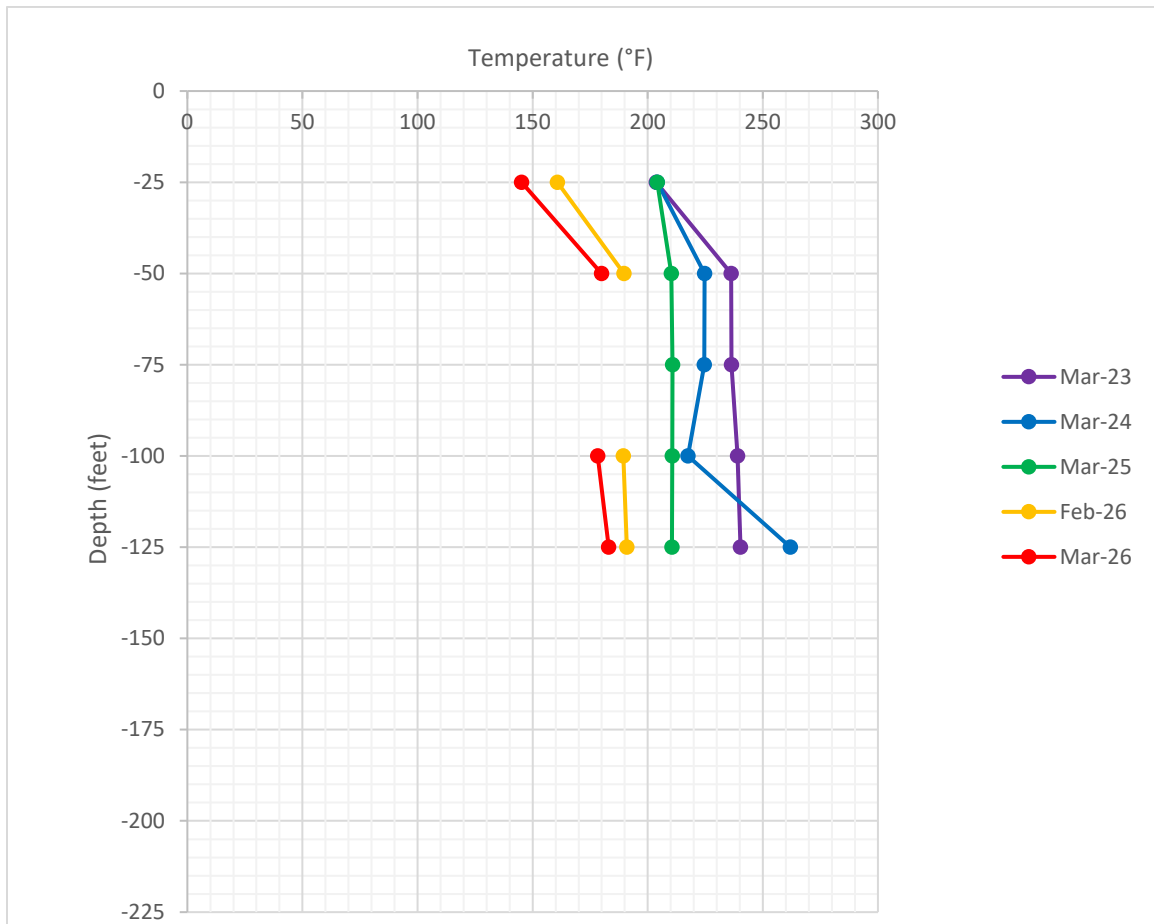


Figure 8. TP-8 Average Temperatures for the Months of March 2023, March 2024, March 2025, February 2026, and March 2026

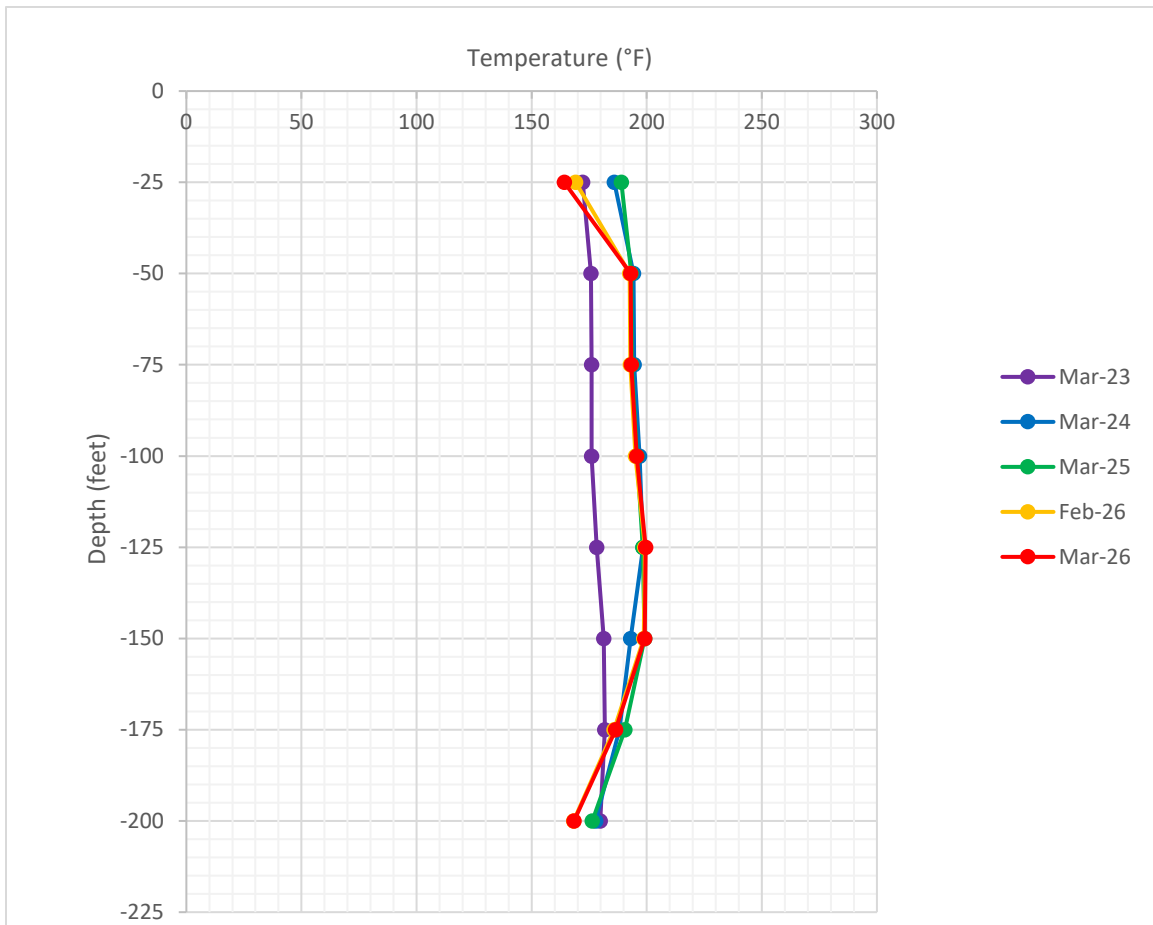
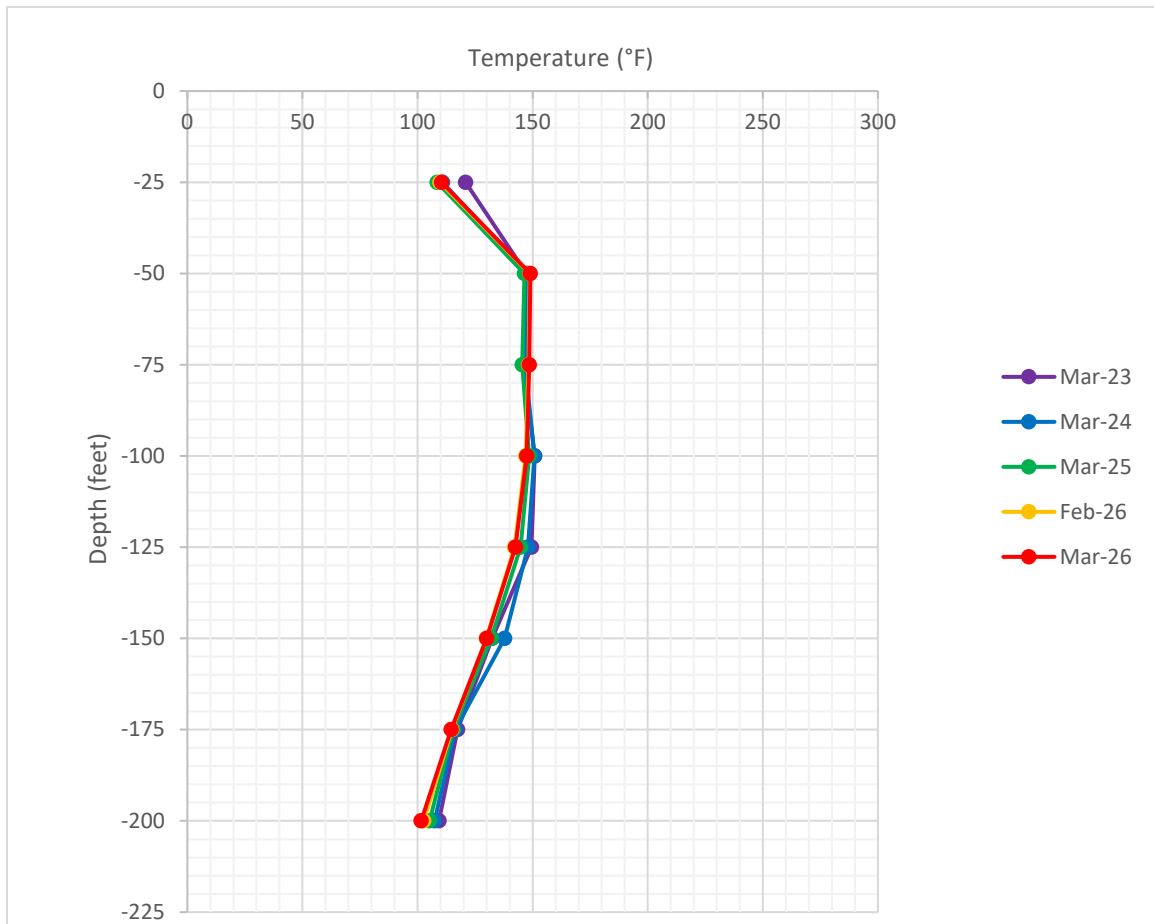


Figure 9. TP-9 Average Temperatures for the Months of March 2023, March 2024, March 2025, February 2026, and March 2026



4.0 LEACHATE EXTRACTION AND MONITORING

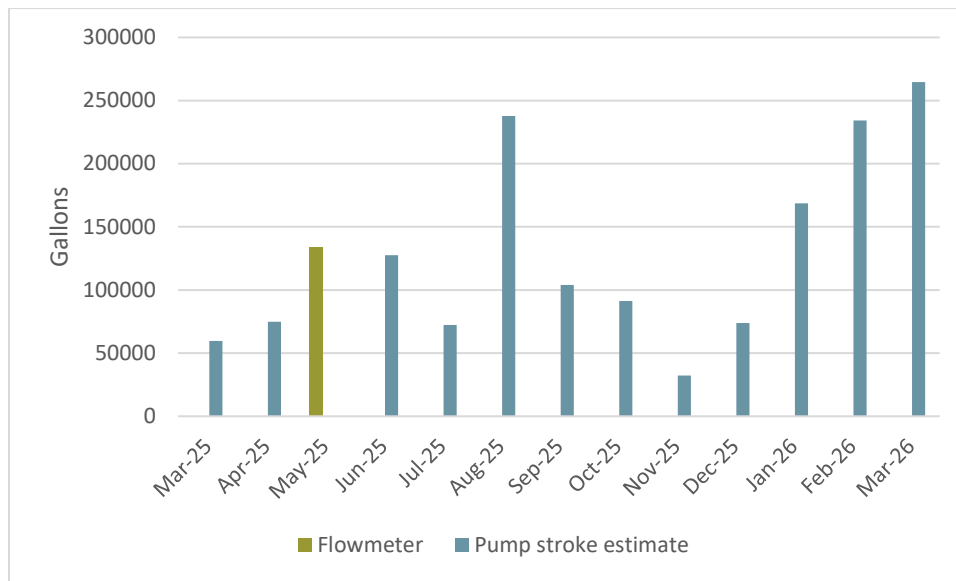
The City is continuously maintaining and improving extraction of leachate from the waste mass and collecting analytical data on leachate characteristics. The following sections describes actions on these topics.

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 March 2025 through April 2025, and June 2025 through March 2026 (blue bars in Figure 10). A flow meter was used to record the volume in the other months. Over the past 6 months, the estimated monthly leachate pumped has ranged from 32,200 to 264,600 gallons per month and has averaged 144,101 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.

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 March 2026.

Pump Maintenance Activities

- The pump was pulled and swapped, and the tri-tubing was replaced at EW-49, EW-52, and EW-59.
- The pump was pulled and swapped at EW-60, EW-66, EW-68, and EW-88.
- The forcemain to EW-52 was repaired.
- The air line was replaced at EW-66.
- The stroke counters at EW-60 and EW-61 were repaired.
- A clogged portion of pipe at EW-93 was replaced after jetting, and a QED pump was installed.
- General cleaning and maintenance were performed including breakdown, cleaning, and rebuilding of pumps and fittings.

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 April.
- SCS-FS intends to replace the Blackhawk pump in EW-36A with a QED pump, which has been scheduled for April.
- The pumps in EW-51, EW-57, EW-90, and EW-100 are permanently stuck in their wells even after attempts to remove them with heavy equipment. They cannot be cleaned or repaired.
- The pump in EW-55 is inactive due to excessive pressure buildup in the forcemain line.
- 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.
- The pump in EW-87 is stuck and needs to be pulled using equipment.

- 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.

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. As discussed in Section 4.1.1, sections of the forcemain with this solids build-up were cleaned during the month of March.

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 February 2026 for the First Quarter 2026 monitoring event. Refer to the February 2026 Monthly Compliance Report for the SWP No. 588 Landfill, for results of the First 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 March 24, 2026. Aerial imagery collected on March 24, 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

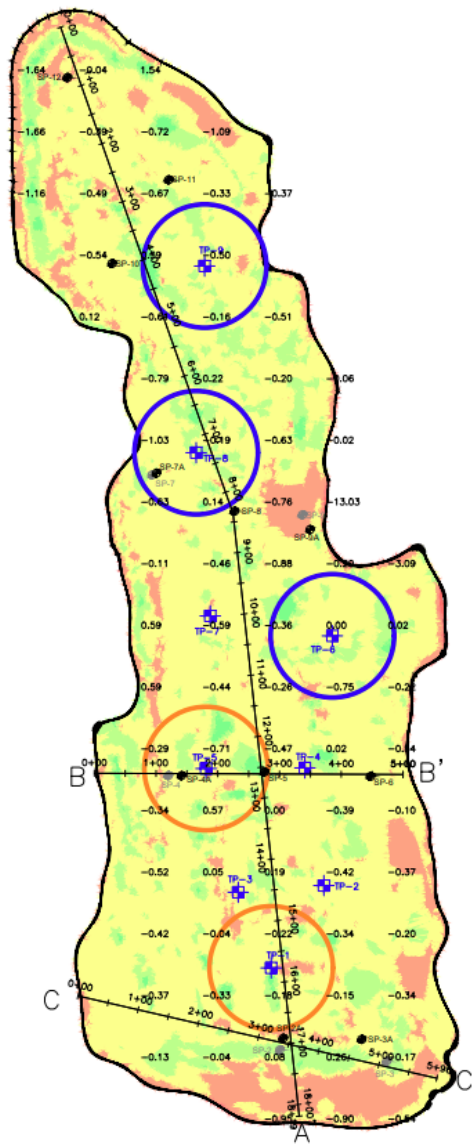


The topography within the landfill footprint was compared to topographic data collected by SCS using photogrammetric methods on February 10, 2026. A drawing depicting the February 10, 2026, topography is included as Sheet 3 in **Appendix E**.

Based on a comparison of the topographic data collected on those two dates, the data shows a fill of 1,400 cubic yards across the site. Fill may have been placed and spread on the site to address differential settlement, surface emissions, and to provide access to LFG collection vertical wells. Additionally, the presence of snow at the site at the time of topography capture can influence the topographic data recorded by the drone, which contributes to the fill volume. During that same time period, calculations indicate a “cut” volume of approximately 15,000 cubic yards. Cut volumes are typically attributed to settlement. This resulted in a net decrease in volume within the waste footprint of 13,600 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



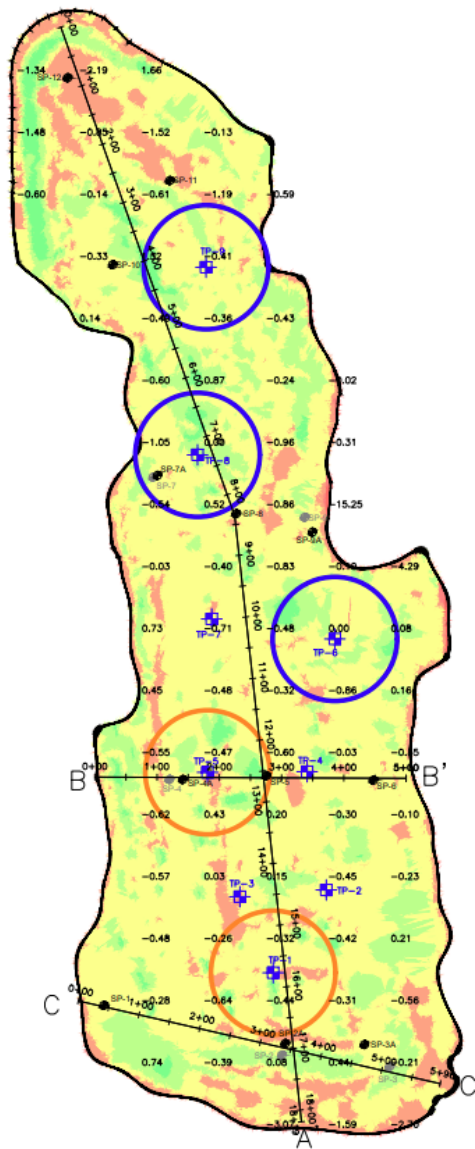
The locations of in-waste temperature monitoring probes are also shown on **Figure 12**, **Figure 13**, and **Figure 14**. The circles around the probes in each of these figures are indicative of the average borehole temperature. The circles shown are offset from the probes for clarity only and do not 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 March 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 decrease between the flyover dates was 0.5 ft.

SCS also compared the topographic data collected in March to the topographic data collected on December 11, 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 15,100 cubic yards. During that same time period calculations indicate approximately 2,300 cubic yards of fill were placed on the landfill, for a net decrease in waste volume of 12,800 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

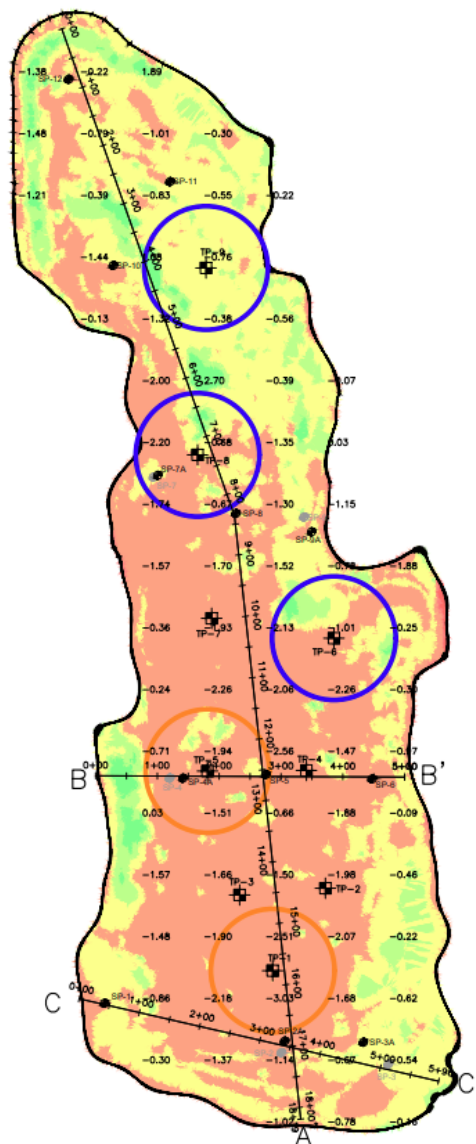


Based on the area of the landfill and the net volume change, the average elevation decrease was approximately 0.5 feet.

SCS also compared the topographic data collected in March 2026 to the drone topographic data collected on March 11, 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 33,400 cubic yards. During that same time period approximately 1,300 cubic yards of construction-related fill were placed on the landfill. This resulted in a net volume decrease of approximately 32,100 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.

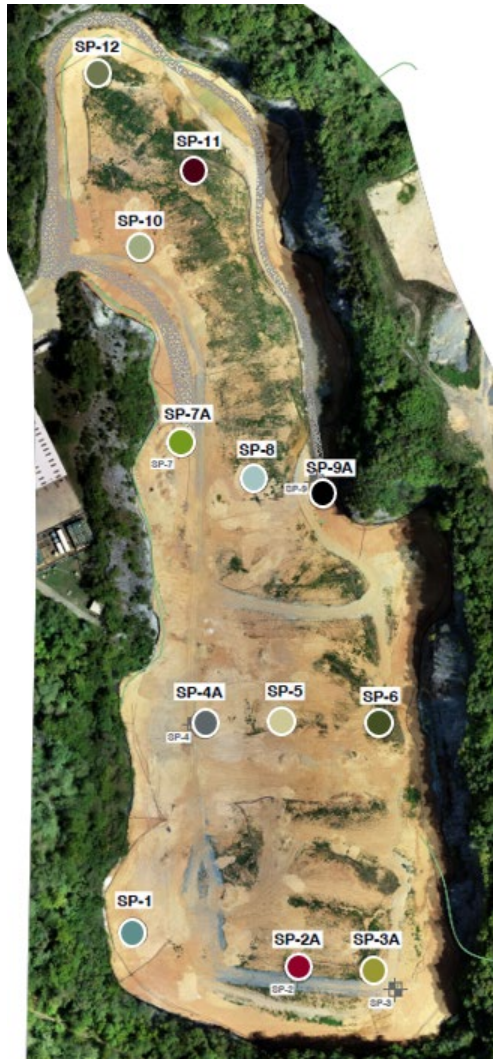
Based on the landfill area and the net volume change, the average elevation decrease was approximately 1.1 feet.

SCS will collect topographic data covering the landfill surface again in April 2026 using photogrammetric methods via UAV. This data will be compared to the data collected in April 2025, January 2026, and March 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 March 11, 2026 (ft)	Elevation Change Since February 9, 2026 (ft)	Strain ² Since February 9, 2026	Elevation Change Since Installation (ft)
SP-1	3397887.8	10412081.2	1828.2	0.1	0.1%	-6.2
SP-2A	3397823.6	10412370.6	1791.1	-0.1	0.0%	-4.6
SP-3A	3397820.3	10412498.0	1778.6	0.0	0.0%	-1.6
SP-4A	3398247.1	10412208.1	1801.2	0.0	0.0%	-3.9
SP-5	3398255.8	10412339.7	1786.5	-0.4	-0.1%	-14.3
SP-6	3398248.8	10412510.0	1772.2	-0.1	0.0%	-5.5
SP-7A	3398731.4	10412158.4	1821.4	-0.1	-0.1%	-2.1
SP-8	3398678.0	10412290.9	1798.8	-0.1	0.0%	-8.6
SP-9A	3398644.1	10412416.1	1787.8	-0.1	-0.1%	-1.0
SP-10	3399079.6	10412095.6	1835.4	-0.1	0.0%	-4.1
SP-11	3399216.4	10412183.9	1814.0	-0.1	0.0%	-2.3
SP-12	3399381.7	10412019.7	1809.3	0.0	0.0%	-1.4

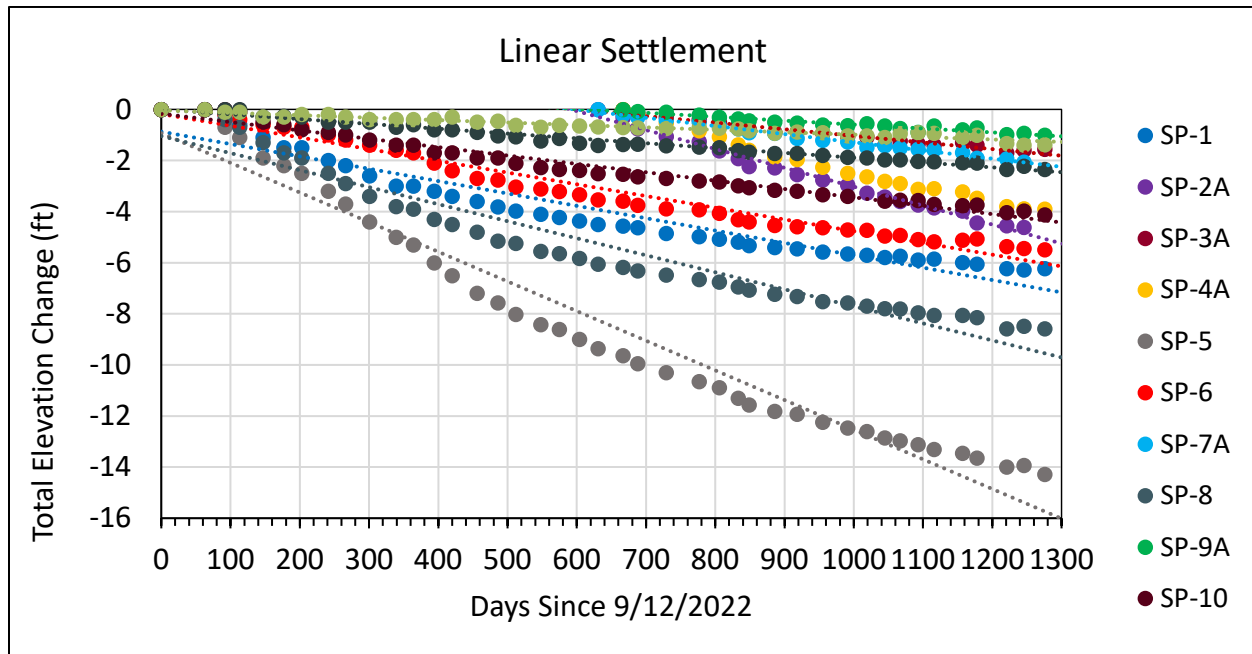
Prior to April 2024, the City's in-house surveyor read the settlement plate elevations. Starting April 2024 through June 2025, the settlement plate elevations were measured by FEI Civil Engineers and Land Surveyors. As of July 2025, the settlement plate elevations are measured by Miller Land Surveying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

Settlement Plates 5, 7A, and 9A demonstrated the largest strain due to settlement than at other locations. Settlement Plates 5, 7A, and 9A are in the middle of the landfill. This area is near the location of the gas wells and temperature probes exhibiting higher temperatures.

The elevation change at the other settlement plates does not indicate measurable settlement. **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 April 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 March 2026, those actions include:

- **Ongoing basis:** Four (4) posts on each the BristolVALandfill.org site and the existing City of Bristol Landfill Notifications and Information page covering important updates including:
 - Progress updates related to remediation efforts and normal maintenance activities at the Quarry Landfill.

- Updates at the Quarry Landfill this month included routine maintenance on the landfill gas system, and well heads; spreading soil to areas affected by settlement; removing excess surface water with the stormwater pump; removing and replacing three leachate pumps; and cleaning and refurbishing reserve leachate pumps.
- On March 17, Senior United States District Judge James P. Jones approved an amended consent decree for the Bristol Quarry Landfill in the United States District Court for the Western District of Virginia (Abingdon Division). A brief description of what has changed in the updated version was posted along with a link to the full document.
- **Weekly updates on landing page on Bristolvalandfill.org titled “Air Sampling and Air Monitoring” that includes a summary of the air sampling and monitoring being conducted by Bristol, VA around the quarry landfill.**
 - Website now includes weekly air monitoring reports starting from May 15, 2023, and running through February 8, 2026.
- **E-mail communication sent to the list of members of the public signed up through the Bristol, VA website, the BristolVALandfill.org website, or at subsequent Open Houses to receive information via e-mail**
 - E-mails sent included weekly remediation progress update and links to website updates and latest news articles.



Appendix A

Surface Emissions Monitoring Summary

Quarterly SEM

SCS performed the First Quarter 2026 surface emissions monitoring event on February 24, 2026. The results of the Quarterly SEM were summarized in the February 2026 Compliance Report for the SWP No. 588 Landfill. A report outlining the results will be included in the Semi-Annual Report to be submitted to VDEQ prior to September 1, 2026.

The Second Quarter 2026 SEM Event is scheduled to be completed by June 30, 2026.

Weekly SEM

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

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

The Facility submitted letters to VDEQ describing the results of the March monitoring events on March 11, 2026; March 18, 2026; March 25, 2026; and, April 1, 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.

March 11, 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 – March 3, 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 March 3, 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 a Thermo Scientific TVA-2020 Flame Ionization Detector (FID) at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint, including at the temperature probes. The approximate monitoring route and sampling locations are presented in the attached Drawing.

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



Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	166
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	66
Number of Exceedances	0
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	0

REMONITORING OF ONGOING EXCEEDANCES

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

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

There are currently no ongoing exceedances.

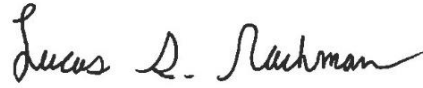
Ms. Susan "Tracey" Blalock
March 11, 2026
Page 3

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

Sincerely,

A handwritten signature in black ink that reads "William J. Fabrie". The signature is written in a cursive style with a large initial 'W'.

William J. Fabrie
Project Professional
SCS Engineers

A handwritten signature in black ink that reads "Lucas S. Nachman". The signature is written in a cursive style with a large initial '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 - MARCH 3, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA**

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
1	3.4 PPM	OK			Start Serpentine Route
2	1.9 PPM	OK			
3	5.0 PPM	OK			
4	1.8 PPM	OK			
5	1.8 PPM	OK			
6	1.8 PPM	OK			
7	1.7 PPM	OK			
8	1.7 PPM	OK			
9	1.7 PPM	OK			
10	1.7 PPM	OK			
11	1.7 PPM	OK			
12	1.7 PPM	OK			
13	1.7 PPM	OK			
14	1.7 PPM	OK			
15	1.9 PPM	OK			
16	1.9 PPM	OK			
17	2.2 PPM	OK			
18	3.0 PPM	OK			
19	3.6 PPM	OK			
20	3.8 PPM	OK			
21	3.9 PPM	OK			
22	2.8 PPM	OK			
23	2.7 PPM	OK			
24	2.8 PPM	OK			
25	2.8 PPM	OK			
26	2.9 PPM	OK			
27	9.2 PPM	OK			
28	3.2 PPM	OK			
29	2.0 PPM	OK			
30	2.5 PPM	OK			
31	1.9 PPM	OK			
32	2.7 PPM	OK			
33	2.1 PPM	OK			
34	2.0 PPM	OK			
35	5.0 PPM	OK			
36	38.0 PPM	OK			
37	12.1 PPM	OK			
38	10.4 PPM	OK			
39	18.3 PPM	OK			
40	117.0 PPM	OK			
41	9.3 PPM	OK			
42	13.5 PPM	OK			
43	6.2 PPM	OK			
44	2.2 PPM	OK			
45	2.2 PPM	OK			
46	1.8 PPM	OK			
47	2.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MARCH 3, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
48	2.3 PPM	OK			
49	2.0 PPM	OK			
50	2.0 PPM	OK			
51	2.6 PPM	OK			
52	2.4 PPM	OK			
53	4.0 PPM	OK			
54	1.7 PPM	OK			
55	1.5 PPM	OK			
56	1.4 PPM	OK			
57	1.4 PPM	OK			
58	1.3 PPM	OK			
59	1.3 PPM	OK			
60	4.7 PPM	OK			
61	1.4 PPM	OK			
62	1.3 PPM	OK			
63	2.8 PPM	OK			
64	3.3 PPM	OK			
65	5.2 PPM	OK			
66	2.5 PPM	OK			
67	2.4 PPM	OK			
68	2.0 PPM	OK			
69	2.3 PPM	OK			
70	2.5 PPM	OK			
71	2.1 PPM	OK			
72	1.6 PPM	OK			
73	4.8 PPM	OK			
74	9.6 PPM	OK			
75	1.6 PPM	OK			
76	2.0 PPM	OK			
77	1.7 PPM	OK			
78	1.6 PPM	OK			
79	1.5 PPM	OK			
80	1.5 PPM	OK			
81	1.6 PPM	OK			
82	1.5 PPM	OK			
83	4.3 PPM	OK			
84	1.2 PPM	OK			
85	1.3 PPM	OK			
86	1.2 PPM	OK			
87	1.3 PPM	OK			
88	1.3 PPM	OK			
89	1.3 PPM	OK			
90	1.4 PPM	OK			
91	1.7 PPM	OK			
92	1.7 PPM	OK			
93	1.6 PPM	OK			

**EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MARCH 3, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA**

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
94	1.6 PPM	OK			
95	13.9 PPM	OK			
96	1.3 PPM	OK			
97	1.4 PPM	OK			
98	1.3 PPM	OK			
99	1.2 PPM	OK			
100	2.0 PPM	OK			End Serpentine Route
101	12.5 PPM	OK			EW-52
102	35.8 PPM	OK			TP-4
103	18.3 PPM	OK			EW-60
104	1.1 PPM	OK			EW-48
105	4.0 PPM	OK			TP-6
106	5.0 PPM	OK			EW-61
107	1.0 PPM	OK			EW-50
108	1.2 PPM	OK			EW-67
109	1.0 PPM	OK			EW-47
110	1.1 PPM	OK			EW-54
111	1.6 PPM	OK			EW-55
112	3.7 PPM	OK			EW-92
113	1.4 PPM	OK			EW-91
114	1.1 PPM	OK			EW-96
115	1.1 PPM	OK			EW-66
116	1.0 PPM	OK			EW-58
117	1.0 PPM	OK			EW-57
118	1.0 PPM	OK			TP-1
119	1.0 PPM	OK			EW-59
120	1.6 PPM	OK			EW-100
121	1.0 PPM	OK			EW-56
122	0.9 PPM	OK			EW-97
123	0.9 PPM	OK			EW-53
124	1.6 PPM	OK			EW-51
125	1.0 PPM	OK			TP-5
126	0.9 PPM	OK			EW-68
127	0.8 PPM	OK			EW-87
128	0.8 PPM	OK			EW-38
129	0.9 PPM	OK			TP-7
130	0.8 PPM	OK			EW-49
131	0.9 PPM	OK			EW-83
132	0.9 PPM	OK			EW-65
133	1.1 PPM	OK			EW-81
134	0.9 PPM	OK			TP-8
135	0.8 PPM	OK			EW-64
136	1.1 PPM	OK			EW-63
137	48.9 PPM	OK			EW-42
138	346.0 PPM	OK			EW-76
139	1.5 PPM	OK			TP-9

**EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MARCH 3, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA**

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
140	1.0 PPM	OK			EW-62
141	0.8 PPM	OK			EW-74
142	0.8 PPM	OK			EW-32R
143	0.8 PPM	OK			EW-69
144	0.8 PPM	OK			EW-71
145	0.8 PPM	OK			EW-72
146	0.8 PPM	OK			EW-70
147	1.0 PPM	OK			EW-73
148	14.2 PPM	OK			EW-78
149	1.1 PPM	OK			EW-82
150	1.0 PPM	OK			EW-36A
151	1.2 PPM	OK			EW-85
152	1.2 PPM	OK			EW-88
153	0.8 PPM	OK			EW-89
154	0.8 PPM	OK			EW-93
155	1.4 PPM	OK			EW-94
156	1.0 PPM	OK			EW-98
157	1.1 PPM	OK			EW-99
158	0.9 PPM	OK			EW-95
159	11.2 PPM	OK			EW-90
160	0.8 PPM	OK			EW-86
161	0.8 PPM	OK			EW-84
162	0.7 PPM	OK			EW-80
163	0.8 PPM	OK			EW-79
164	1.1 PPM	OK			EW-77
165	13.1 PPM	OK			EW-33B
166	4.6 PPM	OK			EW-75

Number of locations sampled:	166
Number of exceedance locations:	0

NOTES:

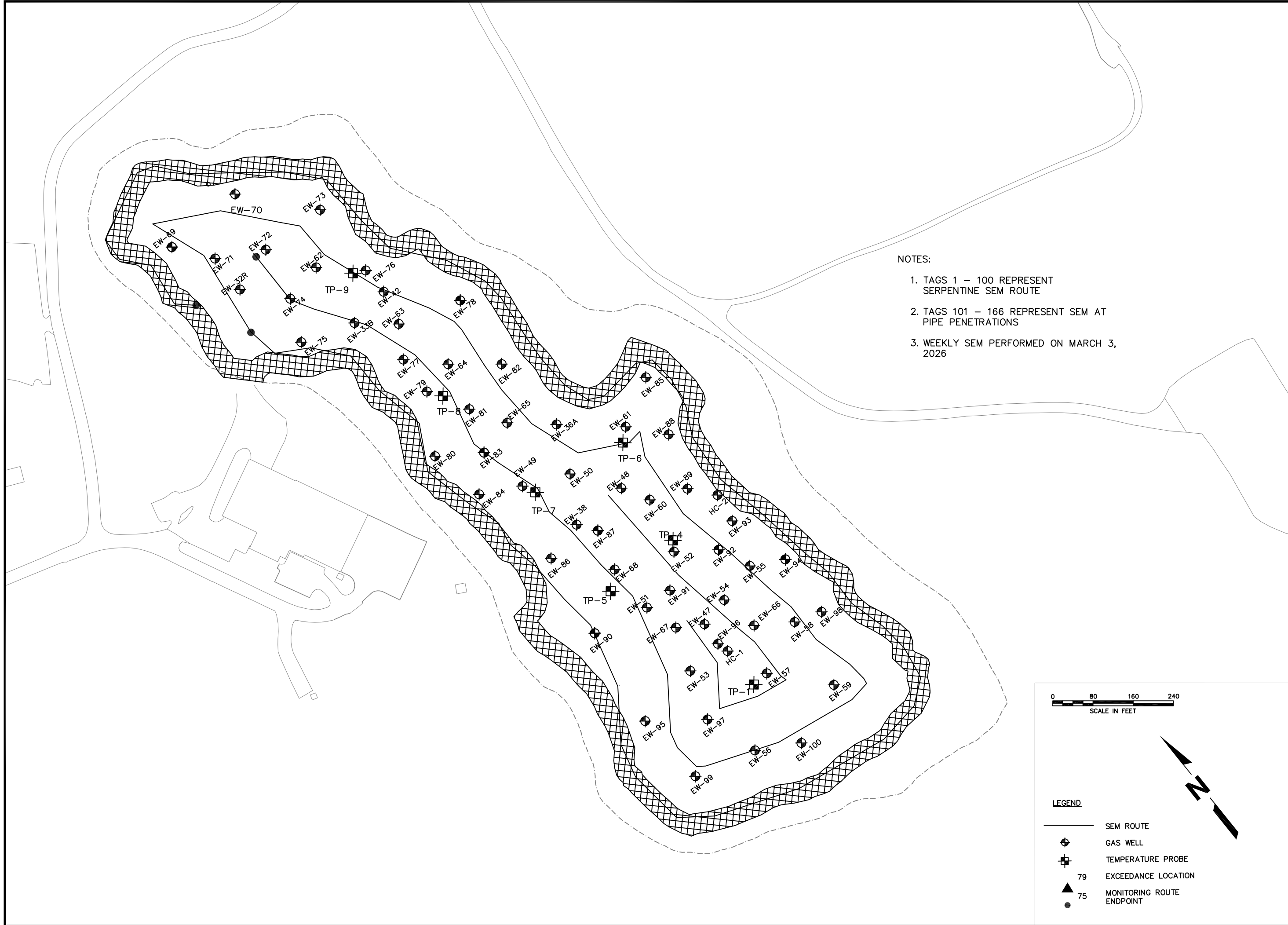
Points 1 through 100 represent serpentine SEM route.
Points 101 through 166 represent SEM at Pipe Penetrations
Weather Conditions: Overcast, 46°F Wind: 8 mph SW

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

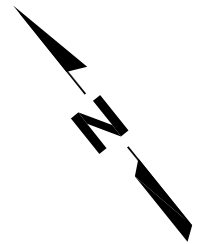
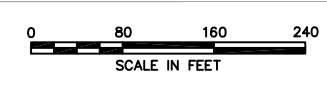
3/3/2026	10:39	ZERO	0.0	PPM
3/3/2026	10:40	SPAN	502.0	PPM

Background Reading:

3/3/2026	10:44	Upwind	2.0	PPM
3/3/2026	10:49	Downwind	5.5	PPM



- NOTES:
1. TAGS 1 – 100 REPRESENT SERPENTINE SEM ROUTE
 2. TAGS 101 – 166 REPRESENT SEM AT PIPE PENETRATIONS
 3. WEEKLY SEM PERFORMED ON MARCH 3, 2026



- LEGEND**
- SEM ROUTE
 - ⊕ GAS WELL
 - ⊞ TEMPERATURE PROBE
 - ▲ 79 EXCEEDANCE LOCATION
 - 75 MONITORING ROUTE ENDPOINT

SHEET TITLE SEM ROUTE WITH BUFFER AREA	NO.	REVISION	DATE
PROJECT TITLE SURFACE EMISSIONS MONITORING SOLID WASTE PERMIT #588			
CLIENT CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VA 24201			
SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TRPK - MIDLOTHIAN, VA 23113 PH. (804) 378-7440 FAX. (804) 378-7453	C/A RW BY: APP. BY:		
FILE: 02218208.04			
DATE: 3/3/26			
SCALE: AS SHOWN			
DRAWING NO. 1	of 1		

March 18, 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 – March 12, 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 March 12, 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 a Thermo Scientific TVA-2020 Flame Ionization Detector (FID) at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint, including at the temperature probes. The approximate monitoring route and sampling locations are presented in the attached Drawing.

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



Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	166
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	66
Number of Exceedances	0
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	0

REMONITORING OF ONGOING EXCEEDANCES

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

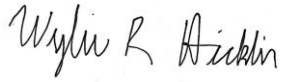
In accordance with 40 CFR 63.1960(c)(4)(v) and 40 CFR 60.36f(c)(4)(v) a new well or collection device must be installed or an alternate remedy must be submitted within 120 days at locations that continue to exhibit methane concentrations above the regulatory threshold for two consecutive retests.

There are currently no ongoing exceedances.

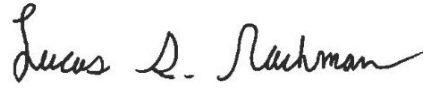
Ms. Susan "Tracey" Blalock
March 18, 2026
Page 3

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/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 - MARCH 12, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA**

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
1	8.4 PPM	OK			Start Serpentine Route
2	1.5 PPM	OK			
3	1.5 PPM	OK			
4	1.4 PPM	OK			
5	1.4 PPM	OK			
6	1.4 PPM	OK			
7	1.4 PPM	OK			
8	1.4 PPM	OK			
9	1.4 PPM	OK			
10	1.4 PPM	OK			
11	1.4 PPM	OK			
12	1.4 PPM	OK			
13	1.4 PPM	OK			
14	1.4 PPM	OK			
15	1.4 PPM	OK			
16	1.4 PPM	OK			
17	1.4 PPM	OK			
18	1.4 PPM	OK			
19	1.4 PPM	OK			
20	1.4 PPM	OK			
21	1.4 PPM	OK			
22	1.4 PPM	OK			
23	1.3 PPM	OK			
24	1.3 PPM	OK			
25	1.9 PPM	OK			
26	1.6 PPM	OK			
27	5.0 PPM	OK			
28	1.5 PPM	OK			
29	1.5 PPM	OK			
30	1.5 PPM	OK			
31	1.5 PPM	OK			
32	1.6 PPM	OK			
33	3.9 PPM	OK			
34	1.4 PPM	OK			
35	1.6 PPM	OK			
36	1.5 PPM	OK			
37	1.5 PPM	OK			
38	1.5 PPM	OK			
39	1.6 PPM	OK			
40	3.4 PPM	OK			
41	2.0 PPM	OK			
42	2.0 PPM	OK			
43	2.0 PPM	OK			
44	2.8 PPM	OK			
45	1.9 PPM	OK			
46	1.6 PPM	OK			
47	1.5 PPM	OK			

**EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MARCH 12, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA**

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
48	1.4 PPM	OK			
49	1.3 PPM	OK			
50	3.5 PPM	OK			
51	2.7 PPM	OK			
52	1.5 PPM	OK			
53	1.5 PPM	OK			
54	1.7 PPM	OK			
55	1.3 PPM	OK			
56	1.2 PPM	OK			
57	1.2 PPM	OK			
58	1.2 PPM	OK			
59	1.2 PPM	OK			
60	1.2 PPM	OK			
61	1.2 PPM	OK			
62	1.2 PPM	OK			
63	1.2 PPM	OK			
64	1.2 PPM	OK			
65	1.2 PPM	OK			
66	1.5 PPM	OK			
67	1.2 PPM	OK			
68	1.3 PPM	OK			
69	1.3 PPM	OK			
70	1.7 PPM	OK			
71	1.9 PPM	OK			
72	1.8 PPM	OK			
73	1.6 PPM	OK			
74	1.6 PPM	OK			
75	1.7 PPM	OK			
76	1.2 PPM	OK			
77	1.2 PPM	OK			
78	1.3 PPM	OK			
79	1.5 PPM	OK			
80	1.3 PPM	OK			
81	1.3 PPM	OK			
82	1.3 PPM	OK			
83	1.3 PPM	OK			
84	1.6 PPM	OK			
85	1.8 PPM	OK			
86	1.8 PPM	OK			
87	1.6 PPM	OK			
88	1.5 PPM	OK			
89	1.6 PPM	OK			
90	1.5 PPM	OK			
91	1.4 PPM	OK			
92	1.4 PPM	OK			
93	1.4 PPM	OK			

**EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MARCH 12, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA**

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
94	1.5 PPM	OK			
95	1.4 PPM	OK			
96	1.4 PPM	OK			
97	1.3 PPM	OK			
98	1.2 PPM	OK			
99	1.3 PPM	OK			
100	1.1 PPM	OK			End Serpentine Route
101	1.4 PPM	OK			EW-52
102	1.1 PPM	OK			TP-4
103	1.2 PPM	OK			EW-60
104	1.0 PPM	OK			EW-48
105	1.0 PPM	OK			TP-6
106	1.0 PPM	OK			EW-61
107	1.2 PPM	OK			EW-50
108	1.4 PPM	OK			EW-67
109	1.0 PPM	OK			EW-47
110	1.1 PPM	OK			EW-54
111	1.0 PPM	OK			EW-55
112	1.9 PPM	OK			EW-92
113	1.4 PPM	OK			EW-91
114	1.1 PPM	OK			EW-96
115	1.0 PPM	OK			EW-66
116	1.1 PPM	OK			EW-58
117	1.1 PPM	OK			EW-57
118	0.9 PPM	OK			TP-1
119	1.0 PPM	OK			EW-59
120	1.0 PPM	OK			EW-100
121	1.6 PPM	OK			EW-56
122	1.9 PPM	OK			EW-97
123	1.2 PPM	OK			EW-53
124	3.0 PPM	OK			EW-51
125	2.6 PPM	OK			TP-5
126	32.4 PPM	OK			EW-68
127	1.1 PPM	OK			EW-87
128	1.1 PPM	OK			EW-38
129	2.5 PPM	OK			TP-7
130	1.2 PPM	OK			EW-49
131	1.9 PPM	OK			EW-83
132	1.1 PPM	OK			EW-65
133	0.9 PPM	OK			EW-81
134	0.8 PPM	OK			TP-8
135	0.8 PPM	OK			EW-64
136	0.8 PPM	OK			EW-63
137	0.8 PPM	OK			EW-42
138	79.2 PPM	OK			EW-76
139	0.8 PPM	OK			TP-9

**EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MARCH 12, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA**

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
140	0.8 PPM	OK			EW-62
141	0.8 PPM	OK			EW-74
142	0.8 PPM	OK			EW-32R
143	0.8 PPM	OK			EW-69
144	0.8 PPM	OK			EW-71
145	0.8 PPM	OK			EW-72
146	0.8 PPM	OK			EW-70
147	0.8 PPM	OK			EW-73
148	4.2 PPM	OK			EW-78
149	1.2 PPM	OK			EW-82
150	1.1 PPM	OK			EW-36A
151	1.5 PPM	OK			EW-85
152	0.9 PPM	OK			EW-88
153	0.9 PPM	OK			EW-89
154	1.0 PPM	OK			EW-93
155	2.5 PPM	OK			EW-94
156	0.8 PPM	OK			EW-98
157	1.0 PPM	OK			EW-99
158	1.2 PPM	OK			EW-95
159	1.0 PPM	OK			EW-90
160	1.2 PPM	OK			EW-86
161	7.1 PPM	OK			EW-84
162	1.3 PPM	OK			EW-80
163	0.7 PPM	OK			EW-79
164	0.7 PPM	OK			EW-77
165	0.7 PPM	OK			EW-33B
166	6.1 PPM	OK			EW-75

Number of locations sampled:	166
Number of exceedance locations:	0

NOTES:

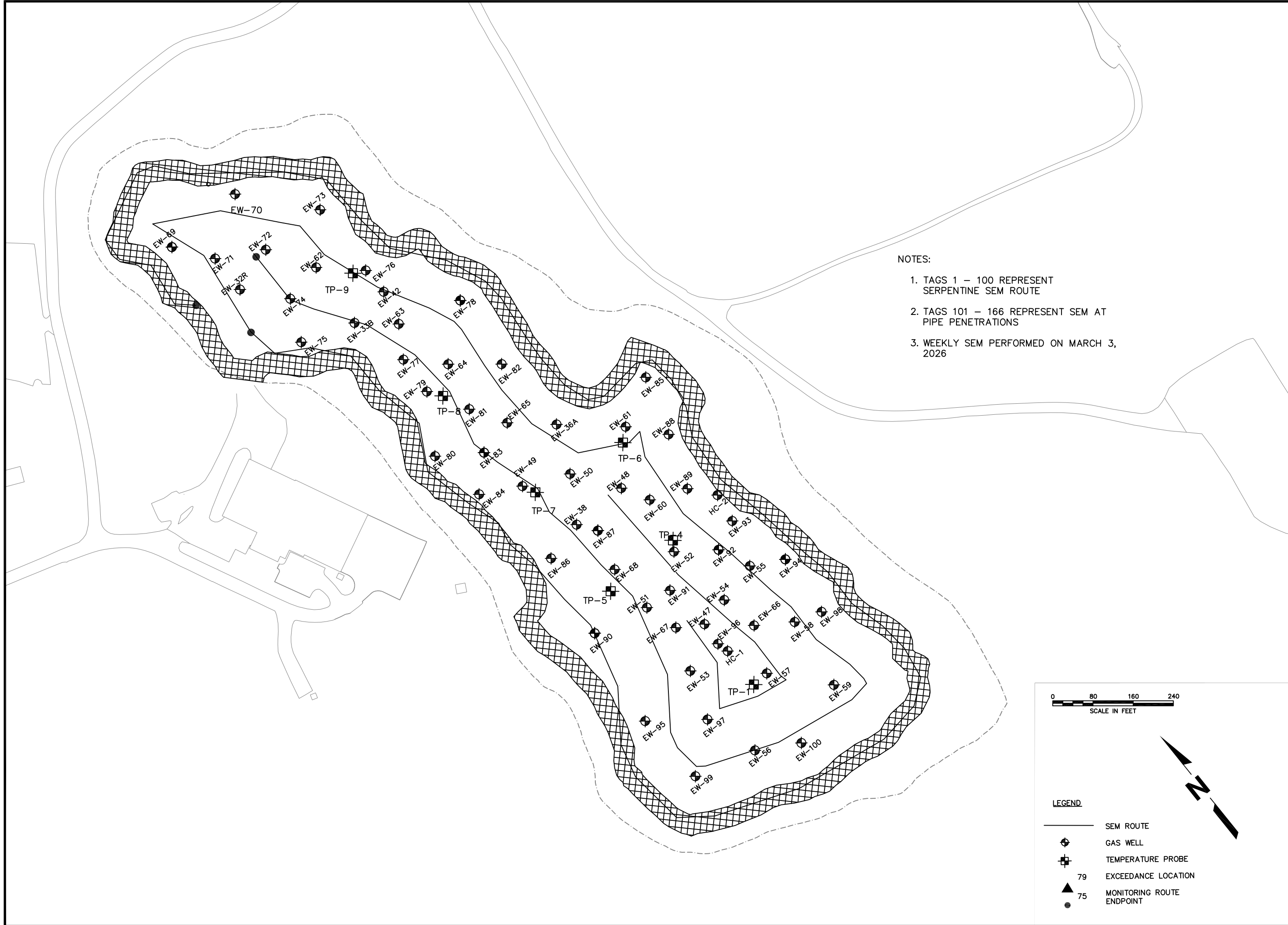
Points 1 through 100 represent serpentine SEM route.
Points 101 through 166 represent SEM at Pipe Penetrations
Weather Conditions: Snow, 34°F Wind: 12 mph NW

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

3/12/2026	10:24	ZERO	0.0	PPM
3/12/2026	10:26	SPAN	502.0	PPM

Background Reading:

3/12/2026	10:28	Upwind	2.2	PPM
3/12/2026	10:37	Downwind	2.3	PPM



- NOTES:
1. TAGS 1 – 100 REPRESENT SERPENTINE SEM ROUTE
 2. TAGS 101 – 166 REPRESENT SEM AT PIPE PENETRATIONS
 3. WEEKLY SEM PERFORMED ON MARCH 3, 2026

SHEET TITLE SEM ROUTE WITH BUFFER AREA	NO.	REVISION	DATE
PROJECT TITLE SURFACE EMISSIONS MONITORING SOLID WASTE PERMIT #588	CLIENT CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VA 24201		
FILE: 02218208.04	SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TPK - MIDLOTHIAN, VA 23113 PH. (804) 378-7440 FAX. (804) 378-7453		
DATE: 3/3/26	PROJ. NO. 02218208.04	DWN. BY: CHK. BY:	C/A RWY BY: APP. BY:
SCALE: AS SHOWN	DRAWING NO. 1 of 1		

March 25, 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 – March 19, 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 March 19, 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 a Thermo Scientific TVA-2020 Flame Ionization Detector (FID) at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint, including at the temperature probes. The approximate monitoring route and sampling locations are presented in the attached Drawing.

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



Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	166
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	66
Number of Exceedances	0
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	0

REMONITORING OF ONGOING EXCEEDANCES

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

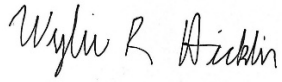
In accordance with 40 CFR 63.1960(c)(4)(v) and 40 CFR 60.36f(c)(4)(v) a new well or collection device must be installed or an alternate remedy must be submitted within 120 days at locations that continue to exhibit methane concentrations above the regulatory threshold for two consecutive retests.

There are currently no ongoing exceedances.

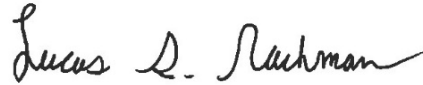
Ms. Susan "Tracey" Blalock
March 25, 2026
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If you have questions or require additional information, please contact either of the undersigned.

Sincerely,



Wylie R Hicklin
Staff Professional
SCS Engineers



Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/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 - MARCH 19, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA**

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
1	3.5 PPM	OK			Start Serpentine Route
2	1.9 PPM	OK			
3	3.1 PPM	OK			
4	3.2 PPM	OK			
5	2.0 PPM	OK			
6	2.4 PPM	OK			
7	1.9 PPM	OK			
8	1.9 PPM	OK			
9	2.0 PPM	OK			
10	1.8 PPM	OK			
11	1.9 PPM	OK			
12	1.9 PPM	OK			
13	2.0 PPM	OK			
14	2.0 PPM	OK			
15	1.8 PPM	OK			
16	2.2 PPM	OK			
17	2.4 PPM	OK			
18	2.4 PPM	OK			
19	2.1 PPM	OK			
20	1.8 PPM	OK			
21	2.0 PPM	OK			
22	1.9 PPM	OK			
23	1.9 PPM	OK			
24	1.8 PPM	OK			
25	1.8 PPM	OK			
26	1.8 PPM	OK			
27	3.3 PPM	OK			
28	2.2 PPM	OK			
29	4.4 PPM	OK			
30	2.7 PPM	OK			
31	1.7 PPM	OK			
32	1.8 PPM	OK			
33	1.8 PPM	OK			
34	10.8 PPM	OK			
35	8.1 PPM	OK			
36	160.0 PPM	OK			
37	2.8 PPM	OK			
38	11.9 PPM	OK			
39	2.9 PPM	OK			
40	21.4 PPM	OK			
41	2.2 PPM	OK			
42	1.6 PPM	OK			
43	2.3 PPM	OK			
44	1.9 PPM	OK			
45	1.9 PPM	OK			
46	1.7 PPM	OK			
47	1.7 PPM	OK			

**EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MARCH 19, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA**

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
48	1.7 PPM	OK			
49	1.7 PPM	OK			
50	1.7 PPM	OK			
51	4.1 PPM	OK			
52	4.0 PPM	OK			
53	2.9 PPM	OK			
54	2.7 PPM	OK			
55	1.5 PPM	OK			
56	2.1 PPM	OK			
57	1.5 PPM	OK			
58	1.5 PPM	OK			
59	2.0 PPM	OK			
60	2.6 PPM	OK			
61	6.9 PPM	OK			
62	14.7 PPM	OK			
63	12.1 PPM	OK			
64	7.1 PPM	OK			
65	1.7 PPM	OK			
66	1.6 PPM	OK			
67	1.6 PPM	OK			
68	2.0 PPM	OK			
69	1.8 PPM	OK			
70	1.8 PPM	OK			
71	6.5 PPM	OK			
72	1.4 PPM	OK			
73	1.5 PPM	OK			
74	1.5 PPM	OK			
75	1.5 PPM	OK			
76	1.5 PPM	OK			
77	1.5 PPM	OK			
78	1.4 PPM	OK			
79	1.4 PPM	OK			
80	1.4 PPM	OK			
81	1.5 PPM	OK			
82	1.5 PPM	OK			
83	1.6 PPM	OK			
84	1.6 PPM	OK			
85	1.6 PPM	OK			
86	1.7 PPM	OK			
87	1.9 PPM	OK			
88	1.5 PPM	OK			
89	1.8 PPM	OK			
90	1.7 PPM	OK			
91	1.5 PPM	OK			
92	2.1 PPM	OK			
93	1.6 PPM	OK			

**EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MARCH 19, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA**

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
94	1.9 PPM	OK			
95	3.2 PPM	OK			
96	1.6 PPM	OK			
97	1.5 PPM	OK			
98	1.5 PPM	OK			
99	1.5 PPM	OK			
100	1.5 PPM	OK			End Serpentine Route
101	114.0 PPM	OK			EW-52
102	3.3 PPM	OK			TP-4
103	2.0 PPM	OK			EW-60
104	1.9 PPM	OK			EW-48
105	4.4 PPM	OK			TP-6
106	1.9 PPM	OK			EW-61
107	2.3 PPM	OK			EW-50
108	2.5 PPM	OK			EW-67
109	1.3 PPM	OK			EW-47
110	1.2 PPM	OK			EW-54
111	1.3 PPM	OK			EW-55
112	1.3 PPM	OK			EW-92
113	1.2 PPM	OK			EW-91
114	1.2 PPM	OK			EW-96
115	1.2 PPM	OK			EW-66
116	1.2 PPM	OK			EW-58
117	1.1 PPM	OK			EW-57
118	1.1 PPM	OK			TP-1
119	1.1 PPM	OK			EW-59
120	1.5 PPM	OK			EW-100
121	6.4 PPM	OK			EW-56
122	1.1 PPM	OK			EW-97
123	1.0 PPM	OK			EW-53
124	1.0 PPM	OK			EW-51
125	1.1 PPM	OK			TP-5
126	2.8 PPM	OK			EW-68
127	2.1 PPM	OK			EW-87
128	1.2 PPM	OK			EW-38
129	1.0 PPM	OK			TP-7
130	1.0 PPM	OK			EW-49
131	1.0 PPM	OK			EW-83
132	1.8 PPM	OK			EW-65
133	1.1 PPM	OK			EW-81
134	1.1 PPM	OK			TP-8
135	1.4 PPM	OK			EW-64
136	3.6 PPM	OK			EW-63
137	4.4 PPM	OK			EW-42
138	163.0 PPM	OK			EW-76
139	3.2 PPM	OK			TP-9

**EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MARCH 19, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA**

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
140	1.7 PPM	OK			EW-62
141	1.4 PPM	OK			EW-74
142	1.1 PPM	OK			EW-32R
143	1.0 PPM	OK			EW-69
144	1.0 PPM	OK			EW-71
145	1.6 PPM	OK			EW-72
146	1.0 PPM	OK			EW-70
147	1.2 PPM	OK			EW-73
148	1.1 PPM	OK			EW-78
149	1.0 PPM	OK			EW-82
150	1.0 PPM	OK			EW-36A
151	1.5 PPM	OK			EW-85
152	1.6 PPM	OK			EW-88
153	0.9 PPM	OK			EW-89
154	1.0 PPM	OK			EW-93
155	1.4 PPM	OK			EW-94
156	1.0 PPM	OK			EW-98
157	4.0 PPM	OK			EW-99
158	0.9 PPM	OK			EW-95
159	1.2 PPM	OK			EW-90
160	43.5 PPM	OK			EW-86
161	0.9 PPM	OK			EW-84
162	1.0 PPM	OK			EW-80
163	0.8 PPM	OK			EW-79
164	0.9 PPM	OK			EW-77
165	1.1 PPM	OK			EW-33B
166	15.2 PPM	OK			EW-75

Number of locations sampled:	166
Number of exceedance locations:	0

NOTES:

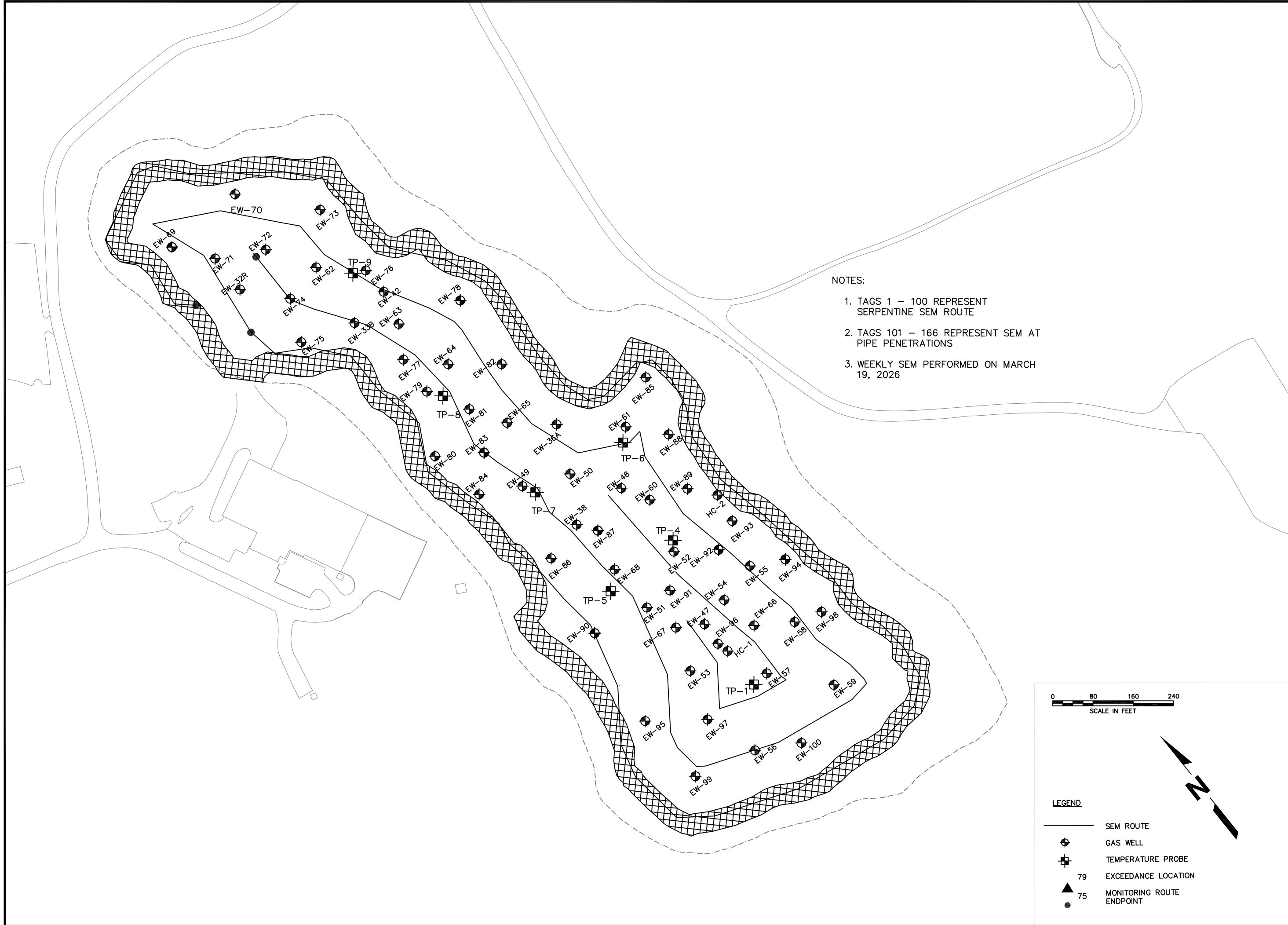
Points 1 through 100 represent serpentine SEM route.
Points 101 through 166 represent SEM at Pipe Penetrations
Weather Conditions: Mostly Sunny, 45°F Wind: 8 mph SW

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

3/19/2026	9:47	ZERO	0.1	PPM
3/19/2026	9:49	SPAN	503.0	PPM

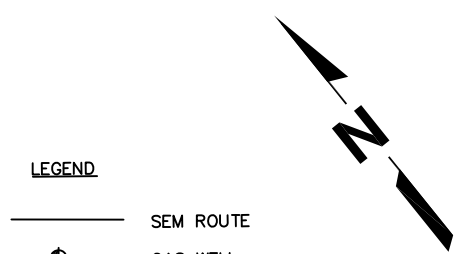
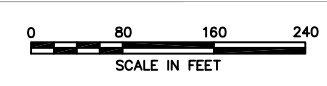
Background Reading:

3/19/2026	9:51	Upwind	2.7	PPM
3/19/2026	9:54	Downwind	2.0	PPM



NOTES:

1. TAGS 1 – 100 REPRESENT SERPENTINE SEM ROUTE
2. TAGS 101 – 166 REPRESENT SEM AT PIPE PENETRATIONS
3. WEEKLY SEM PERFORMED ON MARCH 19, 2026



LEGEND

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

SHEET TITLE SEM ROUTE WITH BUFFER AREA	NO.	DATE
PROJECT TITLE SURFACE EMISSIONS MONITORING SOLID WASTE PERMIT #588		
CLIENT CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VA 24201		
SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TPK. - MIDLOTHIAN, VA 23113 PH. (804) 378-7440 FAX. (804) 378-7453	C/A RW BY:	APP. BY:
PROJ. NO. 02218208.04	DWN. BY:	CHK. BY:
FILE: 02218208.04		
DATE: 3/19/26		
SCALE: AS SHOWN		
DRAWING NO. 1	of 1	

April 1, 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 – March 27, 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 March 27, 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 a Thermo Scientific TVA-2020 Flame Ionization Detector (FID) at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint, including at the temperature probes. The approximate monitoring route and sampling locations are presented in the attached Drawing.

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



Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	166
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	66
Number of Exceedances	0
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	0

REMONITORING OF ONGOING EXCEEDANCES

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

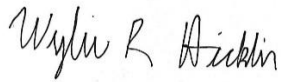
In accordance with 40 CFR 63.1960(c)(4)(v) and 40 CFR 60.36f(c)(4)(v) a new well or collection device must be installed or an alternate remedy must be submitted within 120 days at locations that continue to exhibit methane concentrations above the regulatory threshold for two consecutive retests.

There are currently no ongoing exceedances.

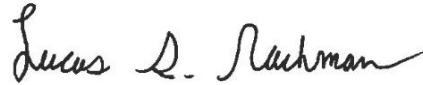
Ms. Susan "Tracey" Blalock
April 1, 2026
Page 3

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/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 - MARCH 27, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA**

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
1	1.9 PPM	OK			Start Serpentine Route
2	4.1 PPM	OK			
3	4.0 PPM	OK			
4	3.9 PPM	OK			
5	2.6 PPM	OK			
6	2.4 PPM	OK			
7	2.4 PPM	OK			
8	2.1 PPM	OK			
9	1.9 PPM	OK			
10	2.0 PPM	OK			
11	1.9 PPM	OK			
12	1.9 PPM	OK			
13	2.0 PPM	OK			
14	1.7 PPM	OK			
15	1.7 PPM	OK			
16	1.8 PPM	OK			
17	2.3 PPM	OK			
18	2.1 PPM	OK			
19	2.0 PPM	OK			
20	2.2 PPM	OK			
21	1.9 PPM	OK			
22	1.7 PPM	OK			
23	1.8 PPM	OK			
24	2.5 PPM	OK			
25	10.1 PPM	OK			
26	7.1 PPM	OK			
27	2.2 PPM	OK			
28	2.0 PPM	OK			
29	1.9 PPM	OK			
30	2.1 PPM	OK			
31	2.3 PPM	OK			
32	72.1 PPM	OK			
33	39.4 PPM	OK			
34	102.0 PPM	OK			
35	20.7 PPM	OK			
36	132.0 PPM	OK			
37	8.4 PPM	OK			
38	73.3 PPM	OK			
39	4.3 PPM	OK			
40	2.4 PPM	OK			
41	2.6 PPM	OK			
42	3.4 PPM	OK			
43	7.5 PPM	OK			
44	3.7 PPM	OK			
45	3.4 PPM	OK			
46	2.3 PPM	OK			
47	2.0 PPM	OK			

**EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MARCH 27, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA**

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
48	13.7 PPM	OK			
49	3.0 PPM	OK			
50	4.9 PPM	OK			
51	5.5 PPM	OK			
52	2.6 PPM	OK			
53	1.5 PPM	OK			
54	1.4 PPM	OK			
55	1.3 PPM	OK			
56	1.9 PPM	OK			
57	1.3 PPM	OK			
58	1.5 PPM	OK			
59	2.4 PPM	OK			
60	2.0 PPM	OK			
61	4.1 PPM	OK			
62	3.0 PPM	OK			
63	5.2 PPM	OK			
64	1.7 PPM	OK			
65	1.6 PPM	OK			
66	2.6 PPM	OK			
67	2.2 PPM	OK			
68	1.8 PPM	OK			
69	2.5 PPM	OK			
70	3.6 PPM	OK			
71	3.9 PPM	OK			
72	2.6 PPM	OK			
73	2.9 PPM	OK			
74	6.2 PPM	OK			
75	1.8 PPM	OK			
76	1.7 PPM	OK			
77	1.7 PPM	OK			
78	11.6 PPM	OK			
79	90.5 PPM	OK			
80	4.5 PPM	OK			
81	16.0 PPM	OK			
82	1.8 PPM	OK			
83	1.9 PPM	OK			
84	2.5 PPM	OK			
85	2.4 PPM	OK			
86	2.1 PPM	OK			
87	2.1 PPM	OK			
88	3.0 PPM	OK			
89	6.9 PPM	OK			
90	2.1 PPM	OK			
91	3.7 PPM	OK			
92	1.6 PPM	OK			
93	2.0 PPM	OK			

**EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MARCH 27, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA**

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
94	2.3 PPM	OK			
95	3.9 PPM	OK			
96	3.2 PPM	OK			
97	3.8 PPM	OK			
98	2.2 PPM	OK			
99	2.1 PPM	OK			
100	7.2 PPM	OK			End Serpentine Route
101	72.8 PPM	OK			EW-52
102	6.4 PPM	OK			TP-4
103	21.5 PPM	OK			EW-60
104	2.2 PPM	OK			EW-48
105	153.0 PPM	OK			TP-6
106	1.8 PPM	OK			EW-61
107	1.6 PPM	OK			EW-50
108	22.5 PPM	OK			EW-67
109	3.1 PPM	OK			EW-47
110	1.6 PPM	OK			EW-54
111	306.0 PPM	OK			EW-55
112	2.2 PPM	OK			EW-92
113	3.3 PPM	OK			EW-91
114	3.0 PPM	OK			EW-96
115	2.0 PPM	OK			EW-66
116	59.2 PPM	OK			EW-58
117	3.5 PPM	OK			EW-57
118	2.5 PPM	OK			TP-1
119	9.0 PPM	OK			EW-59
120	9.7 PPM	OK			EW-100
121	4.0 PPM	OK			EW-56
122	2.0 PPM	OK			EW-97
123	3.6 PPM	OK			EW-53
124	6.0 PPM	OK			EW-51
125	2.4 PPM	OK			TP-5
126	2.2 PPM	OK			EW-68
127	1.6 PPM	OK			EW-87
128	2.0 PPM	OK			EW-38
129	2.2 PPM	OK			TP-7
130	7.4 PPM	OK			EW-49
131	1.5 PPM	OK			EW-83
132	1.3 PPM	OK			EW-65
133	4.0 PPM	OK			EW-81
134	1.1 PPM	OK			TP-8
135	1.5 PPM	OK			EW-64
136	1.1 PPM	OK			EW-63
137	9.0 PPM	OK			EW-42
138	35.7 PPM	OK			EW-76
139	1.9 PPM	OK			TP-9

**EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - MARCH 27, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA**

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
140	2.5 PPM	OK			EW-62
141	2.0 PPM	OK			EW-74
142	2.2 PPM	OK			EW-32R
143	1.6 PPM	OK			EW-69
144	2.3 PPM	OK			EW-71
145	1.8 PPM	OK			EW-72
146	1.8 PPM	OK			EW-70
147	12.5 PPM	OK			EW-73
148	1.0 PPM	OK			EW-78
149	3.4 PPM	OK			EW-82
150	1.2 PPM	OK			EW-36A
151	18.6 PPM	OK			EW-85
152	0.9 PPM	OK			EW-88
153	17.4 PPM	OK			EW-89
154	3.4 PPM	OK			EW-93
155	2.8 PPM	OK			EW-94
156	3.5 PPM	OK			EW-98
157	2.2 PPM	OK			EW-99
158	31.8 PPM	OK			EW-95
159	10.5 PPM	OK			EW-90
160	8.6 PPM	OK			EW-86
161	5.5 PPM	OK			EW-84
162	2.0 PPM	OK			EW-80
163	1.5 PPM	OK			EW-79
164	2.6 PPM	OK			EW-77
165	1.1 PPM	OK			EW-33B
166	43.5 PPM	OK			EW-75

Number of locations sampled:	166
Number of exceedance locations:	0

NOTES:

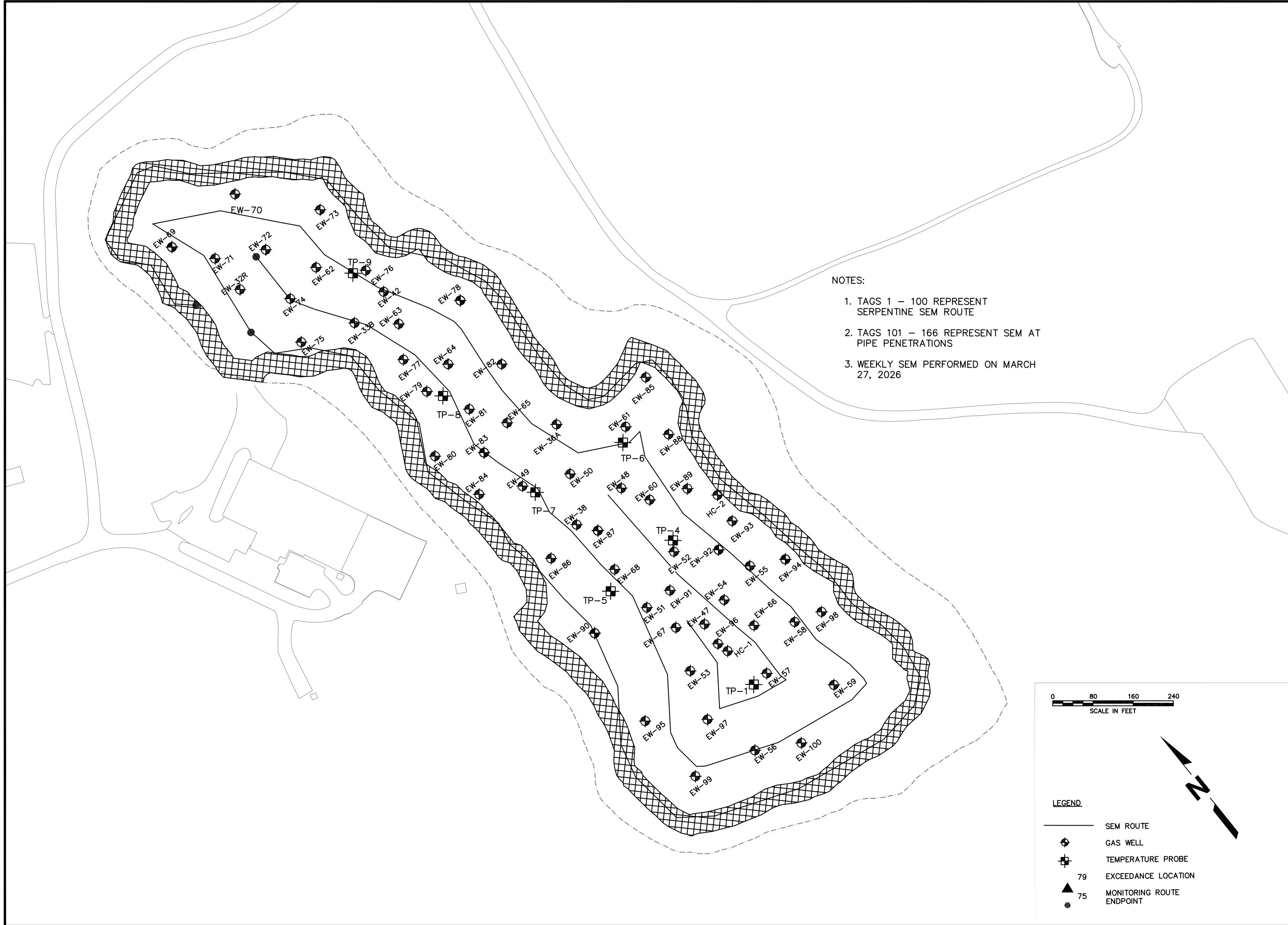
Points 1 through 100 represent serpentine SEM route.
Points 101 through 166 represent SEM at Pipe Penetrations
Weather Conditions: Overcast, 64°F Wind: 12 mph SW

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

3/27/2026	9:39	ZERO	0.2	PPM
3/27/2026	9:40	SPAN	502.0	PPM

Background Reading:

3/27/2026	9:47	Upwind	2.6	PPM
3/27/2026	9:50	Downwind	1.8	PPM



NOTES:

1. TAGS 1 – 100 REPRESENT SERPENTINE SEM ROUTE
2. TAGS 101 – 166 REPRESENT SEM AT PIPE PENETRATIONS
3. WEEKLY SEM PERFORMED ON MARCH 27, 2026

0 80 160 240
SCALE IN FEET

LEGEND

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

N

SHEET TITLE SEM ROUTE WITH BUFFER AREA	NO.	DATE
PROJECT TITLE SURFACE EMISSIONS MONITORING SOLID WASTE PERMIT #588		
CLIENT CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VA 24201		
SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TPK - MIDLOTHIAN, VA 23113 PH. (804) 378-7440 FAX. (804) 378-7453 PROJ. NO. 02218208.04 DATE 3/27/26	C/A RW BY: APP. BY: DWG. BY: CHK. BY:	
FILE: 02218208.04		
DATE: 3/27/26		
SCALE: AS SHOWN		
DRAWING NO. 1	of 1	

Appendix B

In-Waste Temperatures on Select Days in March

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Figure B - 18 Average Temperatures Recorded by TP-9 on March 11, 2026	11
Figure B - 19 Average Temperatures Recorded by TP-9 on March 18, 2026	12
Figure B - 20 Average Temperatures Recorded by TP-9 on March 25, 2026	12

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

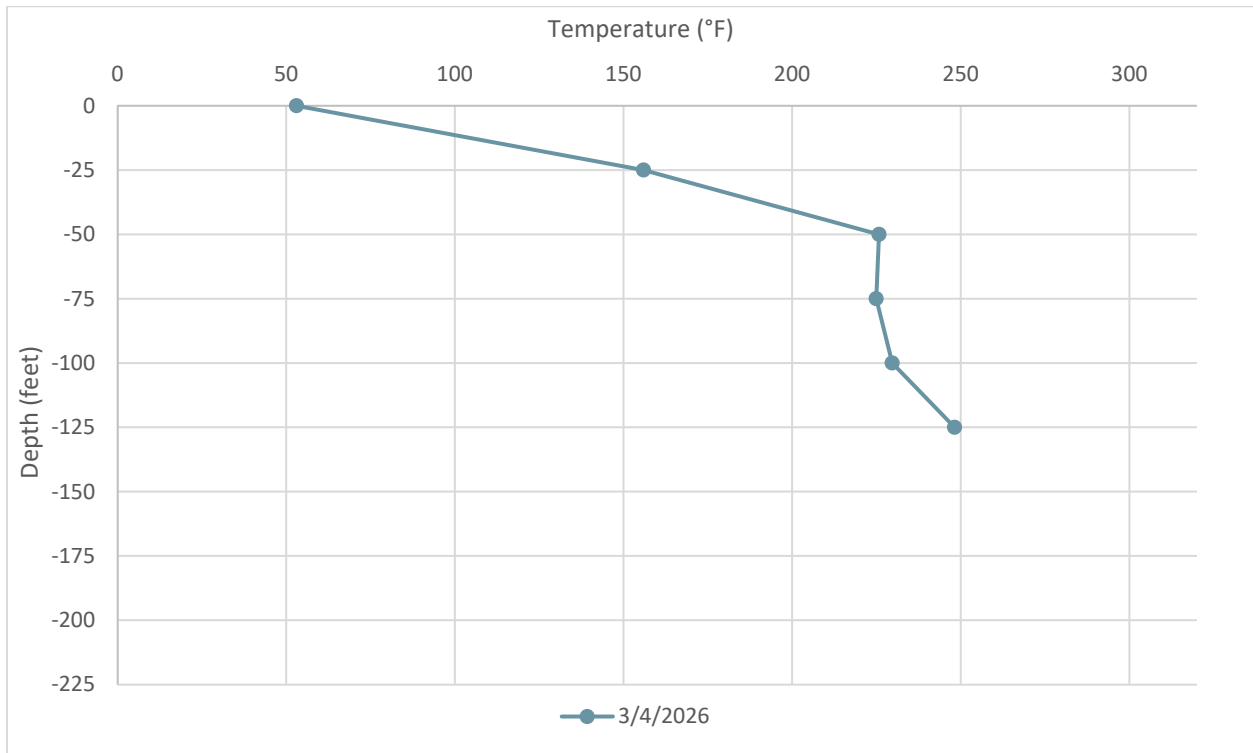


Figure B - 2 Average Temperatures Recorded by TP-1 on March 11, 2026

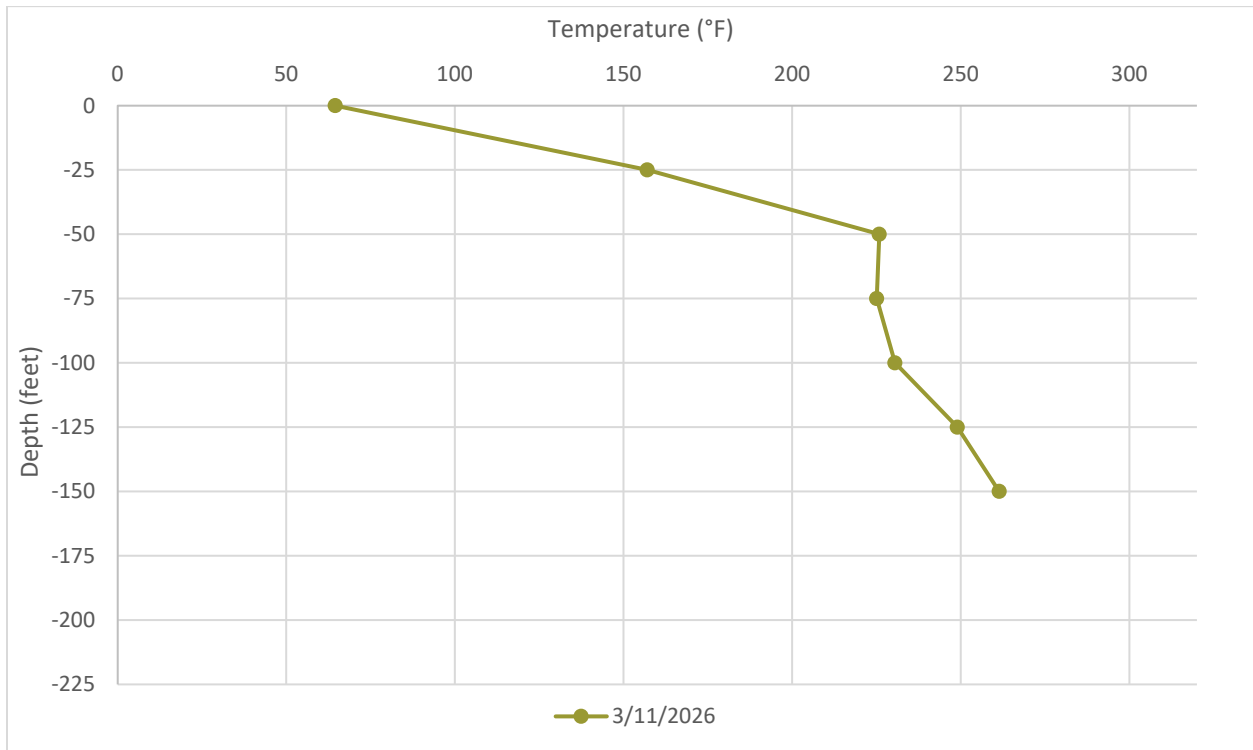


Figure B - 3 Average Temperatures Recorded by TP-1 on March 18, 2026

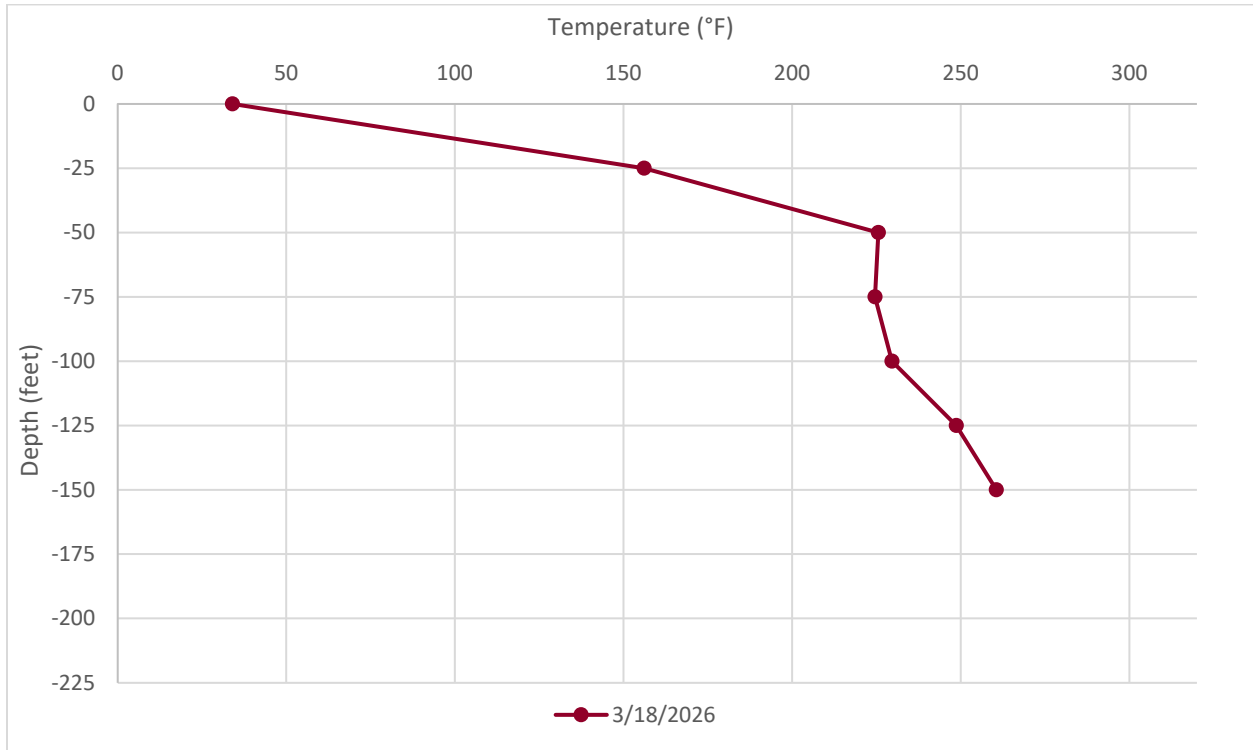


Figure B - 4 Average Temperatures Recorded by TP-1 on March 25, 2026

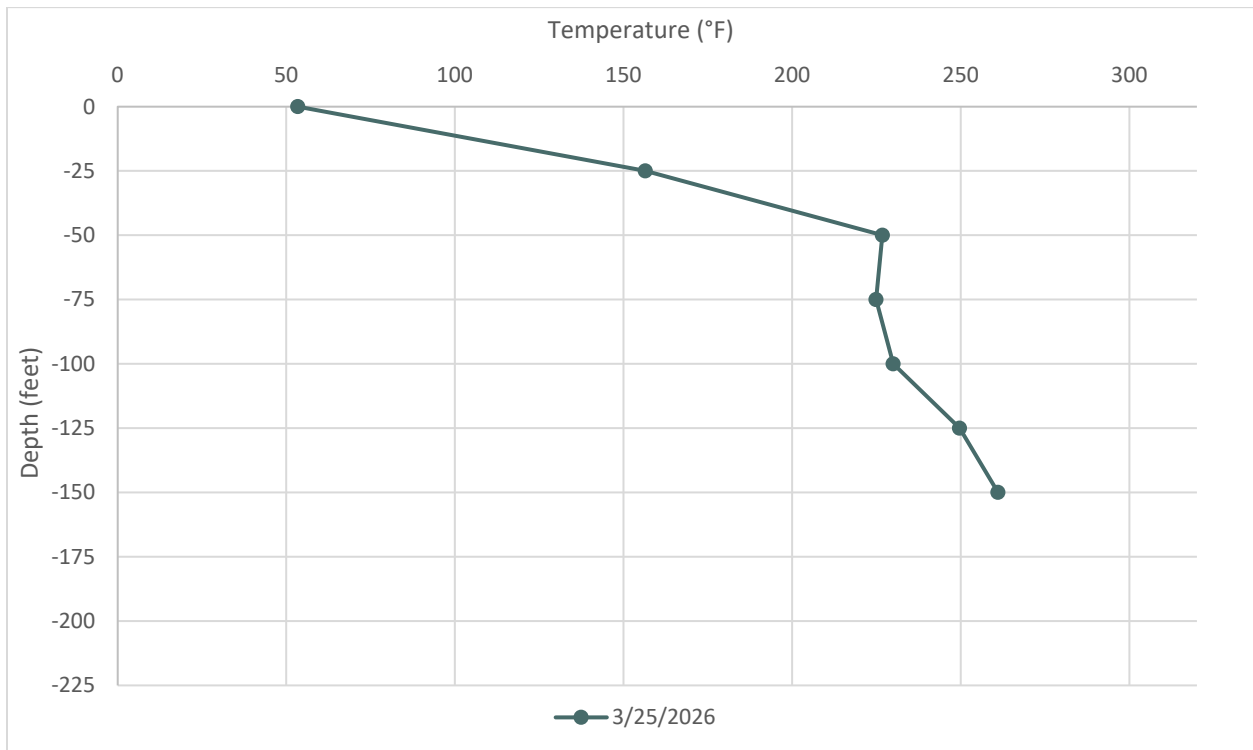


Figure B - 5 Average Temperatures Recorded by TP-5 on March 4, 2026

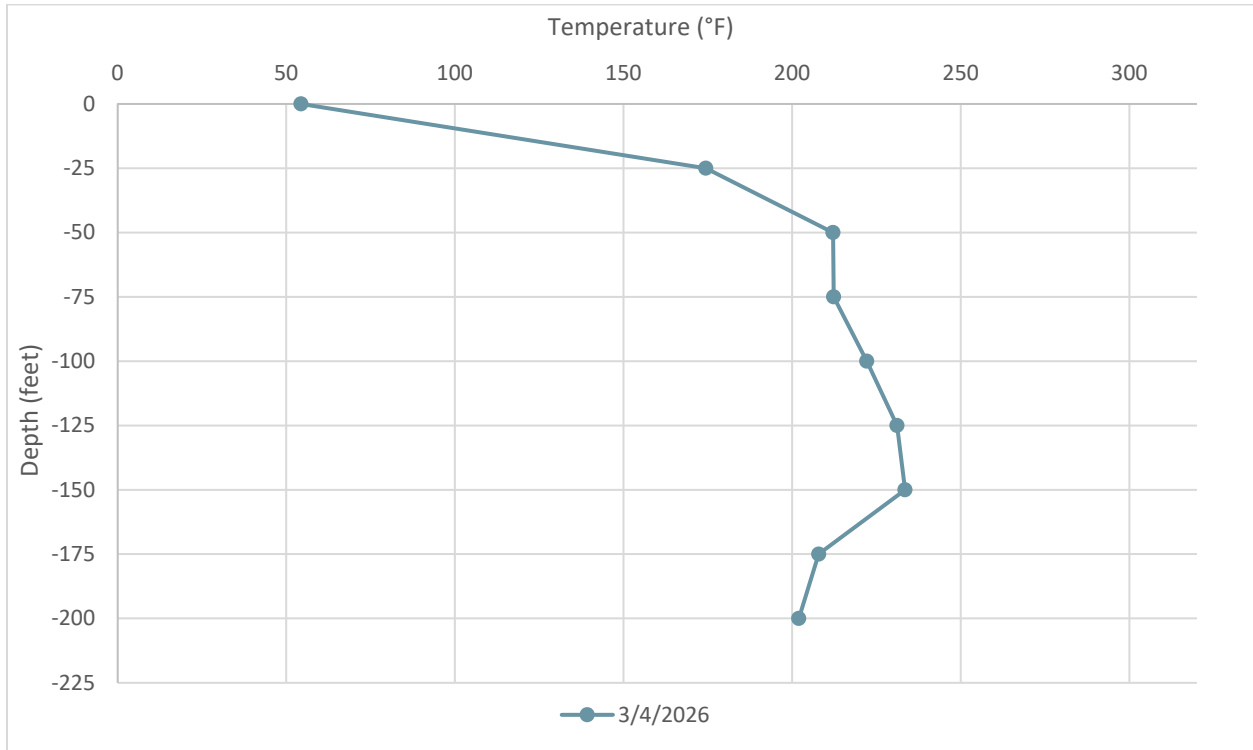


Figure B - 6 Average Temperatures Recorded by TP-5 on March 11, 2026

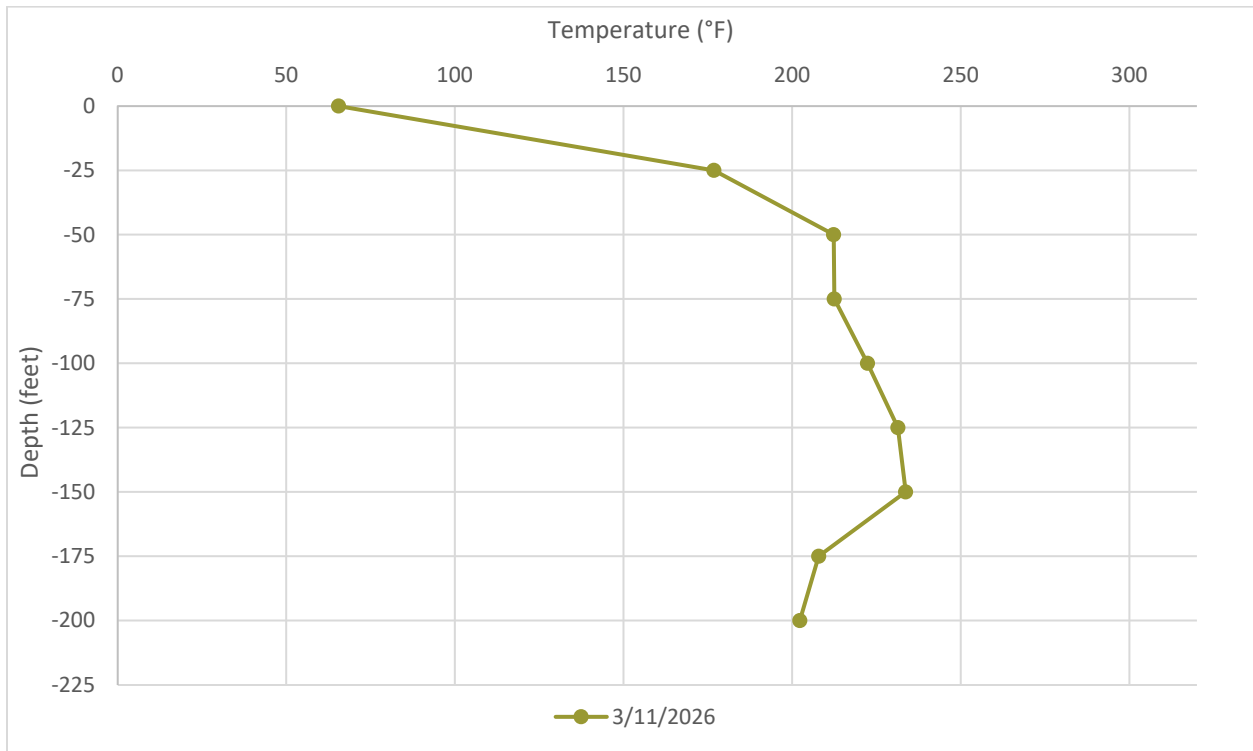


Figure B - 7 Average Temperatures Recorded by TP-5 on March 18, 2026

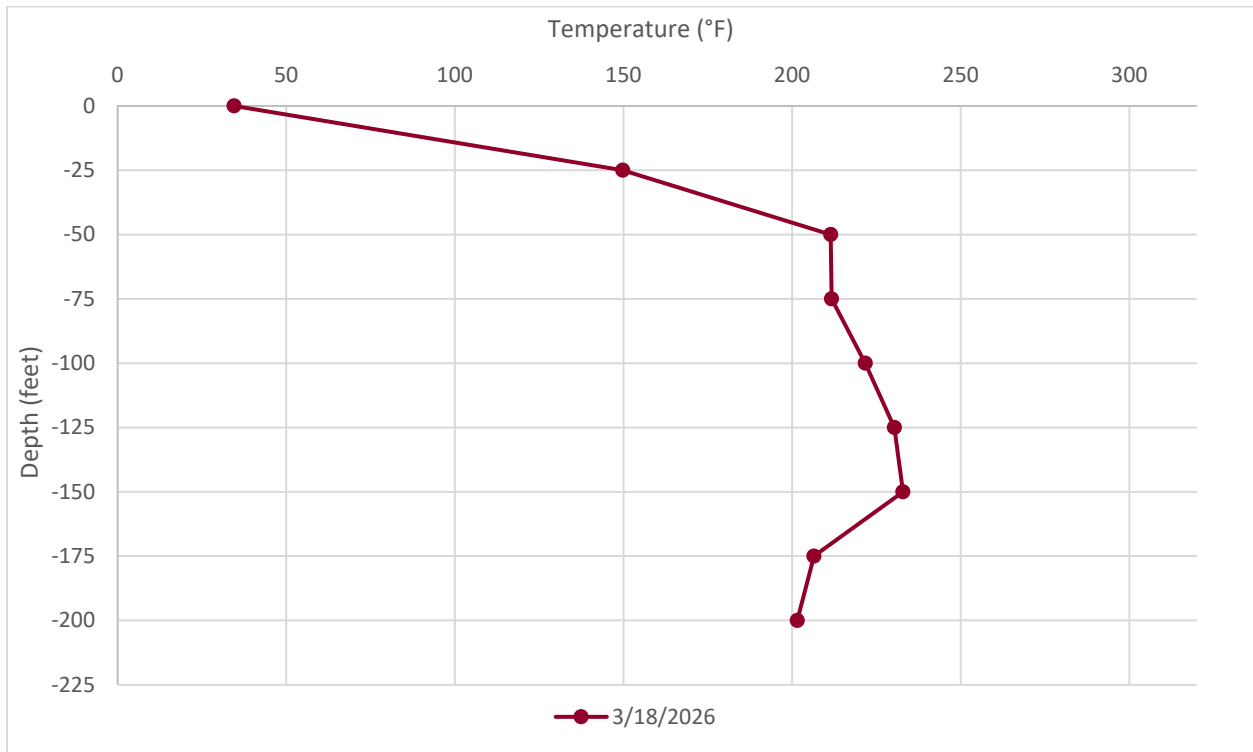


Figure B - 8 Average Temperatures Recorded by TP-5 on March 25, 2026

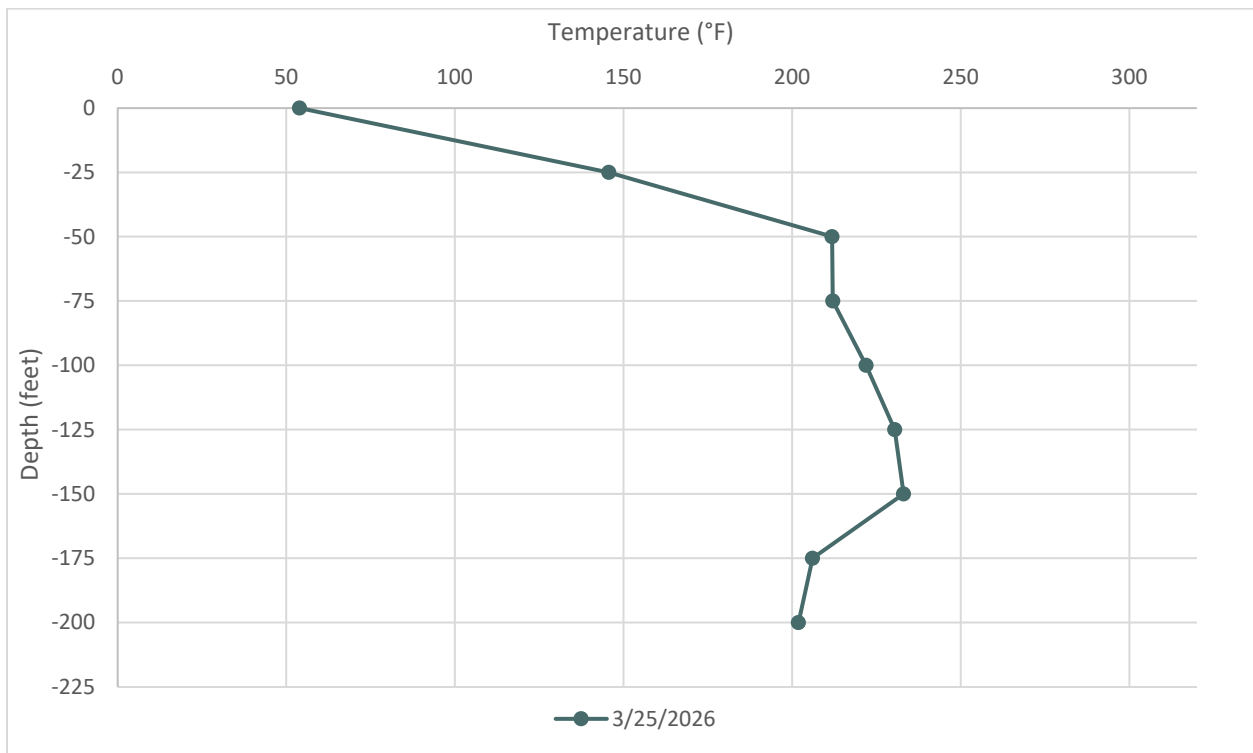


Figure B - 9 Average Temperatures Recorded by TP-6 on March 4, 2026

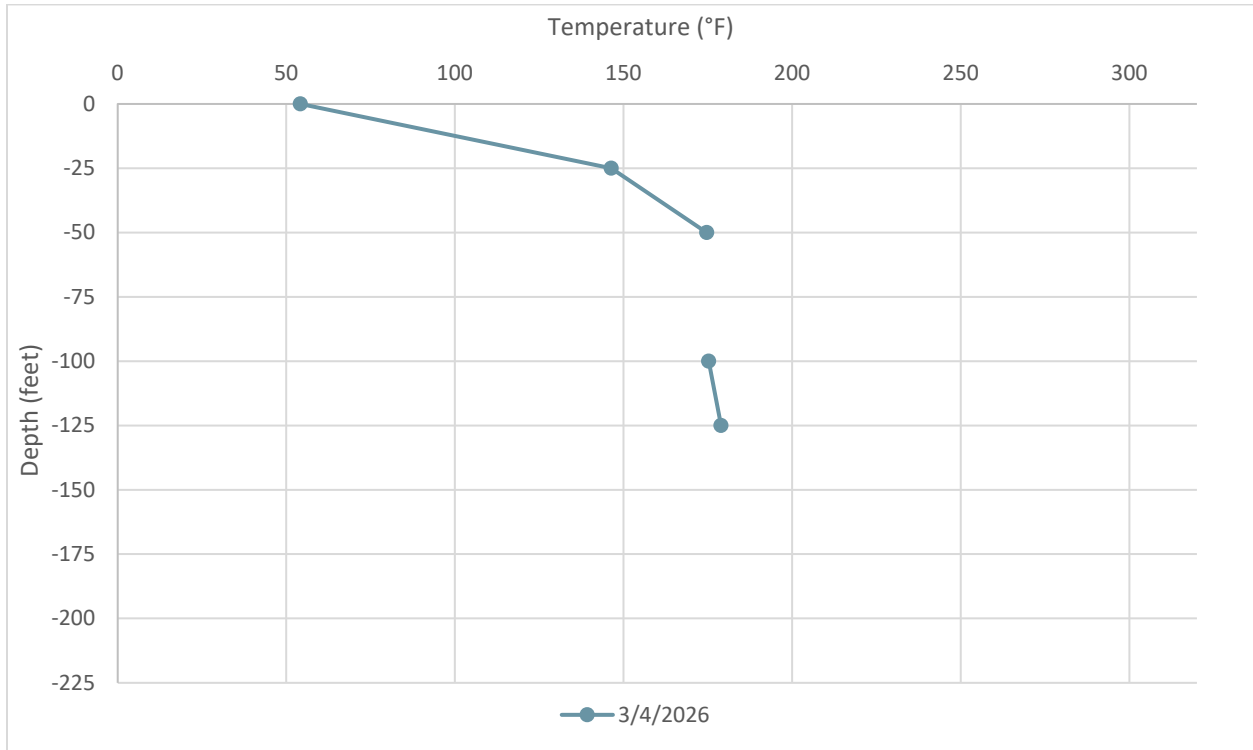


Figure B - 10 Average Temperatures Recorded by TP-6 on March 11, 2026

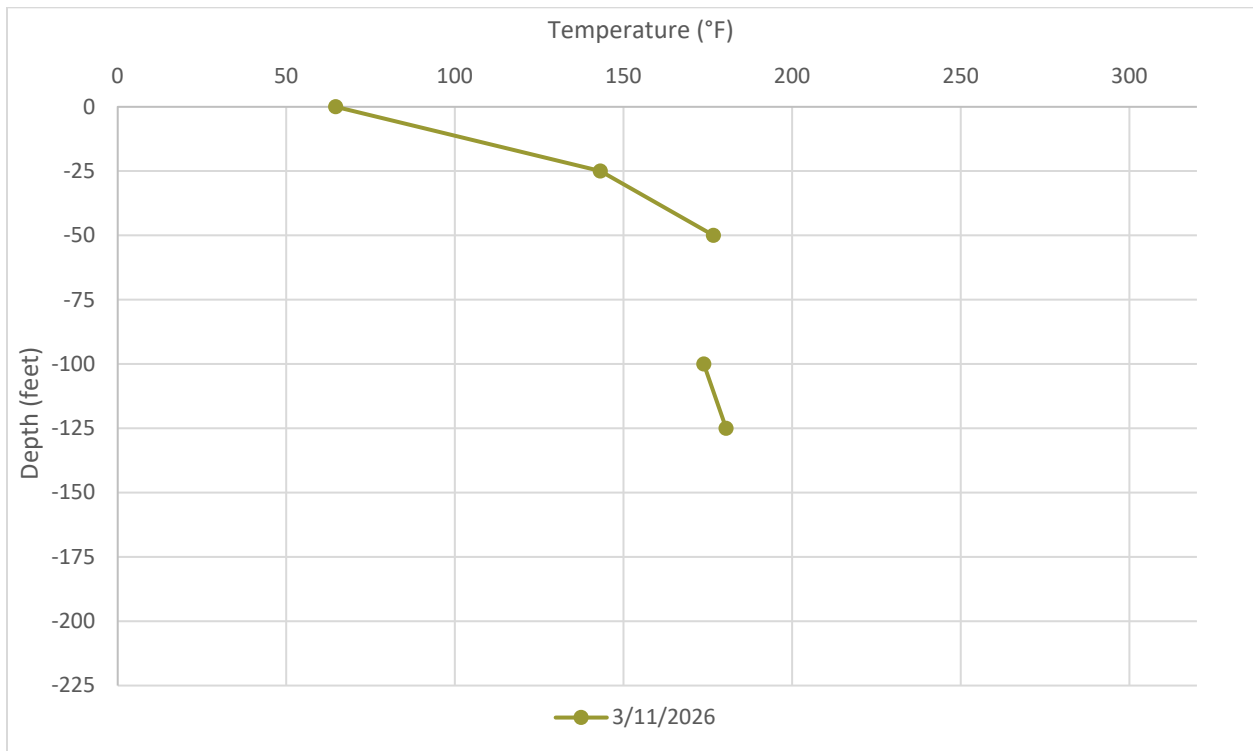


Figure B - 11 Average Temperatures Recorded by TP-6 on March 18, 2026

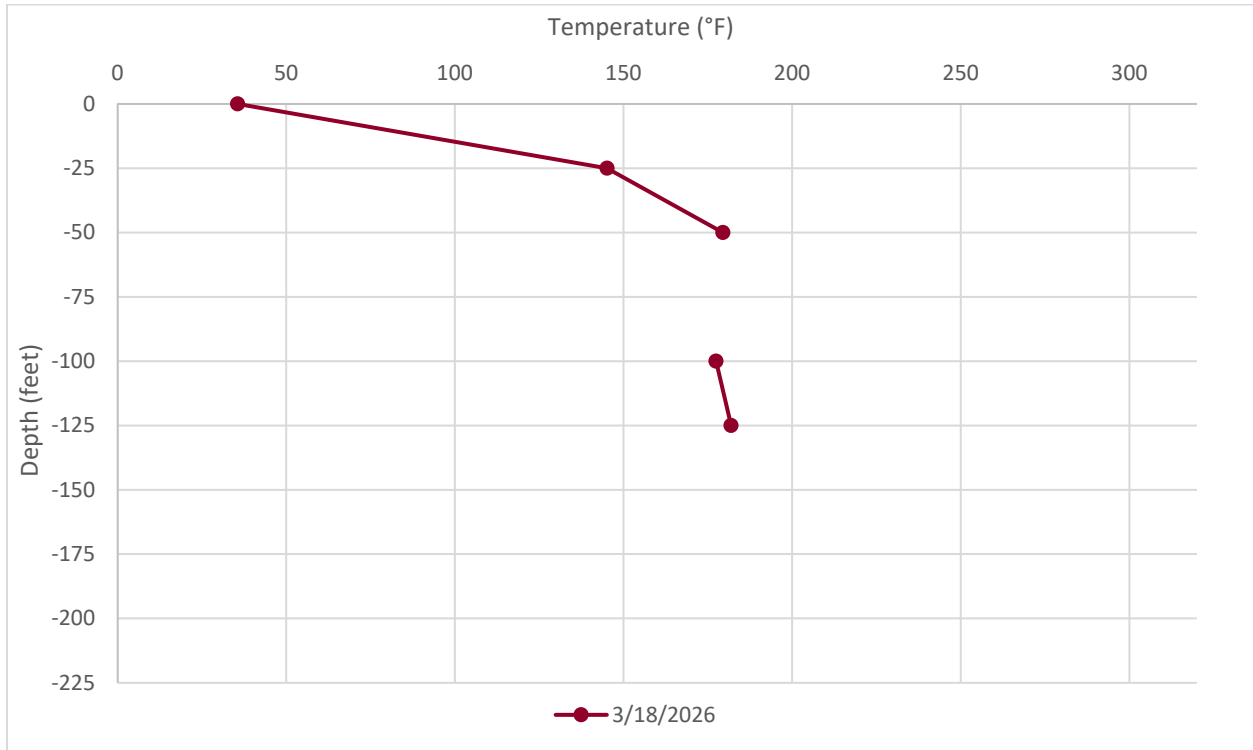


Figure B - 12 Average Temperatures Recorded by TP-6 on March 25, 2026

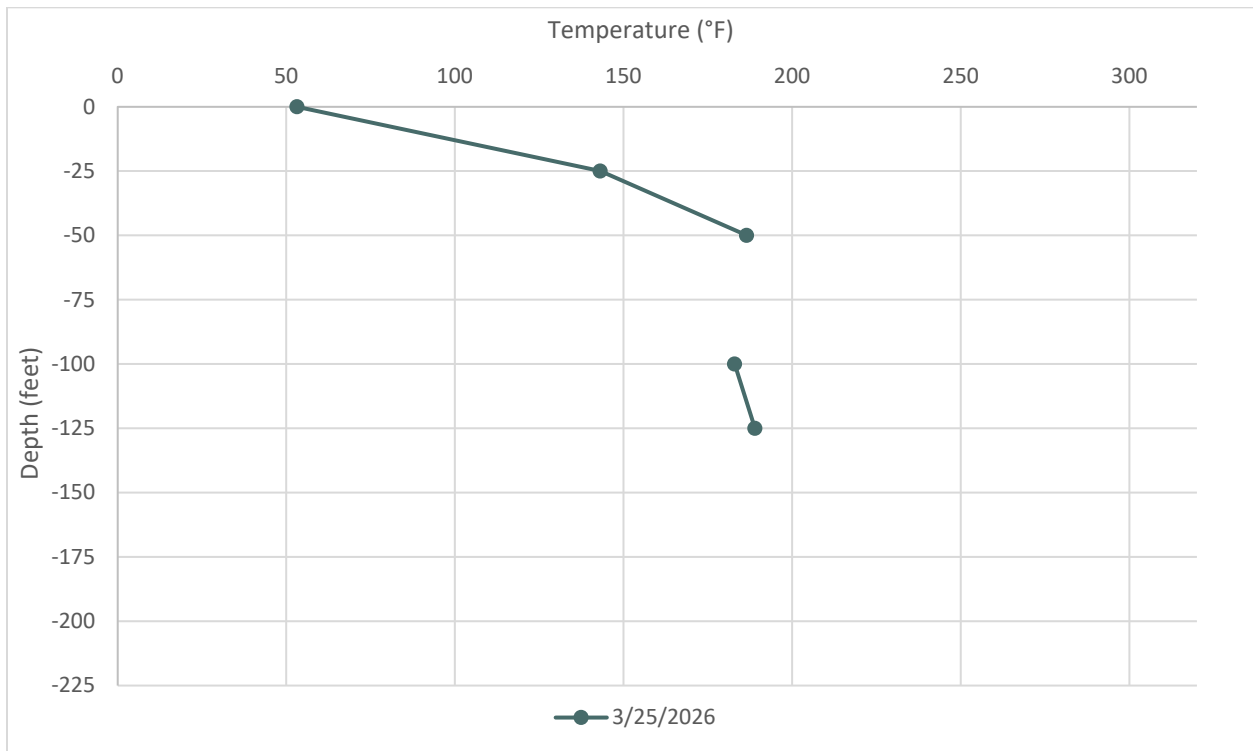


Figure B - 13 Average Temperatures Recorded by TP-8 on March 4, 2026

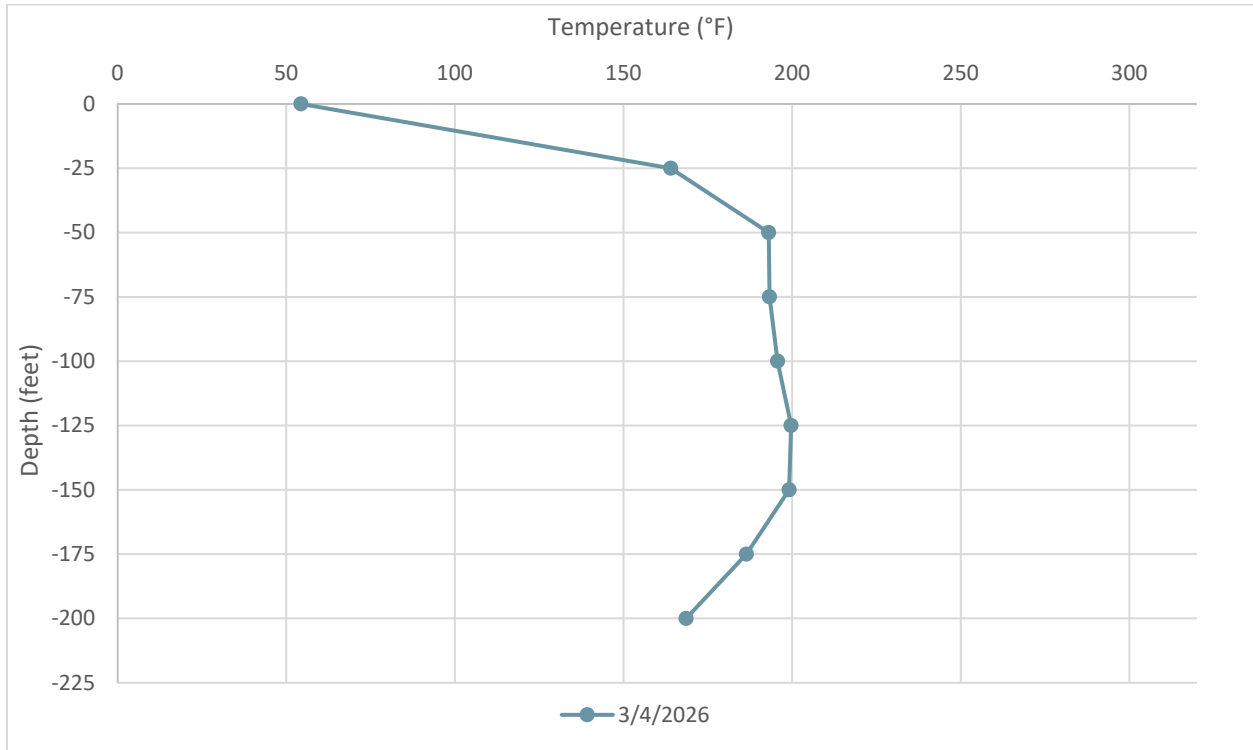


Figure B - 14 Average Temperatures Recorded by TP-8 on March 11, 2026

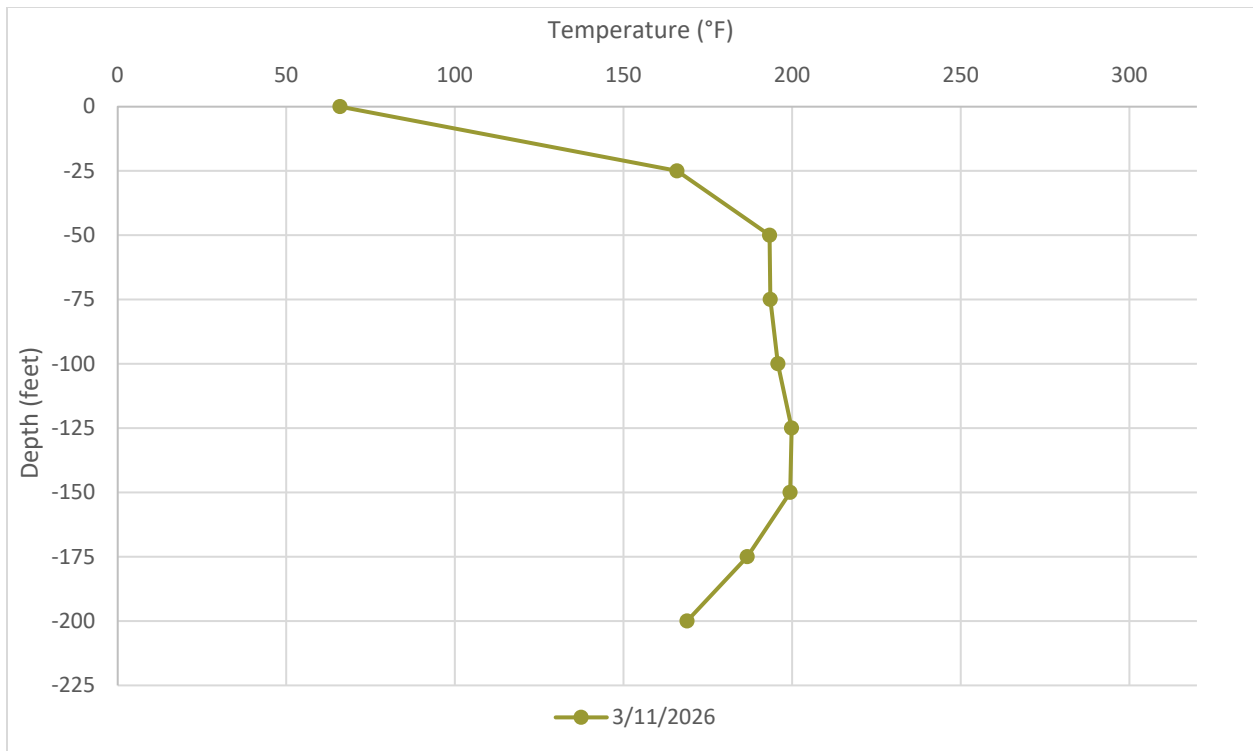


Figure B - 15 Average Temperatures Recorded by TP-8 on March 18, 2026

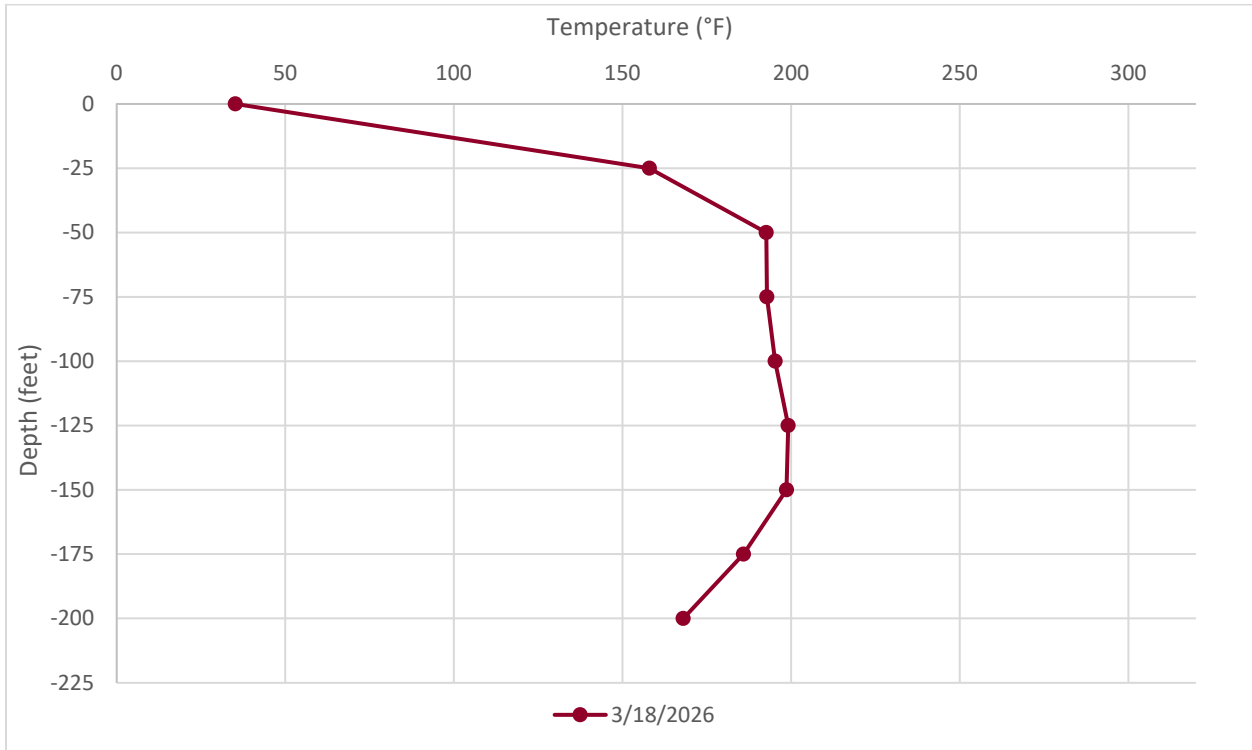


Figure B - 16 Average Temperatures Recorded by TP-8 on March 25, 2026

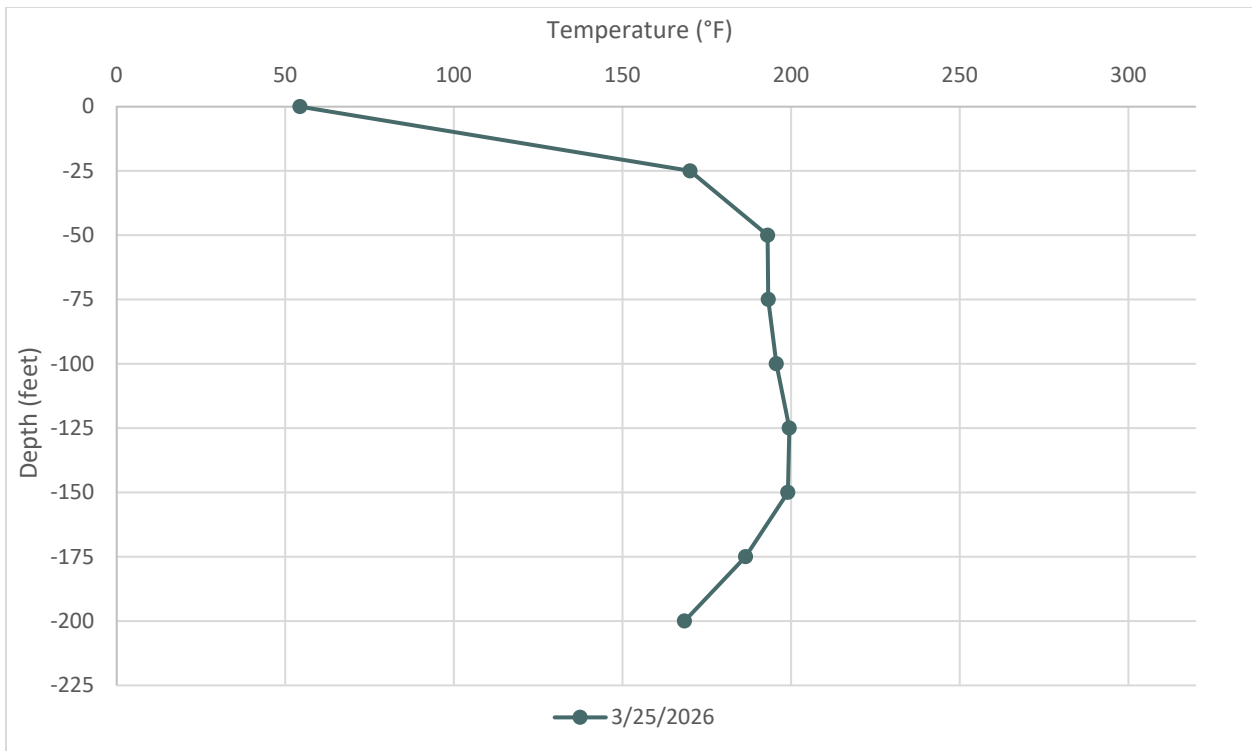


Figure B - 17 Average Temperatures Recorded by TP-9 on March 4, 2026

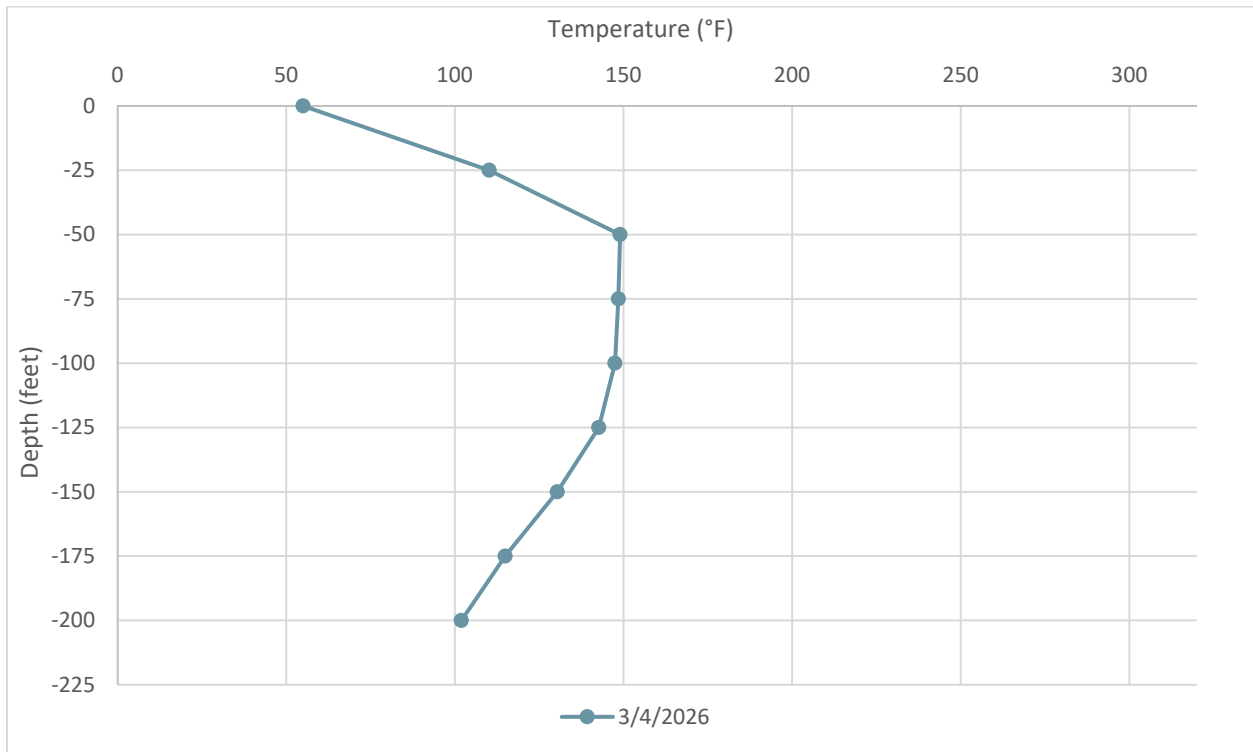


Figure B - 18 Average Temperatures Recorded by TP-9 on March 11, 2026

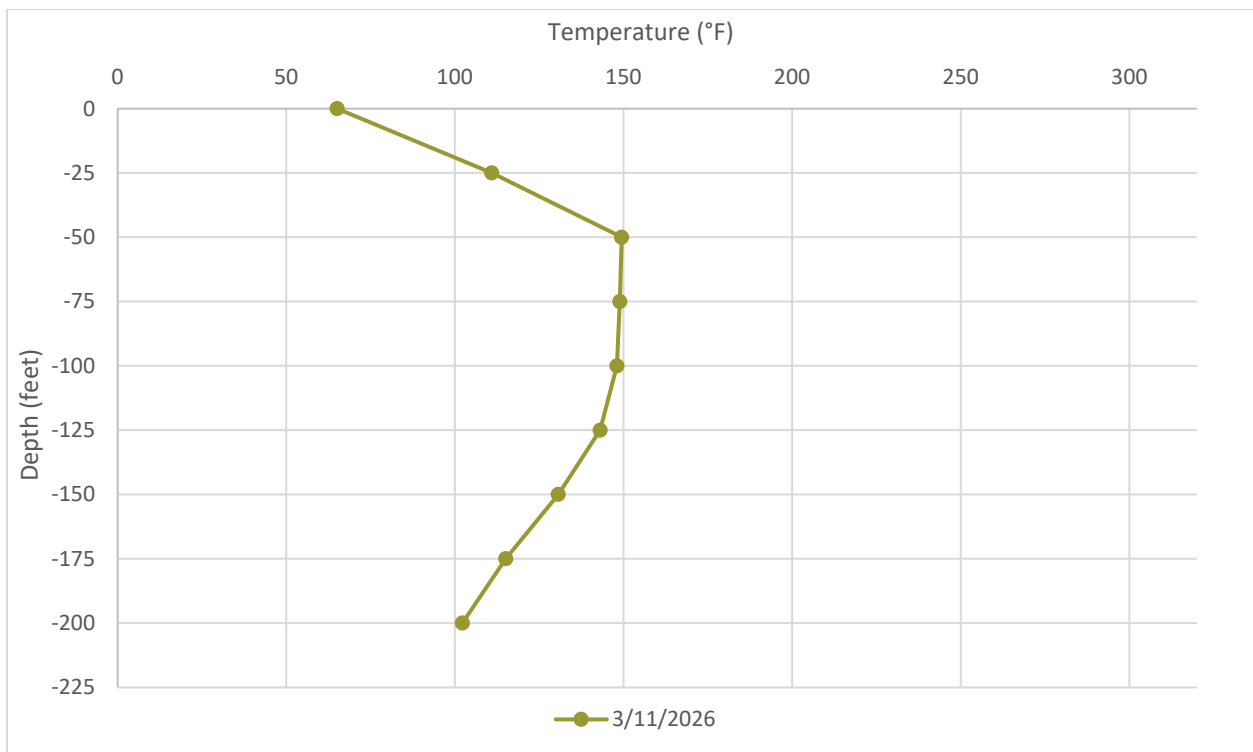


Figure B - 19 Average Temperatures Recorded by TP-9 on March 18, 2026

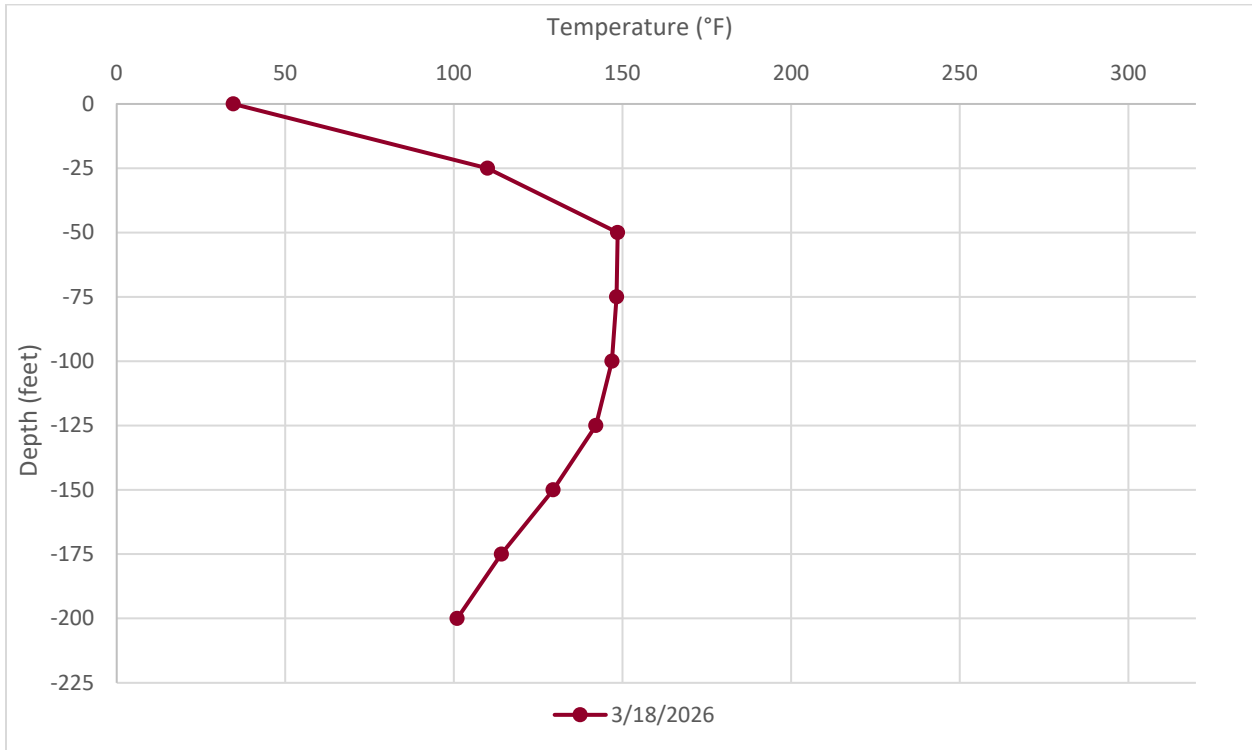
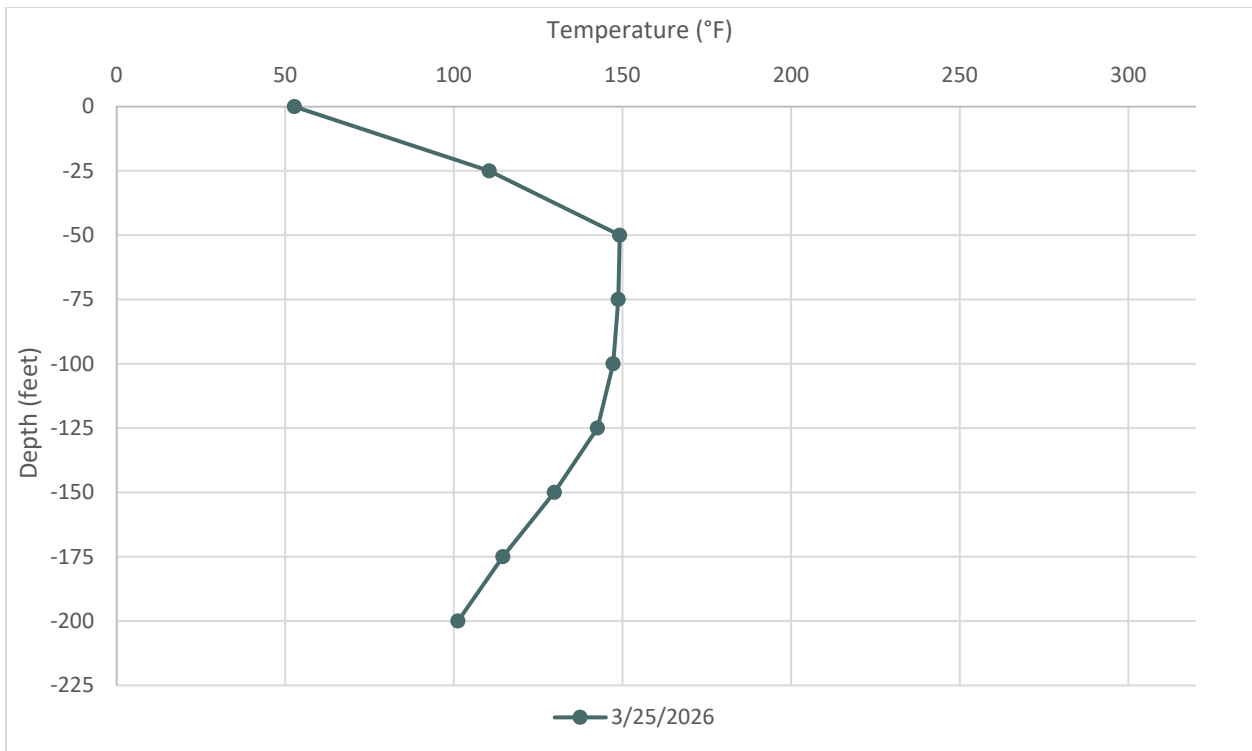



Figure B - 20 Average Temperatures Recorded by TP-9 on March 25, 2026





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 | April 1, 2026

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

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

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	60.9	50.8	74.8
Mar 2	53.0	50.7	54.4
Mar 3	59.2	49.3	74.1
Mar 4	63.5	52.1	77.7
Mar 5	65.9	55.2	80.0
Mar 6	69.2	56.3	85.9
Mar 7	71.0	58.0	86.4
Mar 8	63.4	61.8	65.2
Mar 9	66.7	58.4	78.6
Mar 10	74.3	54.5	95.6
Mar 11	97.1	93.8	101.4
Mar 12	88.2	83.7	94.9
Mar 13	89.6	84.8	94.8
Mar 14	90.9	85.3	96.5
Mar 15	91.3	88.7	95.1
Mar 16	83.1	71.2	92.7
Mar 17	71.7	68.9	77.4
Mar 18	75.9	69.8	81.8
Mar 19	79.1	72.4	87.2
Mar 20	79.6	69.9	87.6
Mar 21	81.9	77.2	89.8
Mar 22	83.2	75.3	92.7
Mar 23	75.5	64.0	81.1
Mar 24	69.2	58.8	82.8
Mar 25	75.7	63.6	88.9
Mar 26	79.5	75.9	85.6
Mar 27	73.7	61.0	81.8
Mar 28	63.6	51.4	76.5
Mar 29	69.1	55.4	83.2
Mar 30	72.6	65.0	84.9
Summary	74.6	53.0	97.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 33B

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	55.9	40.6	78.9
Mar 2	46.1	43.6	47.6
Mar 3	54.8	40.9	77.3
Mar 4	60.7	44.0	84.1
Mar 5	64.1	47.9	88.1
Mar 6	69.3	50.1	96.1
Mar 7	70.0	52.0	94.9
Mar 8	58.7	57.0	61.6
Mar 9	66.2	53.3	88.3
Mar 10	62.5	48.1	79.7
Mar 11	69.3	57.7	86.8
Mar 12	47.5	34.4	59.8
Mar 13	49.0	31.3	71.2
Mar 14	59.1	38.3	84.3
Mar 15	62.7	50.6	78.3
Mar 16	47.8	29.8	66.2
Mar 17	32.6	29.8	45.6
Mar 18	41.2	29.8	58.1
Mar 19	52.4	36.2	76.5
Mar 20	57.1	36.0	77.6
Mar 21	66.1	54.3	86.0
Mar 22	70.1	52.4	95.9
Mar 23	62.6	45.9	70.0
Mar 24	52.8	36.4	76.8
Mar 25	60.8	40.9	83.2
Mar 26	66.6	53.1	84.1
Mar 27	62.6	45.8	72.7
Mar 28	49.5	34.4	70.0
Mar 29	56.6	36.1	82.0
Mar 30	63.2	48.0	84.9
Summary	57.9	32.6	70.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 36A

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	55.0	41.2	74.5
Mar 2	47.3	45.2	48.9
Mar 3	54.7	42.4	74.9
Mar 4	59.5	44.9	79.8
Mar 5	62.1	48.8	84.1
Mar 6	67.1	50.8	93.1
Mar 7	69.1	52.7	91.1
Mar 8	59.5	58.2	61.1
Mar 9	64.3	55.0	84.0
Mar 10	61.9	50.2	79.8
Mar 11	68.5	58.4	86.0
Mar 12	49.0	38.3	60.3
Mar 13	50.2	35.2	69.1
Mar 14	58.1	40.6	82.0
Mar 15	60.9	48.5	76.1
Mar 16	49.2	32.1	65.7
Mar 17	34.3	32.1	42.8
Mar 18	42.1	32.1	55.6
Mar 19	52.6	38.5	75.6
Mar 20	55.7	38.6	73.8
Mar 21	63.9	52.2	80.9
Mar 22	69.7	52.6	92.5
Mar 23	62.7	47.3	69.9
Mar 24	54.0	39.7	77.7
Mar 25	59.2	42.7	79.9
Mar 26	65.2	53.1	83.0
Mar 27	62.6	49.3	71.7
Mar 28	51.6	37.5	73.3
Mar 29	56.8	39.1	81.4
Mar 30	61.2	49.1	82.4
Summary	57.6	34.3	69.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 38

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	74.9	69.4	81.6
Mar 2	70.0	54.9	73.5
Mar 3	75.7	70.1	83.3
Mar 4	79.4	73.7	85.9
Mar 5	81.0	76.0	87.2
Mar 6	82.8	77.4	89.2
Mar 7	84.4	78.9	90.6
Mar 8	81.8	81.2	82.7
Mar 9	83.6	80.9	89.4
Mar 10	83.6	79.0	88.8
Mar 11	86.3	82.4	92.3
Mar 12	75.3	69.0	83.1
Mar 13	75.8	69.3	82.8
Mar 14	79.8	72.9	87.6
Mar 15	81.3	77.5	86.6
Mar 16	75.6	66.9	82.3
Mar 17	68.3	64.8	72.5
Mar 18	74.0	68.3	78.9
Mar 19	78.3	73.6	85.9
Mar 20	80.5	73.4	86.6
Mar 21	83.4	79.7	88.7
Mar 22	85.3	81.1	92.0
Mar 23	82.5	78.7	85.0
Mar 24	81.2	76.2	89.1
Mar 25	78.2	61.4	88.4
Mar 26	76.1	59.9	89.7
Mar 27	82.1	72.2	86.0
Mar 28	80.4	74.7	87.4
Mar 29	83.7	77.4	90.9
Mar 30	85.9	82.5	92.0
Summary	79.7	68.3	86.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 42

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	119.4	118.1	120.8
Mar 2	117.1	86.7	119.3
Mar 3	119.7	117.9	121.3
Mar 4	120.3	119.0	122.1
Mar 5	120.7	119.4	122.6
Mar 6	121.2	119.4	123.2
Mar 7	121.1	119.8	123.0
Mar 8	120.2	119.7	120.7
Mar 9	120.9	119.8	122.5
Mar 10	120.7	119.4	121.8
Mar 11	121.5	119.8	123.0
Mar 12	118.2	115.7	120.1
Mar 13	118.7	116.9	120.9
Mar 14	120.2	118.3	122.1
Mar 15	120.0	119.2	121.6
Mar 16	118.0	115.2	120.4
Mar 17	115.9	114.7	117.3
Mar 18	118.2	116.2	119.4
Mar 19	119.3	118.0	121.1
Mar 20	119.6	117.7	121.4
Mar 21	120.4	119.2	122.2
Mar 22	120.9	119.6	122.9
Mar 23	119.4	118.1	120.5
Mar 24	119.3	117.6	121.8
Mar 25	121.0	118.6	123.9
Mar 26	121.6	118.9	123.0
Mar 27	120.4	118.5	123.3
Mar 28	119.0	116.8	121.4
Mar 29	120.2	118.6	122.2
Mar 30	120.8	119.9	122.2
Summary	119.8	115.9	121.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 47

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	53.3	38.7	74.5
Mar 2	46.0	44.0	47.9
Mar 3	53.1	41.5	73.8
Mar 4	57.9	42.9	78.4
Mar 5	60.7	46.9	81.6
Mar 6	64.6	48.6	88.9
Mar 7	68.1	50.9	89.3
Mar 8	58.9	57.2	61.1
Mar 9	62.0	50.9	79.8
Mar 10	60.6	47.5	79.7
Mar 11	68.8	56.8	88.4
Mar 12	48.1	36.2	60.0
Mar 13	47.9	32.2	68.7
Mar 14	54.6	37.5	77.8
Mar 15	59.8	46.0	76.4
Mar 16	49.2	31.3	65.4
Mar 17	32.4	29.9	40.6
Mar 18	40.2	29.9	54.8
Mar 19	50.1	36.6	72.0
Mar 20	54.9	36.7	74.4
Mar 21	62.6	50.6	80.4
Mar 22	67.9	52.4	91.0
Mar 23	60.0	42.4	67.3
Mar 24	51.1	35.6	74.0
Mar 25	57.8	40.2	80.0
Mar 26	63.5	50.6	82.2
Mar 27	61.5	47.9	72.0
Mar 28	49.7	36.5	66.5
Mar 29	55.6	37.9	76.5
Mar 30	60.8	48.3	82.2
Summary	56.1	32.4	68.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 48

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	52.5	37.2	72.2
Mar 2	45.1	42.7	47.0
Mar 3	52.5	39.6	71.4
Mar 4	56.6	40.7	76.2
Mar 5	59.8	45.2	77.9
Mar 6	64.0	47.2	85.3
Mar 7	66.6	49.2	87.3
Mar 8	58.1	56.9	59.7
Mar 9	60.7	49.9	76.0
Mar 10	59.4	45.3	77.0
Mar 11	67.5	55.9	86.1
Mar 12	45.3	32.6	59.2
Mar 13	46.0	29.9	66.4
Mar 14	53.0	34.9	73.6
Mar 15	58.7	43.6	74.7
Mar 16	47.6	29.9	66.0
Mar 17	31.0	29.9	35.3
Mar 18	39.1	29.9	51.3
Mar 19	48.0	31.9	68.9
Mar 20	52.7	33.0	72.2
Mar 21	61.4	49.0	80.4
Mar 22	66.8	49.7	86.7
Mar 23	59.7	39.9	69.5
Mar 24	49.5	33.6	70.9
Mar 25	56.0	37.6	76.2
Mar 26	63.0	50.3	80.8
Mar 27	60.9	45.3	71.5
Mar 28	46.5	32.7	62.0
Mar 29	52.4	32.7	73.4
Mar 30	58.4	44.2	77.3
Summary	54.6	31.0	67.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 49

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	155.2	154.5	155.9
Mar 2	153.4	119.2	156.0
Mar 3	156.8	155.1	158.5
Mar 4	158.0	157.1	158.8
Mar 5	158.6	157.7	159.3
Mar 6	158.9	157.8	159.6
Mar 7	159.1	158.1	160.2
Mar 8	158.7	157.2	159.4
Mar 9	159.0	158.0	160.4
Mar 10	159.0	158.1	160.0
Mar 11	159.6	157.4	160.5
Mar 12	156.5	153.7	159.2
Mar 13	156.8	155.4	158.0
Mar 14	157.2	155.9	158.3
Mar 15	157.5	155.9	159.1
Mar 16	156.7	153.9	158.9
Mar 17	154.5	153.5	155.2
Mar 18	155.8	154.8	156.8
Mar 19	155.4	154.1	156.6
Mar 20	156.3	153.5	158.3
Mar 21	158.5	157.6	159.4
Mar 22	158.3	156.7	159.1
Mar 23	150.6	146.0	157.3
Mar 24	153.5	151.1	155.8
Mar 25	147.0	130.5	154.8
Mar 26	148.9	128.0	167.3
Mar 27	151.5	122.9	157.4
Mar 28	147.5	145.3	149.5
Mar 29	149.7	147.6	152.2
Mar 30	152.6	151.9	153.4
Summary	155.4	147.0	159.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 50

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	90.6	87.1	94.6
Mar 2	85.5	64.6	92.1
Mar 3	90.3	85.7	96.0
Mar 4	93.7	89.2	97.3
Mar 5	93.6	89.5	98.8
Mar 6	95.1	90.0	101.4
Mar 7	94.9	91.1	99.6
Mar 8	92.4	91.8	93.2
Mar 9	94.4	91.7	99.1
Mar 10	94.1	90.2	99.3
Mar 11	95.9	92.3	99.5
Mar 12	88.4	83.2	92.7
Mar 13	90.0	85.5	93.8
Mar 14	92.3	87.4	97.4
Mar 15	92.6	90.3	96.3
Mar 16	88.1	81.1	96.1
Mar 17	83.2	80.5	86.7
Mar 18	88.2	83.8	92.2
Mar 19	91.1	87.1	96.0
Mar 20	92.0	86.4	98.9
Mar 21	93.8	91.2	98.1
Mar 22	95.2	91.6	100.2
Mar 23	92.6	88.9	97.4
Mar 24	90.4	86.1	96.2
Mar 25	82.4	51.3	95.4
Mar 26	79.0	50.6	98.6
Mar 27	91.5	69.0	98.6
Mar 28	90.3	85.9	95.5
Mar 29	92.5	88.3	97.1
Mar 30	94.5	91.4	98.5
Summary	91.0	79.0	95.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 51

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	52.9	37.1	73.4
Mar 2	45.2	43.1	47.4
Mar 3	51.9	40.0	72.3
Mar 4	56.7	41.1	77.9
Mar 5	60.2	45.8	82.7
Mar 6	63.6	47.8	86.8
Mar 7	67.2	49.5	89.2
Mar 8	57.8	55.8	60.4
Mar 9	61.1	49.8	79.6
Mar 10	59.1	45.8	77.3
Mar 11	67.3	55.8	86.9
Mar 12	44.2	32.3	58.6
Mar 13	46.1	28.8	67.4
Mar 14	53.2	35.3	76.0
Mar 15	58.9	44.1	78.3
Mar 16	46.6	26.1	65.5
Mar 17	28.5	25.9	38.0
Mar 18	37.1	25.9	51.2
Mar 19	47.8	32.6	68.0
Mar 20	53.1	33.0	73.8
Mar 21	61.3	48.9	80.3
Mar 22	66.8	50.2	88.9
Mar 23	58.9	40.4	67.1
Mar 24	49.1	33.9	71.4
Mar 25	55.2	37.4	77.6
Mar 26	62.7	49.8	79.5
Mar 27	59.8	44.6	70.5
Mar 28	46.6	32.6	64.1
Mar 29	52.3	33.9	74.3
Mar 30	57.5	44.1	79.4
Summary	54.3	28.5	67.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 52

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	193.3	192.8	193.8
Mar 2	191.5	188.1	193.8
Mar 3	183.5	175.2	187.9
Mar 4	182.6	171.1	190.6
Mar 5	187.7	186.3	190.1
Mar 6	188.3	186.3	191.2
Mar 7	188.1	186.3	191.1
Mar 8	179.4	171.1	186.9
Mar 9	169.0	166.3	171.0
Mar 10	175.3	164.8	188.2
Mar 11	187.2	184.5	189.6
Mar 12	183.6	182.5	185.3
Mar 13	186.6	183.9	190.0
Mar 14	186.9	184.9	189.5
Mar 15	185.9	184.8	188.1
Mar 16	183.8	181.8	185.9
Mar 17	173.1	165.6	182.1
Mar 18	165.8	163.9	167.6
Mar 19	169.8	71.7	187.4
Mar 20	185.2	183.7	187.9
Mar 21	185.8	184.2	188.5
Mar 22	183.6	173.2	189.5
Mar 23	180.0	167.4	193.8
Mar 24	174.3	166.4	182.3
Mar 25	168.8	164.2	176.0
Mar 26	169.5	136.2	175.9
Mar 27	171.3	161.2	184.4
Mar 28	179.3	172.4	184.9
Mar 29	180.5	170.5	185.1
Mar 30	166.4	164.6	169.5
Summary	180.2	165.8	193.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 53

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	119.2	111.4	129.7
Mar 2	106.8	103.6	112.9
Mar 3	118.0	104.2	131.1
Mar 4	124.8	115.8	132.8
Mar 5	126.9	118.9	136.5
Mar 6	128.0	116.6	137.6
Mar 7	129.6	119.1	141.5
Mar 8	124.6	118.7	128.0
Mar 9	125.6	120.3	133.7
Mar 10	124.0	116.5	131.7
Mar 11	129.8	117.0	138.4
Mar 12	105.7	82.9	118.9
Mar 13	109.2	97.9	120.9
Mar 14	117.0	104.6	128.1
Mar 15	119.7	114.0	128.2
Mar 16	102.9	82.0	123.6
Mar 17	88.4	79.2	97.3
Mar 18	100.6	92.2	108.1
Mar 19	109.3	99.3	118.6
Mar 20	113.0	100.7	124.9
Mar 21	120.1	115.3	127.0
Mar 22	122.7	112.7	133.2
Mar 23	111.3	100.1	121.3
Mar 24	107.0	92.6	125.2
Mar 25	113.5	95.2	127.6
Mar 26	120.0	110.7	128.7
Mar 27	114.8	95.7	122.7
Mar 28	102.8	89.0	119.3
Mar 29	110.7	95.4	125.2
Mar 30	117.1	111.1	128.3
Summary	115.4	88.4	129.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 54

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	53.9	39.5	72.8
Mar 2	46.3	44.4	47.9
Mar 3	53.1	41.4	71.0
Mar 4	58.3	43.6	75.9
Mar 5	62.1	48.5	81.3
Mar 6	65.5	50.5	84.8
Mar 7	68.7	52.4	87.0
Mar 8	60.0	58.1	61.6
Mar 9	62.6	52.5	76.5
Mar 10	60.5	48.2	74.9
Mar 11	68.5	57.9	86.0
Mar 12	46.7	35.3	59.9
Mar 13	47.3	30.5	66.1
Mar 14	54.5	37.1	74.7
Mar 15	59.8	45.6	77.5
Mar 16	47.8	29.2	66.5
Mar 17	29.8	27.4	35.5
Mar 18	37.8	27.4	50.2
Mar 19	48.7	34.0	67.2
Mar 20	53.6	34.6	72.9
Mar 21	62.0	50.1	81.1
Mar 22	67.2	51.1	86.4
Mar 23	59.1	42.3	68.3
Mar 24	49.6	34.0	69.1
Mar 25	56.3	38.4	76.1
Mar 26	62.9	50.3	78.2
Mar 27	60.7	45.5	70.8
Mar 28	47.0	33.6	61.8
Mar 29	53.3	33.9	73.4
Mar 30	59.0	45.8	75.3
Summary	55.4	29.8	68.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 55

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	60.2	48.4	78.7
Mar 2	52.7	50.2	55.3
Mar 3	61.3	48.5	81.2
Mar 4	67.3	54.4	83.8
Mar 5	70.5	58.8	88.6
Mar 6	74.7	60.8	95.1
Mar 7	76.0	63.5	94.5
Mar 8	67.6	65.3	70.4
Mar 9	72.1	63.9	88.9
Mar 10	71.8	59.6	87.8
Mar 11	78.0	66.3	95.3
Mar 12	55.5	41.7	67.5
Mar 13	55.5	40.6	72.5
Mar 14	68.0	52.1	88.7
Mar 15	71.6	62.1	85.5
Mar 16	57.3	36.3	74.1
Mar 17	37.8	32.9	45.8
Mar 18	51.1	37.5	65.9
Mar 19	65.5	52.7	87.0
Mar 20	68.1	51.8	84.1
Mar 21	78.1	69.9	90.4
Mar 22	83.3	71.2	98.9
Mar 23	73.5	58.6	81.5
Mar 24	66.7	47.4	89.9
Mar 25	71.4	52.7	93.1
Mar 26	74.8	59.2	92.0
Mar 27	76.5	60.8	83.8
Mar 28	63.5	46.7	82.2
Mar 29	71.9	55.0	89.9
Mar 30	79.1	70.8	94.0
Summary	67.4	37.8	83.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 56

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	176.7	175.8	177.3
Mar 2	174.8	172.7	175.6
Mar 3	175.7	174.4	176.8
Mar 4	176.0	175.4	176.8
Mar 5	175.9	175.3	176.7
Mar 6	175.7	175.0	176.9
Mar 7	175.6	174.1	176.9
Mar 8	175.0	174.2	175.6
Mar 9	174.7	166.6	176.0
Mar 10	174.5	174.2	175.2
Mar 11	175.1	173.8	176.0
Mar 12	172.1	170.2	174.2
Mar 13	173.1	172.1	174.2
Mar 14	173.2	172.4	174.2
Mar 15	173.6	172.3	174.4
Mar 16	172.6	170.0	174.5
Mar 17	170.1	169.0	171.1
Mar 18	171.2	170.2	172.6
Mar 19	172.0	171.4	173.1
Mar 20	172.4	171.4	173.4
Mar 21	172.8	172.3	173.4
Mar 22	173.0	172.4	174.2
Mar 23	171.2	169.6	172.6
Mar 24	170.9	169.8	172.7
Mar 25	169.8	167.3	171.4
Mar 26	171.8	168.3	174.9
Mar 27	171.6	163.9	173.8
Mar 28	170.6	168.9	172.1
Mar 29	171.6	169.9	173.2
Mar 30	172.5	171.6	173.5
Summary	173.2	169.8	176.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 57

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	59.8	43.8	81.2
Mar 2	50.0	47.9	52.5
Mar 3	58.5	45.4	78.6
Mar 4	64.3	47.7	84.2
Mar 5	67.8	52.7	89.7
Mar 6	71.6	54.5	93.5
Mar 7	74.7	56.6	95.2
Mar 8	64.6	63.0	66.1
Mar 9	68.2	55.7	84.5
Mar 10	66.2	51.6	84.5
Mar 11	74.5	63.4	94.6
Mar 12	50.0	36.9	63.2
Mar 13	52.6	34.5	76.5
Mar 14	61.6	40.5	84.5
Mar 15	65.7	51.9	83.9
Mar 16	51.9	32.1	69.5
Mar 17	34.4	32.1	41.2
Mar 18	43.9	32.1	59.0
Mar 19	54.4	37.9	75.2
Mar 20	58.5	38.0	80.1
Mar 21	67.3	55.4	86.0
Mar 22	72.6	55.5	94.1
Mar 23	64.4	45.9	71.4
Mar 24	54.9	39.7	78.4
Mar 25	62.1	42.7	86.1
Mar 26	69.4	58.3	85.4
Mar 27	65.1	49.7	76.0
Mar 28	51.9	36.8	70.6
Mar 29	57.7	38.1	79.5
Mar 30	63.6	49.8	82.4
Summary	60.7	34.4	74.7

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

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	96.1	91.0	98.8
Mar 2	96.5	72.6	99.3
Mar 3	99.4	97.9	101.7
Mar 4	99.9	97.3	101.2
Mar 5	100.4	97.6	102.0
Mar 6	100.9	98.6	103.6
Mar 7	101.0	98.1	103.2
Mar 8	101.0	100.3	101.6
Mar 9	100.5	89.2	102.1
Mar 10	101.3	100.4	102.6
Mar 11	101.3	98.8	102.9
Mar 12	100.5	98.8	101.5
Mar 13	97.5	91.9	100.3
Mar 14	100.1	97.8	102.5
Mar 15	101.1	99.0	102.6
Mar 16	99.8	97.7	101.7
Mar 17	98.0	95.6	99.1
Mar 18	98.4	95.5	100.3
Mar 19	99.7	98.4	101.6
Mar 20	99.9	98.6	102.3
Mar 21	100.9	99.4	102.0
Mar 22	101.1	99.1	103.2
Mar 23	100.0	97.8	101.8
Mar 24	98.9	90.7	101.2
Mar 25	98.3	92.2	102.6
Mar 26	98.7	91.2	102.9
Mar 27	100.9	96.1	102.0
Mar 28	99.6	98.2	101.2
Mar 29	100.3	98.9	102.4
Mar 30	101.1	100.4	102.0
Summary	99.8	96.1	101.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 59

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	129.4	118.6	131.6
Mar 2	127.5	115.0	131.1
Mar 3	120.8	111.6	128.7
Mar 4	124.6	114.0	130.8
Mar 5	131.9	129.8	133.3
Mar 6	125.3	114.7	134.4
Mar 7	114.2	112.1	116.6
Mar 8	112.0	111.4	112.8
Mar 9	116.8	111.3	124.1
Mar 10	118.1	110.0	127.1
Mar 11	120.3	111.0	129.1
Mar 12	127.9	125.8	129.8
Mar 13	131.3	128.4	133.3
Mar 14	134.5	132.1	136.8
Mar 15	137.1	135.3	138.9
Mar 16	136.3	132.4	139.2
Mar 17	133.5	132.6	134.9
Mar 18	134.9	133.5	136.0
Mar 19	136.7	134.6	138.6
Mar 20	137.9	135.5	140.3
Mar 21	140.3	139.1	141.3
Mar 22	141.5	140.0	143.0
Mar 23	134.3	120.3	143.0
Mar 24	118.2	115.3	120.2
Mar 25	111.0	96.3	118.1
Mar 26	108.6	94.3	117.9
Mar 27	118.2	89.6	127.8
Mar 28	131.1	127.5	134.6
Mar 29	135.0	132.9	137.6
Mar 30	136.4	134.7	137.9
Summary	127.5	108.6	141.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 60

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	58.2	45.9	75.9
Mar 2	50.0	47.5	51.7
Mar 3	63.9	44.4	88.1
Mar 4	76.9	60.3	91.8
Mar 5	76.1	53.4	95.3
Mar 6	81.7	65.3	96.3
Mar 7	71.7	57.9	88.8
Mar 8	62.5	60.7	64.1
Mar 9	72.0	56.5	91.2
Mar 10	81.5	66.7	95.6
Mar 11	72.7	63.0	87.6
Mar 12	49.1	37.7	62.5
Mar 13	53.1	33.8	72.7
Mar 14	56.9	40.9	78.2
Mar 15	60.4	47.5	75.5
Mar 16	48.6	28.0	66.0
Mar 17	35.6	26.6	47.5
Mar 18	53.1	41.1	64.9
Mar 19	64.7	52.6	81.2
Mar 20	63.8	52.5	79.9
Mar 21	62.2	51.0	80.0
Mar 22	67.1	50.8	88.4
Mar 23	60.4	41.6	69.2
Mar 24	49.6	34.6	71.5
Mar 25	55.8	38.6	77.7
Mar 26	62.8	50.9	80.7
Mar 27	63.2	51.7	74.3
Mar 28	53.1	39.8	70.0
Mar 29	61.0	44.2	80.6
Mar 30	68.3	57.5	85.5
Summary	61.9	35.6	81.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 61

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	153.1	152.0	153.9
Mar 2	152.6	152.0	154.4
Mar 3	153.4	151.9	154.4
Mar 4	153.8	153.1	154.6
Mar 5	154.5	153.9	155.1
Mar 6	154.6	153.7	155.7
Mar 7	155.1	154.1	156.3
Mar 8	155.0	154.5	155.6
Mar 9	154.0	149.5	156.6
Mar 10	152.5	149.0	154.9
Mar 11	156.1	155.2	156.7
Mar 12	153.6	152.0	155.8
Mar 13	153.6	152.4	154.6
Mar 14	153.8	152.7	155.0
Mar 15	154.6	153.9	156.2
Mar 16	154.4	151.5	156.3
Mar 17	150.9	150.2	151.5
Mar 18	151.4	150.9	152.3
Mar 19	152.2	151.2	153.4
Mar 20	152.7	150.6	154.2
Mar 21	154.3	153.5	155.4
Mar 22	154.8	154.0	155.9
Mar 23	151.4	146.5	155.2
Mar 24	146.9	145.3	148.6
Mar 25	150.3	145.5	160.5
Mar 26	154.7	148.5	164.5
Mar 27	150.3	141.5	155.7
Mar 28	149.7	147.5	151.2
Mar 29	147.7	146.4	149.2
Mar 30	150.9	147.2	154.2
Summary	152.8	146.9	156.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 62

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	86.2	87.4	87.4
Mar 2	88.7	89.9	89.9
Mar 3	91.2	92.5	92.5
Mar 4	92.0	85.0	98.0
Mar 5	87.9	81.7	94.5
Mar 6	89.5	82.7	96.5
Mar 7	89.3	83.7	96.8
Mar 8	85.7	84.5	86.6
Mar 9	88.4	84.0	95.1
Mar 10	84.7	77.0	92.3
Mar 11	83.4	75.8	94.5
Mar 12	66.9	54.3	76.5
Mar 13	64.9	50.2	79.2
Mar 14	71.1	56.1	87.4
Mar 15	74.9	67.2	86.6
Mar 16	62.1	35.5	77.3
Mar 17	35.2	26.6	48.4
Mar 18	42.8	26.6	61.5
Mar 19	55.0	38.3	77.1
Mar 20	58.7	37.9	78.1
Mar 21	70.4	58.1	87.6
Mar 22	76.5	62.2	93.1
Mar 23	73.4	60.0	79.3
Mar 24	61.2	43.4	83.4
Mar 25	70.3	48.8	89.0
Mar 26	79.3	72.5	90.5
Mar 27	75.5	60.2	86.6
Mar 28	57.9	40.3	76.3
Mar 29	61.7	40.7	84.3
Mar 30	76.2	59.2	98.6
Summary	73.4	35.2	92.0

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

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	52.7	37.0	73.4
Mar 2	44.6	42.2	46.4
Mar 3	51.8	38.5	70.4
Mar 4	57.0	41.1	77.5
Mar 5	60.4	45.8	81.5
Mar 6	64.8	48.1	87.2
Mar 7	67.2	49.7	86.0
Mar 8	57.7	56.2	59.2
Mar 9	60.5	49.5	74.4
Mar 10	59.5	45.7	75.2
Mar 11	67.7	56.4	87.1
Mar 12	44.7	31.9	58.5
Mar 13	46.0	28.1	66.7
Mar 14	54.2	35.0	75.1
Mar 15	59.8	47.4	74.8
Mar 16	46.2	26.6	65.2
Mar 17	29.0	26.6	35.6
Mar 18	38.0	26.6	51.3
Mar 19	47.7	32.1	66.7
Mar 20	53.3	32.5	74.5
Mar 21	63.6	51.6	83.0
Mar 22	67.5	50.5	85.9
Mar 23	59.5	40.8	69.3
Mar 24	48.3	33.3	68.3
Mar 25	55.0	37.0	76.1
Mar 26	63.8	51.4	80.1
Mar 27	61.1	44.8	70.5
Mar 28	45.5	32.3	58.8
Mar 29	51.4	32.4	74.3
Mar 30	58.5	44.9	75.2
Summary	54.6	29.0	67.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 64

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	53.1	37.5	75.2
Mar 2	44.7	41.8	46.7
Mar 3	52.6	39.3	73.9
Mar 4	57.9	41.3	79.6
Mar 5	60.7	45.5	81.3
Mar 6	65.1	47.9	88.1
Mar 7	67.8	49.9	88.9
Mar 8	57.7	55.9	59.3
Mar 9	61.6	49.9	77.8
Mar 10	59.8	46.1	79.1
Mar 11	67.6	56.2	87.0
Mar 12	45.1	31.5	58.4
Mar 13	46.7	28.1	68.0
Mar 14	54.5	34.8	76.4
Mar 15	60.2	47.0	76.2
Mar 16	46.4	26.6	65.9
Mar 17	29.1	26.6	38.8
Mar 18	38.2	26.6	52.8
Mar 19	48.8	31.7	72.8
Mar 20	53.4	32.8	75.2
Mar 21	63.9	51.1	84.7
Mar 22	68.0	50.2	89.3
Mar 23	59.9	41.0	70.0
Mar 24	49.3	33.3	72.1
Mar 25	56.3	37.6	78.1
Mar 26	63.9	51.2	80.6
Mar 27	61.3	44.8	71.4
Mar 28	46.6	32.8	64.1
Mar 29	52.4	33.1	76.3
Mar 30	59.7	45.2	78.4
Summary	55.1	29.1	68.0

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

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	135.0	134.1	136.0
Mar 2	133.5	132.1	135.2
Mar 3	134.8	133.1	137.0
Mar 4	135.7	134.5	136.8
Mar 5	135.7	133.9	136.7
Mar 6	136.5	134.1	138.6
Mar 7	136.4	133.3	138.4
Mar 8	135.6	134.2	136.6
Mar 9	135.6	118.9	137.9
Mar 10	136.4	134.5	138.2
Mar 11	137.2	134.2	138.7
Mar 12	132.3	128.4	135.6
Mar 13	133.4	131.6	135.4
Mar 14	135.3	133.0	137.3
Mar 15	134.8	134.0	136.3
Mar 16	131.4	125.5	135.7
Mar 17	127.4	126.0	128.7
Mar 18	130.2	128.4	132.0
Mar 19	131.9	129.9	134.5
Mar 20	131.1	127.9	134.1
Mar 21	130.8	129.5	132.2
Mar 22	129.1	125.1	133.0
Mar 23	115.9	105.3	126.1
Mar 24	107.5	99.9	117.7
Mar 25	106.0	92.0	117.5
Mar 26	111.9	88.1	128.4
Mar 27	119.7	84.2	127.9
Mar 28	112.6	105.2	119.4
Mar 29	112.3	102.8	121.0
Mar 30	110.7	108.1	115.0
Summary	127.9	106.0	137.2

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 66

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	94.6	89.1	102.7
Mar 2	84.1	80.7	90.0
Mar 3	129.2	81.9	191.6
Mar 4	194.0	192.1	195.3
Mar 5	195.5	194.9	196.1
Mar 6	196.0	195.4	196.5
Mar 7	195.5	189.8	196.8
Mar 8	196.1	195.4	196.3
Mar 9	196.4	195.9	196.9
Mar 10	196.6	196.1	197.0
Mar 11	196.7	193.8	197.1
Mar 12	194.9	185.9	196.1
Mar 13	196.4	195.9	196.8
Mar 14	184.1	175.0	196.7
Mar 15	167.0	159.6	174.3
Mar 16	137.9	115.4	165.2
Mar 17	95.7	46.7	126.0
Mar 18	76.0	41.7	118.4
Mar 19	115.1	83.3	135.1
Mar 20	98.0	77.7	127.3
Mar 21	112.2	105.4	116.6
Mar 22	118.0	113.3	125.5
Mar 23	102.7	88.7	119.0
Mar 24	97.4	81.6	112.2
Mar 25	106.0	89.6	120.1
Mar 26	109.1	98.4	118.7
Mar 27	109.5	81.8	123.7
Mar 28	88.3	72.6	102.5
Mar 29	100.9	90.9	115.4
Mar 30	108.0	94.8	120.5
Summary	139.7	76.0	196.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 67

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	160.4	152.7	165.0
Mar 2	149.7	144.1	158.7
Mar 3	158.9	147.4	167.4
Mar 4	163.9	156.0	170.6
Mar 5	165.2	158.3	170.6
Mar 6	165.6	160.1	170.0
Mar 7	165.5	159.5	169.6
Mar 8	165.3	161.7	170.1
Mar 9	163.8	157.2	168.7
Mar 10	163.1	158.2	169.4
Mar 11	166.7	161.2	170.7
Mar 12	149.2	131.0	162.2
Mar 13	153.1	147.7	162.8
Mar 14	160.3	152.5	167.3
Mar 15	161.1	151.7	168.6
Mar 16	152.0	135.7	169.6
Mar 17	135.3	121.8	148.2
Mar 18	147.9	137.1	157.1
Mar 19	155.7	149.9	162.2
Mar 20	158.8	152.9	167.9
Mar 21	163.8	153.4	167.9
Mar 22	165.4	161.9	168.6
Mar 23	151.7	134.9	168.7
Mar 24	152.4	140.2	162.0
Mar 25	156.9	146.4	163.0
Mar 26	163.3	157.9	169.2
Mar 27	158.9	136.8	169.8
Mar 28	142.3	127.4	156.9
Mar 29	154.3	145.2	163.2
Mar 30	159.7	151.0	165.7
Summary	157.7	135.3	166.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 68

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	134.1	132.2	136.0
Mar 2	132.7	124.7	137.5
Mar 3	136.8	132.8	139.3
Mar 4	137.2	135.0	140.1
Mar 5	137.4	133.1	139.4
Mar 6	140.8	133.9	148.2
Mar 7	138.5	134.4	141.2
Mar 8	137.7	135.4	139.9
Mar 9	135.5	119.7	139.4
Mar 10	136.9	134.8	138.6
Mar 11	137.5	133.3	141.9
Mar 12	134.1	127.7	138.0
Mar 13	132.7	130.0	136.5
Mar 14	135.2	133.0	136.9
Mar 15	135.4	130.2	139.2
Mar 16	133.6	126.7	138.4
Mar 17	129.3	122.8	133.7
Mar 18	131.0	125.5	134.4
Mar 19	139.8	130.2	157.7
Mar 20	144.4	136.1	156.9
Mar 21	139.5	135.6	143.0
Mar 22	145.7	136.1	165.9
Mar 23	152.8	143.8	165.7
Mar 24	144.7	142.2	155.5
Mar 25	141.7	138.2	144.2
Mar 26	140.1	83.1	145.2
Mar 27	150.4	136.3	163.6
Mar 28	153.6	144.4	163.7
Mar 29	143.9	139.3	147.3
Mar 30	156.6	142.3	166.0
Summary	139.6	129.3	156.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 69

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	111.3	108.3	115.2
Mar 2	106.4	86.4	110.2
Mar 3	111.2	107.7	115.2
Mar 4	113.0	111.0	116.6
Mar 5	114.1	111.9	117.8
Mar 6	115.0	112.4	118.7
Mar 7	115.1	112.8	119.0
Mar 8	113.3	112.7	114.1
Mar 9	114.0	101.4	118.1
Mar 10	110.9	105.0	116.0
Mar 11	107.0	102.1	111.9
Mar 12	98.9	93.5	105.4
Mar 13	100.5	94.8	106.6
Mar 14	103.7	98.8	111.0
Mar 15	103.2	100.5	108.1
Mar 16	95.8	87.0	103.1
Mar 17	86.6	84.5	91.6
Mar 18	88.3	82.5	96.1
Mar 19	90.5	84.6	100.6
Mar 20	89.5	80.9	98.8
Mar 21	91.3	86.6	101.2
Mar 22	92.0	84.2	104.9
Mar 23	84.8	73.9	92.6
Mar 24	76.7	65.4	94.6
Mar 25	84.0	69.1	99.3
Mar 26	89.0	83.3	94.8
Mar 27	81.7	69.9	92.9
Mar 28	71.2	58.4	87.9
Mar 29	75.8	62.1	94.4
Mar 30	79.2	71.2	92.0
Summary	97.1	71.2	115.1

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

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	53.4	40.2	74.5
Mar 2	46.1	43.6	49.9
Mar 3	52.1	39.8	72.0
Mar 4	57.8	42.7	80.2
Mar 5	59.9	46.4	79.5
Mar 6	63.9	48.3	87.4
Mar 7	64.9	50.7	86.2
Mar 8	58.6	56.6	61.4
Mar 9	62.2	52.6	79.8
Mar 10	60.2	48.1	77.9
Mar 11	65.9	55.9	86.5
Mar 12	50.2	39.4	59.8
Mar 13	48.9	34.3	67.5
Mar 14	55.2	39.0	77.6
Mar 15	59.5	46.5	80.4
Mar 16	49.2	34.1	61.5
Mar 17	33.7	29.8	42.3
Mar 18	41.7	29.8	58.8
Mar 19	51.2	36.1	72.6
Mar 20	53.8	37.3	75.6
Mar 21	62.3	50.0	85.0
Mar 22	66.9	50.4	89.0
Mar 23	61.8	44.5	74.1
Mar 24	52.9	38.2	77.3
Mar 25	57.7	40.1	81.3
Mar 26	64.0	52.3	80.8
Mar 27	60.5	47.7	70.4
Mar 28	51.0	36.0	71.5
Mar 29	54.1	35.2	80.7
Mar 30	60.5	45.9	79.6
Summary	56.0	33.7	66.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 71

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	140.2	139.6	140.9
Mar 2	138.9	136.7	140.0
Mar 3	140.0	138.7	141.1
Mar 4	140.6	139.9	141.0
Mar 5	140.6	140.2	141.1
Mar 6	141.0	140.4	141.7
Mar 7	140.6	140.0	141.5
Mar 8	140.2	139.6	140.8
Mar 9	139.6	107.1	140.9
Mar 10	140.4	139.6	140.9
Mar 11	140.5	139.2	141.1
Mar 12	138.2	136.2	139.4
Mar 13	139.3	138.5	140.2
Mar 14	140.3	139.6	141.1
Mar 15	139.7	138.6	140.4
Mar 16	138.5	136.6	140.5
Mar 17	137.9	136.7	138.8
Mar 18	139.2	138.6	140.0
Mar 19	139.7	139.1	140.6
Mar 20	139.8	139.2	140.7
Mar 21	140.2	139.8	140.6
Mar 22	140.3	139.1	141.2
Mar 23	139.1	137.8	140.3
Mar 24	138.9	137.6	140.3
Mar 25	140.2	138.8	141.4
Mar 26	140.4	139.3	141.5
Mar 27	139.7	138.3	141.4
Mar 28	138.6	137.0	139.7
Mar 29	139.7	139.2	140.5
Mar 30	140.0	139.6	140.4
Summary	139.7	137.9	141.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 72

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	132.3	130.6	133.6
Mar 2	127.8	78.5	132.4
Mar 3	133.3	131.2	135.9
Mar 4	134.0	132.4	135.7
Mar 5	134.1	133.0	135.7
Mar 6	135.2	133.3	137.9
Mar 7	135.1	133.1	137.5
Mar 8	133.9	132.0	135.2
Mar 9	134.9	133.6	137.1
Mar 10	134.6	132.8	136.2
Mar 11	135.7	131.6	137.5
Mar 12	127.4	118.9	134.2
Mar 13	132.0	130.3	134.9
Mar 14	134.5	132.4	137.6
Mar 15	134.4	132.8	136.1
Mar 16	129.4	122.9	136.0
Mar 17	126.6	123.2	129.9
Mar 18	131.7	130.0	133.9
Mar 19	134.1	132.7	136.3
Mar 20	134.2	132.5	135.7
Mar 21	135.1	134.2	136.8
Mar 22	135.4	133.7	137.5
Mar 23	131.2	128.0	134.1
Mar 24	132.1	127.8	136.0
Mar 25	136.4	132.3	140.1
Mar 26	135.5	130.9	139.0
Mar 27	133.6	127.7	139.8
Mar 28	130.2	125.5	134.6
Mar 29	135.0	133.1	137.3
Mar 30	135.7	134.8	136.8
Summary	133.2	126.6	136.4

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 73
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	115.4	114.5	116.6
Mar 2	115.0	111.2	115.5
Mar 3	115.9	115.0	117.1
Mar 4	116.4	115.4	117.6
Mar 5	116.7	115.9	117.8
Mar 6	117.3	116.1	119.1
Mar 7	117.2	116.1	118.4
Mar 8	116.3	115.8	116.8
Mar 9	115.9	98.9	118.0
Mar 10	113.4	108.4	117.2
Mar 11	109.3	106.3	112.4
Mar 12	102.9	98.5	106.8
Mar 13	99.2	95.4	104.7
Mar 14	102.1	97.6	107.8
Mar 15	102.8	100.3	106.1
Mar 16	96.1	89.2	103.1
Mar 17	91.2	88.4	94.0
Mar 18	96.1	92.4	99.9
Mar 19	99.7	96.1	105.1
Mar 20	100.5	96.2	104.8
Mar 21	103.1	100.6	107.3
Mar 22	105.0	100.8	109.4
Mar 23	102.2	98.8	104.2
Mar 24	100.4	96.8	106.6
Mar 25	99.5	93.1	105.4
Mar 26	96.2	91.9	100.1
Mar 27	90.9	84.3	98.0
Mar 28	87.4	78.8	97.6
Mar 29	92.5	86.5	100.3
Mar 30	92.3	89.0	98.3
Summary	104.3	87.4	117.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 74

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	112.7	110.4	114.7
Mar 2	106.7	80.4	111.5
Mar 3	112.6	108.2	116.8
Mar 4	114.4	111.4	116.6
Mar 5	115.0	112.7	116.8
Mar 6	116.0	112.6	120.0
Mar 7	116.1	111.9	119.3
Mar 8	114.1	111.6	116.6
Mar 9	114.5	94.1	118.2
Mar 10	115.0	111.5	116.8
Mar 11	117.2	112.8	119.1
Mar 12	107.4	99.4	113.7
Mar 13	111.8	107.3	114.5
Mar 14	115.0	111.7	119.0
Mar 15	114.4	111.2	117.9
Mar 16	111.4	103.5	119.5
Mar 17	104.5	101.9	107.4
Mar 18	109.8	106.7	113.2
Mar 19	113.5	111.5	115.9
Mar 20	114.4	110.4	117.5
Mar 21	116.5	114.7	118.0
Mar 22	116.8	111.0	120.5
Mar 23	110.9	106.5	116.2
Mar 24	110.8	106.3	116.3
Mar 25	115.3	110.7	119.7
Mar 26	115.5	111.7	117.8
Mar 27	113.2	105.1	118.1
Mar 28	107.9	102.3	113.4
Mar 29	113.7	110.5	116.8
Mar 30	115.8	114.1	118.1
Summary	113.1	104.5	117.2

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 75

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	56.8	39.9	82.0
Mar 2	45.8	43.2	48.2
Mar 3	54.7	40.4	78.0
Mar 4	61.2	44.1	86.9
Mar 5	64.4	47.6	91.8
Mar 6	70.1	49.8	97.1
Mar 7	71.1	51.6	97.5
Mar 8	58.7	56.8	62.0
Mar 9	66.4	53.0	89.6
Mar 10	62.4	47.8	79.3
Mar 11	69.9	57.5	91.2
Mar 12	47.8	33.5	59.8
Mar 13	49.6	30.2	73.6
Mar 14	59.9	37.7	87.8
Mar 15	63.2	51.3	81.6
Mar 16	47.5	29.8	65.5
Mar 17	32.5	29.8	42.3
Mar 18	41.2	29.8	60.1
Mar 19	52.6	34.8	76.7
Mar 20	56.7	35.2	80.7
Mar 21	66.9	53.9	91.4
Mar 22	71.7	52.1	98.0
Mar 23	62.5	44.1	69.9
Mar 24	53.7	35.2	81.7
Mar 25	60.8	39.6	88.5
Mar 26	66.4	52.9	83.3
Mar 27	62.3	45.8	72.9
Mar 28	50.0	33.4	73.4
Mar 29	57.0	35.6	85.0
Mar 30	62.2	47.4	84.3
Summary	58.2	32.5	71.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 76

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	128.0	127.6	128.3
Mar 2	125.5	67.7	128.2
Mar 3	128.4	128.1	128.7
Mar 4	128.6	128.2	129.0
Mar 5	128.8	128.5	129.2
Mar 6	129.0	128.7	129.4
Mar 7	129.0	128.8	129.4
Mar 8	128.8	128.7	129.0
Mar 9	127.9	103.0	129.3
Mar 10	128.9	128.6	129.2
Mar 11	128.8	128.2	129.1
Mar 12	128.0	127.6	128.5
Mar 13	128.2	127.9	128.6
Mar 14	128.5	128.2	129.0
Mar 15	128.3	128.0	128.5
Mar 16	127.7	127.2	128.2
Mar 17	127.3	127.1	127.7
Mar 18	127.8	127.4	128.0
Mar 19	128.1	127.9	128.5
Mar 20	128.2	127.9	128.6
Mar 21	128.3	128.1	128.8
Mar 22	128.2	128.0	128.6
Mar 23	127.7	127.4	128.0
Mar 24	127.7	127.4	128.1
Mar 25	127.8	127.4	128.2
Mar 26	127.7	127.3	128.0
Mar 27	127.6	127.2	127.9
Mar 28	127.4	127.0	127.8
Mar 29	127.5	127.2	127.8
Mar 30	127.5	127.3	127.7
Summary	128.0	125.5	129.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 77

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	56.0	39.7	76.6
Mar 2	46.0	43.3	47.6
Mar 3	54.5	40.4	74.5
Mar 4	60.1	43.7	80.5
Mar 5	63.5	47.7	86.7
Mar 6	68.8	50.0	92.5
Mar 7	70.2	51.7	90.6
Mar 8	58.8	57.0	61.5
Mar 9	64.9	53.4	81.1
Mar 10	61.9	47.8	77.5
Mar 11	69.4	57.8	87.9
Mar 12	46.4	33.5	59.2
Mar 13	49.3	30.0	70.6
Mar 14	59.2	37.3	82.4
Mar 15	62.5	50.4	77.8
Mar 16	47.7	29.9	66.7
Mar 17	31.7	29.9	41.2
Mar 18	41.2	29.9	54.9
Mar 19	52.3	35.1	73.5
Mar 20	56.5	34.9	77.9
Mar 21	66.9	54.4	87.4
Mar 22	70.6	52.3	90.7
Mar 23	61.2	44.1	70.4
Mar 24	52.2	35.2	74.8
Mar 25	59.1	40.1	82.5
Mar 26	66.6	53.0	82.3
Mar 27	62.4	45.3	72.1
Mar 28	49.4	33.7	68.2
Mar 29	56.4	35.1	79.2
Mar 30	61.3	47.3	81.6
Summary	57.6	31.7	70.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 78

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	104.5	102.3	107.7
Mar 2	100.7	57.7	104.2
Mar 3	105.4	101.9	109.6
Mar 4	106.4	102.7	110.6
Mar 5	106.8	104.6	110.0
Mar 6	107.8	104.1	112.5
Mar 7	107.6	104.5	112.1
Mar 8	105.2	104.0	107.2
Mar 9	105.6	87.7	109.3
Mar 10	106.2	104.0	110.0
Mar 11	107.9	104.3	111.4
Mar 12	101.4	97.3	106.0
Mar 13	103.0	99.9	107.3
Mar 14	105.4	101.3	111.0
Mar 15	106.4	104.4	109.9
Mar 16	102.1	94.3	107.9
Mar 17	95.1	91.5	98.8
Mar 18	100.6	97.1	104.9
Mar 19	104.4	101.5	109.1
Mar 20	105.3	101.8	108.4
Mar 21	106.9	104.5	111.4
Mar 22	107.7	104.8	111.6
Mar 23	103.8	99.7	106.6
Mar 24	102.3	98.8	108.6
Mar 25	104.0	99.7	109.8
Mar 26	102.1	93.5	104.7
Mar 27	103.1	100.0	108.1
Mar 28	103.1	97.8	108.7
Mar 29	105.1	101.2	109.6
Mar 30	106.6	104.2	110.7
Summary	104.4	95.1	107.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 79

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	56.1	40.1	75.5
Mar 2	45.9	43.6	47.8
Mar 3	54.4	40.7	76.4
Mar 4	60.2	43.9	81.6
Mar 5	63.5	47.6	82.9
Mar 6	69.0	49.9	93.0
Mar 7	70.7	51.6	91.8
Mar 8	58.8	57.0	61.4
Mar 9	64.8	53.4	83.2
Mar 10	62.0	48.1	79.2
Mar 11	69.3	57.8	87.6
Mar 12	46.8	33.5	59.1
Mar 13	49.2	30.8	69.1
Mar 14	58.6	38.0	80.2
Mar 15	61.7	49.8	76.7
Mar 16	47.9	29.9	66.9
Mar 17	32.3	29.9	44.4
Mar 18	40.7	29.9	55.3
Mar 19	51.7	35.7	76.7
Mar 20	56.5	35.4	75.8
Mar 21	66.2	54.3	84.5
Mar 22	70.8	52.4	94.7
Mar 23	61.4	44.4	70.5
Mar 24	52.3	36.0	78.0
Mar 25	60.1	40.5	84.1
Mar 26	66.6	53.2	82.8
Mar 27	62.3	45.7	72.4
Mar 28	49.6	34.2	69.9
Mar 29	56.5	36.1	80.2
Mar 30	61.8	47.7	83.6
Summary	57.6	32.3	70.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 80

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	54.5	37.3	77.6
Mar 2	45.2	42.8	47.2
Mar 3	53.6	39.6	76.2
Mar 4	58.8	41.1	82.1
Mar 5	62.7	46.1	85.6
Mar 6	66.1	48.0	93.6
Mar 7	69.4	49.7	91.2
Mar 8	58.3	56.4	61.4
Mar 9	64.1	51.2	80.2
Mar 10	60.4	46.0	79.7
Mar 11	69.0	56.2	92.1
Mar 12	46.6	32.8	59.2
Mar 13	47.4	29.8	71.0
Mar 14	57.0	34.7	80.3
Mar 15	61.1	47.0	78.5
Mar 16	47.4	29.8	65.8
Mar 17	31.6	29.8	39.8
Mar 18	41.2	29.8	56.6
Mar 19	49.7	31.8	72.6
Mar 20	54.8	32.8	78.4
Mar 21	65.5	51.5	89.0
Mar 22	69.5	50.6	90.9
Mar 23	60.6	41.7	69.2
Mar 24	50.5	32.5	75.1
Mar 25	58.8	37.9	82.5
Mar 26	65.1	51.2	83.1
Mar 27	61.9	45.5	73.0
Mar 28	49.0	31.8	67.4
Mar 29	54.4	32.4	79.0
Mar 30	59.9	45.1	79.6
Summary	56.5	31.6	69.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 81

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	164.5	162.3	165.6
Mar 2	161.4	116.0	164.9
Mar 3	164.6	162.7	166.5
Mar 4	165.2	163.6	166.4
Mar 5	165.4	163.5	166.3
Mar 6	165.7	164.5	166.7
Mar 7	165.5	163.1	167.2
Mar 8	165.2	163.8	166.7
Mar 9	163.3	119.0	166.2
Mar 10	165.3	164.1	166.5
Mar 11	166.0	163.7	166.9
Mar 12	160.0	156.8	164.7
Mar 13	162.9	161.4	164.5
Mar 14	165.2	163.8	166.4
Mar 15	164.4	161.2	166.6
Mar 16	163.0	158.9	167.3
Mar 17	159.7	157.8	162.3
Mar 18	162.5	161.0	164.6
Mar 19	164.3	161.4	165.6
Mar 20	165.0	163.1	166.6
Mar 21	165.9	163.8	167.1
Mar 22	166.1	164.9	167.1
Mar 23	162.8	158.2	165.9
Mar 24	163.4	160.8	165.1
Mar 25	163.0	158.4	165.2
Mar 26	166.8	164.5	172.4
Mar 27	162.6	130.7	167.9
Mar 28	161.1	158.6	164.0
Mar 29	163.5	161.7	164.7
Mar 30	164.3	161.8	165.5
Summary	164.0	159.7	166.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 82

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	159.3	155.5	161.2
Mar 2	158.2	152.0	160.9
Mar 3	161.3	157.4	164.9
Mar 4	163.4	160.7	165.2
Mar 5	163.8	159.7	165.4
Mar 6	164.9	162.0	166.7
Mar 7	163.8	157.2	165.7
Mar 8	164.5	161.9	166.2
Mar 9	164.0	149.1	166.2
Mar 10	164.7	160.5	166.8
Mar 11	165.7	158.3	168.3
Mar 12	156.4	146.0	166.3
Mar 13	159.1	153.8	163.1
Mar 14	163.8	162.1	166.3
Mar 15	162.6	157.5	167.0
Mar 16	158.0	146.6	167.2
Mar 17	151.3	144.5	157.5
Mar 18	158.5	154.8	162.2
Mar 19	162.2	158.0	164.4
Mar 20	163.2	160.7	166.2
Mar 21	165.3	162.3	167.1
Mar 22	165.8	163.7	167.4
Mar 23	161.8	157.1	166.2
Mar 24	163.7	160.6	166.3
Mar 25	165.4	162.9	169.7
Mar 26	164.5	159.4	169.4
Mar 27	162.7	158.9	167.2
Mar 28	159.9	155.7	164.7
Mar 29	163.4	161.3	165.0
Mar 30	163.9	160.8	166.1
Summary	162.2	151.3	165.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 83

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	169.4	166.2	171.0
Mar 2	167.4	165.3	170.5
Mar 3	169.4	166.8	171.6
Mar 4	170.2	166.7	171.5
Mar 5	170.3	168.4	171.5
Mar 6	170.8	168.5	171.8
Mar 7	170.2	167.7	172.4
Mar 8	169.6	168.4	171.2
Mar 9	169.6	167.7	171.1
Mar 10	169.5	167.3	170.8
Mar 11	169.6	165.5	171.1
Mar 12	164.6	157.2	168.5
Mar 13	166.8	162.5	169.2
Mar 14	169.2	167.8	169.9
Mar 15	167.6	163.4	170.5
Mar 16	164.9	157.3	170.5
Mar 17	163.4	160.6	166.5
Mar 18	166.5	164.4	168.7
Mar 19	168.0	165.4	169.2
Mar 20	168.1	165.6	170.0
Mar 21	168.8	166.8	170.1
Mar 22	169.0	167.4	170.1
Mar 23	165.3	160.6	169.7
Mar 24	166.8	164.8	168.8
Mar 25	165.0	154.5	168.5
Mar 26	166.8	160.5	175.9
Mar 27	166.5	141.4	170.8
Mar 28	165.2	161.4	168.2
Mar 29	167.5	166.0	168.8
Mar 30	168.0	165.7	169.7
Summary	167.8	163.4	170.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 84

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	159.5	158.8	160.3
Mar 2	157.0	131.9	159.0
Mar 3	159.3	157.8	160.9
Mar 4	159.9	159.0	161.0
Mar 5	160.2	159.6	161.4
Mar 6	160.5	159.5	161.4
Mar 7	160.7	159.8	161.9
Mar 8	160.3	159.9	160.9
Mar 9	160.7	159.9	161.7
Mar 10	160.2	159.8	161.1
Mar 11	160.0	159.1	160.4
Mar 12	158.0	157.2	159.3
Mar 13	158.4	157.6	159.1
Mar 14	158.7	158.0	159.7
Mar 15	158.9	158.5	159.4
Mar 16	158.4	156.5	159.8
Mar 17	156.5	156.1	156.9
Mar 18	157.4	156.7	158.2
Mar 19	158.1	157.4	158.7
Mar 20	158.4	157.4	159.1
Mar 21	158.9	158.4	159.7
Mar 22	159.0	158.3	160.1
Mar 23	157.8	156.9	159.1
Mar 24	157.6	156.7	158.9
Mar 25	158.2	157.2	159.5
Mar 26	160.2	159.1	165.2
Mar 27	158.1	151.3	160.0
Mar 28	157.2	156.0	157.9
Mar 29	157.8	156.9	158.7
Mar 30	158.3	157.8	159.0
Summary	158.8	156.5	160.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 85

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	128.5	122.8	132.9
Mar 2	127.1	99.2	132.1
Mar 3	133.6	129.5	139.4
Mar 4	135.1	131.8	139.1
Mar 5	135.6	133.6	138.8
Mar 6	136.8	133.6	143.4
Mar 7	136.6	132.6	141.4
Mar 8	133.9	132.2	136.3
Mar 9	135.4	129.8	140.2
Mar 10	135.3	133.2	140.0
Mar 11	137.3	131.3	140.7
Mar 12	127.6	121.7	133.5
Mar 13	132.0	128.4	136.9
Mar 14	135.2	130.4	141.5
Mar 15	136.4	133.9	140.9
Mar 16	127.6	112.1	139.6
Mar 17	113.3	105.6	121.0
Mar 18	128.4	120.3	133.9
Mar 19	135.1	129.2	141.4
Mar 20	134.6	130.7	138.2
Mar 21	136.8	134.2	140.1
Mar 22	138.3	134.8	143.9
Mar 23	130.1	122.3	137.9
Mar 24	127.3	121.6	136.8
Mar 25	115.3	78.9	133.1
Mar 26	109.9	75.9	134.3
Mar 27	125.5	82.3	134.9
Mar 28	130.0	121.2	141.1
Mar 29	133.1	128.4	139.5
Mar 30	137.7	132.7	144.4
Summary	131.0	109.9	138.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 86

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	145.2	144.7	145.9
Mar 2	131.2	62.7	147.4
Mar 3	145.6	144.7	146.5
Mar 4	146.2	145.3	147.1
Mar 5	146.6	145.8	147.1
Mar 6	146.9	145.9	147.6
Mar 7	147.1	146.4	148.0
Mar 8	146.8	146.5	147.0
Mar 9	145.9	120.8	147.9
Mar 10	146.9	146.4	147.4
Mar 11	147.5	146.7	148.2
Mar 12	145.2	143.7	147.0
Mar 13	144.8	143.8	145.6
Mar 14	145.5	144.6	146.3
Mar 15	145.7	145.3	146.2
Mar 16	144.9	143.1	146.2
Mar 17	142.4	141.9	143.0
Mar 18	143.7	142.9	144.6
Mar 19	144.6	143.9	145.4
Mar 20	144.9	144.0	145.7
Mar 21	145.4	145.0	146.0
Mar 22	145.6	145.0	146.6
Mar 23	144.4	143.6	145.2
Mar 24	144.3	143.5	145.7
Mar 25	141.6	134.1	145.5
Mar 26	142.4	132.4	149.8
Mar 27	143.6	121.9	147.7
Mar 28	144.0	143.1	144.8
Mar 29	144.6	143.5	145.6
Mar 30	145.0	144.6	145.7
Summary	144.6	131.2	147.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 87

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	62.3	48.7	79.9
Mar 2	51.9	50.2	55.1
Mar 3	62.2	47.8	81.9
Mar 4	68.2	54.4	87.8
Mar 5	71.1	57.0	87.9
Mar 6	75.9	58.5	94.2
Mar 7	76.3	61.3	94.7
Mar 8	66.6	64.7	68.7
Mar 9	72.3	64.2	89.0
Mar 10	70.2	57.6	87.9
Mar 11	77.1	64.6	95.0
Mar 12	52.2	39.8	64.6
Mar 13	56.8	41.2	74.1
Mar 14	66.8	47.5	87.6
Mar 15	68.3	57.6	84.6
Mar 16	53.8	34.5	70.7
Mar 17	38.0	32.1	49.4
Mar 18	49.7	35.6	62.9
Mar 19	60.5	45.9	78.2
Mar 20	64.3	45.5	82.7
Mar 21	72.5	61.9	91.1
Mar 22	77.3	62.9	97.6
Mar 23	66.4	53.2	74.2
Mar 24	60.3	45.6	86.4
Mar 25	67.5	49.8	89.6
Mar 26	73.2	62.3	86.7
Mar 27	69.2	51.7	77.9
Mar 28	57.1	41.5	76.1
Mar 29	65.2	45.8	89.0
Mar 30	70.5	59.4	90.4
Summary	64.8	38.0	77.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 88

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	163.2	162.6	163.5
Mar 2	163.0	162.1	164.0
Mar 3	163.4	162.7	164.4
Mar 4	163.4	163.0	164.2
Mar 5	163.8	160.5	165.2
Mar 6	164.8	164.4	165.3
Mar 7	165.1	164.6	165.6
Mar 8	165.1	164.2	165.7
Mar 9	164.5	152.2	165.9
Mar 10	165.0	164.5	165.8
Mar 11	165.6	164.8	166.5
Mar 12	164.1	163.0	165.7
Mar 13	164.5	163.6	165.3
Mar 14	164.5	163.5	165.4
Mar 15	165.1	164.5	166.2
Mar 16	164.9	162.3	166.5
Mar 17	162.7	162.0	163.2
Mar 18	163.2	162.3	164.1
Mar 19	163.9	163.3	164.9
Mar 20	164.5	163.6	165.3
Mar 21	164.8	164.3	165.4
Mar 22	164.9	164.2	165.6
Mar 23	163.7	162.3	165.3
Mar 24	162.9	162.1	163.9
Mar 25	164.3	162.0	169.3
Mar 26	166.9	164.4	170.5
Mar 27	164.4	162.6	167.5
Mar 28	163.4	162.3	164.3
Mar 29	163.9	163.0	165.0
Mar 30	164.3	163.4	164.9
Summary	164.3	162.7	166.9

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 89
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	181.6	179.5	182.7
Mar 2	179.9	171.8	181.4
Mar 3	181.3	179.2	183.7
Mar 4	181.9	179.9	184.0
Mar 5	182.2	178.4	183.7
Mar 6	182.5	180.3	184.1
Mar 7	182.6	180.0	183.8
Mar 8	182.6	179.9	184.1
Mar 9	182.9	176.5	184.4
Mar 10	183.0	180.5	183.9
Mar 11	183.7	180.0	184.5
Mar 12	179.5	176.3	182.0
Mar 13	179.6	177.5	181.6
Mar 14	182.1	180.6	183.8
Mar 15	181.6	179.4	183.5
Mar 16	178.2	172.4	184.1
Mar 17	173.3	169.2	177.4
Mar 18	177.2	174.5	179.4
Mar 19	179.7	178.2	181.0
Mar 20	179.5	178.0	181.6
Mar 21	180.9	178.9	181.9
Mar 22	181.0	180.0	182.5
Mar 23	177.4	174.4	181.8
Mar 24	178.1	174.6	180.8
Mar 25	178.5	174.7	181.4
Mar 26	181.0	179.8	184.0
Mar 27	179.2	174.4	182.2
Mar 28	176.2	172.3	179.3
Mar 29	178.3	175.6	180.4
Mar 30	179.8	178.5	181.8
Summary	180.2	173.3	183.7

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

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	127.8	127.5	128.3
Mar 2	127.1	124.5	127.6
Mar 3	128.0	127.3	128.7
Mar 4	128.5	128.0	129.1
Mar 5	128.4	127.9	129.1
Mar 6	128.6	127.9	129.2
Mar 7	129.0	128.3	129.8
Mar 8	129.0	128.5	129.3
Mar 9	129.2	115.6	130.3
Mar 10	130.0	129.5	130.5
Mar 11	130.6	130.1	131.3
Mar 12	129.7	129.1	130.3
Mar 13	130.1	129.6	130.8
Mar 14	130.5	129.7	131.2
Mar 15	130.8	130.5	131.2
Mar 16	129.9	129.1	130.8
Mar 17	129.2	128.9	129.6
Mar 18	130.1	129.6	130.7
Mar 19	130.6	130.3	131.1
Mar 20	131.0	130.2	131.6
Mar 21	131.3	130.9	131.8
Mar 22	131.5	130.9	132.1
Mar 23	131.2	130.8	131.5
Mar 24	131.1	130.7	132.0
Mar 25	129.3	122.5	132.1
Mar 26	128.0	121.2	132.4
Mar 27	130.2	111.7	131.9
Mar 28	131.0	130.3	131.9
Mar 29	131.5	130.7	132.3
Mar 30	131.9	131.5	132.3
Summary	129.8	127.1	131.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 91

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	154.3	147.5	157.3
Mar 2	152.0	149.8	156.1
Mar 3	154.2	150.7	158.0
Mar 4	155.6	152.9	158.5
Mar 5	155.8	152.2	158.3
Mar 6	156.1	153.6	159.5
Mar 7	155.7	152.8	157.9
Mar 8	155.3	153.5	156.9
Mar 9	154.3	126.4	157.8
Mar 10	155.4	152.6	157.1
Mar 11	155.4	150.1	157.9
Mar 12	150.5	145.1	154.9
Mar 13	152.0	146.4	156.8
Mar 14	155.4	152.3	157.4
Mar 15	154.2	150.5	156.6
Mar 16	150.9	145.9	156.3
Mar 17	147.2	142.0	151.6
Mar 18	151.5	144.7	155.5
Mar 19	153.4	150.4	156.2
Mar 20	153.6	150.6	156.4
Mar 21	154.6	148.7	157.5
Mar 22	155.2	152.0	158.1
Mar 23	150.4	143.5	156.2
Mar 24	151.8	149.0	154.6
Mar 25	153.3	147.6	157.6
Mar 26	155.4	153.2	157.9
Mar 27	152.9	148.6	155.5
Mar 28	148.9	144.6	153.5
Mar 29	152.2	149.4	154.9
Mar 30	153.3	150.6	155.3
Summary	153.4	147.2	156.1

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 92
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	76.1	69.9	80.5
Mar 2	63.4	59.0	74.3
Mar 3	73.0	57.6	92.1
Mar 4	80.5	73.8	90.5
Mar 5	83.8	76.0	94.8
Mar 6	89.0	78.2	105.5
Mar 7	83.8	69.8	97.1
Mar 8	71.7	67.5	82.0
Mar 9	79.3	67.0	93.4
Mar 10	80.3	74.1	90.3
Mar 11	85.6	67.3	93.4
Mar 12	55.4	41.1	68.0
Mar 13	60.5	46.1	74.6
Mar 14	75.5	60.4	89.8
Mar 15	76.1	72.2	84.2
Mar 16	55.9	36.2	83.8
Mar 17	40.3	34.5	50.2
Mar 18	53.4	44.6	62.9
Mar 19	66.4	55.6	85.8
Mar 20	70.6	55.5	84.3
Mar 21	80.3	74.1	88.0
Mar 22	86.2	72.0	101.5
Mar 23	69.6	58.4	87.5
Mar 24	65.4	52.9	86.9
Mar 25	73.3	56.7	89.5
Mar 26	78.5	71.6	88.4
Mar 27	72.8	53.9	86.8
Mar 28	59.3	42.1	77.9
Mar 29	68.4	49.9	89.2
Mar 30	74.3	67.8	93.6
Summary	71.6	40.3	89.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 93

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	54.8	39.4	78.1
Mar 2	46.6	44.6	49.1
Mar 3	53.6	40.8	76.4
Mar 4	59.6	43.0	82.8
Mar 5	61.4	46.7	86.6
Mar 6	65.5	48.9	94.4
Mar 7	68.8	50.5	95.4
Mar 8	59.0	57.4	61.1
Mar 9	63.7	51.0	86.7
Mar 10	60.0	47.1	77.9
Mar 11	69.3	56.7	89.5
Mar 12	47.6	34.3	59.6
Mar 13	47.4	29.9	71.7
Mar 14	55.1	36.1	87.9
Mar 15	59.9	44.2	81.5
Mar 16	48.2	29.9	66.4
Mar 17	31.9	29.9	42.4
Mar 18	39.1	29.9	55.4
Mar 19	49.8	34.2	77.6
Mar 20	52.9	34.3	77.3
Mar 21	62.8	49.3	88.5
Mar 22	68.9	50.6	96.5
Mar 23	61.6	41.5	70.0
Mar 24	52.9	34.3	81.2
Mar 25	58.3	38.8	85.5
Mar 26	63.9	50.5	83.8
Mar 27	61.5	46.3	71.9
Mar 28	47.6	33.5	72.5
Mar 29	53.6	34.1	84.0
Mar 30	60.1	44.9	84.8
Summary	56.2	31.9	69.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 94

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	70.4	63.5	81.3
Mar 2	66.4	61.5	70.3
Mar 3	72.4	64.2	84.5
Mar 4	76.0	68.3	85.6
Mar 5	77.7	68.4	87.3
Mar 6	81.1	72.2	94.6
Mar 7	83.0	75.7	93.6
Mar 8	77.1	74.7	79.5
Mar 9	80.7	75.3	88.9
Mar 10	82.0	75.6	91.3
Mar 11	86.7	79.6	95.6
Mar 12	74.7	65.2	82.5
Mar 13	73.2	66.5	80.9
Mar 14	81.8	74.4	91.6
Mar 15	83.7	78.8	90.7
Mar 16	67.1	53.1	82.6
Mar 17	57.2	53.1	64.9
Mar 18	69.4	63.4	78.2
Mar 19	77.7	70.7	87.4
Mar 20	77.9	68.8	86.2
Mar 21	82.1	76.6	91.8
Mar 22	85.9	78.4	97.4
Mar 23	79.4	72.2	85.4
Mar 24	80.7	64.6	94.0
Mar 25	84.7	68.9	96.0
Mar 26	89.0	79.0	99.4
Mar 27	90.2	80.8	96.6
Mar 28	83.1	73.8	92.3
Mar 29	89.3	80.9	98.1
Mar 30	94.6	91.6	100.6
Summary	79.2	57.2	94.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 95

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	134.5	133.4	136.0
Mar 2	130.7	90.2	134.0
Mar 3	133.9	131.8	135.6
Mar 4	134.7	133.6	136.2
Mar 5	134.7	133.5	136.1
Mar 6	135.2	134.0	136.5
Mar 7	135.3	134.1	137.0
Mar 8	134.3	133.7	134.7
Mar 9	134.5	128.7	136.3
Mar 10	134.4	133.5	135.8
Mar 11	134.9	133.7	136.6
Mar 12	132.1	130.6	134.1
Mar 13	133.0	129.5	135.3
Mar 14	134.4	133.0	135.8
Mar 15	134.2	133.6	135.4
Mar 16	132.9	131.2	134.5
Mar 17	131.3	129.6	133.4
Mar 18	132.6	131.0	134.3
Mar 19	133.8	132.6	134.8
Mar 20	134.0	132.8	135.1
Mar 21	134.5	133.7	135.9
Mar 22	134.9	133.8	136.7
Mar 23	133.2	132.0	134.2
Mar 24	133.3	131.7	135.4
Mar 25	133.6	132.4	135.0
Mar 26	134.3	133.2	135.5
Mar 27	133.8	132.3	134.7
Mar 28	132.7	131.0	134.7
Mar 29	133.6	131.8	135.4
Mar 30	134.3	133.7	135.5
Summary	133.8	130.7	135.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 96

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	115.3	104.5	121.5
Mar 2	113.1	83.9	117.1
Mar 3	118.7	115.1	122.3
Mar 4	120.0	115.2	122.6
Mar 5	120.0	113.8	123.0
Mar 6	120.8	115.9	125.4
Mar 7	120.2	112.8	125.1
Mar 8	121.2	119.8	122.5
Mar 9	120.6	115.1	122.6
Mar 10	121.2	118.0	124.0
Mar 11	120.8	114.3	123.3
Mar 12	118.1	110.1	121.3
Mar 13	115.2	101.1	121.9
Mar 14	120.4	116.5	123.2
Mar 15	120.2	115.1	122.4
Mar 16	116.9	112.1	121.8
Mar 17	115.5	110.3	119.3
Mar 18	117.9	112.6	121.3
Mar 19	119.6	115.4	121.6
Mar 20	119.5	115.5	124.0
Mar 21	120.9	117.1	123.0
Mar 22	121.0	116.6	124.9
Mar 23	118.2	111.7	122.2
Mar 24	117.8	107.1	121.6
Mar 25	117.6	111.0	123.2
Mar 26	117.4	109.2	122.9
Mar 27	120.0	108.0	123.0
Mar 28	118.5	115.6	121.7
Mar 29	120.7	116.3	124.2
Mar 30	122.2	120.4	123.3
Summary	119.0	113.1	122.2

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 97

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	155.4	150.5	158.9
Mar 2	151.6	147.6	156.1
Mar 3	153.1	150.0	157.5
Mar 4	154.1	151.4	158.0
Mar 5	154.3	152.3	158.2
Mar 6	154.7	152.0	159.1
Mar 7	154.5	151.6	157.8
Mar 8	152.7	151.7	153.9
Mar 9	151.6	127.3	155.4
Mar 10	152.1	149.2	154.2
Mar 11	153.5	150.0	156.2
Mar 12	146.5	142.3	152.1
Mar 13	149.5	144.2	155.5
Mar 14	152.0	148.5	155.8
Mar 15	150.6	146.9	152.6
Mar 16	148.3	144.1	152.8
Mar 17	144.1	139.3	147.5
Mar 18	147.3	144.4	151.0
Mar 19	149.4	147.0	151.7
Mar 20	149.7	147.2	152.7
Mar 21	150.6	148.3	153.1
Mar 22	151.2	149.0	155.7
Mar 23	146.5	140.9	151.2
Mar 24	147.8	145.3	150.7
Mar 25	148.8	145.5	153.7
Mar 26	152.7	149.6	158.4
Mar 27	148.1	143.1	153.5
Mar 28	144.7	140.9	148.5
Mar 29	147.0	144.6	150.2
Mar 30	147.6	145.7	149.4
Summary	150.3	144.1	155.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 98

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	59.3	49.2	75.3
Mar 2	53.3	51.5	55.2
Mar 3	58.7	49.4	73.8
Mar 4	62.8	52.0	79.6
Mar 5	64.9	54.3	83.6
Mar 6	68.0	56.2	88.7
Mar 7	71.0	58.0	89.5
Mar 8	63.5	62.7	64.7
Mar 9	67.4	60.1	82.6
Mar 10	65.5	56.6	80.6
Mar 11	71.9	63.8	88.9
Mar 12	57.7	49.0	65.5
Mar 13	56.3	44.8	72.1
Mar 14	61.7	47.7	80.7
Mar 15	64.6	54.8	81.5
Mar 16	55.3	40.6	67.8
Mar 17	41.9	38.6	49.2
Mar 18	48.6	37.8	60.3
Mar 19	57.0	45.3	74.5
Mar 20	58.9	45.9	74.0
Mar 21	66.2	56.9	83.9
Mar 22	71.2	58.6	90.4
Mar 23	62.8	41.8	69.2
Mar 24	51.7	33.4	82.2
Mar 25	57.9	38.0	83.7
Mar 26	63.0	50.0	83.9
Mar 27	61.3	51.4	71.7
Mar 28	54.2	41.2	71.2
Mar 29	58.5	44.3	79.1
Mar 30	63.9	54.6	79.8
Summary	60.6	41.9	71.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 99

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	144.2	143.6	145.1
Mar 2	142.8	133.5	143.9
Mar 3	144.7	143.8	145.7
Mar 4	145.3	144.8	146.2
Mar 5	145.6	145.0	146.5
Mar 6	145.7	145.2	146.5
Mar 7	145.7	145.0	146.8
Mar 8	145.1	144.9	145.5
Mar 9	145.3	144.8	146.1
Mar 10	144.5	144.0	145.1
Mar 11	144.8	143.9	145.9
Mar 12	142.7	141.6	144.0
Mar 13	143.4	142.6	144.7
Mar 14	144.0	143.2	145.0
Mar 15	144.3	143.7	145.0
Mar 16	143.6	142.3	144.8
Mar 17	142.7	142.0	143.3
Mar 18	143.8	143.1	144.8
Mar 19	144.6	144.0	145.4
Mar 20	145.2	144.2	146.2
Mar 21	145.7	145.0	146.6
Mar 22	145.9	145.2	147.3
Mar 23	144.9	144.1	145.6
Mar 24	144.6	143.5	146.0
Mar 25	142.0	133.7	145.7
Mar 26	141.5	133.3	146.9
Mar 27	143.0	122.4	145.6
Mar 28	143.1	142.1	144.4
Mar 29	143.8	142.4	145.0
Mar 30	142.8	141.1	144.2
Summary	144.2	141.5	145.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 100

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Mar 1	155.4	155.1	155.8
Mar 2	132.7	124.7	137.5
Mar 3	155.3	154.6	155.9
Mar 4	137.2	135.0	140.1
Mar 5	155.7	155.4	156.1
Mar 6	140.8	133.9	148.2
Mar 7	155.9	155.4	156.3
Mar 8	137.7	135.4	139.9
Mar 9	155.1	138.6	156.2
Mar 10	136.9	134.8	138.6
Mar 11	156.1	155.6	156.4
Mar 12	134.1	127.7	138.0
Mar 13	155.2	154.7	155.6
Mar 14	135.2	133.0	136.9
Mar 15	155.1	154.9	155.4
Mar 16	133.6	126.7	138.4
Mar 17	153.6	153.1	153.9
Mar 18	131.0	125.5	134.4
Mar 19	154.2	153.9	154.6
Mar 20	144.4	136.1	156.9
Mar 21	154.5	154.1	154.9
Mar 22	145.7	136.1	165.9
Mar 23	154.1	153.8	154.5
Mar 24	144.7	142.2	155.5
Mar 25	152.4	148.3	154.4
Mar 26	140.1	83.1	145.2
Mar 27	154.0	143.4	155.6
Mar 28	153.6	144.4	163.7
Mar 29	154.6	153.9	155.3
Mar 30	156.6	142.3	166.0
Summary	154.7	152.4	156.1

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-Mar	156.2	225.5	224.8	229.7	247.9	260.9
2-Mar	155.5	225.3	224.5	229.4	247.7	260.7
3-Mar	155.7	225.7	224.9	229.6	248.1	260.9
4-Mar	156.0	225.8	224.9	229.7	248.2	261.0
5-Mar	156.3	226.0	225.2	230.1	248.4	261.2
6-Mar	156.7	225.9	225.2	230.3	248.6	261.3
7-Mar	156.8	226.0	225.3	230.4	248.7	261.4
8-Mar	156.5	225.6	224.8	230.1	248.4	261.1
9-Mar	156.9	225.8	224.9	230.2	248.5	261.2
10-Mar	156.8	225.6	224.9	230.2	248.7	261.2
11-Mar	157.1	225.9	225.1	230.5	249.0	261.4
12-Mar	156.4	225.1	224.4	229.7	248.2	260.6
13-Mar	156.3	225.4	224.6	229.9	248.5	260.8
14-Mar	156.7	225.7	224.8	230.1	248.7	261.0
15-Mar	156.9	225.9	225.0	230.3	249.0	261.2
16-Mar	156.4	225.6	224.6	229.9	248.7	260.8
17-Mar	155.9	225.2	224.2	229.3	248.3	260.3
18-Mar	156.1	225.6	224.6	229.6	248.7	260.6
19-Mar	156.3	226.0	224.8	229.8	249.0	260.8
20-Mar	156.3	226.5	225.0	230.0	249.3	261.1
21-Mar	156.1	226.7	225.1	230.2	249.6	261.2
22-Mar	156.4	227.0	225.3	230.4	249.8	261.4
23-Mar	156.1	226.7	224.9	230.0	249.6	261.0
24-Mar	156.1	226.7	224.8	229.7	249.4	260.7
25-Mar	156.5	226.8	224.9	230.0	249.7	261.0
26-Mar	156.7	227.0	225.2	230.3	249.9	261.3
27-Mar	156.6	226.8	225.0	230.2	249.8	261.1
28-Mar	156.3	226.7	224.7	229.8	249.5	260.7
29-Mar	156.6	227.0	224.9	229.9	249.8	260.9
30-Mar	156.7	227.5	225.0	230.0	249.9	261.1
31-Mar	157.0	227.9	225.3	230.3	250.2	261.3
Average	156.4	226.2	224.9	230.0	249.0	261.0

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-Mar	178.3	212.0	212.3	222.0	230.8	233.3	208.0	201.9
2-Mar	181.1	211.7	211.9	221.7	230.6	233.0	207.5	201.5
3-Mar	181.7	212.0	212.2	221.9	231.0	233.3	207.8	201.8
4-Mar	174.1	212.1	212.3	222.2	231.1	233.5	207.9	202.0
5-Mar	179.5	212.1	212.3	222.1	231.1	233.5	207.9	202.0
6-Mar	182.2	212.2	212.4	222.2	231.3	233.6	208.1	202.2
7-Mar	178.2	212.3	212.5	222.4	231.4	233.6	208.1	202.2
8-Mar	179.4	212.1	212.2	222.1	231.1	233.4	207.8	201.9
9-Mar	178.2	212.2	212.4	222.2	231.3	233.6	208.0	202.2
10-Mar	176.6	212.1	212.3	222.1	231.1	233.4	207.7	202.0
11-Mar	176.8	212.4	212.5	222.4	231.4	233.7	207.9	202.3
12-Mar	175.5	211.7	211.9	221.8	230.7	233.0	207.2	201.7
13-Mar	176.2	211.8	212.0	221.8	230.7	233.0	207.1	201.7
14-Mar	175.2	212.0	212.1	222.0	230.9	233.2	207.2	201.9
15-Mar	176.6	212.0	212.1	222.1	230.8	233.2	207.1	201.9
16-Mar	175.5	211.5	211.7	221.8	230.5	232.9	206.8	201.6
17-Mar	154.2	211.3	211.5	221.5	230.2	232.7	206.4	201.4
18-Mar	149.7	211.5	211.7	221.7	230.3	232.9	206.5	201.5
19-Mar	148.1	211.6	211.8	221.8	230.4	232.9	206.5	201.6
20-Mar	156.2	211.8	211.9	221.9	230.5	233.0	206.6	201.8
21-Mar	165.5	211.9	212.0	222.0	230.6	233.2	206.7	202.0
22-Mar	152.0	212.1	212.3	222.3	230.8	233.4	206.8	202.2
23-Mar	146.5	211.8	211.9	221.9	230.5	233.1	206.3	201.8
24-Mar	146.0	211.7	211.9	221.8	230.3	232.9	206.1	201.7
25-Mar	145.7	211.9	212.1	222.0	230.5	233.1	206.1	201.9
26-Mar	145.5	212.0	212.2	222.1	230.5	233.1	206.0	201.9
27-Mar	144.5	211.8	212.1	221.9	230.4	233.0	205.8	201.8
28-Mar	144.4	211.6	211.9	221.8	230.2	232.8	205.6	201.6
29-Mar	144.3	211.8	212.0	221.9	230.2	232.9	205.6	201.7
30-Mar	144.1	211.9	212.1	222.0	230.3	232.9	205.6	201.8
31-Mar	143.8	212.1	212.3	222.1	230.5	233.1	205.6	202.0
Average	163.7	211.9	212.1	222.0	230.7	233.2	206.9	201.9

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-Mar	150.2	172.5	*	178.5	181.8
2-Mar	149.0	173.6	*	176.8	180.6
3-Mar	149.4	172.9	*	174.2	178.3
4-Mar	146.4	174.7	*	175.3	179.0
5-Mar	146.2	174.9	*	174.8	178.5
6-Mar	145.2	178.4	*	178.0	182.9
7-Mar	145.4	177.0	*	176.4	180.7
8-Mar	143.2	178.6	*	176.9	182.0
9-Mar	143.9	178.1	*	176.5	180.8
10-Mar	143.7	177.0	*	175.1	179.7
11-Mar	143.1	176.7	*	173.8	180.5
12-Mar	142.9	173.4	*	171.0	179.2
13-Mar	144.5	174.4	*	173.0	179.0
14-Mar	144.7	175.4	*	173.8	178.7
15-Mar	147.2	175.6	*	173.8	177.9
16-Mar	151.5	177.2	*	175.7	177.7
17-Mar	145.5	177.4	*	176.0	179.4
18-Mar	145.2	179.5	*	177.5	181.9
19-Mar	145.9	181.7	*	179.4	184.2
20-Mar	146.4	182.2	*	179.3	184.9
21-Mar	146.4	183.2	*	180.3	185.9
22-Mar	144.8	185.2	*	181.8	187.3
23-Mar	143.5	184.9	*	181.1	187.1
24-Mar	143.3	185.7	*	181.7	188.4
25-Mar	143.1	186.6	*	183.1	189.1
26-Mar	142.9	186.2	*	182.7	187.6
27-Mar	145.1	182.1	*	179.4	183.9
28-Mar	142.9	185.3	*	182.8	187.7
29-Mar	143.1	188.6	*	184.9	189.7
30-Mar	143.1	188.7	*	184.9	189.8
31-Mar	143.1	189.1	*	185.5	190.4
Average	145.2	179.9	*	178.2	183.1

* Indicates sensor reading issues

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 8

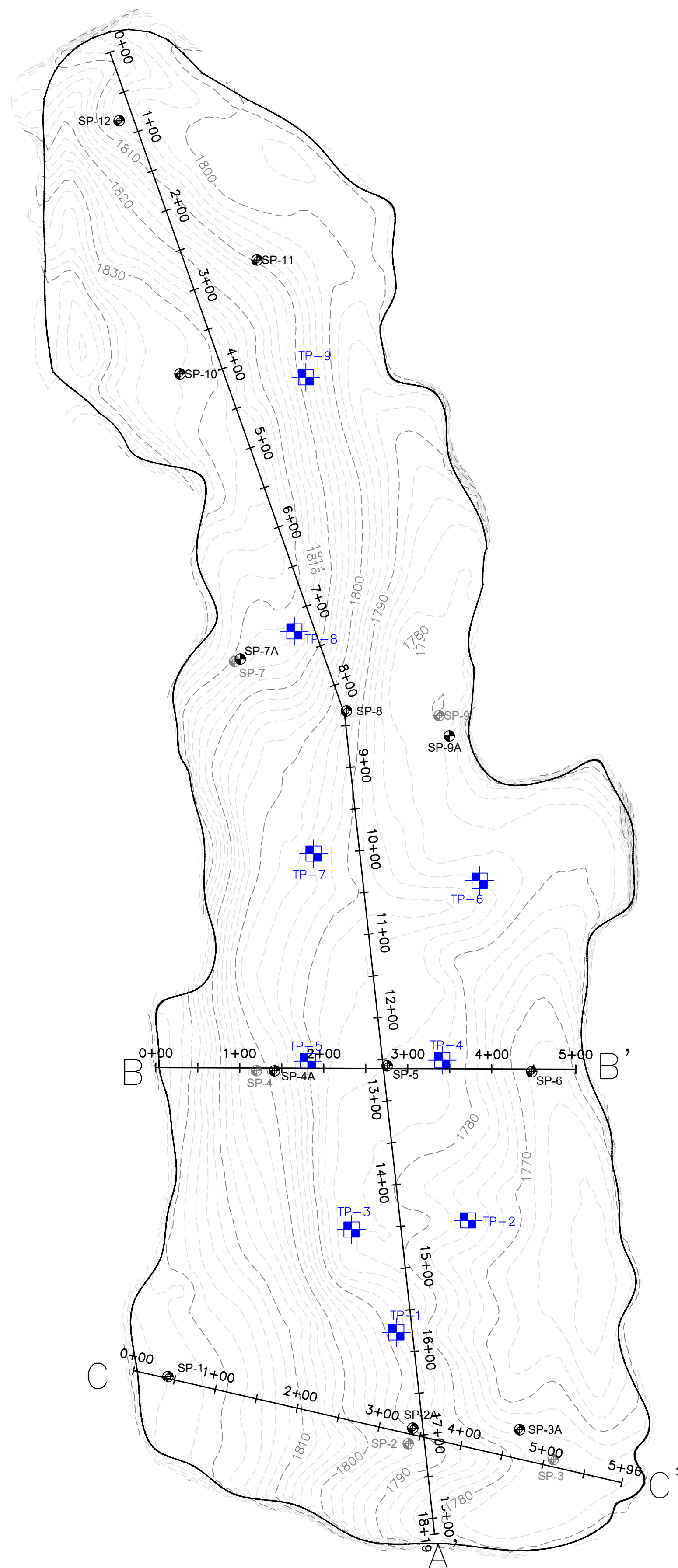
Date	Depth from Surface							
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Mar	163.2	192.9	193.2	195.5	199.6	199.0	186.3	168.5
2-Mar	163.7	192.6	192.8	195.3	199.2	198.6	186.1	168.1
3-Mar	163.9	193.0	193.2	195.6	199.6	199.0	186.3	168.4
4-Mar	164.0	193.1	193.3	195.7	199.7	199.1	186.5	168.6
5-Mar	164.2	193.2	193.5	195.7	199.8	199.2	186.6	168.7
6-Mar	163.9	193.3	193.5	195.9	199.9	199.4	186.7	168.8
7-Mar	164.3	193.4	193.6	195.9	200.0	199.5	186.7	168.9
8-Mar	164.1	193.1	193.3	195.6	199.6	199.1	186.4	168.6
9-Mar	164.4	193.3	193.5	195.8	199.8	199.3	186.6	168.8
10-Mar	164.5	193.2	193.4	195.7	199.7	199.2	186.5	168.7
11-Mar	165.9	193.3	193.5	195.8	199.8	199.4	186.7	168.8
12-Mar	156.4	192.8	193.0	195.3	199.3	198.8	186.1	168.2
13-Mar	158.9	192.8	193.0	195.3	199.3	198.8	186.1	168.2
14-Mar	160.9	193.0	193.2	195.5	199.5	199.0	186.3	168.4
15-Mar	163.1	193.1	193.3	195.6	199.6	199.1	186.4	168.5
16-Mar	162.3	192.6	192.8	195.0	199.0	198.8	186.0	168.1
17-Mar	156.9	192.4	192.6	195.0	198.9	198.5	185.8	167.8
18-Mar	158.0	192.6	192.8	195.3	199.2	198.7	185.9	168.0
19-Mar	158.6	192.8	193.1	195.4	199.3	198.9	186.1	168.2
20-Mar	160.3	193.0	193.2	195.5	199.4	199.0	186.2	168.2
21-Mar	162.9	193.2	193.4	195.6	199.6	199.2	186.5	168.5
22-Mar	164.2	193.3	193.6	195.8	199.8	199.4	186.9	168.8
23-Mar	163.8	193.1	193.3	195.6	199.5	199.2	186.6	168.6
24-Mar	165.2	192.9	193.1	195.5	199.3	198.9	186.3	168.3
25-Mar	170.2	193.1	193.3	195.6	199.5	199.1	186.5	168.4
26-Mar	174.1	193.3	193.5	195.7	199.7	199.3	186.8	168.6
27-Mar	169.5	193.1	193.3	195.6	199.4	199.1	186.6	168.3
28-Mar	167.0	192.8	193.0	195.5	199.3	198.8	186.5	168.1
29-Mar	169.3	193.0	193.3	195.6	199.5	199.0	186.7	168.3
30-Mar	170.2	193.2	193.4	195.8	199.7	199.3	186.8	168.5
31-Mar	171.5	193.4	193.6	195.9	199.8	199.4	187.0	168.7
Average	164.2	193.0	193.2	195.6	199.5	199.1	186.4	168.4

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-Mar	109.9	148.9	148.3	147.3	142.6	130.4	114.0	102.4
2-Mar	109.3	148.3	147.9	146.8	142.1	129.9	113.8	101.8
3-Mar	109.8	148.7	148.2	147.2	142.5	130.2	114.7	102.0
4-Mar	110.2	149.0	148.5	147.5	142.7	130.4	114.9	101.9
5-Mar	110.4	149.2	148.6	147.7	142.8	130.6	115.4	102.0
6-Mar	110.7	149.4	148.9	147.9	143.1	130.9	115.5	102.2
7-Mar	110.8	149.4	148.8	148.0	143.1	130.9	115.4	102.2
8-Mar	110.2	148.8	148.3	147.6	142.6	130.5	114.9	101.7
9-Mar	110.8	149.2	148.7	147.9	142.9	130.6	115.0	102.0
10-Mar	110.5	149.1	148.6	147.8	142.8	130.4	114.8	101.9
11-Mar	110.9	149.5	148.9	148.1	143.1	130.7	115.1	102.2
12-Mar	110.1	148.5	148.0	147.0	142.2	129.8	114.2	101.4
13-Mar	110.2	148.7	148.2	147.1	142.4	129.9	114.4	101.6
14-Mar	110.5	149.0	148.4	147.3	142.6	130.0	114.6	101.8
15-Mar	110.6	149.0	148.5	147.6	142.8	130.2	114.7	101.9
16-Mar	109.9	148.2	147.7	147.0	142.1	129.5	114.1	101.3
17-Mar	109.5	148.0	147.6	146.4	141.7	129.0	113.6	100.6
18-Mar	110.0	148.6	148.3	146.9	142.1	129.5	114.1	101.0
19-Mar	110.3	148.9	148.6	147.2	142.4	129.8	114.3	101.0
20-Mar	110.4	149.1	148.6	147.3	142.6	129.9	114.6	101.1
21-Mar	110.8	149.3	148.8	147.6	142.9	130.3	114.9	101.4
22-Mar	111.0	149.5	149.0	147.8	143.1	130.4	115.0	101.5
23-Mar	110.6	149.2	148.6	147.5	142.7	130.0	114.7	101.2
24-Mar	110.3	148.9	148.6	147.0	142.4	129.6	114.4	101.0
25-Mar	110.5	149.2	148.8	147.3	142.6	129.8	114.6	101.2
26-Mar	110.6	149.1	148.6	147.7	142.9	130.1	114.8	101.5
27-Mar	110.5	149.0	148.6	147.5	142.6	129.9	114.6	101.4
28-Mar	110.3	148.9	148.5	146.9	142.2	129.5	114.2	101.0
29-Mar	110.5	149.2	148.9	147.1	142.5	129.7	114.5	101.2
30-Mar	110.6	149.4	149.0	147.2	142.6	129.8	114.6	101.4
31-Mar	111.0	149.7	149.3	147.7	143.0	130.2	114.9	101.8
Average	110.4	149.0	148.5	147.4	142.6	130.1	114.6	101.6

Appendix E

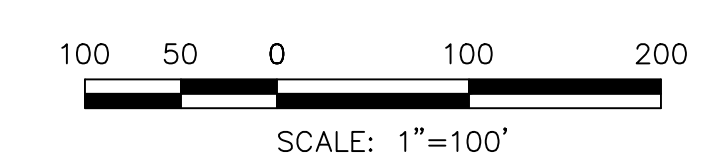
Monthly Topography Analysis



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

NOTES:

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



NO.	REVISION	DATE

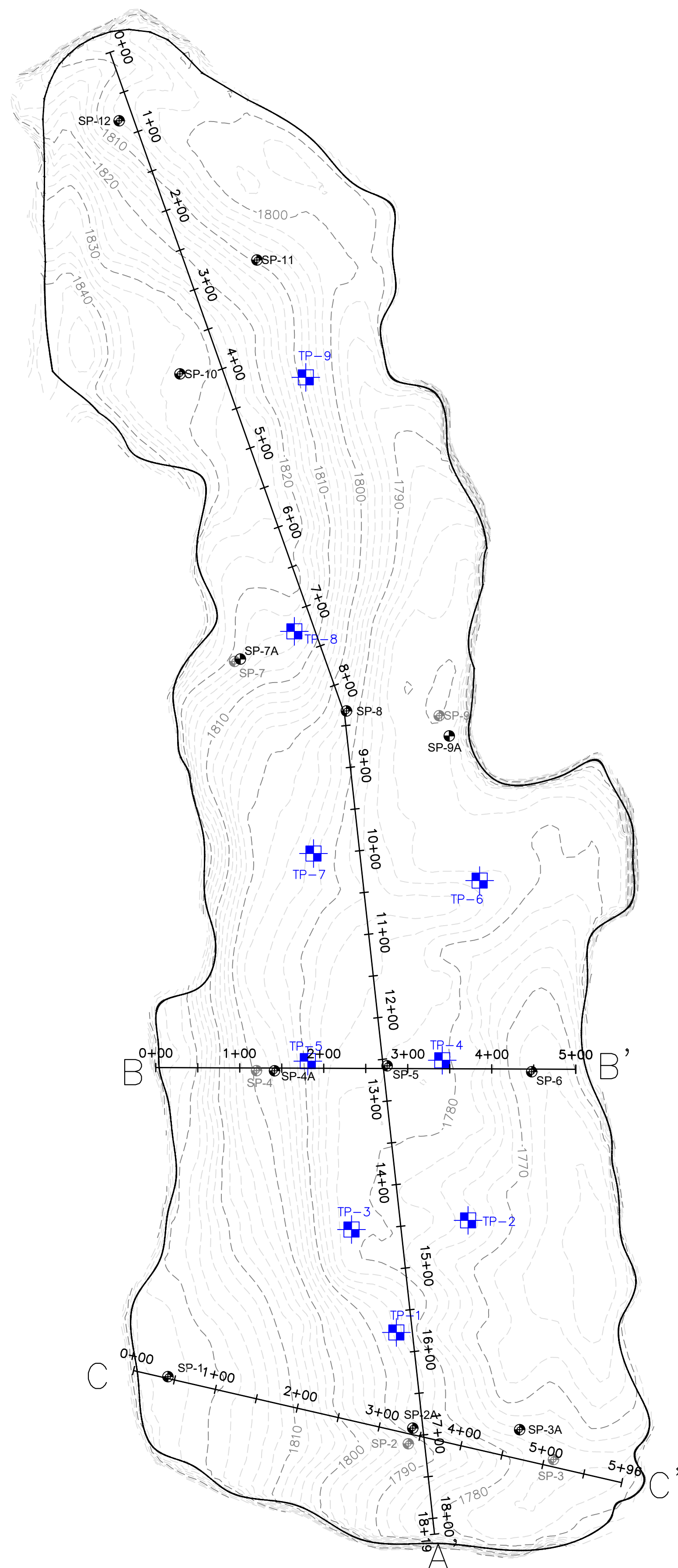
SHEET TITLE: MARCH 2025 LANDFILL TOPOGRAPHY
 PROJECT TITLE: MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588

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

SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT
 CONSULTING ENGINEERS, INC.
 1820 W. MAIN ST., SUITE 100
 BRISTOL, VA 24113
 PH: (804) 378-7440 FAX: (804) 378-7433

PROJ. NO.: 02218206.05
 DATE: 4/1/2026
 DRAWN BY: MMJ
 CHECKED BY: C/JW
 DESIGNED BY: C/JW
 APPROVED BY: C/JW

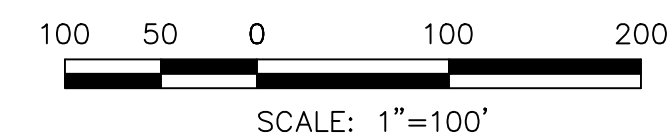
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 SCALE:
 DRAWING NO. 1



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

NOTES:

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



NO.	REVISION	DATE

SHEET TITLE: DECEMBER 2025 LANDFILL TOPOGRAPHY
 PROJECT TITLE: MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588

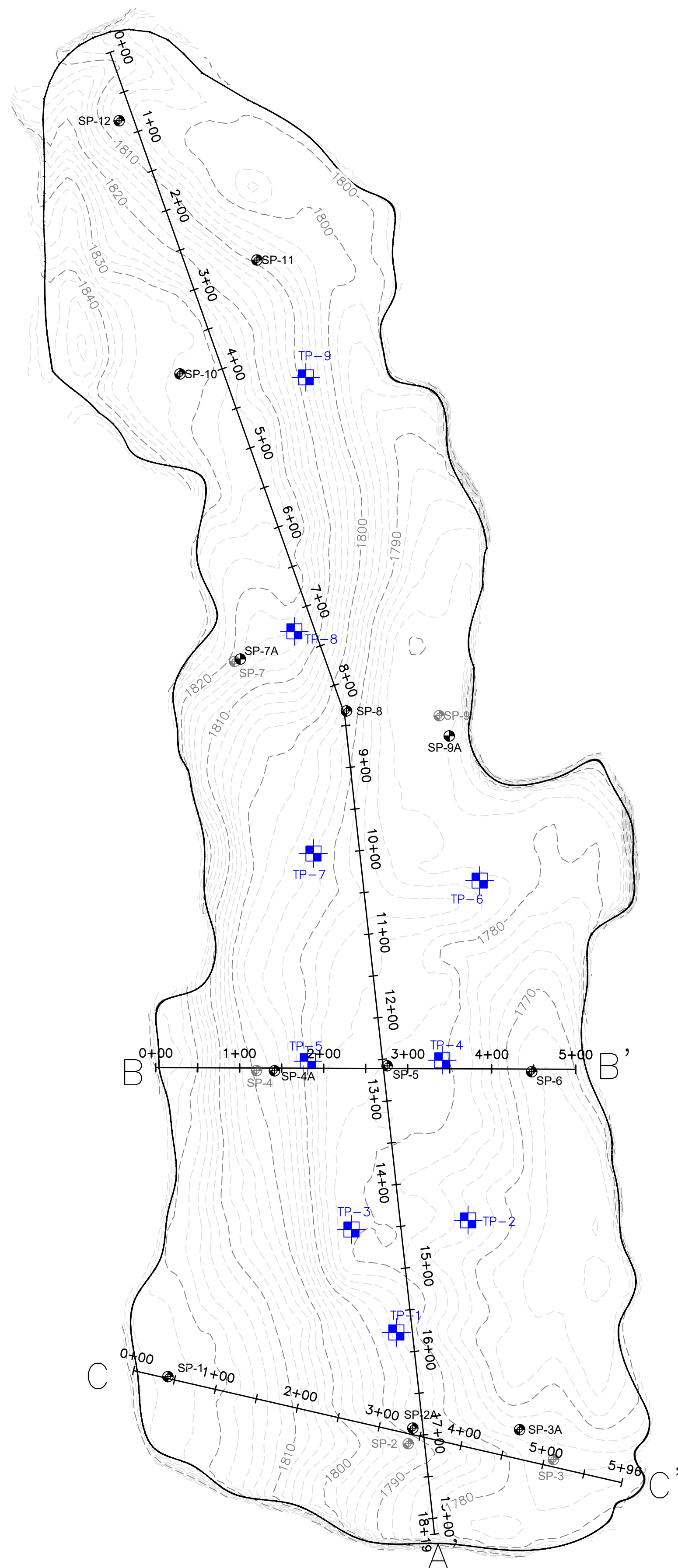
CLIENT: CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
 2655 VALLEY DRIVE
 BRISTOL, VIRGINIA 24201

SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT
 CONSULTING ENGINEERS, INC.
 10210 WOODBURN AVENUE, VA 23113
 PH: (804) 378-7440 FAX: (804) 378-7433

PROJ. NO.: 02218205.05
 DATE: 02/19/2025
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 CHECKED BY: C/JW
 C/A BY: M/M
 APPR BY: C/JW

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 DATE: 4/1/2026
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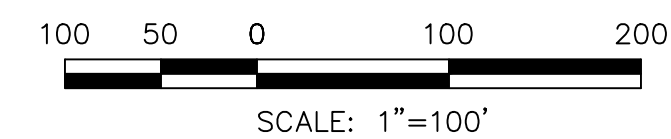
DRAWING NO. **2**



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

NOTES:

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



NO.	REVISION	DATE

SHEET TITLE: FEBRUARY 2026 LANDFILL TOPOGRAPHY
 PROJECT TITLE: MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588

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

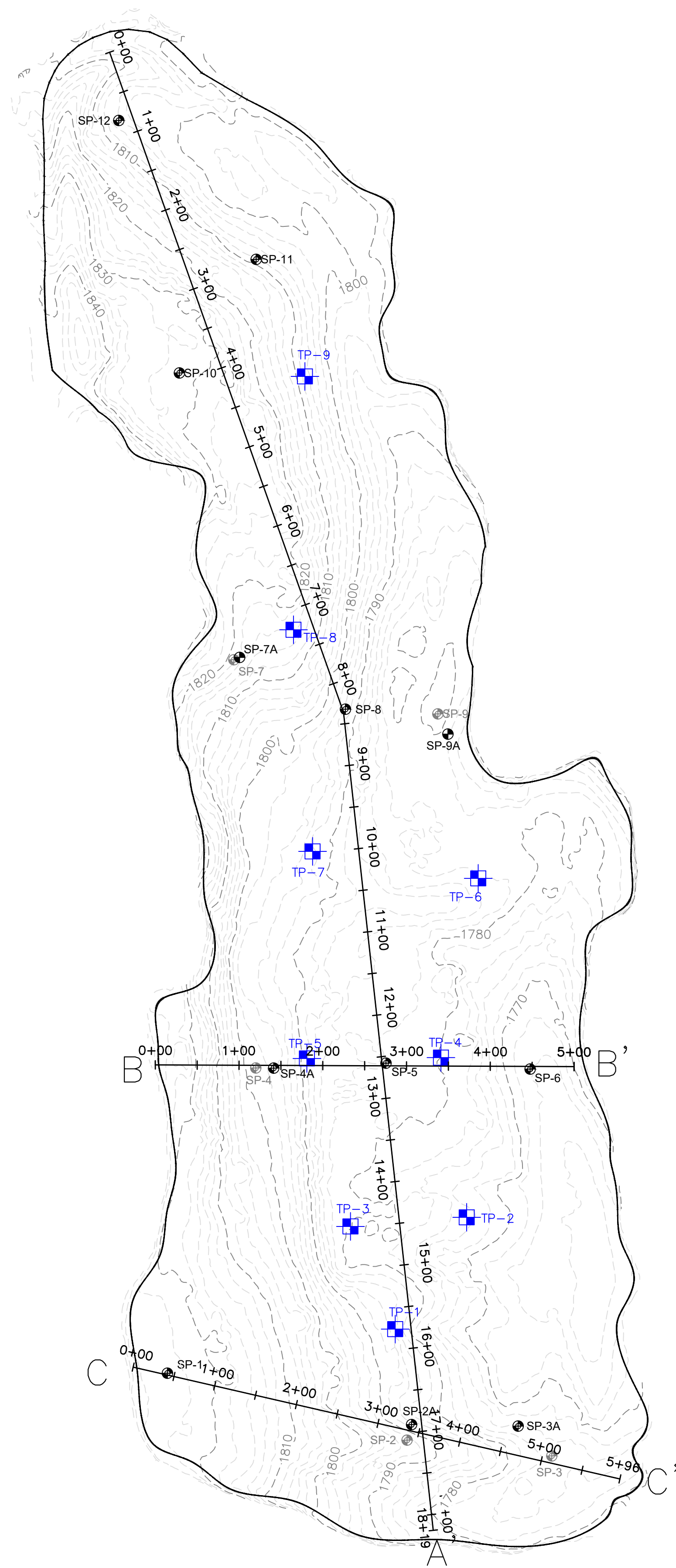
SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC.
 1827 W. MAIN ST., SUITE 100
 BRISTOL, VA 24113
 PH: (804) 378-7440 FAX: (804) 378-7433

PROJ. NO.: 02218206.05
 DATE: 4/1/2026

DRAWN BY: MMJ
 CHECKED BY: C/JW
 APPR. BY: C/JW

CADD FILE: SURF COMP
 DATE: 4/1/2026
 SCALE:

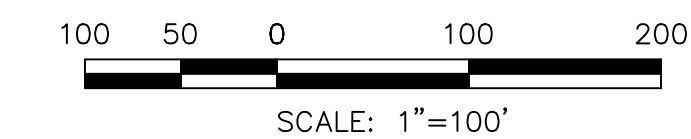
DRAWING NO. **3**



- LEGEND**
- MAJOR CONTOURS (EVERY 10')
 - - - MINOR CONTOURS (EVERY 2')
 - APPROXIMATE SIDEWALL LOCATION
 - SP-8 SETTLEMENT PLATE
 - SP-9 DECOMMISSIONED SETTLEMENT PLATE
 - TP-3+ Temperature Monitoring Probe

NOTES:

1. GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON MARCH 24, 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.



NO.	REVISION	DATE

SHEET TITLE: **MARCH 2026 LANDFILL TOPOGRAPHY**

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

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

SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT
 CONSULTING ENGINEERS, INC.
 1523 MIDLOTHIAN TPK - MIDLOTHIAN, VA 23113
 PH: (804) 378-7440 FAX: (804) 378-7433

PROJ. NO. 220208.05
 DESK BY: C.J.W.
 DRAWN BY: M.M.
 CHECK BY: C.J.W.
 O/A REV BY: C.J.W.
 APP. BY: C.J.W.

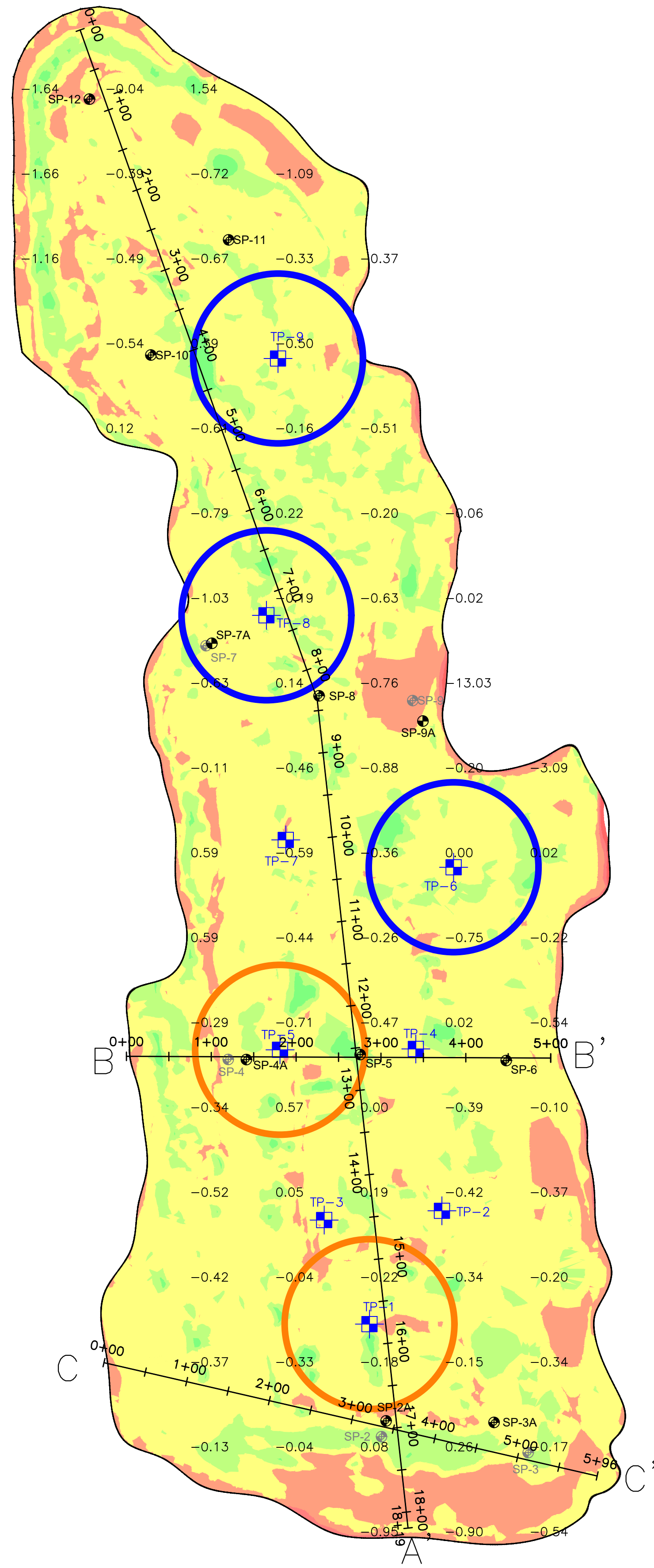
CADD FILE: **SURF COMP**

DATE: **4/1/2026**

SCALE:

DRAWING NO. **4**

8



LEGEND

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

Volume
 Base Surface TOPO - February 10, 2026
 Comparison Surface TOPO - March 24, 2026

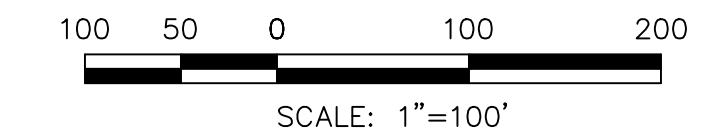
Cut Volume	14,938	Cu. Yd.
Fill Volume	1,375	Cu. Yd.
Net Cut	13,563	Cu. Yd.

Elevations Table

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

NOTES:

1. THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON FEBRUARY 10, 2026 AND MARCH 24, 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.
2. ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FOR FLOOD PLAIN DETERMINATION.
3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011)
4. THE VERTICAL DATUM IS BASED UPON NAVD-88.



NO.	REVISION	DATE

SHEET TITLE **MARCH VOLUME CHANGE**
FEBRUARY 2026 TO MARCH 2026

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

CLIENT **CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY**
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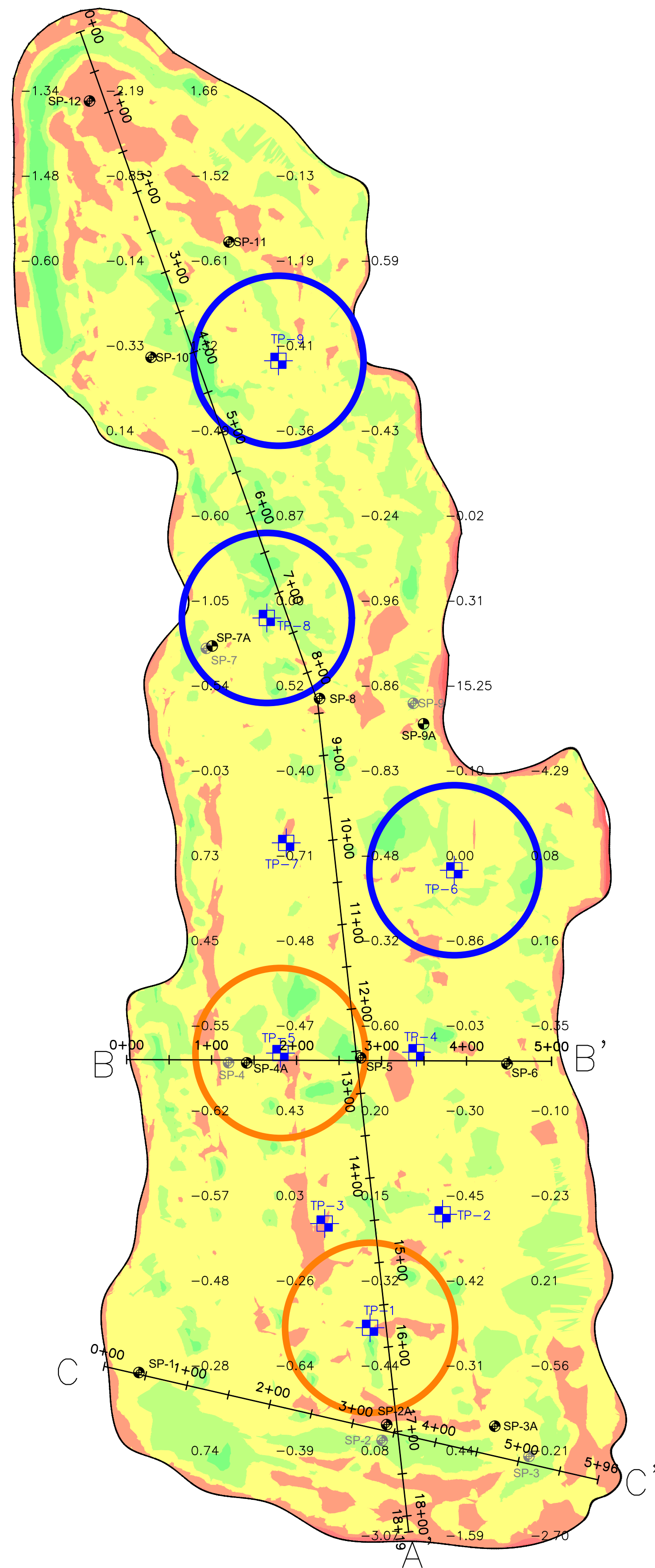
PROJ. NO. 220208.05
 DESK BY: C.J.W.
 DRAWN BY: M.M.
 CHECK BY: M.M.
 O/A RW BY: C.J.W.
 APP. BY: C.J.W.

CADD FILE: **SURF COMP**

DATE: **4/1/2026**

SCALE:

DRAWING NO. **5**



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 - December 11, 2025
 Comparison Surface TOPO - March 24, 2026

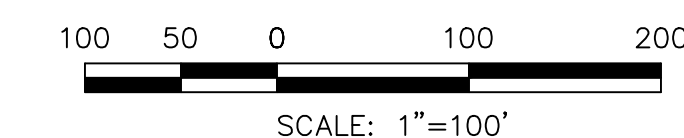
Cut Volume	15,135	Cu. Yd.
Fill Volume	2,332	Cu. Yd.
Net Cut	12,803	Cu. Yd.

Elevations Table

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

NOTES:

- THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON DECEMBER 11, 2025 AND MARCH 24, 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.
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SHEET TITLE: MARCH VOLUME CHANGE
 DECEMBER 2025 TO MARCH 2026
 PROJECT TITLE: MONTHLY TOPOGRAPHY ANALYSIS
 SOLID WASTE PERMIT #588

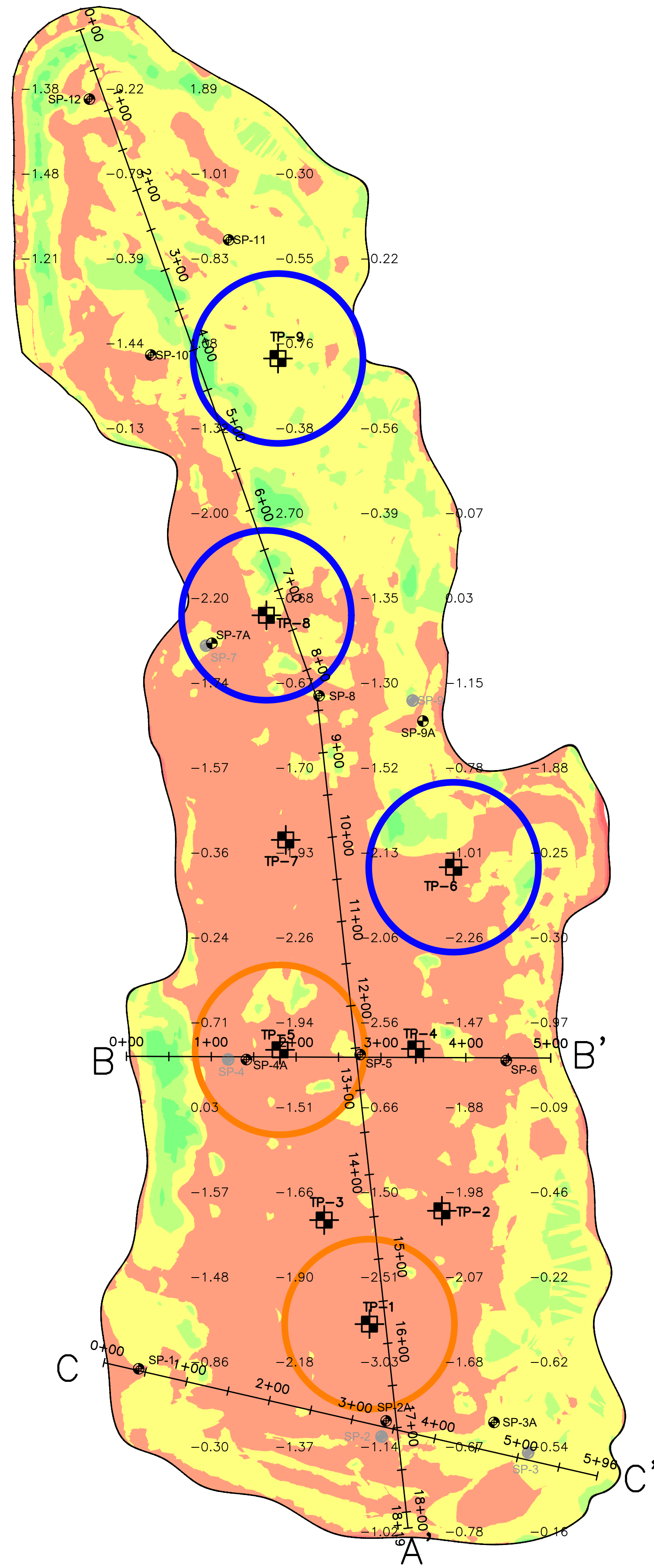
CLIENT: CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
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 APP. BY: C.J.W.

CADD FILE: SURF COMP
 DATE: 4/1/2026
 SCALE:

DRAWING NO. 6 8



LEGEND

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

Volume
 Base Surface TOPO - March 11, 2025
 Comparison Surface TOPO - March 24, 2026

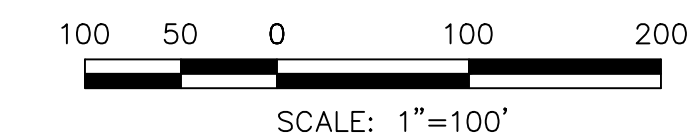
Cut Volume	23,683	Cu. Yd.
Fill Volume	3,345	Cu. Yd.
Net Cut	20,338	Cu. Yd.

Elevations Table

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

NOTES:

1. THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON MARCH 11, 2025 AND MARCH 24, 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
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 SOLID WASTE PERMIT #588

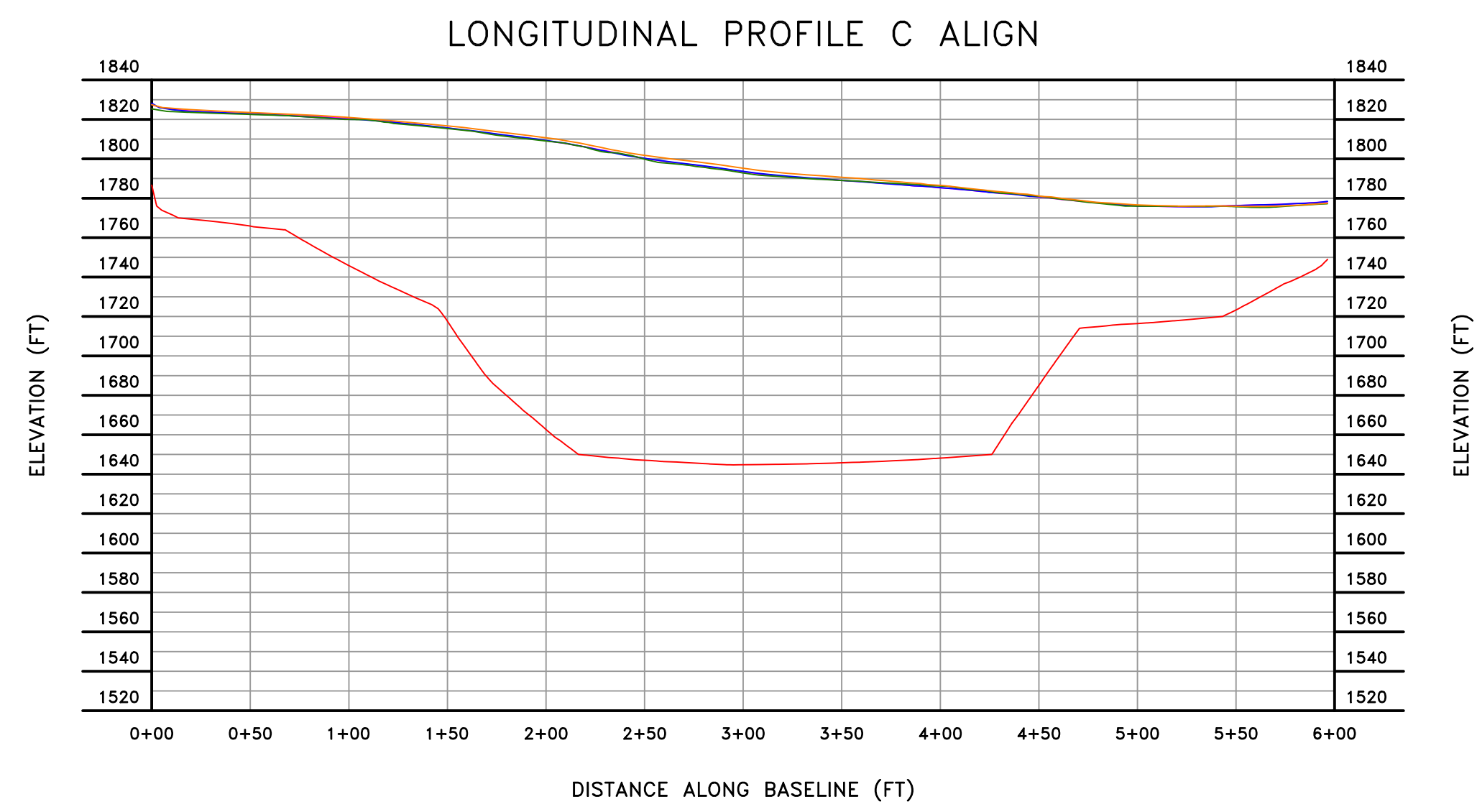
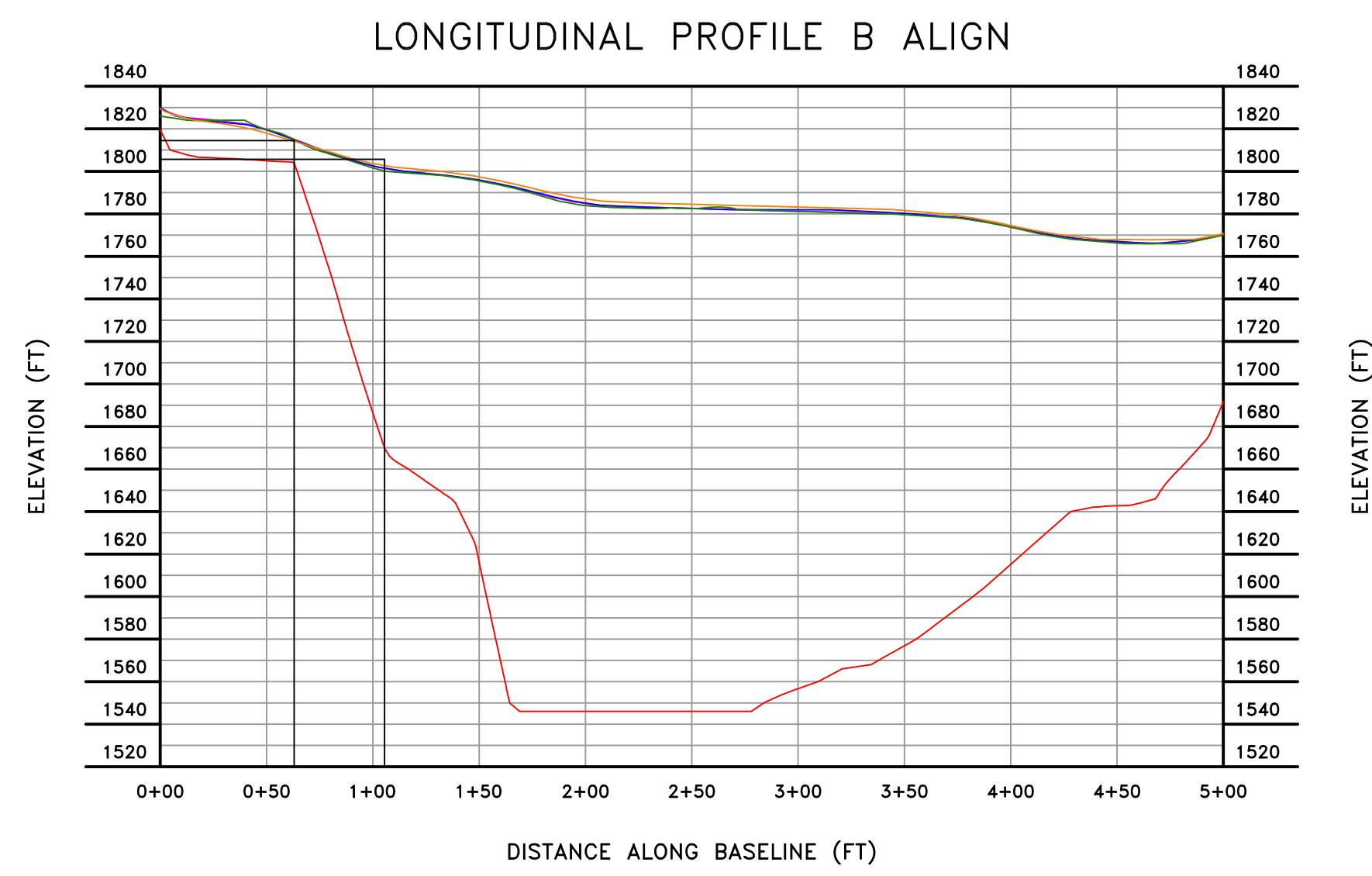
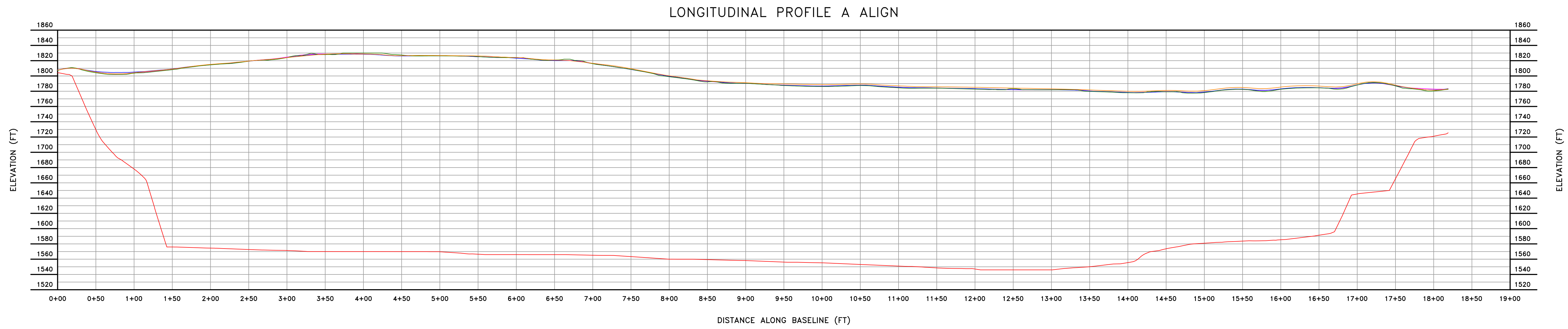
CLIENT: CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
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 APP. BY: C.J.W.

CADD FILE: SURF COMP
 DATE: 4/1/2026
 SCALE:

DRAWING NO. 7 8



LEGEND	
—	BOTTOM LINER ELEVATION
—	MARCH 2025 TOPO
—	DECEMBER 2025 TOPO
—	FEBRUARY 2026 TOPO
—	MARCH 2026 TOPO

DATE					
REVISION					
NO.	1	2	3	4	5
SHEET TITLE	PROFILES				
PROJECT TITLE	MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588				
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PROD. NO. 22/08.05 DATE: 4/1/2026					
CADD FILE: SURF COMP					
DATE: 4/1/2026					
SCALE:					
DRAWING NO.	8				

Appendix F

LFG Dewatering Pump Stroke Counter Data Analysis

Stroke Counter Data Analysis

During the monthly liquid depth measurement event and during LFG monitoring, SCS collected stroke counter data from the pumps installed in the GCCS extraction wells. These stroke counts were collected from 20 wells from March 2, 2026, to April 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	3/2/2026	4/1/2026	# of strokes between measurements	Estimated liquid removed (gallons)
EW36A			-	0
EW49	132855	150805	17,950	5,385
EW50	1715890	1721944	6,054	1,816
EW52	1336917	1435455	98,538	29,561
EW53			-	0
EW55	73387	73387	-	0
EW59	3898954	3976220	77,266	23,180
EW60	399779	425533	25,754	7,726
EW61	282039	309071	27,032	8,110
EW62	232955	251485	18,530	5,559
EW65	201244	236643	35,399	10,620
EW66	357507	721621	364,114	109,234
EW67			-	0
EW68	2677418	2694300	16,882	5,065
EW76			-	0
EW78	397365	437854	40,489	12,147
EW82			-	0
EW85	383500	390806	7,309	2,192
EW87	340749	340749	-	0
EW88	470804	483881	13,077	3,923
EW89	835522	835522	-	0
EW93	288752	289405	653	196
EW94	1946997	1951024	4,027	1,208
EW98	3062075	3190963	128,888	38,666
TP-4	27696	27696	-	0
Total Estimated Liquid Removal				264,588