January 2026
Monthly Compliance Report

Solid Waste Permit No. 588
Bristol Integrated Solid Waste Management Facility
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SCS ENGINEERS

02218208.05-44 | **February 10, 2025**

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Table of Contents

Table of Contents

Figures

Tables

Table of Contents

Section Page

Appendices

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 January 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 January 6, 2026; January 13, 2026; January 19, 2026; and January 28, 2026. These weekly surface emissions monitoring (SEM) events were performed in accordance with Item 1.i in Appendix A of the Consent Decree between the City and VDEQ. SCS also performs quarterly SEM at the landfill in accordance with regulatory requirements.

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

Table 1. Summary of January Surface Emissions Monitoring

Description	January 6, 2026	January 13, 2026	January 19, 2026	January 28, 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 January, there were no locations where a methane concentration above the regulatory threshold was recorded. To address a previous

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

- In response to a previous pipe penetration exceedance recorded at EW-52, vacuum was increased. Monitoring of this well during a follow-up event did not result in an exceedance.

1.1.2 Monitoring of Leachate Collection Components

SCS Field Services (SCS-FS) visited the Bristol Landfill on January 13, 2026, and performed monitoring of the leachate, witness zone, northern cleanouts, and gradient control clean-outs at the southern end of the landfill. The results of that monitoring are included in Table 2.

Table 2. Leachate Cleanout Pipe Monitoring Results

Description	ID#	Record Date	CH4 (% by Vol)	CO2 (% by Vol)	O2 (% by Vol)	Balance Gas (% by Vol)	Initial Temp (°F)	Adj Temp (°F)	Initial Static Pressure (in H2O)	Adj Static Pressure (in H2O)	System Pressure (in H2O)
Southern Cleanouts Gradient West	LC01	1/13/2026 2:45:18 PM	29.6	37.6	0.0	32.8	60.2	60.3	-14.68	-13.76	-16.41
Southern Cleanouts Gradient East	LC02	1/13/2026 2:48:14 PM	25.3	41.7	0.0	33.1	51.8	51.6	-14.20	-14.20	-15.07
Southern Cleanouts Leachate Center	LC03	1/13/2026 3:10:27 PM	6.5	6.3	17.5	69.8	49.7	49.8	-9.46	-9.46	-14.79
Southern Cleanouts Witness East	LC04	1/13/2026 3:07:39 PM	0.2	0.9	20.7	78.2	49.9	49.9	-7.82	-7.82	-14.53
Southern Cleanouts Leachate West	LC05	1/13/2026 2:50:55 PM	20.5	39.7	0.0	39.8	59.8	59.8	-14.21	-14.20	-14.38
Southern Cleanouts Gradient Center West	LC06	1/13/2026 2:53:56 PM	9.3	8.2	16.6	65.9	50.9	50.8	-14.88	-14.87	-15.13
Southern Cleanouts Leachate East	LC08	1/13/2026 3:04:48 PM	24.1	38.6	0.0	37.4	56.6	56.6	-14.21	-14.34	-14.55
Southern Cleanouts Gradient Center East	LC09	1/13/2026 2:57:02 PM	27.6	33.0	2.2	37.2	51.1	51.0	-15.00	-14.95	-15.43
Southern Cleanouts Leachate West	LC10	1/13/2026 3:01:51 PM	0.0	0.1	20.9	79.0	50.3	50.3	-0.38	-0.37	-9.19
Northern Cleanouts Leachate East	NC01	1/13/2026 3:25:37 PM	2.7	3.1	18.6	75.6	49.8	49.8	-0.69	-0.69	-0.93
Northern Cleanouts Leachate Center	NC02	1/13/2026 3:28:46 PM	1.8	2.0	19.4	76.8	49.1	49.1	-0.70	-0.69	-0.93
Northern Cleanouts Leachate West	NC03	1/13/2026 3:36:26 PM	1.2	1.0	20.0	77.8	50.0	50.1	-0.71	-0.71	-0.93
Northern Cleanouts Witness East	NC04	1/13/2026 3:44:30 PM	0.0	0.0	21.0	79.0	48.2	48.3	-4.00	-4.02	-0.93
Northern Cleanouts Witness Center	NC05	1/13/2026 3:40:58 PM	0.0	0.0	20.9	79.0	47.7	47.5	-4.09	-4.08	-0.93
Northern Cleanouts Witness West	NC06	1/13/2026 3:59:01 PM	0.0	0.0	20.8	79.2	46.6	46.7	-3.96	-3.97	-0.88
Northern Cleanouts Gradient East	NC07	1/13/2026 3:48:15 PM	0.0	0.0	21.0	79.0	47.2	47.2	-14.16	-14.20	-0.93
Northern Cleanouts Gradient Center East	NC08	1/13/2026 3:53:23 PM	0.0	0.0	20.8	79.2	46.6	46.7	-14.20	-14.20	-0.89
Northern Cleanouts Gradient Center West	NC09	1/13/2026 3:56:14 PM	0.0	0.0	20.8	79.2	45.7	45.7	-14.13	-14.07	-0.89
Northern Cleanouts Gradient West	NC10	1/13/2026 3:33:21 PM	0.0	0.1	20.9	79.0	49.4	49.4	-0.72	-0.72	-0.93

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 January 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 January 2026.

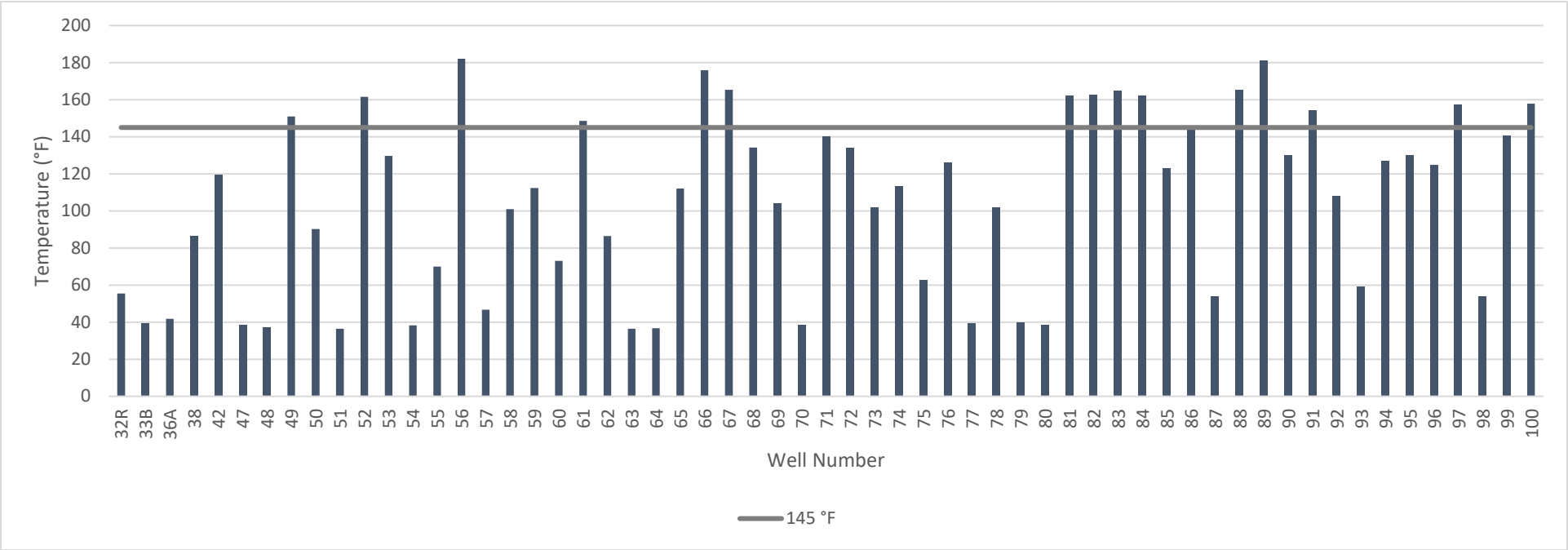
1.3.1 Automated Wellhead Temperature Measurements

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

- The average temperature in January was above the regulatory threshold of 145°F at 15 wells (see **Figure 1**).
- No negative temperature values were recorded this month following repairs to sensor communications in December 2025.

- In January, several wells showed repeated hourly temperature readings—sometimes 40-300 times—mainly overnight during extreme cold, with values changing by morning.
- The highest average temperature was 182.0°F at EW-56. While temperatures have been high at this well, they have been stable for 6 months. EW-89, which has been stable at the highest average temperature in recent months, was the second highest average temperature at 181.1°F.
- Two wells, EW-32R and EW-51, experienced temperature sensor failures in January due to weather. Both began to read 0°F on January 26, but resumed normal function before the end of the month.

Figure 1. Monthly Average Automated Wellhead Temperatures[1]



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

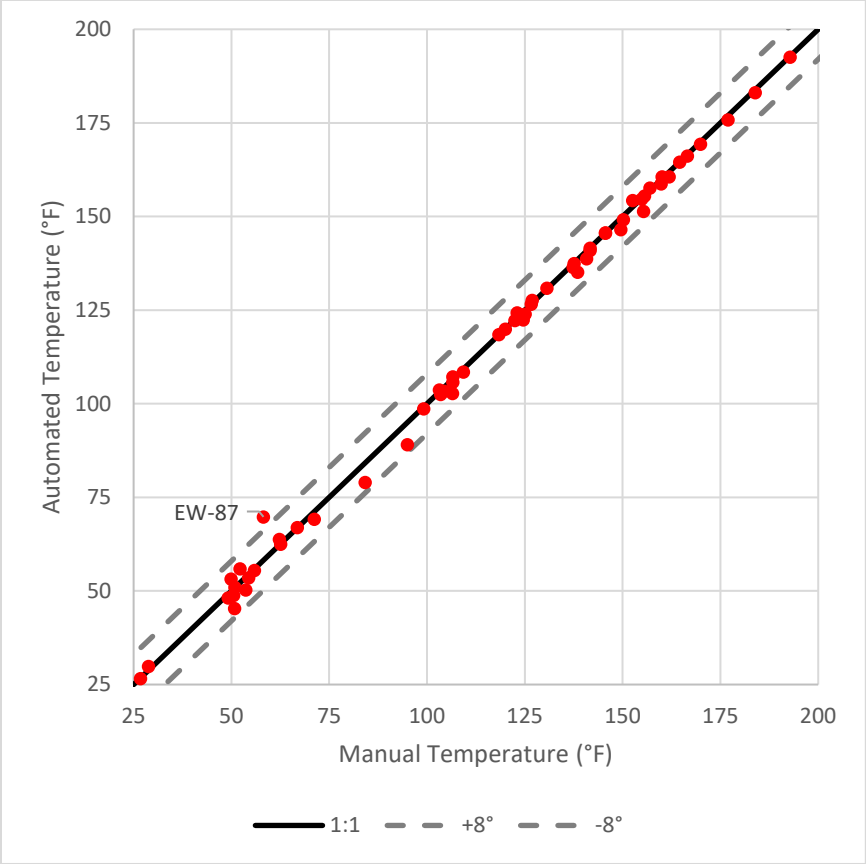
1.3.2 Comparison with Manual Temperature Measurements

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

Temperatures outside the ±8°F deviation threshold were observed at one well during this reporting period: EW-87.

At EW-87, the recorded automated temperature was higher than the manual temperature. Low gas flow is a potential cause of higher automated temperature than manual temperature, but gas flow was not recorded during the measurement of EW-87. The temperature difference at EW-87 was close to the threshold, with a difference of 11.6°F.

Figure 2. Automated vs. Manual Temperature Measurements



1.3.3 Monthly Regulatory Wellhead Temperature Measurements

Routine monthly temperature monitoring was conducted on January 12 and January 21, 2026 to comply with 40 CFR 60.36f(a)(5). No temperature exceedances were recorded during this monitoring period.

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. No samples were required since the sampling on November 13, 2025, which was reported in the November 2025 Monthly Compliance Report for the SWP No. 588 Landfill.

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 January. A summary of system averages during the month is shown in **Table 3**.

Table 3. Average SOMS Gas Composition

Record Dates	Average CH_4 [%]	Average CO_2 [%]	Average O_2 [%]	Average Bal Gas [%]
1/7/2026	2.4	3.9	18.1	75.7
1/13/2026	3.0	4.8	17.8	74.5

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.

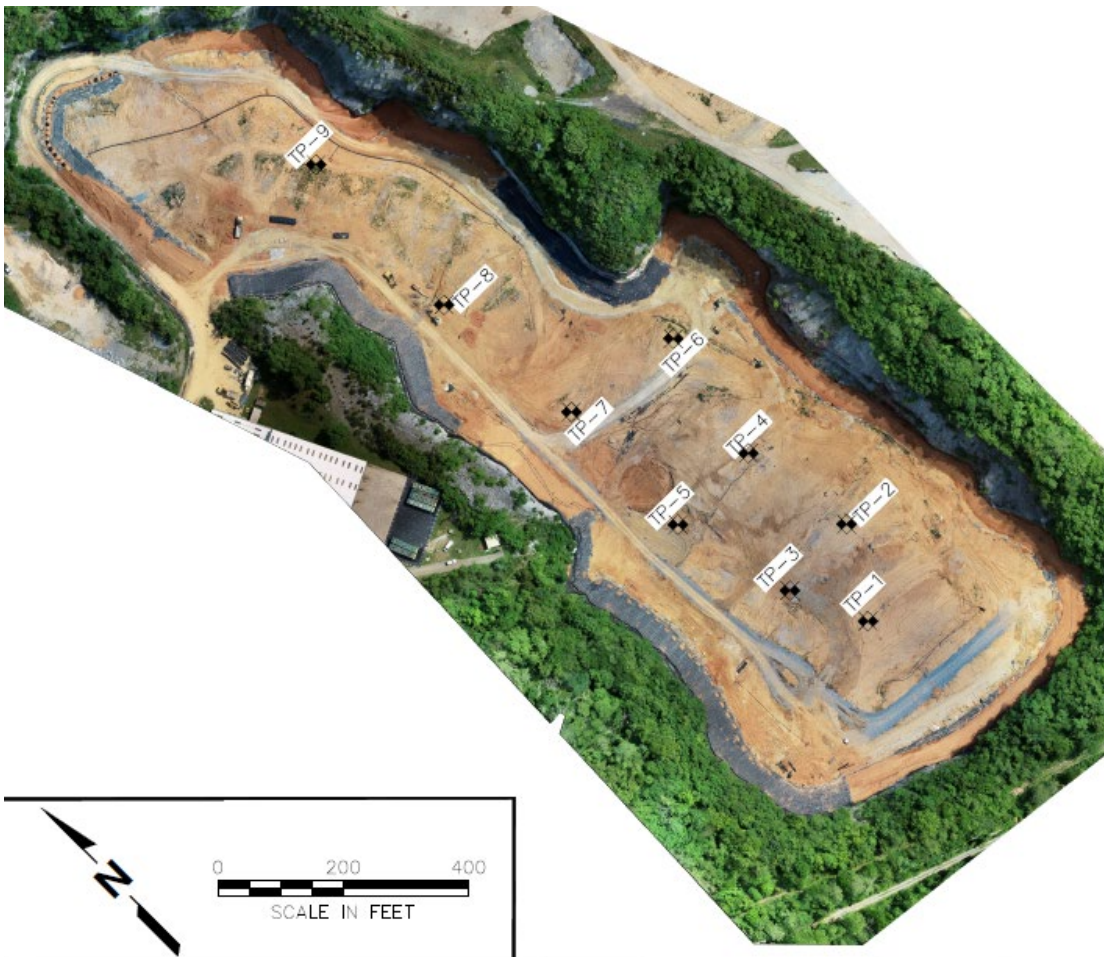
3.0 WASTE TEMPERATURE MONITORING

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 3**.

Figure 3. 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 January 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 January are shown in **Appendix B**. The average temperatures recorded for March 2023, March 2024, March 2025, December 2025, and January 2026 are shown in **Figures 4 through 8** on the following pages.

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

3.1.1 Operational Challenges

Multiple thermocouples in TP-2 and TP-3 started to fault in late 2024/early 2025. SCS coordinated with the City in March to pull the string of thermocouples from TP-2 and TP-3 but were unable to remove the strings in either probe due to suspected pinching of the casings. TP-7 has been malfunctioning and offline since December 4, 2025. SCS-FS relocated equipment that had been part of TP-2 to TP-7 in January, but the sensors still did not function. TP-2, TP-3, and TP-7 have been abandoned. The City is in the process of hiring a contractor to install 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 4-8**. 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 4. TP-1 Average Temperatures for the Months of March 2023, March 2024, March 2025, December 2025, and January 2026

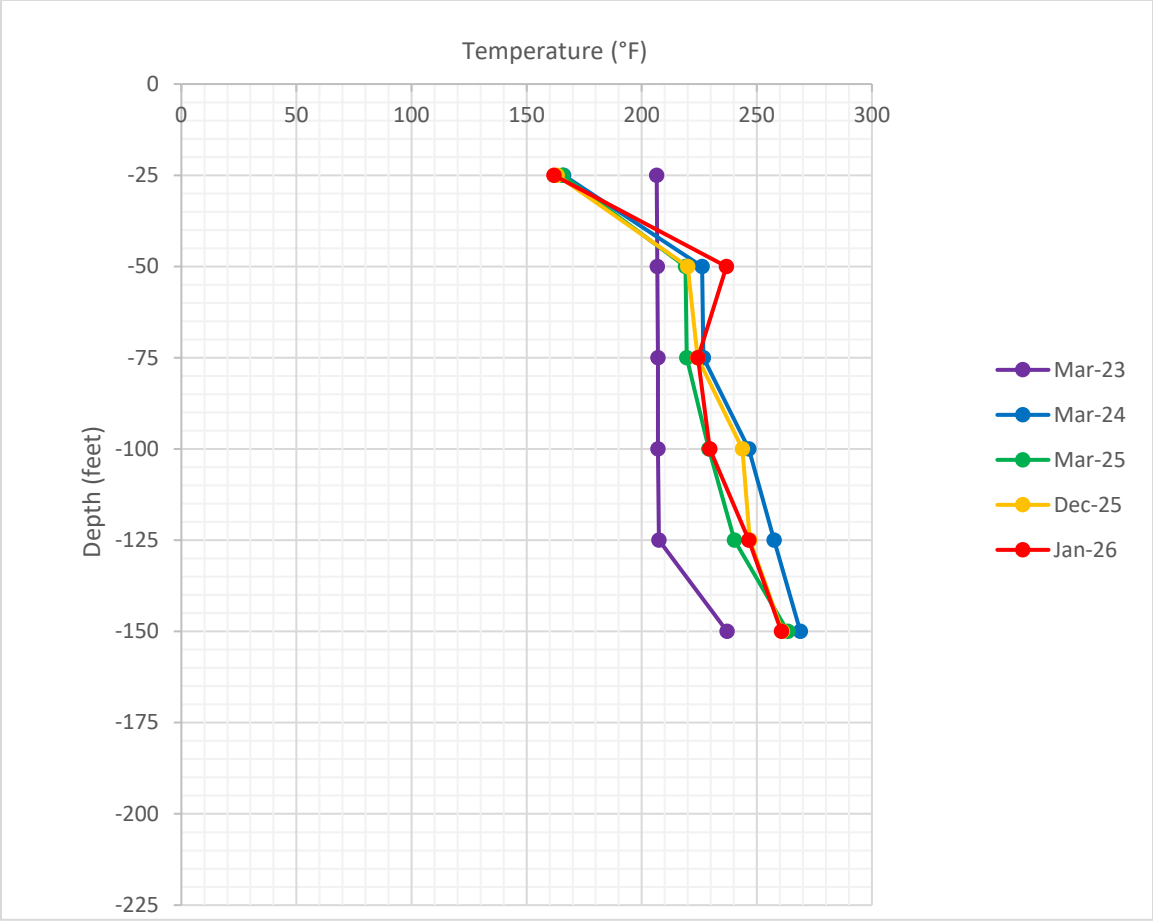


Figure 5. TP-5 Average Temperatures for the Months of March 2023, April 2024, March 2025, December 2025, and January 2026

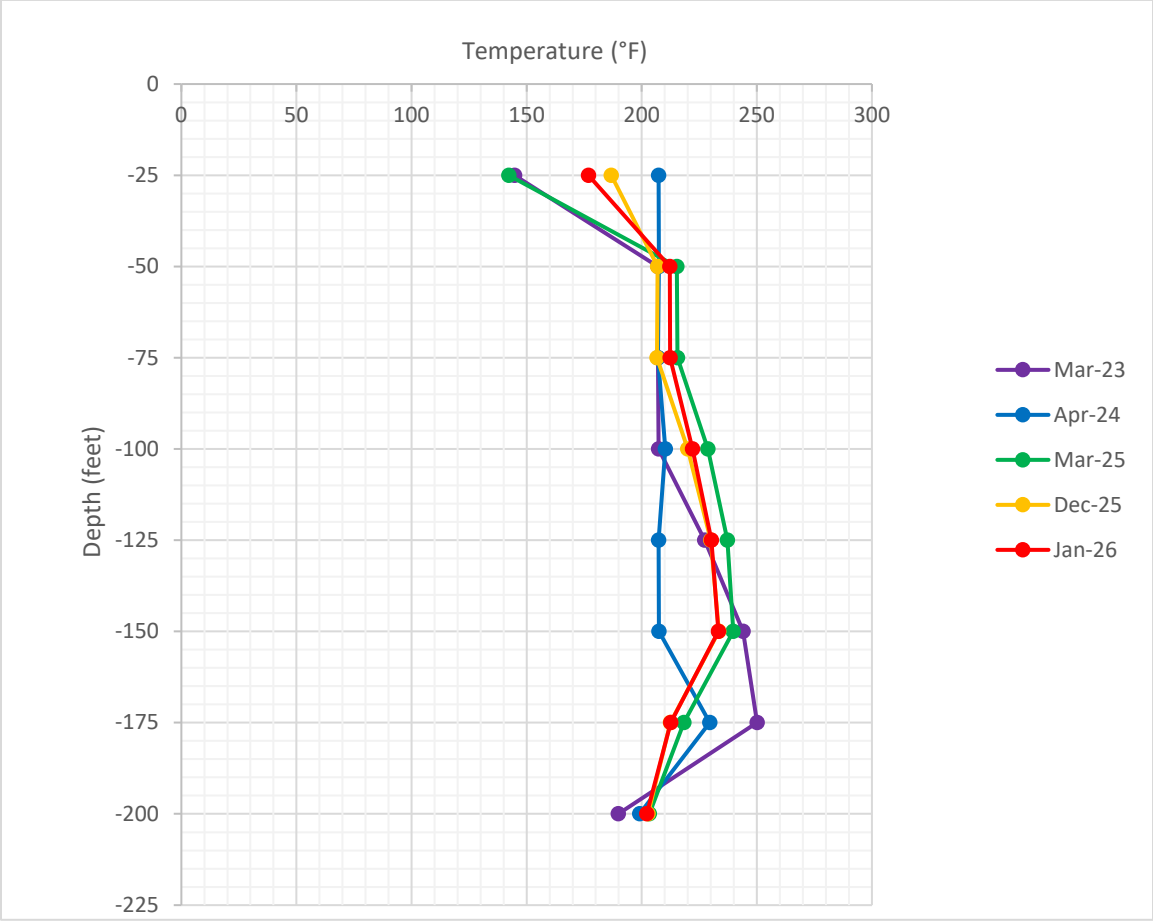


Figure 6. TP-6 Average Temperatures for the Months of March 2023, March 2024, March 2025, December 2025, and January 2026

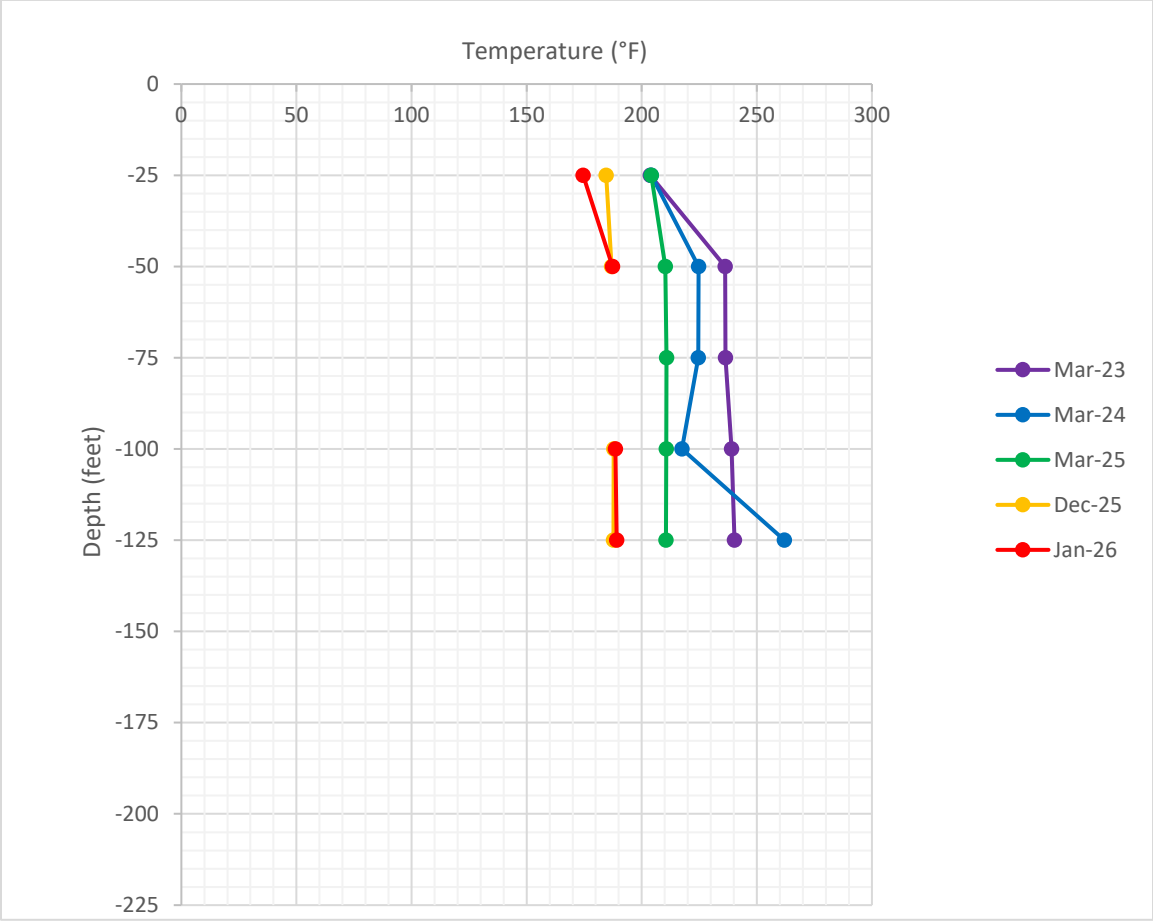


Figure 7. TP-8 Average Temperatures for the Months of March 2023, March 2024, March 2025, December 2025, and January 2026

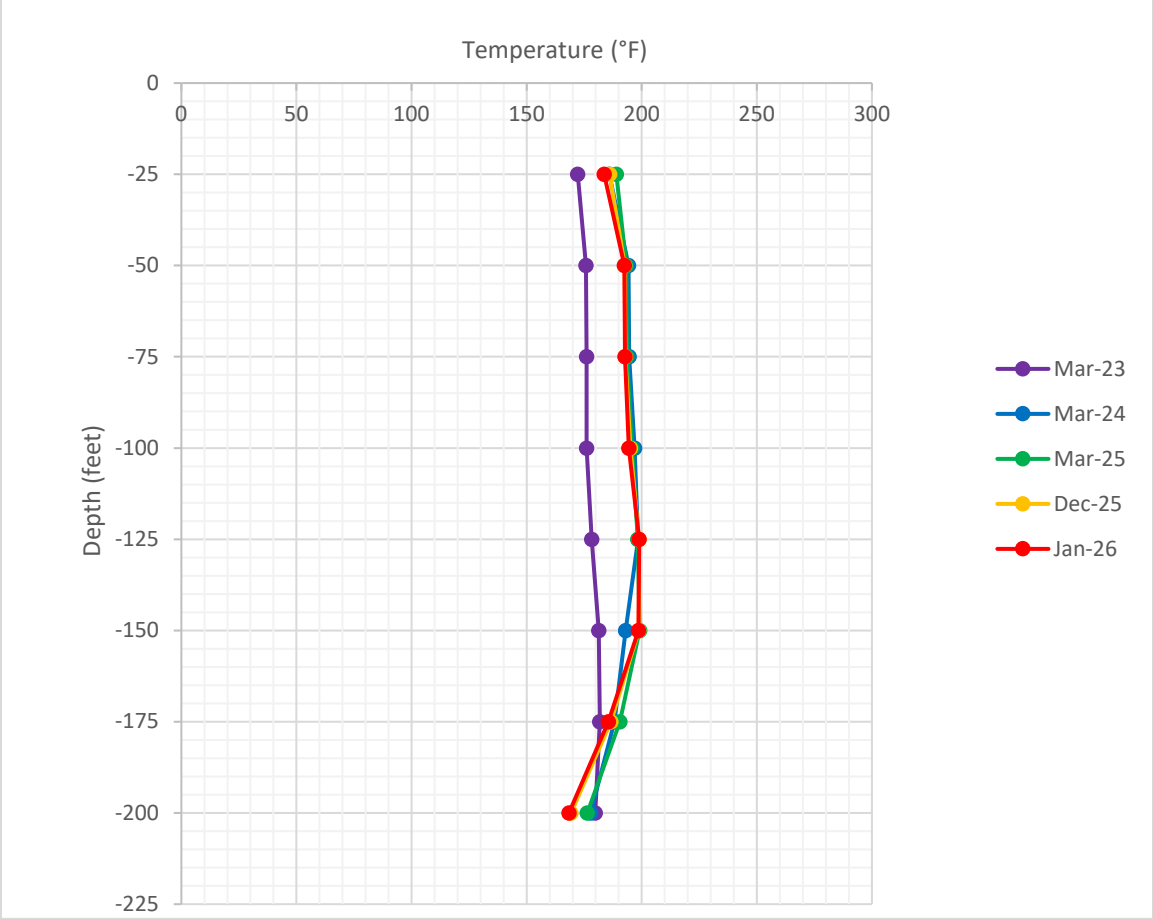
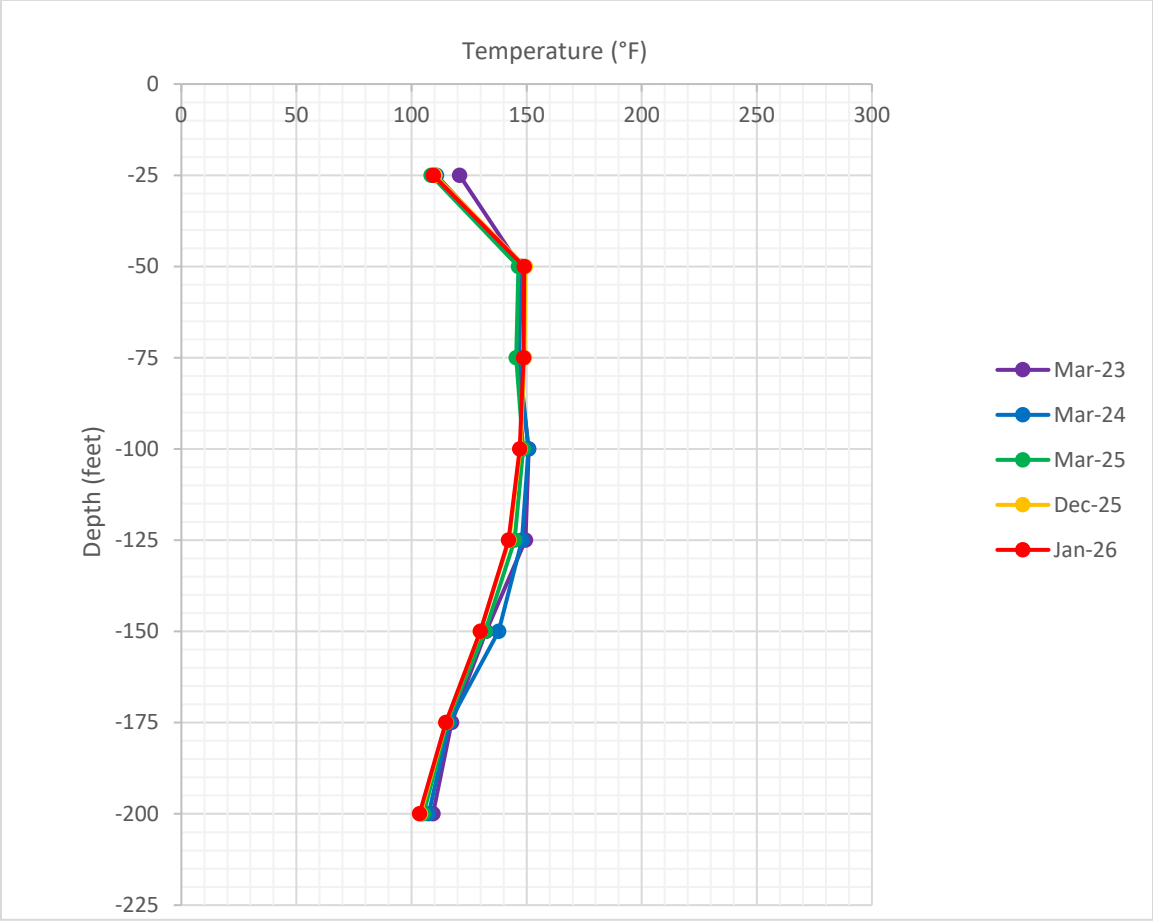


Figure 8. TP-9 Average Temperatures for the Months of March 2023, March 2024, March 2025, December 2025, and January 2026



4.0 LEACHATE EXTRACTION AND MONITORING

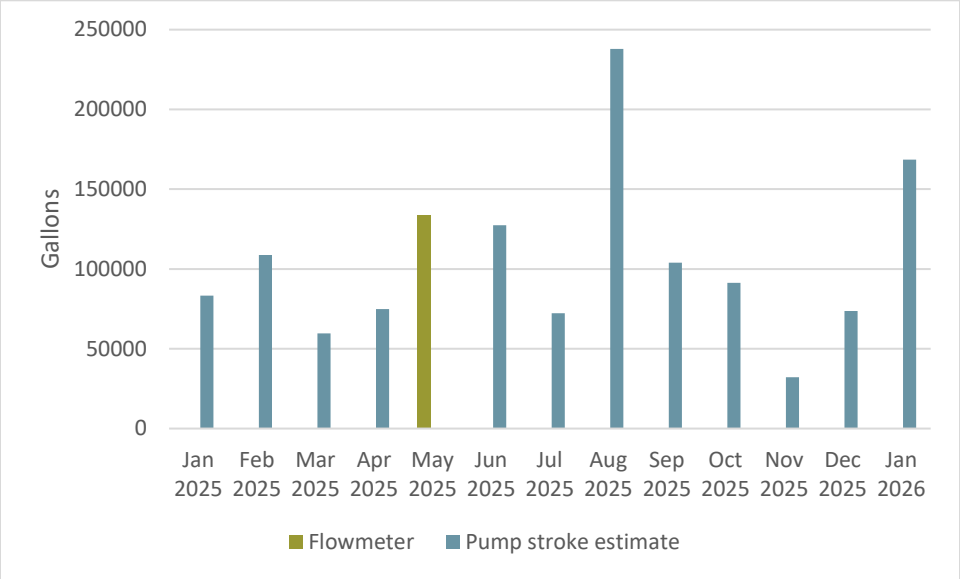
The City is continuously taking steps to maintain and improve the extraction of leachate from the waste mass and collect analytical data on leachate characteristics. The following sections detail steps taken to achieve these goals.

4.1 DEWATERING PUMP OPERATIONS AND MAINTENANCE

4.1.1 Total LFG Liquids Removal

Figure 9 illustrates monthly landfill gas liquids removal over the past year. The volume was estimated from stroke counter data for January 2025 through April 2025, and June 2025 through January 2026 (blue bars in **Figure 9**). 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 237,800 gallons per month and has averaged 117,965 gallons per month.

Figure 9. 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 is working with the Harnden Group to replace the blocked forcemain piping as part of the expansion project. Jetting of the clogged leachate lines is planned for March.

Freezing temperatures and precipitation have impacted the operations of landfill gas liquids removal infrastructure. In some cases operations and maintenance staff have been pumping wastewater into tanks that are manually hauled out of the landfill to the sanitary sewer to facilitate dewatering operations.

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 January 2026.

Pump Maintenance Activities

- The pumps were pulled and swapped, and tri-tubing was replaced at EW-52, EW-59, EW-60, EW-61, EW-62, EW-66, EW-68, and EW-85.
- The pump was pulled and swapped in EW-49.
- The stuck pumps in EW-53 and EW-76 were removed with an excavator.
- Discharge hoses were replaced at EW-59, EW-61, and EW-68.
- Ranger (cellular transmitter) maintenance occurred at EW-60.
- A leaking forcemain valve at EW-51 was tightened.
- The check valve and a leaking air line were replaced at EW-66.
- Leaking valves were tightened and replaced at EW-69 and EW-89.
- The airline was replaced at EW-52.
- General cleaning and maintenance were performed.

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 pumps with heavy equipment and replace them with new QED pumps in February, weather permitting.
- SCS-FS intends to replace the Blackhawk pump with a QED in EW-36A, which has been scheduled for February.
- 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 pumps in EW-55 and EW-68 are inactive due to excessive pressure buildup in the forcemain line. The LFG construction project currently underway includes modifications to the piping system to alleviate pressure buildup in the forcemain.

- 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, no additional pumps are being deployed to 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. The pump became stuck about 30 feet down in the well, and camera equipment showed an apparent collapse in the well about 31.5 feet down. 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. This results in SCS-FS dedicating substantial amounts of time to relieving air pressure on the system. As discussed in Section 4.1.1, sections of the forcemain with this solids build-up are being replaced in the ongoing LFG system construction project.

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 was not conducted in January. Sampling and analysis of landfill gas liquids will be conducted at a later date during the first quarter of 2026.

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 January 13, 2026. Aerial imagery collected on January 13, 2026, is depicted in **Figure 10**. The topographic data collected is shown on Sheet 4 in **Appendix E**.

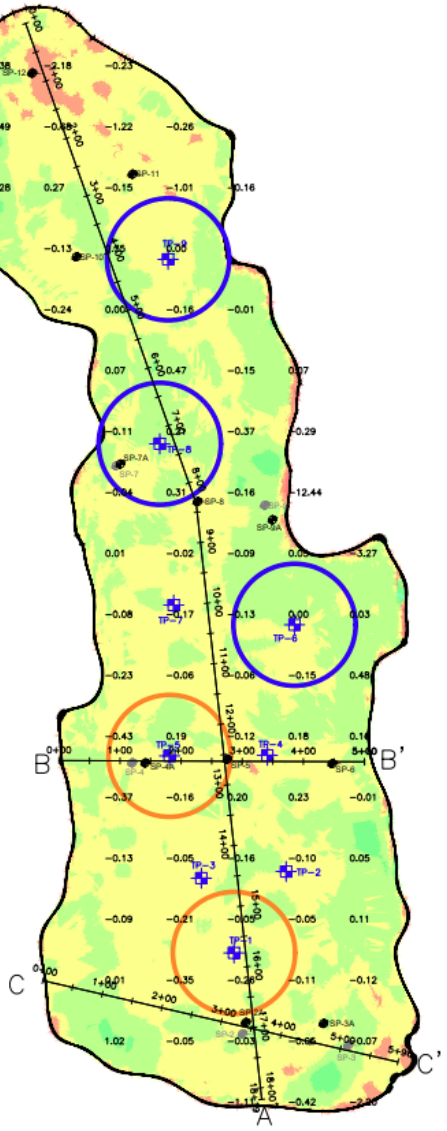
Figure 10. Aerial Photo of the SWP No. 588 Landfill

The topography within the landfill footprint was compared to topographic data collected by SCS using photogrammetric methods on December 11, 2025. A drawing depicting the December 11, 2025, topography is included as Sheet 3 in **Appendix E.**

Based on a comparison of the topographic data collected on those two dates, the data shows a fill of 2,100 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 5,600 cubic yards. Cut volumes are typically attributed to settlement. This resulted in a net decrease in the volume within the waste footprint of 3,400 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in **Figure 11.** 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 11. 1-Month Elevation Change Map



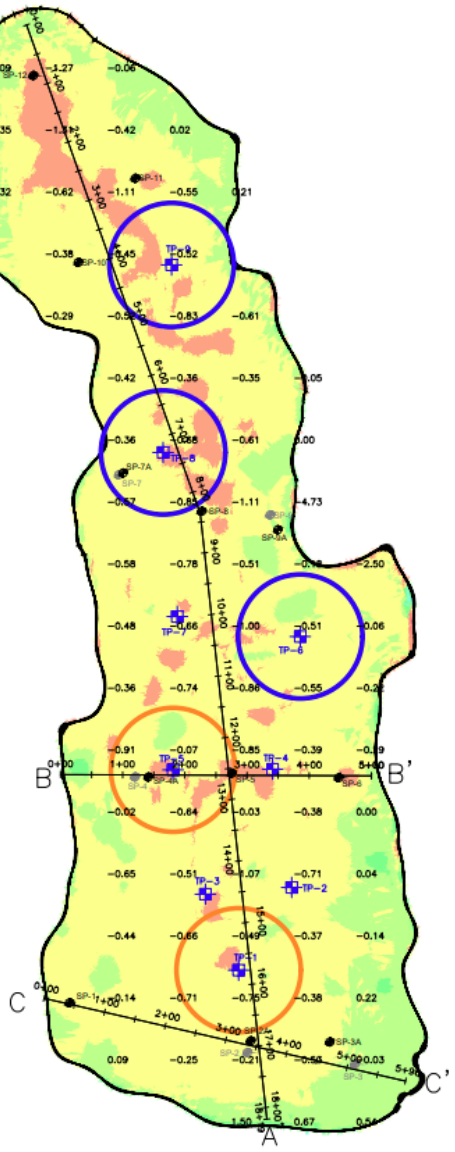
The locations of in-waste temperature monitoring probes are also shown on **Figure 11, Figure 12,** and **Figure 13**. The circles around the probes in each of these figures are indicative of the average borehole temperature. The circles shown are offset from the probes for clarity only and do not necessarily indicate temperatures measured at locations away from the probe. Probes with a blue circle around them typically have an average temperature less than 200°F across the full depth of the probe. Probes with an orange circle around them typically have an average temperature greater than 200°F and less than 250°F across the full depth of the probe. Probes with no circle around them represent no temperature readings for this month due to sensor malfunctions. There were no probes measuring average temperatures greater than 250°F during the month of January 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 0.1 ft.

SCS also compared the topographic data collected in January to the topographic data collected on October 15, 2025. Based on a comparison of the topographic data collected on those two dates, settlement occurred that reduced the volume of waste in the landfill by approximately 13,000 cubic yards. During that same time period calculations indicate approximately 1,400 cubic yards of fill were placed on the landfill, for a net decrease in waste volume of 11,600 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in **Figure 12**. 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 12. 3-Month Elevation Change Map

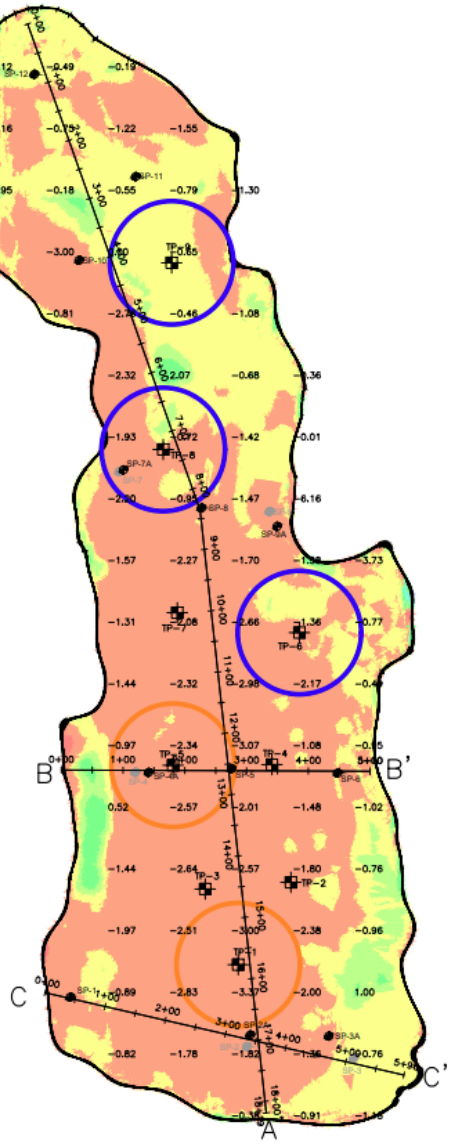


Based on the area of the landfill and the net volume change, the average elevation decrease was approximately 0.4 feet.

SCS also compared the topographic data collected in January 2026 to the drone topographic data collected on January 14, 2025. Based on a comparison of the topographic data collected on those two dates, settlement occurred that reduced the volume of waste in the landfill by approximately 42,400 cubic yards. During that same time period approximately 900 cubic yards of construction-related fill were placed on the landfill. This resulted in a net volume decrease of approximately 41,500 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in **Figure 13.** 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 13. 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.

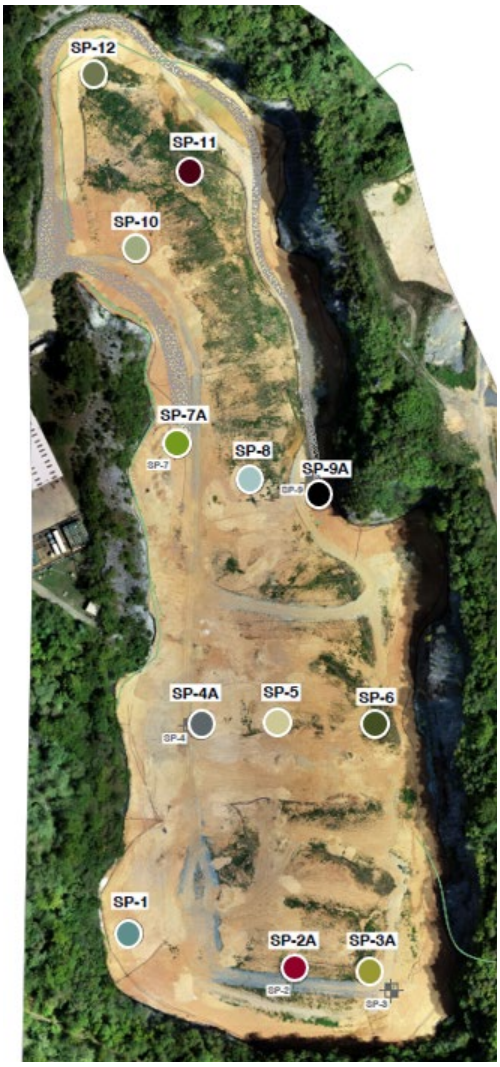
Based on the landfill area and the net volume change, the average elevation decrease was approximately 1.4 feet.

SCS will collect topographic data covering the landfill surface again in February 2026 using photogrammetric methods via UAV. This data will be compared to the data collected in February 2025, November 2025, and January 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 14** 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 14. 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 4**.

Table 4. Elevation and Strain Data at Settlement Plate Locations

Settlement Plate	Northing	Easting	Elevation on January 15, 2026 (ft)	Elevation Change Since December 3, 2025 (ft)	Strain[2] Since December 3, 2025	Elevation Change Since Installation (ft)
SP-1	3,397,887.6	10,412,081.1	1,828.2	-0.2	-0.3%	-6.2
SP-2A	3,397,823.5	10,412,370.6	1,791.3	-0.5	-0.3%	-4.4
SP-3A	3,397,820.2	10,412,498.0	1,778.5	-0.3	-0.3%	-1.7
SP-4A	3,398,247.0	10,412,207.8	1,801.3	-0.3	-0.2%	-3.8
SP-5	3,398,255.8	10,412,339.8	1,786.8	-0.3	-0.1%	-14.0
SP-6	3,398,248.8	10,412,509.9	1,772.3	-0.3	-0.2%	-5.4
SP-7A	3,398,731.3	10,412,158.4	1,821.5	-0.2	-0.2%	-1.9
SP-8	3,398,678.0	10,412,290.9	1,798.8	-0.4	-0.2%	-8.6
SP-9A	3,398,644.1	10,412,416.0	1,787.8	-0.3	-0.3%	-1.0
SP-10	3,399,079.6	10,412,095.5	1,835.5	-0.3	-0.1%	-4.0
SP-11	3,399,216.4	10,412,183.8	1,814.0	-0.3	-0.1%	-2.3
SP-12	3,399,381.7	10,412,019.6	1,809.3	-0.3	-0.3%	-1.3

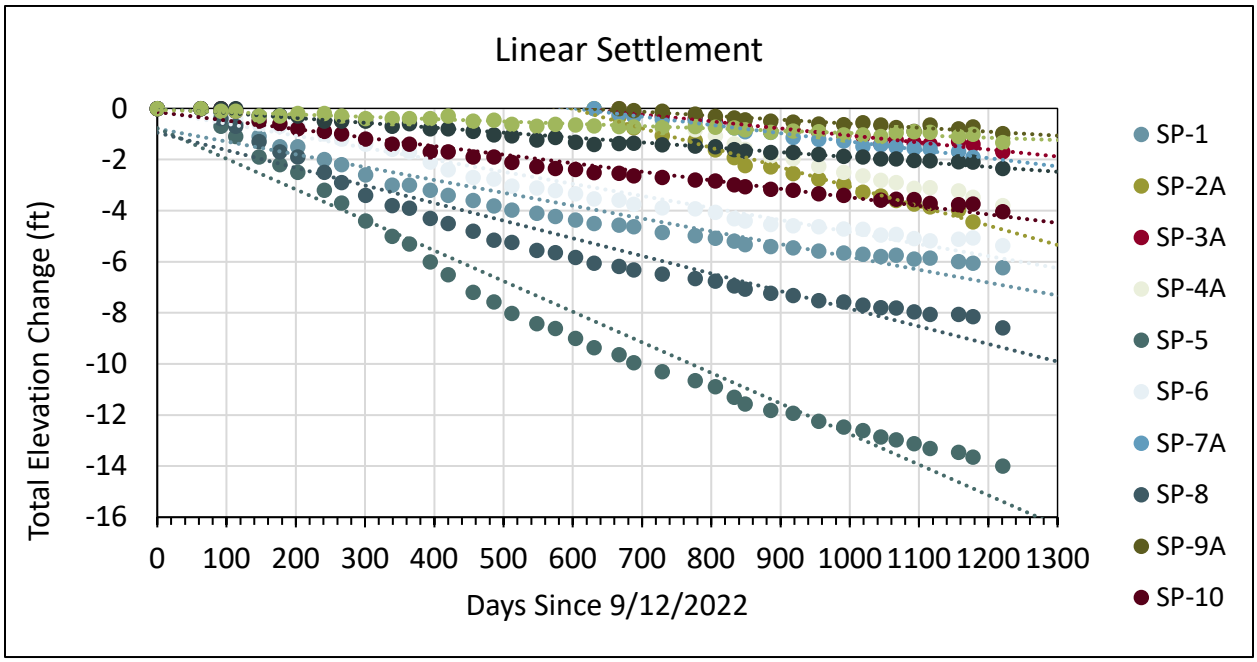
Prior to April 2024, the City's in-house surveyor read the settlement plate elevations. Starting April 2024 through June 2025, the settlement plate elevations were measured by FEI Civil Engineers and Land Surveyors. As of July 2025, the settlement plate elevations are measured by Miller Land Surveying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

Settlement Plates 1, 2A, 3, 9, and 12 demonstrated the largest strain due to settlement than at other locations. Settlement Plates 1, 2A, and 3 are at the southern end of the landfill. This area is near the location of the gas wells and temperature probes exhibiting higher temperatures. These higher strain values are typical of elevated temperature landfill conditions.

The strains at the other settlement plates were lower during this monthly measurement period compared to Settlement Plates 1, 2A, 3, 9, and 12. **Figure 15** shows the changes in elevation of select settlement plates over time. The data in **Figure 15** 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 15. Elevation Change of Select Settlement Plates Over Time



The settlement plates will be surveyed again during February 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 January 2026, those actions include:

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

- Updates at the Quarry Landfill this month included routine maintenance on the landfill gas system and well heads. Lateral piping in the gas extraction system was straightened due to shifting that occurred after experiencing winter temperature fluctuations. Affected areas that were disturbed by the lateral piping work were smoothed and regraded. Crews also removed and replaced three leachate extraction pumps and cleaned and rebuilt reserve leachate pumps.

- The U.S. Department of Health and Human Services Agency for Toxic Substances and Disease Registry (ATSDR) held a public meeting in Bristol on January 21 related to its report that was released in December on air monitoring results in and around the Bristol Landfill. City officials and a representative from McGuireWoods were on hand to observe and assess citizens' concerns.

- On January 16, the City of Bristol Virginia and the Virginia Department of Environmental Quality (VDEQ) amended for a second time the Consent Decree entered into on March 23, 2023. The amended Consent Decree decreases the frequency of certain reports over time, eliminating reporting requirements under the Consent Decree for landfill 221, and requires an in-person meeting with VDEQ every January to assess the status of the requirements made by the Consent Decree. Secondly, the Amendment continues to require the installation of a geomembrane to cover the quarry landfill. However, the Amendment drops the requirement that the geomembrane be an EVOH and instead permits the city, its experts, and VDEQ to assess and determine the type of geomembrane to install at the appropriate time.

- **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 January 4, 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.

    - We still continue to receive a number of emails per month via the website community feedback form but they have all been SPAM solicitations seeking to sell products and/or services for the past few months.

Appendix A

Surface Emissions Monitoring Summary

Quarterly SEM

SCS performed the Fourth Quarter 2025 surface emissions monitoring event on November 26, 2025. The results of the Quarterly SEM were summarized in the November 2025 Compliance Report for the SWP No. 588 Landfill. A report outlining the results and exceedance locations will be included in the Semi-Annual report to be submitted to VDEQ prior to March 1, 2026.

The First Quarter 2026 SEM Event is scheduled to be completed by March 31, 2026.

Weekly SEM

In addition to the standard regulatory quarterly surface emissions monitoring, the monitoring in January 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 January monitoring events on January 14, 2026; January 21, 2026; January 28, 2025; and, February 4, 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.

January 14, 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 – January 6, 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 January 6, 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 re-tests.

On November 17, 2025, the City submitted an Alternate Remedy Request for corrective actions for exceedances at seven specific locations. Details regarding the specific proposed corrective actions are outlined in the letter request.

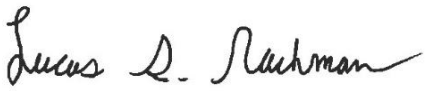
A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	1/6/26 Event	1/6/26 Event Result	Comments
EW-52	9/5/25	N/A	Passed	Alternate Remedy Requested – Undergoing Corrective Actions
EW-33B	12/8/25	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)

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

Sincerely,



William J. Fabrie
Project Professional
SCS Engineers

Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WJF

cc: Randall Eads, City of Bristol
Jonathan Hayes, City of Bristol
Laura Socia, City of Bristol

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - JANUARY 6, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
1	2.2 PPM	OK			Start Serpentine Route
2	179.0 PPM	OK			
3	11.0 PPM	OK			
4	2.9 PPM	OK			
5	13.2 PPM	OK			
6	3.2 PPM	OK			
7	3.8 PPM	OK			
8	3.1 PPM	OK			
9	3.3 PPM	OK			
10	3.3 PPM	OK			
11	4.1 PPM	OK			
12	3.6 PPM	OK			
13	2.9 PPM	OK			
14	2.6 PPM	OK			
15	3.0 PPM	OK			
16	2.8 PPM	OK			
17	2.2 PPM	OK			
18	2.3 PPM	OK			
19	2.2 PPM	OK			
20	2.3 PPM	OK			
21	2.9 PPM	OK			
22	2.4 PPM	OK			
23	2.7 PPM	OK			
24	2.1 PPM	OK			
25	2.3 PPM	OK			
26	6.6 PPM	OK			
27	10.4 PPM	OK			
28	2.7 PPM	OK			
29	11.4 PPM	OK			
30	2.1 PPM	OK			
31	2.3 PPM	OK			
32	2.7 PPM	OK			
33	8.5 PPM	OK			
34	8.4 PPM	OK			
35	27.8 PPM	OK			
36	18.3 PPM	OK			
37	320.0 PPM	OK			
38	230.0 PPM	OK			
39	39.9 PPM	OK			
40	35.1 PPM	OK			
41	13.0 PPM	OK			
42	7.4 PPM	OK			
43	8.5 PPM	OK			
44	5.5 PPM	OK			
45	3.1 PPM	OK			
46	2.7 PPM	OK			
47	4.3 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - JANUARY 6, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
48	3.6 PPM	OK			
49	2.3 PPM	OK			
50	9.9 PPM	OK			
51	7.2 PPM	OK			
52	5.4 PPM	OK			
53	4.3 PPM	OK			
54	13.1 PPM	OK			
55	111.0 PPM	OK			
56	13.2 PPM	OK			
57	13.9 PPM	OK			
58	2.6 PPM	OK			
59	1.9 PPM	OK			
60	16.5 PPM	OK			
61	2.5 PPM	OK			
62	2.2 PPM	OK			
63	2.3 PPM	OK			
64	2.2 PPM	OK			
65	4.4 PPM	OK			
66	23.2 PPM	OK			
67	8.1 PPM	OK			
68	13.5 PPM	OK			
69	4.8 PPM	OK			
70	2.6 PPM	OK			
71	3.1 PPM	OK			
72	2.6 PPM	OK			
73	2.5 PPM	OK			
74	2.8 PPM	OK			
75	18.4 PPM	OK			
76	4.4 PPM	OK			
77	5.3 PPM	OK			
78	9.1 PPM	OK			
79	14.1 PPM	OK			
80	43.0 PPM	OK			
81	54.9 PPM	OK			
82	9.7 PPM	OK			
83	4.3 PPM	OK			
84	2.8 PPM	OK			
85	3.9 PPM	OK			
86	3.2 PPM	OK			
87	2.8 PPM	OK			
88	2.5 PPM	OK			
89	4.2 PPM	OK			
90	3.5 PPM	OK			
91	2.0 PPM	OK			
92	8.4 PPM	OK			
93	5.2 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - JANUARY 6, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
94	3.5 PPM	OK			
95	3.4 PPM	OK			
96	2.0 PPM	OK			
97	3.0 PPM	OK			
98	2.2 PPM	OK			
99	9.6 PPM	OK			
100	2.3 PPM	OK			End Serpentine Route
101	204.0 PPM	OK			EW-52
102	2.1 PPM	OK			TP-4
103	136.0 PPM	OK			EW-60
104	2.7 PPM	OK			EW-48
105	2.4 PPM	OK			TP-6
106	1.9 PPM	OK			EW-61
107	2.1 PPM	OK			EW-50
108	3.8 PPM	OK			EW-67
109	2.2 PPM	OK			EW-47
110	1.9 PPM	OK			EW-54
111	2.0 PPM	OK			EW-55
112	2.9 PPM	OK			EW-92
113	1.9 PPM	OK			EW-91
114	2.7 PPM	OK			EW-96
115	2.1 PPM	OK			EW-66
116	2.1 PPM	OK			EW-58
117	2.1 PPM	OK			EW-57
118	7.8 PPM	OK			TP-1
119	2.3 PPM	OK			EW-59
120	39.4 PPM	OK			EW-100
121	22.2 PPM	OK			EW-56
122	2.0 PPM	OK			EW-97
123	2.0 PPM	OK			EW-53
124	22.4 PPM	OK			EW-51
125	3.3 PPM	OK			TP-5
126	4.0 PPM	OK			EW-68
127	2.0 PPM	OK			EW-87
128	1.8 PPM	OK			EW-38
129	1.7 PPM	OK			TP-7
130	2.1 PPM	OK			EW-49
131	2.0 PPM	OK			EW-83
132	1.7 PPM	OK			EW-65
133	1.7 PPM	OK			EW-81
134	3.8 PPM	OK			TP-8
135	314.0 PPM	OK			EW-64
136	172.0 PPM	OK			EW-63
137	2.0 PPM	OK			EW-42
138	2.4 PPM	OK			EW-76
139	2.0 PPM	OK			TP-9

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - JANUARY 6, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
140	3.0 PPM	OK			EW-62
141	2.2 PPM	OK			EW-74
142	3.8 PPM	OK			EW-32R
143	2.2 PPM	OK			EW-69
144	4.9 PPM	OK			EW-71
145	2.4 PPM	OK			EW-72
146	1.8 PPM	OK			EW-70
147	1.5 PPM	OK			EW-73
148	1.9 PPM	OK			EW-78
149	1.5 PPM	OK			EW-82
150	2.0 PPM	OK			EW-36A
151	1.4 PPM	OK			EW-85
152	2.8 PPM	OK			EW-88
153	1.7 PPM	OK			EW-89
154	7.8 PPM	OK			EW-93
155	2.9 PPM	OK			EW-94
156	3.4 PPM	OK			EW-98
157	2.1 PPM	OK			EW-99
158	6.6 PPM	OK			EW-95
159	2.4 PPM	OK			EW-90
160	80.0 PPM	OK			EW-86
161	1.8 PPM	OK			EW-84
162	3.3 PPM	OK			EW-80
163	2.2 PPM	OK			EW-79
164	4.2 PPM	OK			EW-77
165	262.0 PPM	OK			EW-33B
166	31.6 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, 54°F Wind: 12 mph SE

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

1/6/2026	10:57	ZERO	0.3	PPM
1/6/2026	10:59	SPAN	501.0	PPM

Background Reading:

1/6/2026	11:01	Upwind	2.7	PPM
1/6/2026	11:06	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 JANUARY 6, 2026

0 80 160 240
SCALE IN FEET

N

LEGEND

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

NO.	REVISION	DATE

SHEET TITLE
SEM ROUTE WITH BUFFER AREA

PROJECT TITLE
SURFACE EMISSIONS MONITORING
SOLID WASTE PERMIT #588

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

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

PROJ. NO. 02218208.04
DSN. BY:
CHK. BY:
QA/QC BY:
APP. BY:

FILE: 02218208.04
DATE: 1/6/26
SCALE: AS SHOWN
DRAWING NO. 1 of 1

January 21, 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 – January 13, 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 January 13, 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 re-tests.

On November 17, 2025, the City submitted an Alternate Remedy Request for corrective actions for exceedances at seven specific locations. Details regarding the specific proposed corrective actions are outlined in the letter request.

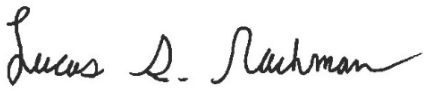
A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	1/13/26 Event	1/13/26 Event Result	Comments
EW-52	9/5/25	N/A	Passed	Alternate Remedy Requested – Undergoing Corrective Actions
EW-33B	12/8/25	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)

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

Sincerely,



William J. Fabrie
Project Professional
SCS Engineers

Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WJF

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

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - JANUARY 13, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
1	66.4 PPM	OK			Start Serpentine Route
2	5.9 PPM	OK			
3	5.4 PPM	OK			
4	3.4 PPM	OK			
5	3.4 PPM	OK			
6	2.2 PPM	OK			
7	1.9 PPM	OK			
8	2.1 PPM	OK			
9	1.8 PPM	OK			
10	1.7 PPM	OK			
11	1.6 PPM	OK			
12	1.7 PPM	OK			
13	1.8 PPM	OK			
14	2.1 PPM	OK			
15	2.3 PPM	OK			
16	2.2 PPM	OK			
17	2.4 PPM	OK			
18	2.0 PPM	OK			
19	1.8 PPM	OK			
20	1.5 PPM	OK			
21	1.5 PPM	OK			
22	1.6 PPM	OK			
23	1.7 PPM	OK			
24	1.7 PPM	OK			
25	1.9 PPM	OK			
26	3.1 PPM	OK			
27	1.8 PPM	OK			
28	1.7 PPM	OK			
29	1.7 PPM	OK			
30	1.6 PPM	OK			
31	1.5 PPM	OK			
32	1.7 PPM	OK			
33	2.0 PPM	OK			
34	2.3 PPM	OK			
35	3.4 PPM	OK			
36	3.7 PPM	OK			
37	5.6 PPM	OK			
38	9.5 PPM	OK			
39	24.6 PPM	OK			
40	2.4 PPM	OK			
41	218.0 PPM	OK			
42	5.7 PPM	OK			
43	6.5 PPM	OK			
44	2.9 PPM	OK			
45	3.3 PPM	OK			
46	4.5 PPM	OK			
47	1.7 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - JANUARY 13, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
48	1.7 PPM	OK			
49	2.0 PPM	OK			
50	1.6 PPM	OK			
51	1.7 PPM	OK			
52	1.7 PPM	OK			
53	1.8 PPM	OK			
54	1.9 PPM	OK			
55	2.9 PPM	OK			
56	1.6 PPM	OK			
57	1.8 PPM	OK			
58	1.6 PPM	OK			
59	1.7 PPM	OK			
60	1.5 PPM	OK			
61	2.5 PPM	OK			
62	1.5 PPM	OK			
63	1.7 PPM	OK			
64	1.6 PPM	OK			
65	1.6 PPM	OK			
66	33.3 PPM	OK			
67	5.3 PPM	OK			
68	1.5 PPM	OK			
69	1.3 PPM	OK			
70	1.3 PPM	OK			
71	1.5 PPM	OK			
72	1.4 PPM	OK			
73	1.3 PPM	OK			
74	1.3 PPM	OK			
75	1.3 PPM	OK			
76	1.5 PPM	OK			
77	3.6 PPM	OK			
78	1.3 PPM	OK			
79	1.5 PPM	OK			
80	1.5 PPM	OK			
81	1.4 PPM	OK			
82	2.5 PPM	OK			
83	2.3 PPM	OK			
84	5.1 PPM	OK			
85	2.5 PPM	OK			
86	1.6 PPM	OK			
87	1.7 PPM	OK			
88	2.5 PPM	OK			
89	2.0 PPM	OK			
90	1.3 PPM	OK			
91	1.4 PPM	OK			
92	1.3 PPM	OK			
93	2.3 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - JANUARY 13, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
94	1.5 PPM	OK			
95	1.6 PPM	OK			
96	1.5 PPM	OK			
97	1.3 PPM	OK			
98	1.4 PPM	OK			
99	1.9 PPM	OK			
100	1.6 PPM	OK			End Serpentine Route
101	42.6 PPM	OK			EW-52
102	1.5 PPM	OK			TP-4
103	2.0 PPM	OK			EW-60
104	1.6 PPM	OK			EW-48
105	1.4 PPM	OK			TP-6
106	2.8 PPM	OK			EW-61
107	1.4 PPM	OK			EW-50
108	1.4 PPM	OK			EW-67
109	1.2 PPM	OK			EW-47
110	1.4 PPM	OK			EW-54
111	2.0 PPM	OK			EW-55
112	3.1 PPM	OK			EW-92
113	3.8 PPM	OK			EW-91
114	2.0 PPM	OK			EW-96
115	5.2 PPM	OK			EW-66
116	1.9 PPM	OK			EW-58
117	1.2 PPM	OK			EW-57
118	1.8 PPM	OK			TP-1
119	1.4 PPM	OK			EW-59
120	8.5 PPM	OK			EW-100
121	6.8 PPM	OK			EW-56
122	1.8 PPM	OK			EW-97
123	1.4 PPM	OK			EW-53
124	13.5 PPM	OK			EW-51
125	1.5 PPM	OK			TP-5
126	5.4 PPM	OK			EW-68
127	1.1 PPM	OK			EW-87
128	1.1 PPM	OK			EW-38
129	1.2 PPM	OK			TP-7
130	1.2 PPM	OK			EW-49
131	1.2 PPM	OK			EW-83
132	1.5 PPM	OK			EW-65
133	1.1 PPM	OK			EW-81
134	1.3 PPM	OK			TP-8
135	3.2 PPM	OK			EW-64
136	2.7 PPM	OK			EW-63
137	1.7 PPM	OK			EW-42
138	1.3 PPM	OK			EW-76
139	1.3 PPM	OK			TP-9

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - JANUARY 13, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
140	1.1 PPM	OK			EW-62
141	1.8 PPM	OK			EW-74
142	1.2 PPM	OK			EW-32R
143	1.1 PPM	OK			EW-69
144	1.1 PPM	OK			EW-71
145	1.8 PPM	OK			EW-72
146	1.1 PPM	OK			EW-70
147	1.2 PPM	OK			EW-73
148	2.0 PPM	OK			EW-78
149	1.2 PPM	OK			EW-82
150	1.2 PPM	OK			EW-36A
151	1.1 PPM	OK			EW-85
152	1.0 PPM	OK			EW-88
153	1.1 PPM	OK			EW-89
154	1.4 PPM	OK			EW-93
155	1.1 PPM	OK			EW-94
156	1.0 PPM	OK			EW-98
157	12.9 PPM	OK			EW-99
158	10.3 PPM	OK			EW-95
159	1.4 PPM	OK			EW-90
160	99.7 PPM	OK			EW-86
161	1.1 PPM	OK			EW-84
162	1.0 PPM	OK			EW-80
163	1.2 PPM	OK			EW-79
164	1.5 PPM	OK			EW-77
165	1.2 PPM	OK			EW-33B
166	11.9 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, 45°F Wind: 10 mph W

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

1/13/2026	11:06	ZERO	0.0	PPM
1/13/2026	11:08	SPAN	502.0	PPM

Background Reading:

1/13/2026	11:10	Upwind	2.3	PPM
1/13/2026	11:14	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 JANUARY 13, 2026

0 80 160 240
SCALE IN FEET

N

LEGEND

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

NO.	REVISION	DATE

SHEET TITLE
SEM ROUTE WITH BUFFER AREA

PROJECT TITLE
SURFACE EMISSIONS MONITORING
SOLID WASTE PERMIT #588

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

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

PROJ. NO. 02218208.04
DSN. BY:
CHK. BY:
QA/QC BY:
APP. BY:

FILE: 02218208.04
DATE: 1/13/26
SCALE: AS SHOWN
DRAWING NO. 1 of 1

January 28, 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 – January 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 January 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 re-tests.

On November 17, 2025, the City submitted an Alternate Remedy Request for corrective actions for exceedances at seven specific locations. Details regarding the specific proposed corrective actions are outlined in the letter request. As of monitoring conducted on January 19, 2026, these corrective actions have been successful at reducing methane concentrations below the regulatory threshold at all seven locations.

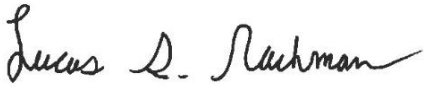
A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	1/19/26 Event	1/19/26 Event Result	Comments
EW-52	9/5/25	N/A	Passed	Alternate Remedy Requested – Corrective Actions have Resolved Exceedance
EW-33B	12/8/25	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)

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

Sincerely,



William J. Fabrie
Project Professional
SCS Engineers

Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WJF

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

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

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

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
1	1.9 PPM	OK			Start Serpentine Route
2	10.7 PPM	OK			
3	4.4 PPM	OK			
4	2.8 PPM	OK			
5	7.9 PPM	OK			
6	2.2 PPM	OK			
7	2.1 PPM	OK			
8	1.9 PPM	OK			
9	1.9 PPM	OK			
10	1.9 PPM	OK			
11	1.8 PPM	OK			
12	1.8 PPM	OK			
13	3.6 PPM	OK			
14	1.9 PPM	OK			
15	1.9 PPM	OK			
16	1.8 PPM	OK			
17	1.8 PPM	OK			
18	1.8 PPM	OK			
19	1.8 PPM	OK			
20	2.0 PPM	OK			
21	1.8 PPM	OK			
22	1.8 PPM	OK			
23	1.8 PPM	OK			
24	1.9 PPM	OK			
25	1.8 PPM	OK			
26	1.8 PPM	OK			
27	2.5 PPM	OK			
28	2.4 PPM	OK			
29	2.0 PPM	OK			
30	1.9 PPM	OK			
31	3.5 PPM	OK			
32	2.2 PPM	OK			
33	2.1 PPM	OK			
34	1.8 PPM	OK			
35	1.7 PPM	OK			
36	1.9 PPM	OK			
37	2.7 PPM	OK			
38	2.8 PPM	OK			
39	2.3 PPM	OK			
40	3.1 PPM	OK			
41	5.6 PPM	OK			
42	3.4 PPM	OK			
43	19.3 PPM	OK			
44	3.6 PPM	OK			
45	1.8 PPM	OK			
46	1.7 PPM	OK			
47	1.7 PPM	OK			

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

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
48	1.9 PPM	OK			
49	1.9 PPM	OK			
50	2.3 PPM	OK			
51	2.0 PPM	OK			
52	2.0 PPM	OK			
53	3.0 PPM	OK			
54	3.9 PPM	OK			
55	4.8 PPM	OK			
56	2.9 PPM	OK			
57	2.2 PPM	OK			
58	3.0 PPM	OK			
59	2.6 PPM	OK			
60	1.7 PPM	OK			
61	1.7 PPM	OK			
62	1.7 PPM	OK			
63	1.9 PPM	OK			
64	1.7 PPM	OK			
65	2.0 PPM	OK			
66	4.4 PPM	OK			
67	2.2 PPM	OK			
68	1.7 PPM	OK			
69	2.0 PPM	OK			
70	1.7 PPM	OK			
71	1.6 PPM	OK			
72	1.6 PPM	OK			
73	1.7 PPM	OK			
74	1.7 PPM	OK			
75	2.0 PPM	OK			
76	1.7 PPM	OK			
77	2.4 PPM	OK			
78	1.7 PPM	OK			
79	1.7 PPM	OK			
80	1.7 PPM	OK			
81	1.8 PPM	OK			
82	1.7 PPM	OK			
83	1.6 PPM	OK			
84	1.8 PPM	OK			
85	2.0 PPM	OK			
86	1.8 PPM	OK			
87	1.8 PPM	OK			
88	1.8 PPM	OK			
89	2.1 PPM	OK			
90	1.7 PPM	OK			
91	1.7 PPM	OK			
92	1.7 PPM	OK			
93	2.0 PPM	OK			

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

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
94	1.9 PPM	OK			
95	2.0 PPM	OK			
96	2.3 PPM	OK			
97	1.6 PPM	OK			
98	1.6 PPM	OK			
99	1.9 PPM	OK			
100	1.7 PPM	OK			End Serpentine Route
101	2.6 PPM	OK			EW-52
102	2.5 PPM	OK			TP-4
103	1.9 PPM	OK			EW-60
104	1.5 PPM	OK			EW-48
105	1.6 PPM	OK			TP-6
106	2.1 PPM	OK			EW-61
107	1.6 PPM	OK			EW-50
108	1.6 PPM	OK			EW-67
109	1.5 PPM	OK			EW-47
110	1.5 PPM	OK			EW-54
111	1.5 PPM	OK			EW-55
112	3.8 PPM	OK			EW-92
113	2.1 PPM	OK			EW-91
114	1.6 PPM	OK			EW-96
115	2.8 PPM	OK			EW-66
116	1.6 PPM	OK			EW-58
117	1.6 PPM	OK			EW-57
118	1.6 PPM	OK			TP-1
119	1.5 PPM	OK			EW-59
120	1.7 PPM	OK			EW-100
121	6.6 PPM	OK			EW-56
122	1.6 PPM	OK			EW-97
123	1.7 PPM	OK			EW-53
124	1.6 PPM	OK			EW-51
125	1.6 PPM	OK			TP-5
126	3.4 PPM	OK			EW-68
127	1.7 PPM	OK			EW-87
128	1.5 PPM	OK			EW-38
129	1.8 PPM	OK			TP-7
130	1.7 PPM	OK			EW-49
131	1.6 PPM	OK			EW-83
132	1.7 PPM	OK			EW-65
133	1.6 PPM	OK			EW-81
134	2.5 PPM	OK			TP-8
135	2.0 PPM	OK			EW-64
136	2.2 PPM	OK			EW-63
137	1.5 PPM	OK			EW-42
138	1.4 PPM	OK			EW-76
139	1.4 PPM	OK			TP-9

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

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
140	1.5 PPM	OK			EW-62
141	1.7 PPM	OK			EW-74
142	2.0 PPM	OK			EW-32R
143	1.6 PPM	OK			EW-69
144	1.4 PPM	OK			EW-71
145	1.4 PPM	OK			EW-72
146	1.3 PPM	OK			EW-70
147	1.5 PPM	OK			EW-73
148	1.7 PPM	OK			EW-78
149	2.4 PPM	OK			EW-82
150	1.5 PPM	OK			EW-36A
151	1.5 PPM	OK			EW-85
152	2.8 PPM	OK			EW-88
153	3.6 PPM	OK			EW-89
154	1.5 PPM	OK			EW-93
155	1.5 PPM	OK			EW-94
156	1.4 PPM	OK			EW-98
157	2.9 PPM	OK			EW-99
158	1.4 PPM	OK			EW-95
159	1.7 PPM	OK			EW-90
160	34.5 PPM	OK			EW-86
161	1.6 PPM	OK			EW-84
162	1.6 PPM	OK			EW-80
163	1.4 PPM	OK			EW-79
164	1.3 PPM	OK			EW-77
165	1.5 PPM	OK			EW-33B
166	13.5 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, 30°F Wind: 16 mph NW

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

1/19/2026	10:40	ZERO	0.1	PPM
1/19/2026	10:41	SPAN	502.0	PPM

Background Reading:

1/19/2026	10:43	Upwind	2.2	PPM
1/19/2026	10:52	Downwind	1.9	PPM

NOTES:

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

0 80 160 240
SCALE IN FEET

N

LEGEND

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

NO.	REVISION	DATE

SHEET TITLE
SEM ROUTE WITH BUFFER AREA

PROJECT TITLE
SURFACE EMISSIONS MONITORING
SOLID WASTE PERMIT #588

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

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

PROJ. NO. 02218208.04
DSN. BY:
CHK. BY:
QA/QC BY:
APP. BY:

FILE: 02218208.04
DATE: 1/19/26
SCALE: AS SHOWN
DRAWING NO. 1 of 1

February 4, 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 – January 28, 2026
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Ms. Blalock:

On behalf of the City of Bristol (City), SCS Engineers (SCS), is pleased to submit the results of the Weekly Surface Emissions Monitoring event performed at the Bristol Integrated Solid Waste Management Facility located in Bristol, Virginia on January 28, 2026. This Weekly Surface Emissions Monitoring (SEM) Event was performed in accordance with Appendix A.1.i of the Consent Decree between the Commonwealth of Virginia and the City of Bristol.

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

The monitoring route includes the entire waste footprint of Permit No. 588 Landfill. Sampling was conducted with 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 re-tests.

On February 3, 2025, the City submitted an Alternate Remedy Request for corrective actions for an exceedance at one specific location. Details regarding the specific proposed corrective action is outlined in the letter request.

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

Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	1/28/26 Event	1/28/26 Event Result	Comments
EW-33B	12/8/25	N/A	Passed	Alternate Remedy Requested – Corrective Actions have Resolved Exceedance

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

Sincerely,

Wylie Hicklin
Staff Professional
SCS Engineers

Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WRH

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

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

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

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
1	174.0 PPM	OK			Start Serpentine Route
2	2.6 PPM	OK			
3	2.4 PPM	OK			
4	17.8 PPM	OK			
5	2.1 PPM	OK			
6	2.0 PPM	OK			
7	2.0 PPM	OK			
8	2.1 PPM	OK			
9	1.9 PPM	OK			
10	1.9 PPM	OK			
11	2.8 PPM	OK			
12	2.2 PPM	OK			
13	2.0 PPM	OK			
14	1.9 PPM	OK			
15	1.8 PPM	OK			
16	2.0 PPM	OK			
17	1.9 PPM	OK			
18	2.0 PPM	OK			
19	2.2 PPM	OK			
20	2.0 PPM	OK			
21	2.0 PPM	OK			
22	2.3 PPM	OK			
23	2.1 PPM	OK			
24	2.0 PPM	OK			
25	2.0 PPM	OK			
26	1.9 PPM	OK			
27	1.9 PPM	OK			
28	20.5 PPM	OK			
29	4.6 PPM	OK			
30	17.4 PPM	OK			
31	6.1 PPM	OK			
32	4.1 PPM	OK			
33	2.4 PPM	OK			
34	1.9 PPM	OK			
35	2.1 PPM	OK			
36	1.9 PPM	OK			
37	2.0 PPM	OK			
38	2.0 PPM	OK			
39	2.2 PPM	OK			
40	2.5 PPM	OK			
41	11.7 PPM	OK			
42	2.3 PPM	OK			
43	13.8 PPM	OK			
44	2.4 PPM	OK			
45	2.4 PPM	OK			
46	2.0 PPM	OK			
47	3.1 PPM	OK			

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

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
48	2.3 PPM	OK			
49	3.1 PPM	OK			
50	2.9 PPM	OK			
51	2.0 PPM	OK			
52	2.1 PPM	OK			
53	1.9 PPM	OK			
54	2.0 PPM	OK			
55	3.3 PPM	OK			
56	2.2 PPM	OK			
57	3.1 PPM	OK			
58	2.2 PPM	OK			
59	5.1 PPM	OK			
60	2.3 PPM	OK			
61	2.2 PPM	OK			
62	1.7 PPM	OK			
63	3.7 PPM	OK			
64	8.0 PPM	OK			
65	2.7 PPM	OK			
66	1.8 PPM	OK			
67	1.7 PPM	OK			
68	1.8 PPM	OK			
69	1.7 PPM	OK			
70	1.8 PPM	OK			
71	2.7 PPM	OK			
72	3.2 PPM	OK			
73	2.1 PPM	OK			
74	3.5 PPM	OK			
75	2.7 PPM	OK			
76	1.8 PPM	OK			
77	1.7 PPM	OK			
78	1.9 PPM	OK			
79	2.0 PPM	OK			
80	1.9 PPM	OK			
81	1.9 PPM	OK			
82	2.1 PPM	OK			
83	1.9 PPM	OK			
84	1.9 PPM	OK			
85	1.9 PPM	OK			
86	2.2 PPM	OK			
87	2.2 PPM	OK			
88	1.9 PPM	OK			
89	2.1 PPM	OK			
90	2.1 PPM	OK			
91	1.9 PPM	OK			
92	1.9 PPM	OK			
93	2.0 PPM	OK			

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

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
94	1.8 PPM	OK			
95	1.8 PPM	OK			
96	1.9 PPM	OK			
97	2.0 PPM	OK			
98	1.9 PPM	OK			
99	1.9 PPM	OK			
100	1.8 PPM	OK			End Serpentine Route
101	2.6 PPM	OK			EW-52
102	2.0 PPM	OK			TP-4
103	1.8 PPM	OK			EW-60
104	1.8 PPM	OK			EW-48
105	2.0 PPM	OK			TP-6
106	1.9 PPM	OK			EW-61
107	2.6 PPM	OK			EW-50
108	2.1 PPM	OK			EW-67
109	2.2 PPM	OK			EW-47
110	1.9 PPM	OK			EW-54
111	2.2 PPM	OK			EW-55
112	1.8 PPM	OK			EW-92
113	2.7 PPM	OK			EW-91
114	2.2 PPM	OK			EW-96
115	2.2 PPM	OK			EW-66
116	2.1 PPM	OK			EW-58
117	2.0 PPM	OK			EW-57
118	1.9 PPM	OK			TP-1
119	1.8 PPM	OK			EW-59
120	3.8 PPM	OK			EW-100
121	2.0 PPM	OK			EW-56
122	2.0 PPM	OK			EW-97
123	1.8 PPM	OK			EW-53
124	3.8 PPM	OK			EW-51
125	1.9 PPM	OK			TP-5
126	8.5 PPM	OK			EW-68
127	2.0 PPM	OK			EW-87
128	2.0 PPM	OK			EW-38
129	1.8 PPM	OK			TP-7
130	2.1 PPM	OK			EW-49
131	2.0 PPM	OK			EW-83
132	1.8 PPM	OK			EW-65
133	2.1 PPM	OK			EW-81
134	3.4 PPM	OK			TP-8
135	2.9 PPM	OK			EW-64
136	2.8 PPM	OK			EW-63
137	3.8 PPM	OK			EW-42
138	3.8 PPM	OK			EW-76
139	1.8 PPM	OK			TP-9

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

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
140	1.6 PPM	OK			EW-62
141	2.2 PPM	OK			EW-74
142	1.6 PPM	OK			EW-32R
143	1.6 PPM	OK			EW-69
144	2.7 PPM	OK			EW-71
145	1.8 PPM	OK			EW-72
146	1.8 PPM	OK			EW-70
147	1.9 PPM	OK			EW-73
148	1.9 PPM	OK			EW-78
149	2.0 PPM	OK			EW-82
150	1.9 PPM	OK			EW-36A
151	3.1 PPM	OK			EW-85
152	1.7 PPM	OK			EW-88
153	2.2 PPM	OK			EW-89
154	1.7 PPM	OK			EW-93
155	6.7 PPM	OK			EW-94
156	1.7 PPM	OK			EW-98
157	2.1 PPM	OK			EW-99
158	2.0 PPM	OK			EW-95
159	2.0 PPM	OK			EW-90
160	2.3 PPM	OK			EW-86
161	2.8 PPM	OK			EW-84
162	30.6 PPM	OK			EW-80
163	2.4 PPM	OK			EW-79
164	1.7 PPM	OK			EW-77
165	1.6 PPM	OK			EW-33B
166	28.2 PPM	OK			EW-75

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

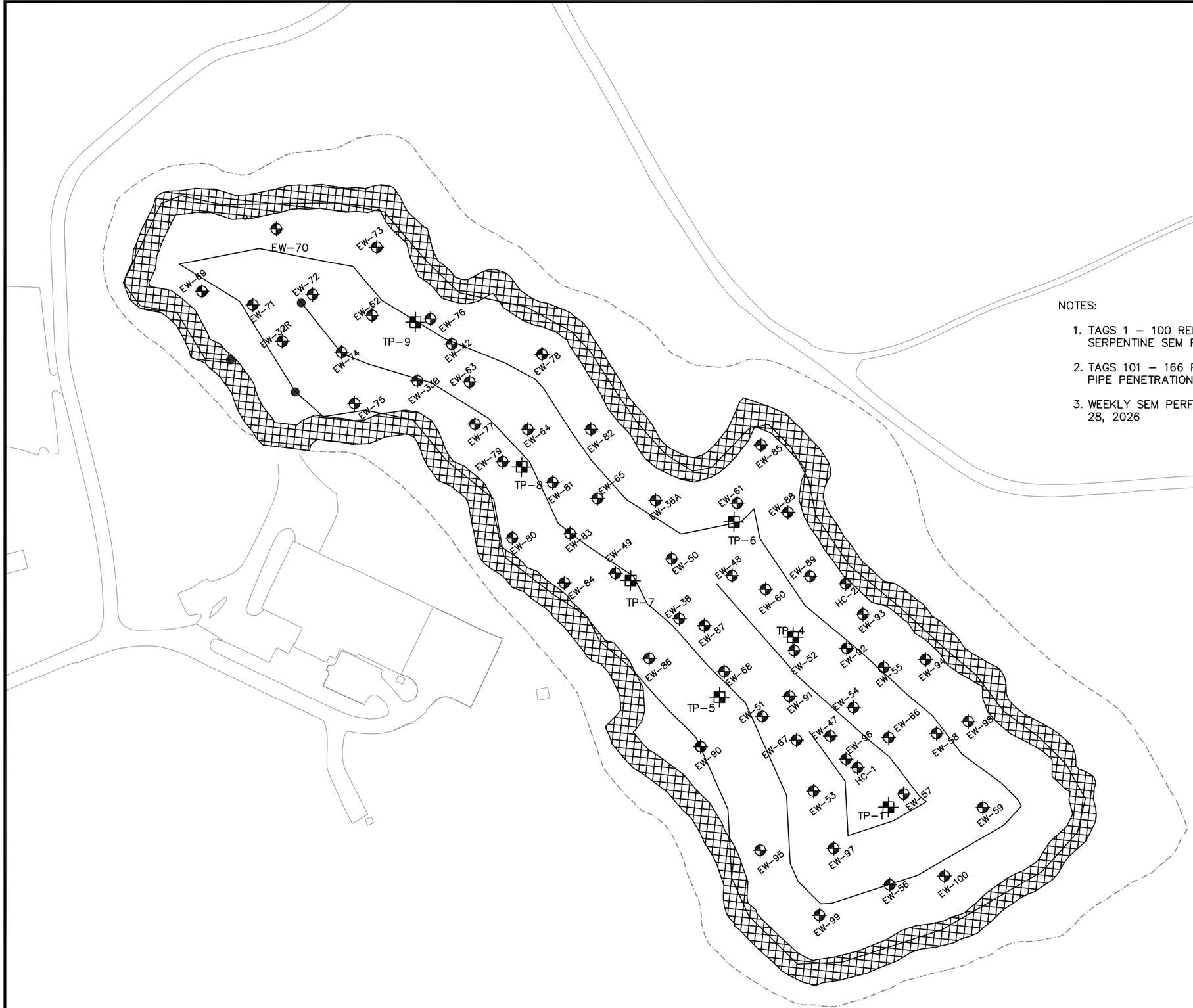
NOTES:
Points 1 through 100 represent serpentine SEM route.
Points 101 through 166 represent SEM at Pipe Penetrations
Weather Conditions: Overcast, 24°F Wind: 15 mph W

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

1/28/2026	10:35	ZERO	0.0	PPM
1/28/2026	10:36	SPAN	503.0	PPM

Background Reading:

1/28/2026	10:39	Upwind	2.2	PPM
1/28/2026	10:42	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 JANUARY 28, 2026

0 80 160 240
SCALE IN FEET

N

LEGEND

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

NO.	REVISION	DATE

SHEET TITLE
SEM ROUTE WITH BUFFER AREA

PROJECT TITLE
SURFACE EMISSIONS MONITORING
SOLID WASTE PERMIT #588

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

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

PROJ. NO. 02218208.04 | DSN. BY: | Q/A RVW BY: | APP. BY:
DSC. BY: | CHK. BY:

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

Appendix B

In-Waste Temperatures on Select Days in January

Appendix B Figures

Figure B - 1 Average Temperatures Recorded by TP-1 on January 7, 2026

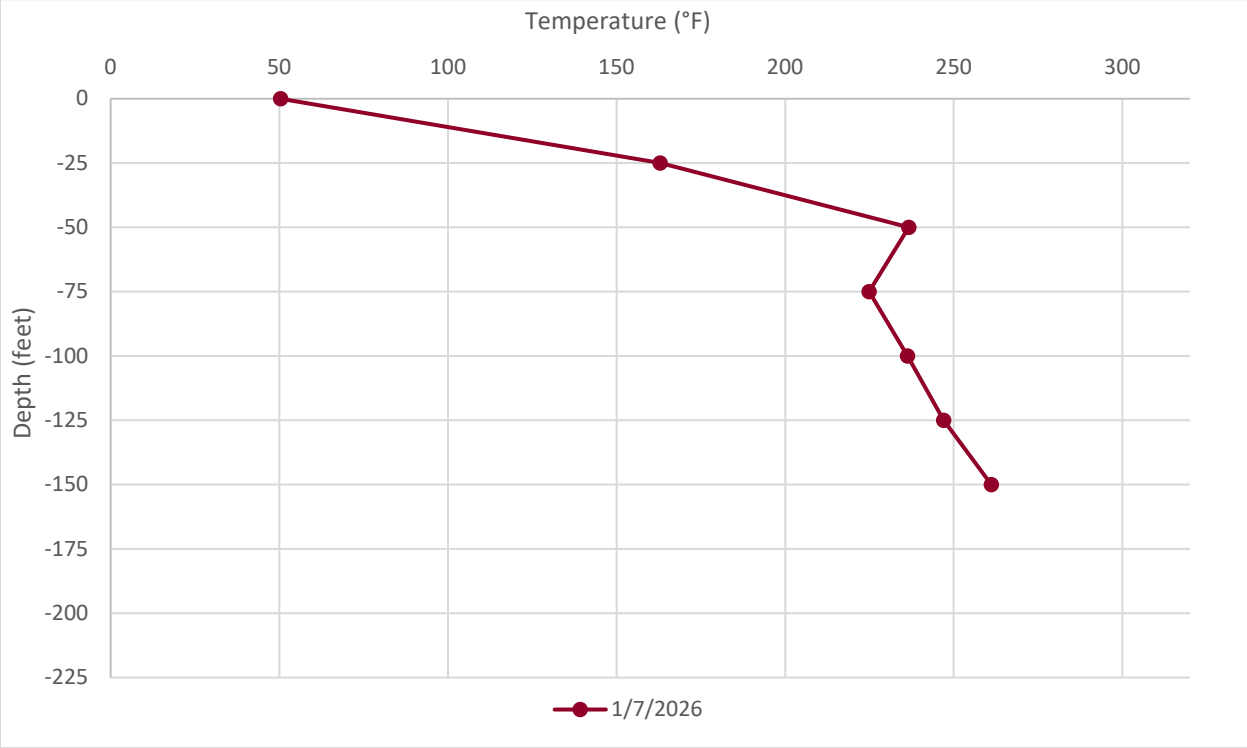


Figure B - 2 Average Temperatures Recorded by TP-1 on January 14, 2026

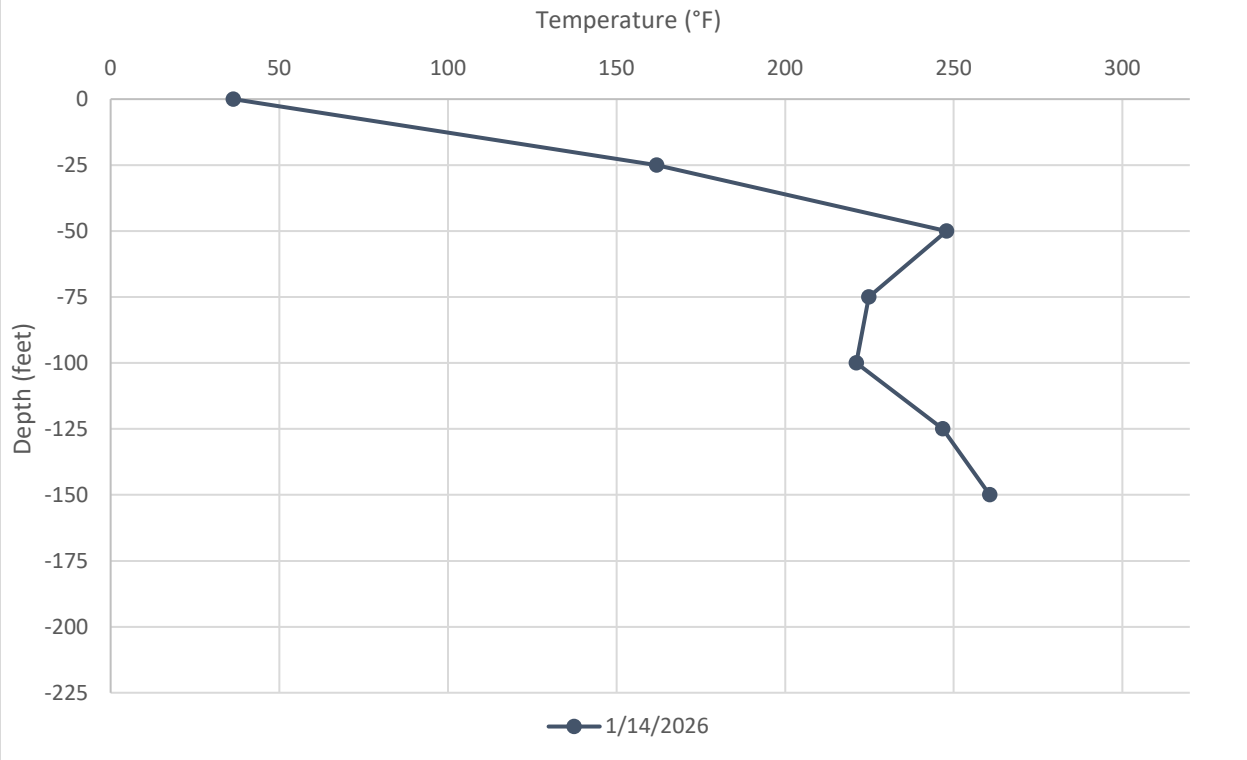


Figure B - 3 Average Temperatures Recorded by TP-1 on January 21, 2026

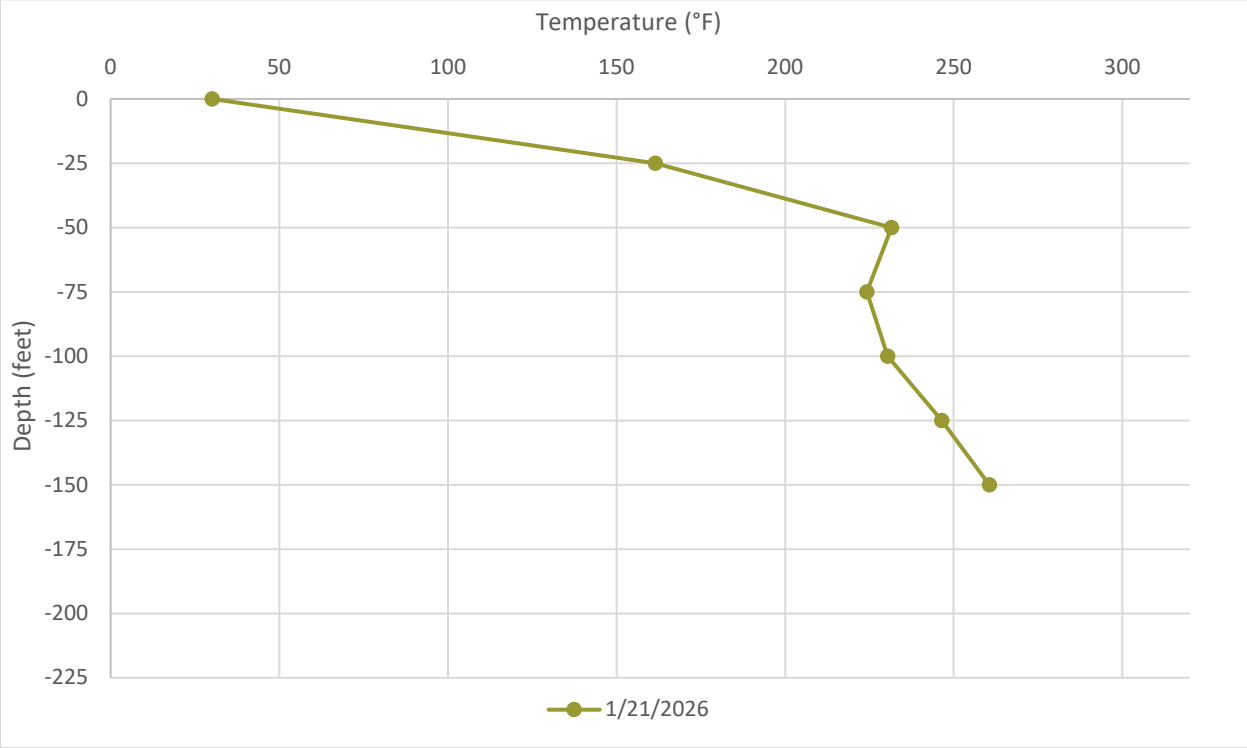


Figure B - 4 Average Temperatures Recorded by TP-1 on January 28, 2026

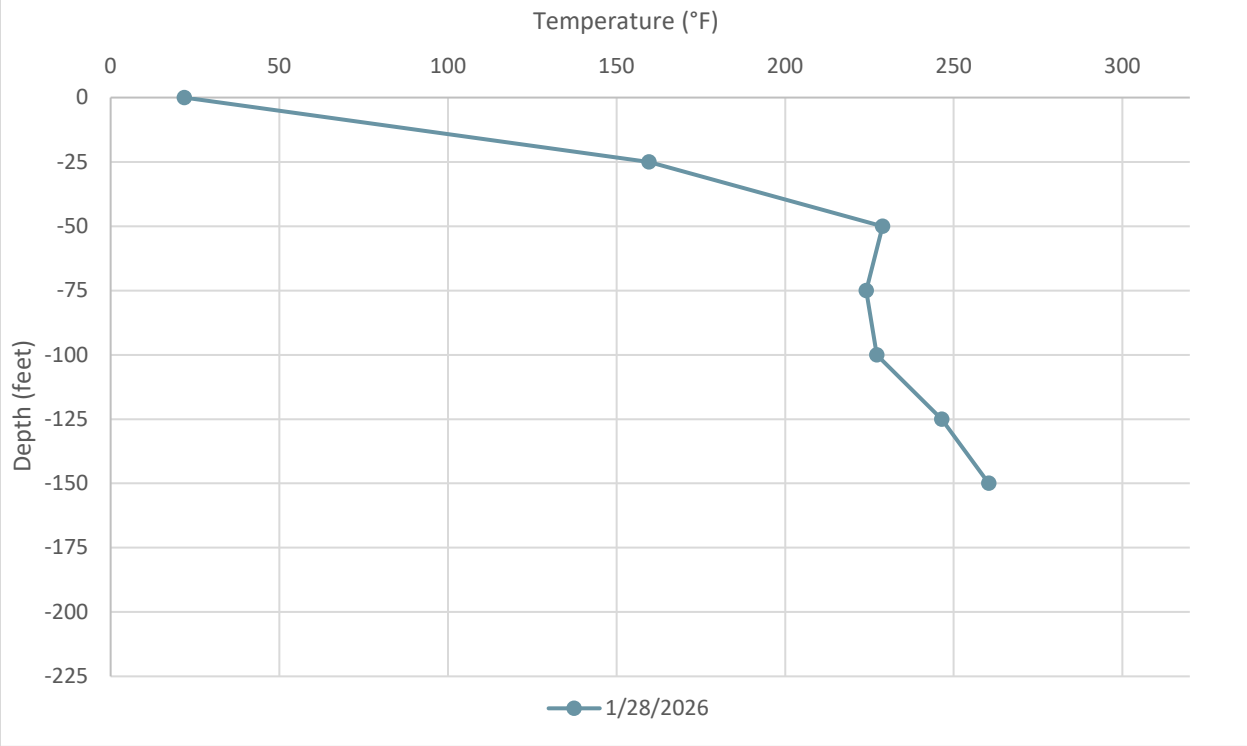


Figure B - 5 Average Temperatures Recorded by TP-5 on January 7, 2026

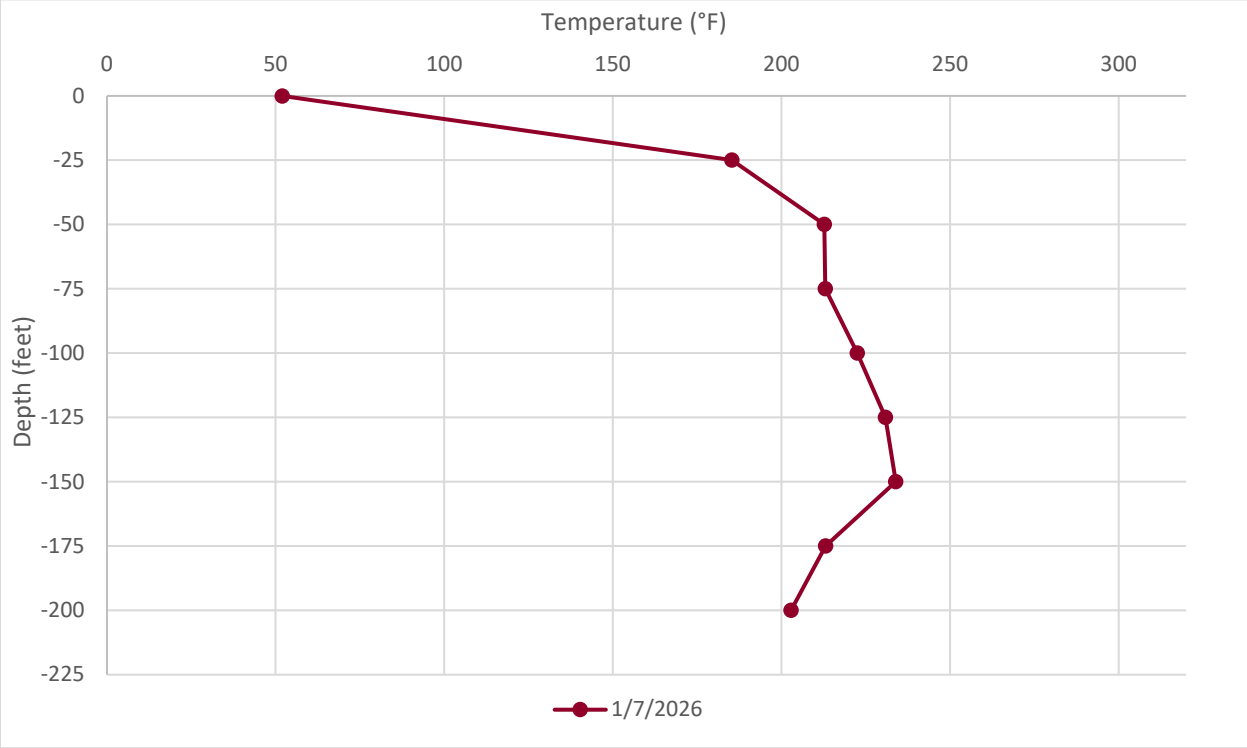


Figure B - 6 Average Temperatures Recorded by TP-5 on January 14, 2026

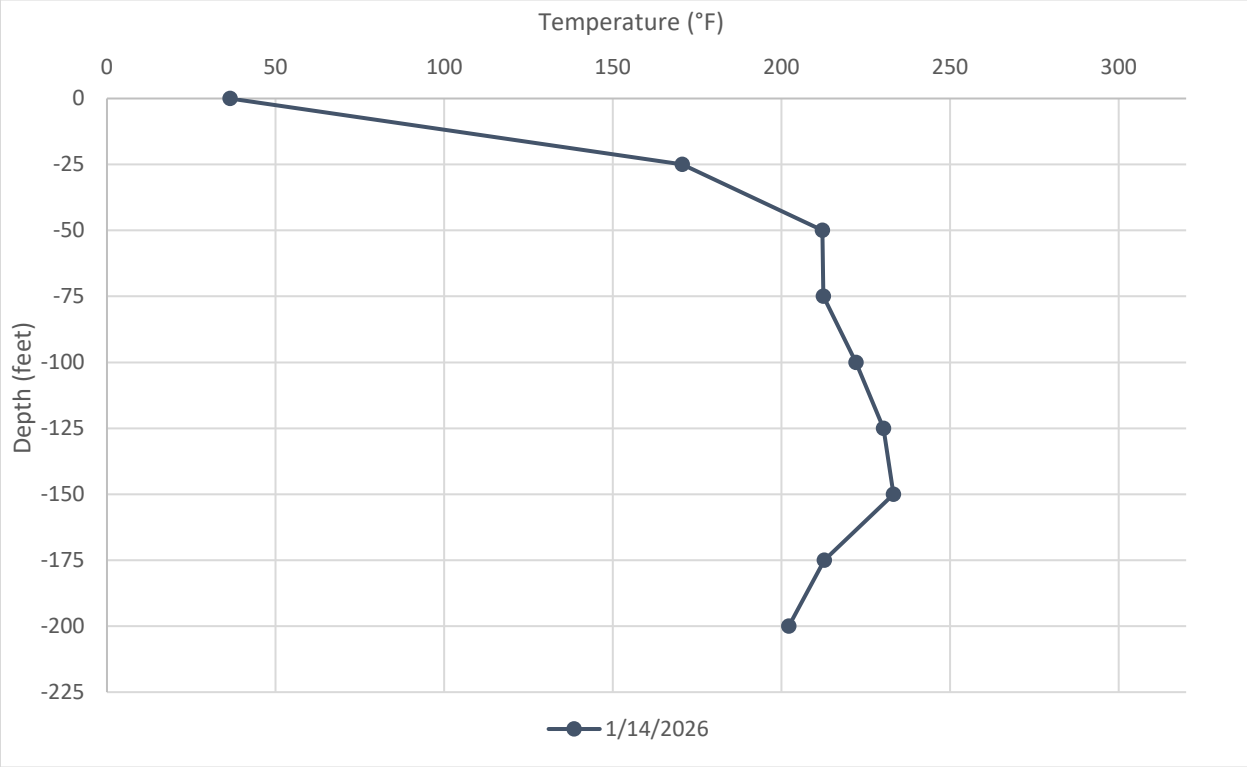


Figure B - 7 Average Temperatures Recorded by TP-5 on January 21, 2026

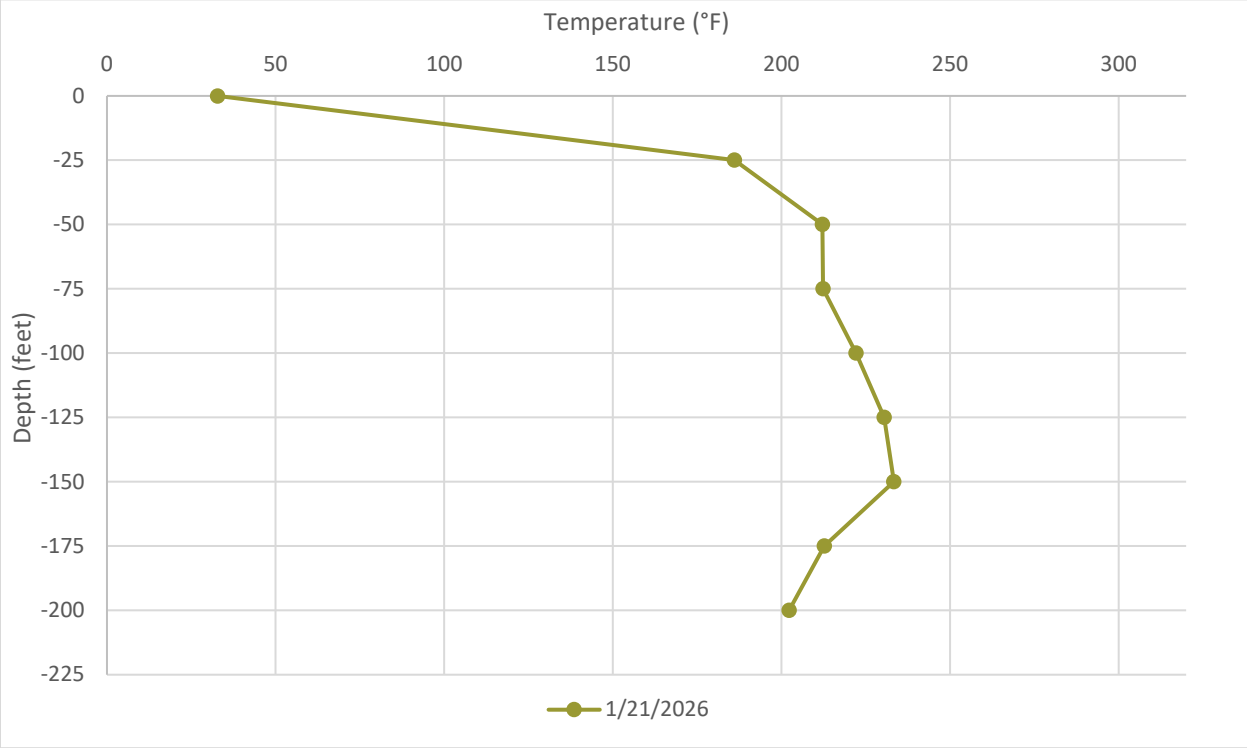


Figure B - 8 Average Temperatures Recorded by TP-5 on January 28, 2026

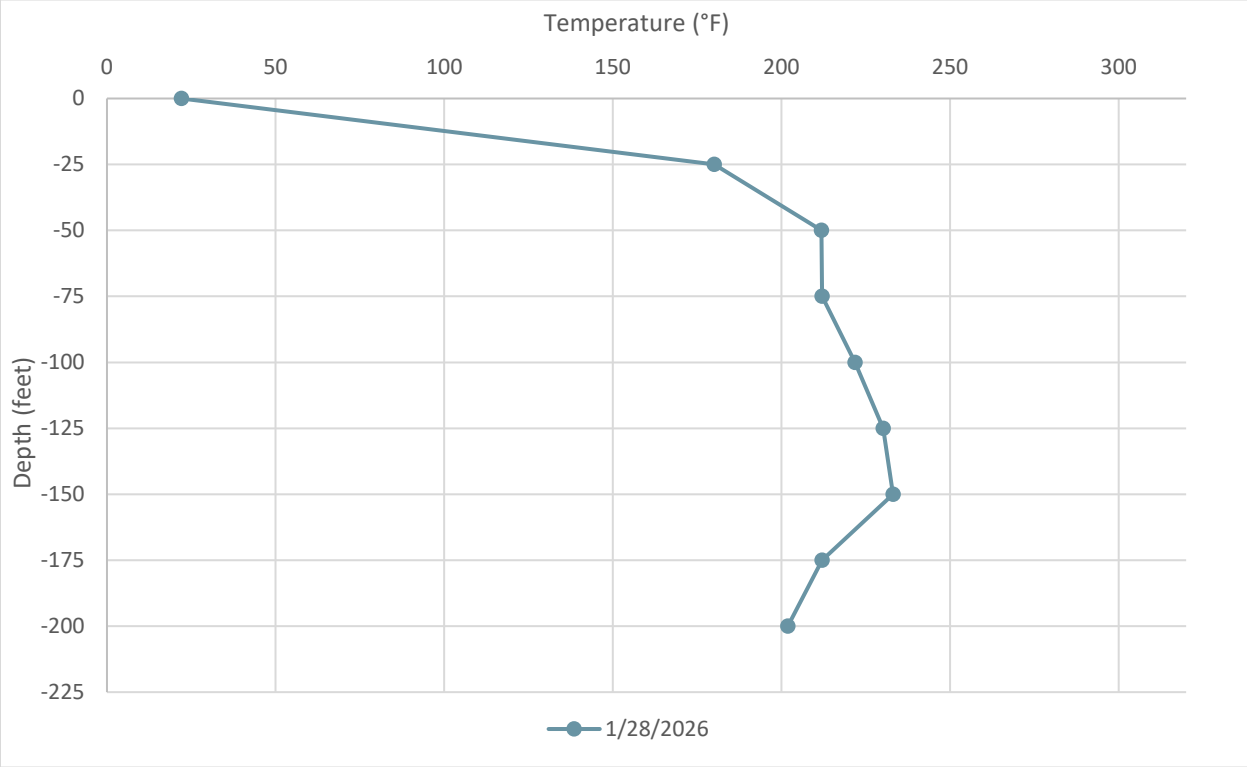


Figure B - 9 Average Temperatures Recorded by TP-6 on January 7, 2026

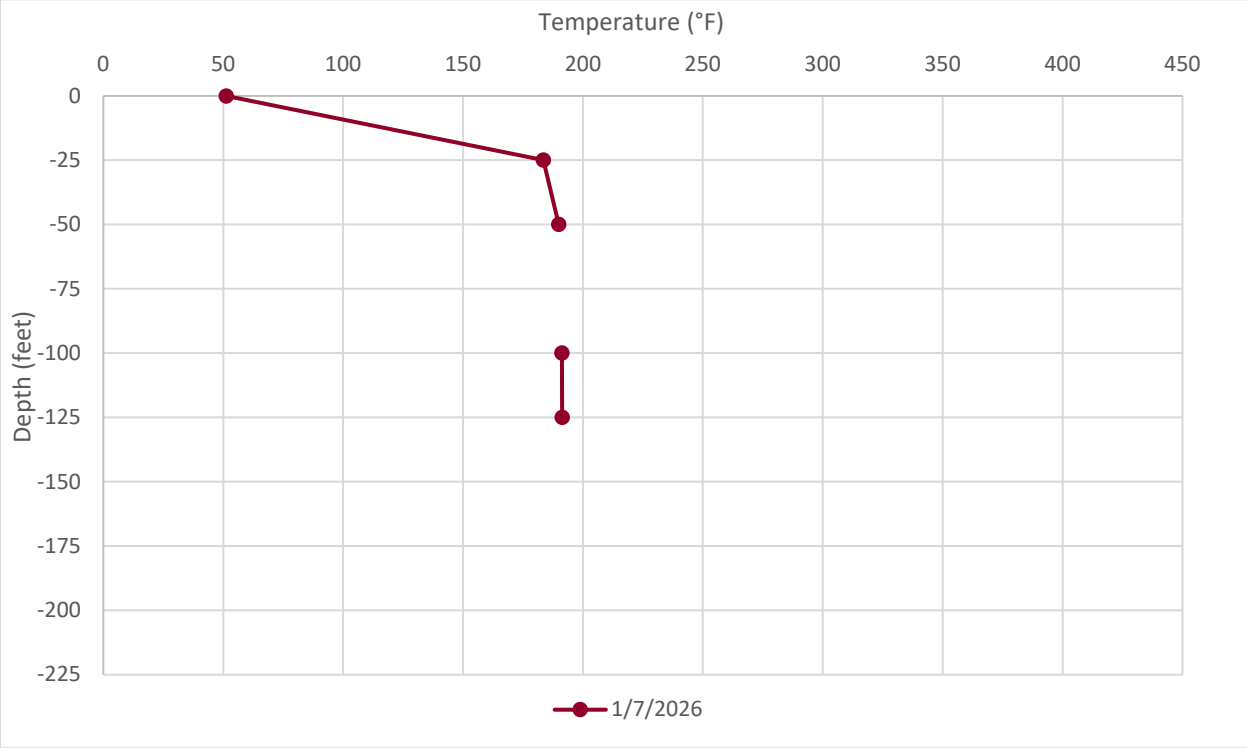


Figure B - 10 Average Temperatures Recorded by TP-6 on January 14, 2026

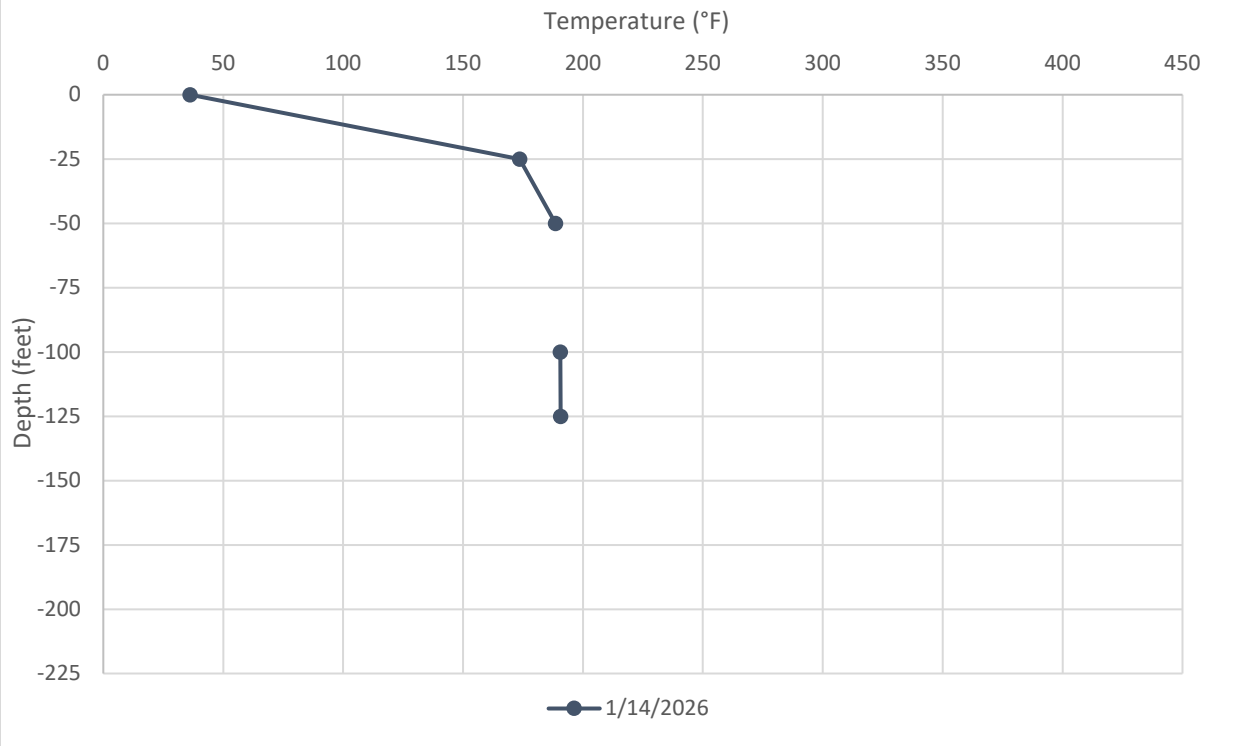


Figure B - 11 Average Temperatures Recorded by TP-6 on January 21, 2026

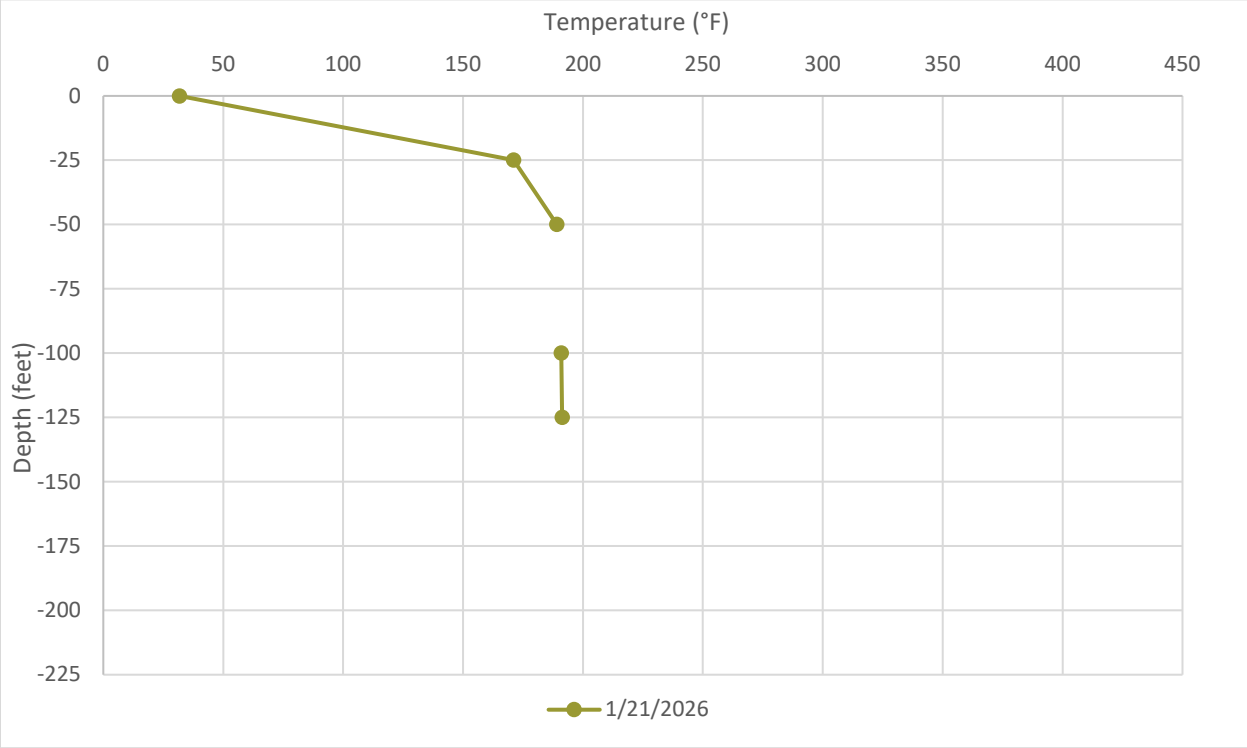


Figure B - 12 Average Temperatures Recorded by TP-6 on January 28, 2026

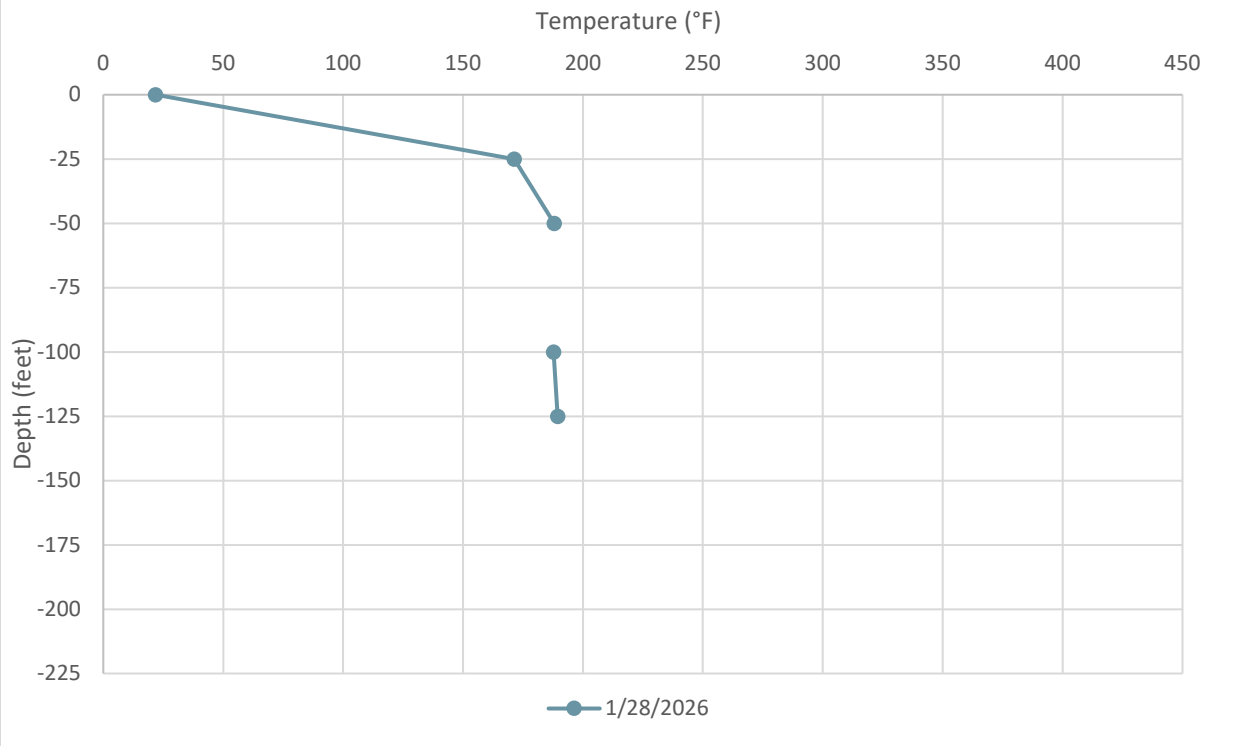


Figure B - 13 Average Temperatures Recorded by TP-8 on January 7, 2026

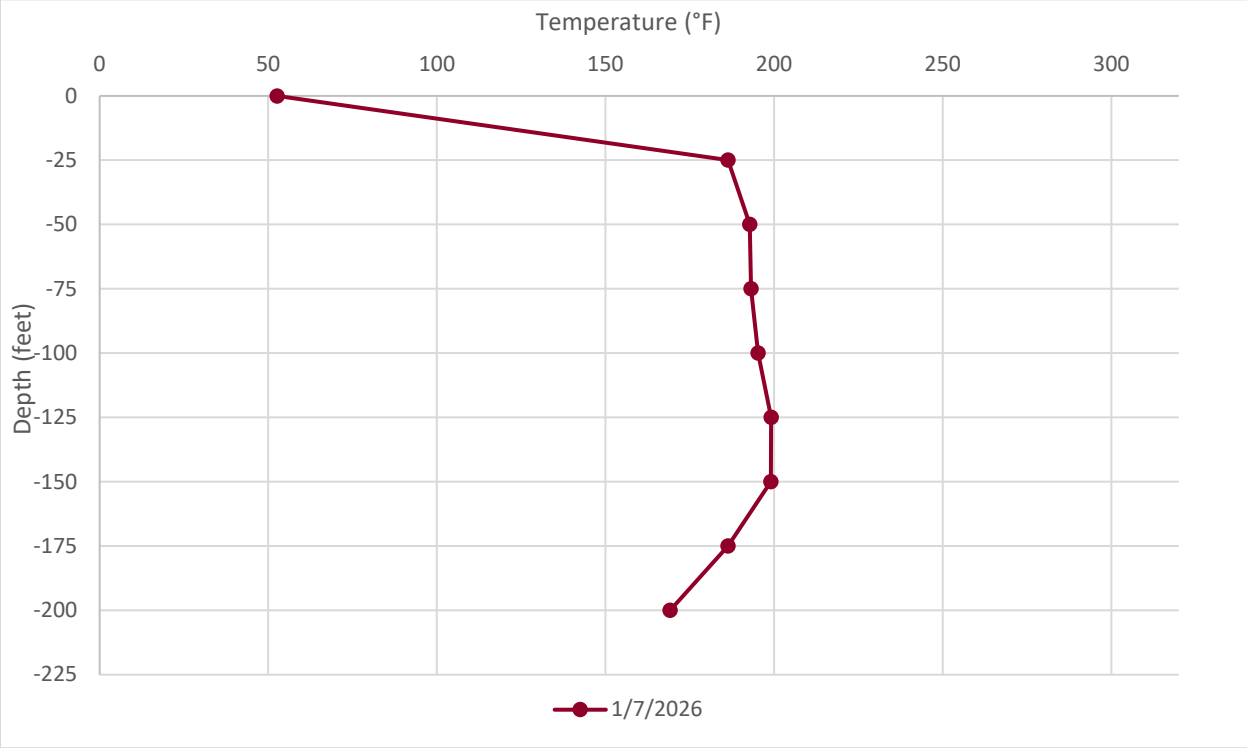


Figure B - 14 Average Temperatures Recorded by TP-8 on January 14, 2026

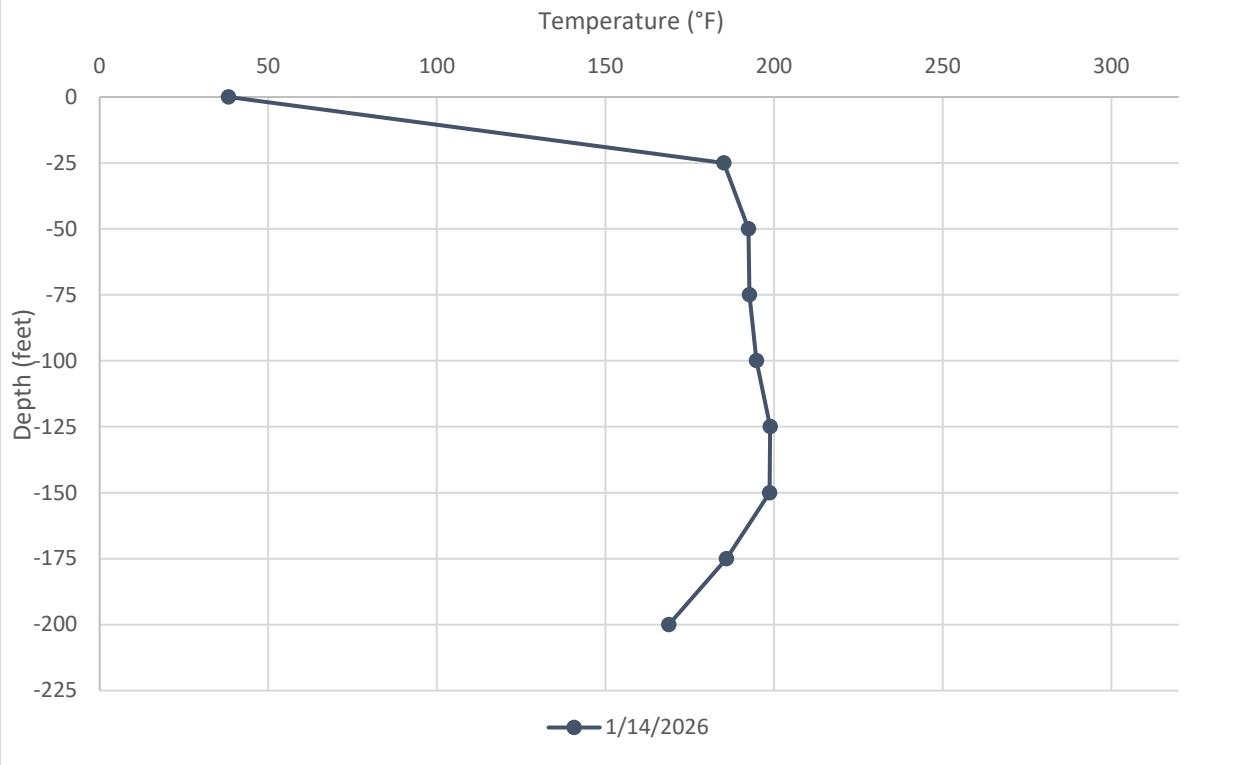


Figure B - 15 Average Temperatures Recorded by TP-8 on January 21, 2026

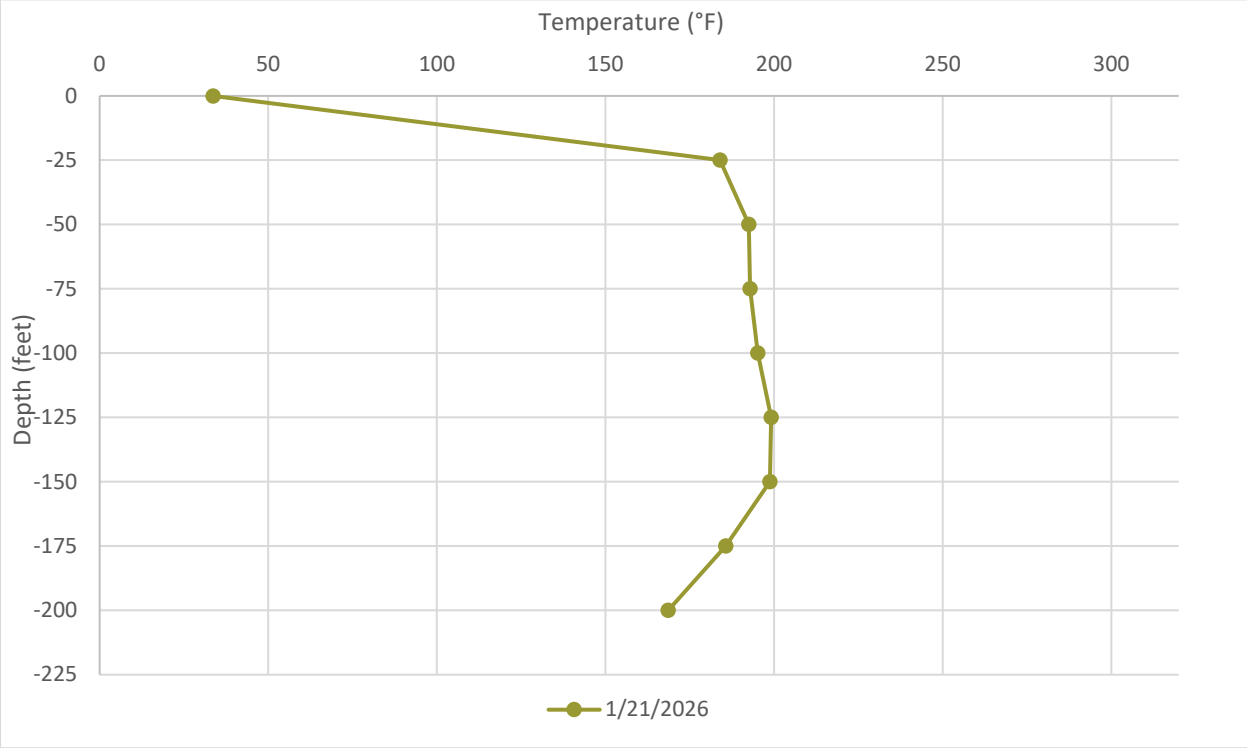


Figure B - 16 Average Temperatures Recorded by TP-8 on January 28, 2026

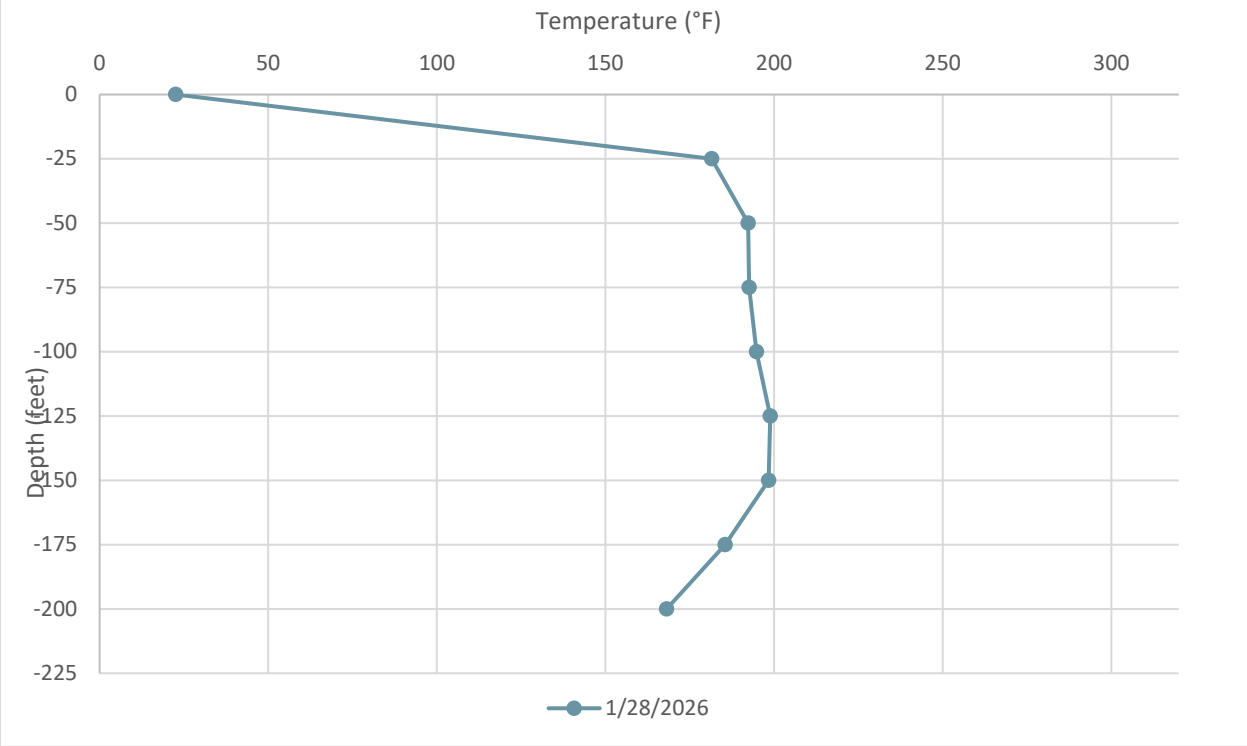


Figure B - 17 Average Temperatures Recorded by TP-9 on January 7, 2026

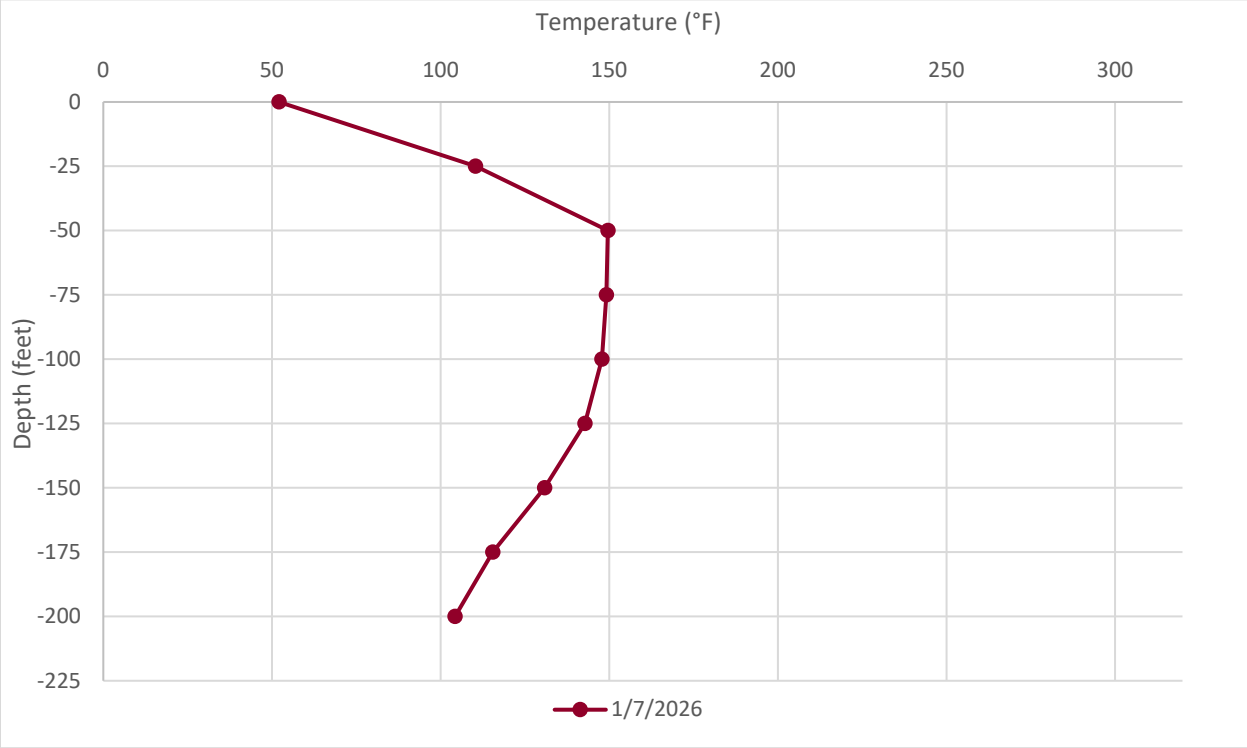


Figure B - 18 Average Temperatures Recorded by TP-9 on January 14, 2026

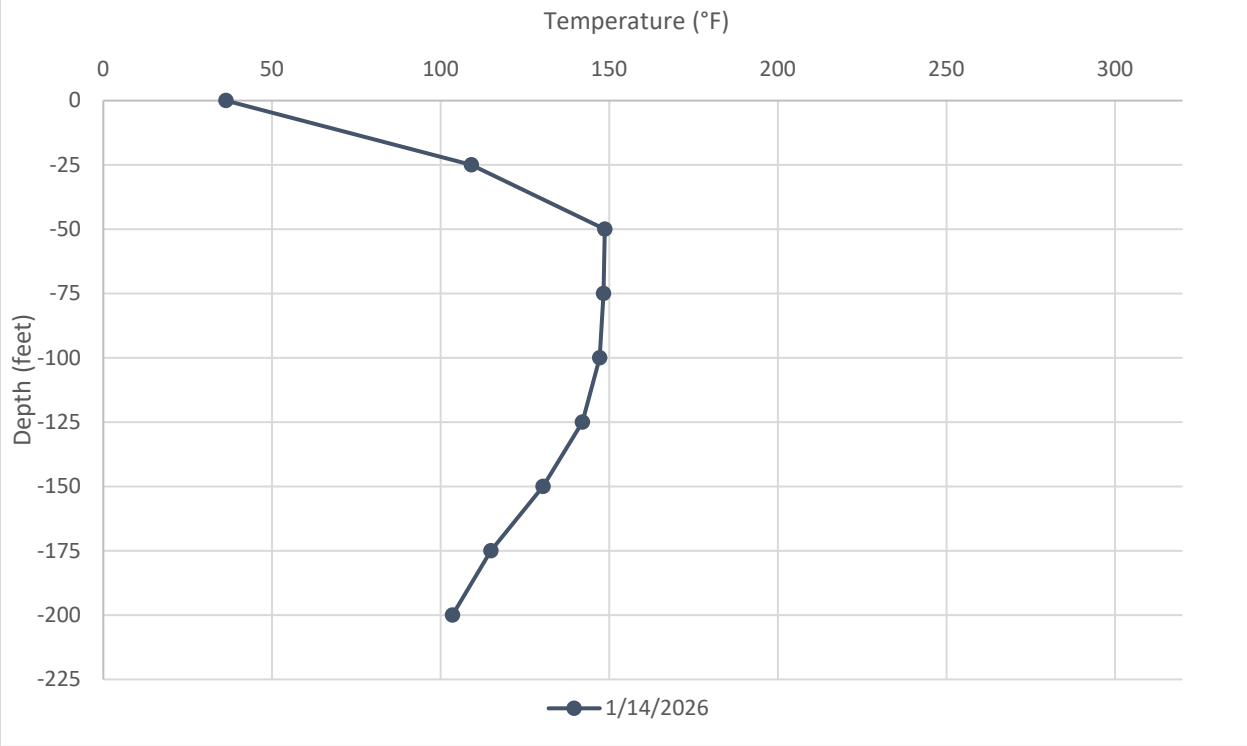


Figure B - 19 Average Temperatures Recorded by TP-9 on January 21, 2026

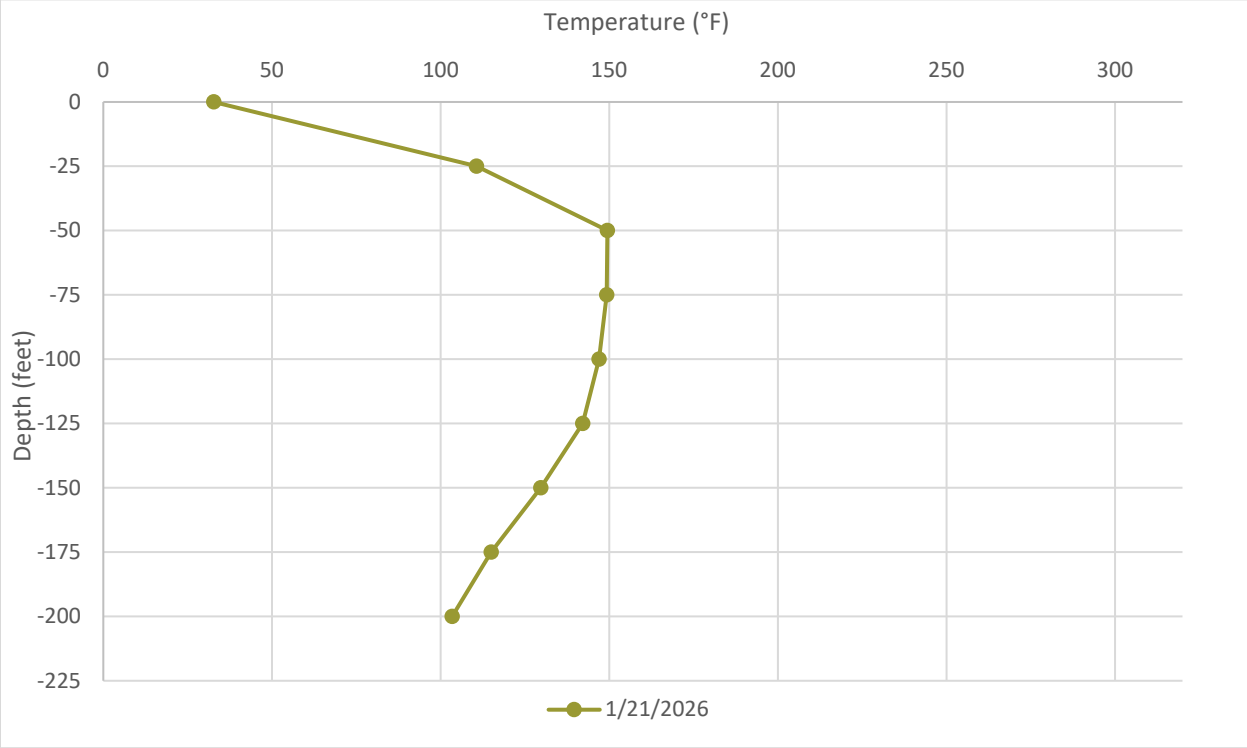
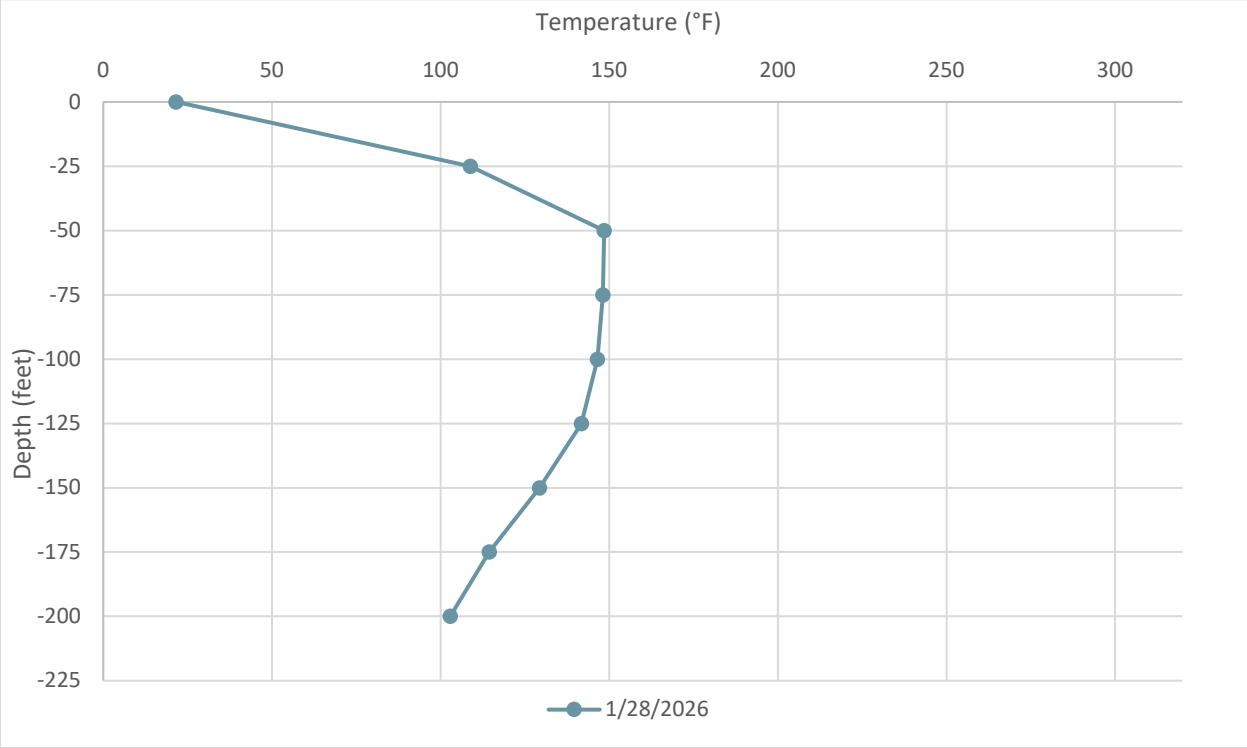


Figure B - 20 Average Temperatures Recorded by TP-9 on January 28, 2026



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 | February 2, 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)
Jan 1	57.7	53.4	69.7
Jan 2	62.5	53.1	73.0
Jan 3	65.6	58.9	74.1
Jan 4	62.0	54.0	73.8
Jan 5	63.4	54.0	75.4
Jan 6	64.7	56.3	72.6
Jan 7	70.5	61.8	80.3
Jan 8	68.6	60.0	79.1
Jan 9	67.4	64.9	76.1
Jan 10	63.5	57.9	66.5
Jan 11	47.8	39.5	56.6
Jan 12	46.5	37.7	61.1
Jan 13	51.6	39.8	64.5
Jan 14	54.7	47.1	65.1
Jan 15	40.2	35.9	45.7
Jan 16	45.1	33.8	59.7
Jan 17	51.8	48.1	59.4
Jan 18	46.3	40.6	53.7
Jan 19	43.9	37.3	54.7
Jan 20	42.1	35.5	51.2
Jan 21	54.4	36.4	74.9
Jan 22	66.6	61.8	74.6
Jan 23	64.6	56.7	74.5
Jan 24	57.6	53.8	62.0
Jan 25	53.4	32.4	68.4
Jan 26	49.0	44.3	57.7
Jan 27	0.0	43.9	43.9
Jan 28	0.0	43.9	43.9
Jan 29	0.0	43.9	43.9
Jan 30	0.0	43.9	43.9
Summary	**48.7**	**0.0**	**70.5**

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

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	38.6	31.6	57.9
Jan 2	43.3	29.8	64.5
Jan 3	48.0	39.1	62.5
Jan 4	43.3	29.8	67.8
Jan 5	46.6	30.6	71.4
Jan 6	47.0	34.1	60.9
Jan 7	57.6	42.0	77.3
Jan 8	51.8	37.4	72.7
Jan 9	53.7	45.1	68.6
Jan 10	54.6	50.4	56.2
Jan 11	37.8	29.8	48.8
Jan 12	37.0	29.8	59.9
Jan 13	40.0	29.8	59.6
Jan 14	41.2	33.7	57.1
Jan 15	30.0	29.8	33.4
Jan 16	35.7	29.8	58.6
Jan 17	39.9	35.0	55.5
Jan 18	33.8	29.8	47.8
Jan 19	33.7	29.8	48.5
Jan 20	32.4	29.8	47.7
Jan 21	41.4	29.8	68.5
Jan 22	44.1	32.2	65.1
Jan 23	38.2	29.8	58.2
Jan 24	31.0	29.8	36.7
Jan 25	33.7	29.8	38.4
Jan 26	30.3	29.8	34.4
Jan 27	31.6	29.8	41.9
Jan 28	30.8	29.8	37.3
Jan 29	31.2	29.8	42.7
Jan 30	30.4	29.8	34.3
Summary	**39.6**	**30.0**	**57.6**

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

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	42.0	36.8	53.5
Jan 2	45.7	35.2	61.4
Jan 3	51.3	43.4	63.6
Jan 4	46.5	35.5	65.5
Jan 5	48.4	36.3	68.2
Jan 6	50.8	39.4	61.8
Jan 7	58.6	48.2	73.2
Jan 8	54.4	43.6	70.9
Jan 9	56.2	49.5	67.0
Jan 10	56.6	52.1	58.6
Jan 11	40.6	32.1	50.8
Jan 12	38.7	32.1	57.5
Jan 13	41.1	32.1	55.5
Jan 14	44.5	37.8	57.1
Jan 15	32.4	32.1	35.6
Jan 16	37.5	32.1	54.5
Jan 17	42.9	39.2	54.1
Jan 18	36.8	32.1	45.3
Jan 19	35.7	32.1	47.9
Jan 20	34.1	32.1	44.1
Jan 21	43.4	32.1	62.9
Jan 22	46.1	36.6	60.2
Jan 23	41.8	33.1	58.0
Jan 24	35.0	32.1	41.8
Jan 25	38.2	33.7	41.6
Jan 26	32.8	32.1	37.8
Jan 27	33.0	32.1	40.8
Jan 28	33.0	32.1	38.4
Jan 29	33.1	32.1	41.7
Jan 30	33.1	32.1	37.5
Summary	**42.1**	**32.4**	**58.6**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 38

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	96.7	95.0	99.9
Jan 2	98.6	96.1	100.9
Jan 3	99.8	98.6	102.5
Jan 4	99.1	96.8	101.8
Jan 5	99.9	96.9	103.4
Jan 6	100.3	97.7	102.2
Jan 7	102.3	100.6	104.9
Jan 8	102.3	98.9	106.2
Jan 9	100.1	97.5	102.6
Jan 10	90.3	81.6	98.9
Jan 11	77.0	74.7	81.7
Jan 12	81.6	76.7	88.3
Jan 13	85.2	80.5	89.8
Jan 14	86.1	80.9	89.9
Jan 15	80.0	76.6	84.8
Jan 16	85.3	81.2	89.3
Jan 17	87.2	82.8	89.9
Jan 18	86.1	83.9	89.1
Jan 19	84.9	83.1	87.7
Jan 20	85.7	84.3	86.6
Jan 21	88.6	82.9	94.8
Jan 22	89.3	87.0	92.8
Jan 23	87.9	84.8	93.4
Jan 24	85.0	83.1	87.9
Jan 25	67.5	43.3	85.1
Jan 26	67.1	64.3	71.4
Jan 27	71.7	68.3	75.6
Jan 28	73.1	70.7	77.7
Jan 29	75.8	71.4	80.1
Jan 30	76.2	74.5	79.1
Summary	**87.0**	**67.1**	**102.3**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 42

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	120.5	119.9	121.7
Jan 2	121.2	120.4	122.2
Jan 3	121.8	121.3	122.6
Jan 4	121.6	120.8	123.1
Jan 5	122.0	121.0	123.3
Jan 6	122.1	121.3	122.9
Jan 7	123.0	122.4	124.2
Jan 8	123.3	122.2	124.6
Jan 9	122.4	121.1	123.5
Jan 10	121.1	119.9	122.2
Jan 11	118.2	117.2	119.3
Jan 12	119.2	117.8	121.3
Jan 13	119.8	118.7	121.4
Jan 14	119.6	118.2	120.8
Jan 15	117.8	116.8	118.4
Jan 16	119.6	118.6	121.1
Jan 17	120.2	119.0	120.9
Jan 18	119.7	118.6	120.7
Jan 19	119.4	118.1	120.4
Jan 20	119.7	118.4	120.6
Jan 21	120.9	119.4	122.9
Jan 22	121.1	120.2	122.2
Jan 23	120.8	119.5	122.6
Jan 24	120.1	119.0	121.1
Jan 25	105.8	68.7	120.8
Jan 26	117.3	116.6	118.6
Jan 27	117.6	116.1	118.7
Jan 28	118.0	117.3	119.0
Jan 29	118.9	117.4	119.8
Jan 30	119.0	117.6	120.0
Summary	**119.7**	**105.8**	**123.3**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 47

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	39.0	31.6	54.0
Jan 2	41.9	29.9	59.4
Jan 3	47.7	36.9	60.7
Jan 4	41.6	29.9	59.6
Jan 5	44.0	31.7	63.2
Jan 6	47.6	34.5	59.9
Jan 7	54.9	39.4	70.2
Jan 8	50.2	37.6	69.0
Jan 9	53.7	44.3	67.4
Jan 10	55.5	51.1	56.9
Jan 11	38.3	29.9	49.5
Jan 12	35.3	29.9	52.0
Jan 13	38.8	29.9	54.5
Jan 14	40.9	34.4	54.2
Jan 15	30.0	29.9	32.2
Jan 16	34.0	29.9	50.0
Jan 17	38.5	32.7	50.1
Jan 18	32.3	29.9	40.5
Jan 19	32.6	29.9	43.0
Jan 20	30.9	29.9	36.9
Jan 21	39.5	29.9	59.7
Jan 22	41.3	29.9	55.7
Jan 23	37.0	29.9	54.3
Jan 24	31.3	29.9	37.6
Jan 25	34.4	29.9	39.3
Jan 26	30.8	29.9	37.1
Jan 27	30.6	29.9	37.7
Jan 28	30.4	29.9	34.0
Jan 29	30.5	29.9	36.7
Jan 30	30.3	29.9	32.7
Summary	**38.8**	**30.0**	**55.5**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 48

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	36.1	29.9	49.0
Jan 2	40.5	29.8	56.8
Jan 3	45.4	33.2	59.9
Jan 4	38.6	29.9	54.8
Jan 5	41.5	29.9	60.6
Jan 6	45.7	30.9	60.5
Jan 7	53.8	35.7	66.6
Jan 8	48.3	33.6	67.0
Jan 9	51.8	41.4	69.4
Jan 10	54.2	49.0	55.7
Jan 11	36.2	29.9	47.6
Jan 12	33.5	29.9	45.1
Jan 13	37.5	29.9	50.9
Jan 14	39.1	31.2	52.2
Jan 15	29.9	29.9	30.8
Jan 16	32.9	29.9	45.5
Jan 17	37.6	32.1	50.1
Jan 18	31.5	29.9	36.3
Jan 19	31.7	29.9	38.8
Jan 20	30.3	29.9	34.0
Jan 21	38.8	29.9	54.9
Jan 22	40.2	29.9	52.7
Jan 23	36.3	29.9	52.9
Jan 24	31.1	29.9	36.1
Jan 25	33.2	29.9	37.4
Jan 26	30.4	29.9	35.8
Jan 27	29.9	29.9	31.7
Jan 28	30.3	29.9	33.9
Jan 29	30.1	29.9	32.7
Jan 30	30.4	29.9	32.7
Summary	**37.6**	**29.9**	**54.2**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 49

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	154.7	154.0	155.4
Jan 2	155.5	154.7	156.9
Jan 3	155.3	154.9	155.7
Jan 4	154.8	154.2	155.5
Jan 5	155.7	154.1	157.6
Jan 6	155.3	154.6	156.9
Jan 7	155.5	154.9	156.9
Jan 8	155.4	154.5	156.2
Jan 9	155.5	154.4	156.3
Jan 10	154.1	151.6	156.6
Jan 11	151.7	150.1	152.8
Jan 12	154.6	153.0	156.1
Jan 13	155.4	153.9	157.4
Jan 14	155.7	153.2	158.0
Jan 15	152.9	151.3	154.5
Jan 16	154.0	152.7	155.2
Jan 17	154.6	152.9	155.5
Jan 18	154.1	152.7	155.2
Jan 19	151.0	89.6	155.1
Jan 20	153.3	149.8	154.4
Jan 21	154.2	152.9	155.4
Jan 22	154.6	153.5	155.3
Jan 23	154.2	152.7	155.3
Jan 24	153.1	152.2	154.1
Jan 25	147.1	121.4	159.4
Jan 26	151.2	149.7	153.6
Jan 27	150.1	149.0	151.1
Jan 28	150.1	148.7	152.3
Jan 29	147.2	76.0	153.4
Jan 30	152.5	151.2	153.6
Summary	**153.4**	**147.1**	**155.7**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 50

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	96.7	95.4	99.0
Jan 2	98.4	95.8	100.2
Jan 3	99.1	97.6	101.1
Jan 4	97.8	95.9	100.6
Jan 5	99.0	95.7	104.2
Jan 6	98.9	96.9	100.5
Jan 7	100.3	98.4	102.4
Jan 8	99.6	97.0	102.6
Jan 9	97.6	95.3	101.5
Jan 10	94.7	91.2	96.9
Jan 11	86.6	83.6	91.2
Jan 12	89.4	84.6	98.6
Jan 13	91.6	88.2	96.8
Jan 14	92.1	88.8	96.5
Jan 15	85.9	83.8	89.9
Jan 16	86.8	82.4	92.2
Jan 17	83.9	79.9	88.7
Jan 18	83.4	81.7	86.6
Jan 19	85.9	80.9	91.2
Jan 20	88.5	86.5	93.4
Jan 21	91.7	86.7	98.1
Jan 22	92.6	90.2	96.3
Jan 23	91.0	86.9	95.5
Jan 24	87.9	86.4	90.1
Jan 25	75.2	37.5	91.3
Jan 26	82.9	79.0	88.4
Jan 27	83.0	80.9	85.3
Jan 28	83.1	80.3	87.5
Jan 29	85.3	81.1	89.4
Jan 30	85.3	81.9	87.6
Summary	**90.5**	**75.2**	**100.3**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 51

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	35.7	27.0	54.6
Jan 2	39.6	26.0	58.7
Jan 3	45.3	33.6	59.2
Jan 4	39.1	26.7	61.2
Jan 5	42.0	27.4	66.2
Jan 6	45.5	31.2	59.2
Jan 7	53.7	36.8	71.6
Jan 8	48.9	34.7	69.3
Jan 9	51.5	41.6	66.2
Jan 10	54.0	49.1	55.2
Jan 11	35.2	25.9	47.5
Jan 12	31.4	25.9	49.5
Jan 13	36.0	25.9	55.1
Jan 14	39.1	31.6	53.8
Jan 15	26.5	25.9	30.9
Jan 16	31.6	25.9	49.9
Jan 17	37.1	31.2	47.6
Jan 18	30.5	25.9	40.4
Jan 19	29.7	25.9	43.1
Jan 20	28.0	25.9	38.1
Jan 21	37.5	25.9	60.9
Jan 22	40.5	27.9	56.8
Jan 23	35.2	26.0	54.6
Jan 24	28.6	25.9	35.3
Jan 25	32.6	26.7	37.4
Jan 26	27.2	25.9	34.7
Jan 27	0.0	25.9	25.9
Jan 28	0.0	25.9	25.9
Jan 29	0.0	25.9	25.9
Jan 30	0.0	25.9	25.9
Summary	**32.7**	**0.0**	**54.0**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 52

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	152.0	150.8	153.5
Jan 2	153.2	151.9	154.4
Jan 3	153.6	152.8	154.9
Jan 4	152.8	151.4	154.1
Jan 5	153.1	151.4	154.6
Jan 6	153.0	152.1	153.9
Jan 7	153.7	152.8	155.5
Jan 8	153.7	151.8	156.1
Jan 9	154.4	153.2	155.7
Jan 10	153.7	151.6	155.4
Jan 11	149.8	148.0	151.8
Jan 12	150.5	149.3	151.6
Jan 13	151.5	149.4	153.1
Jan 14	155.8	152.3	159.6
Jan 15	150.4	147.6	154.8
Jan 16	151.1	148.6	154.7
Jan 17	156.1	152.1	160.6
Jan 18	155.7	154.1	158.1
Jan 19	150.7	148.7	152.8
Jan 20	149.8	147.0	152.3
Jan 21	151.2	148.0	154.3
Jan 22	165.1	152.3	184.5
Jan 23	182.2	181.1	184.5
Jan 24	181.6	181.2	182.0
Jan 25	185.2	181.0	193.6
Jan 26	180.6	178.9	181.9
Jan 27	180.2	177.9	181.8
Jan 28	180.6	179.3	181.8
Jan 29	181.8	179.9	183.5
Jan 30	183.1	182.4	183.6
Summary	**160.9**	**149.8**	**185.2**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 53

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	126.6	121.3	131.5
Jan 2	131.8	125.4	138.2
Jan 3	131.9	126.6	136.3
Jan 4	128.0	122.0	134.7
Jan 5	130.7	124.0	139.6
Jan 6	130.4	66.0	139.9
Jan 7	138.8	134.2	145.7
Jan 8	139.2	128.0	149.9
Jan 9	142.1	134.6	149.6
Jan 10	137.1	122.4	144.7
Jan 11	127.0	118.6	138.8
Jan 12	137.6	127.8	148.8
Jan 13	139.4	131.6	146.4
Jan 14	135.0	117.5	143.6
Jan 15	118.9	111.2	133.0
Jan 16	131.3	126.2	137.9
Jan 17	129.7	124.4	135.7
Jan 18	127.4	120.7	136.0
Jan 19	128.8	118.8	140.7
Jan 20	128.1	119.9	133.5
Jan 21	135.0	127.6	148.2
Jan 22	135.2	131.8	141.8
Jan 23	131.9	123.0	140.2
Jan 24	120.8	110.6	128.5
Jan 25	122.5	113.5	133.8
Jan 26	114.6	106.1	130.4
Jan 27	128.9	122.3	136.6
Jan 28	130.8	122.2	138.0
Jan 29	126.7	120.6	136.1
Jan 30	123.5	113.7	130.4
Summary	**130.3**	**114.6**	**142.1**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 54

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	39.4	32.3	52.7
Jan 2	43.8	31.1	60.9
Jan 3	49.2	39.1	62.2
Jan 4	43.4	31.5	61.2
Jan 5	45.9	32.7	65.3
Jan 6	49.2	36.0	61.8
Jan 7	57.5	41.4	71.0
Jan 8	52.1	38.6	72.7
Jan 9	55.1	46.7	69.1
Jan 10	56.4	50.8	59.1
Jan 11	37.3	27.4	49.6
Jan 12	34.4	27.4	50.7
Jan 13	38.0	27.4	55.0
Jan 14	40.5	33.8	53.9
Jan 15	27.8	27.4	31.3
Jan 16	32.6	27.4	48.2
Jan 17	38.2	33.0	48.3
Jan 18	31.2	27.4	38.7
Jan 19	31.1	27.4	41.8
Jan 20	29.4	27.4	36.0
Jan 21	39.4	27.4	61.1
Jan 22	42.6	30.7	56.4
Jan 23	37.4	28.1	56.5
Jan 24	30.1	27.4	37.4
Jan 25	34.5	29.5	39.8
Jan 26	29.0	27.4	37.2
Jan 27	29.2	27.4	36.6
Jan 28	29.1	27.4	34.5
Jan 29	28.5	27.4	32.8
Jan 30	28.6	27.4	32.2
Summary	**38.7**	**27.8**	**57.5**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 55

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	89.8	78.7	99.1
Jan 2	101.2	92.4	110.5
Jan 3	107.4	100.6	113.6
Jan 4	101.9	96.7	114.0
Jan 5	103.1	92.2	117.9
Jan 6	102.9	96.3	113.3
Jan 7	106.5	100.8	110.7
Jan 8	109.4	97.0	122.4
Jan 9	108.9	98.5	120.6
Jan 10	102.0	90.1	114.4
Jan 11	73.1	59.4	94.7
Jan 12	81.7	65.4	100.8
Jan 13	84.2	74.5	99.5
Jan 14	67.9	43.8	82.3
Jan 15	37.9	33.4	42.2
Jan 16	48.5	33.1	73.5
Jan 17	52.8	48.3	59.5
Jan 18	45.9	40.3	53.3
Jan 19	49.8	41.6	58.3
Jan 20	49.8	41.1	59.0
Jan 21	64.0	45.2	89.1
Jan 22	65.7	59.6	77.7
Jan 23	66.0	51.5	87.9
Jan 24	56.3	50.0	66.5
Jan 25	55.0	33.1	77.5
Jan 26	43.8	30.6	64.9
Jan 27	43.3	28.6	63.4
Jan 28	44.0	37.2	54.2
Jan 29	40.4	32.8	57.1
Jan 30	39.7	31.7	47.9
Summary	**71.4**	**37.9**	**109.4**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 56

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	182.4	182.1	182.7
Jan 2	182.6	182.3	183.0
Jan 3	182.7	182.2	183.0
Jan 4	182.3	182.1	182.6
Jan 5	182.4	182.2	182.7
Jan 6	182.6	182.3	182.9
Jan 7	182.8	182.5	183.1
Jan 8	182.7	182.0	183.1
Jan 9	183.1	182.6	183.5
Jan 10	183.1	182.4	183.7
Jan 11	182.2	181.4	183.0
Jan 12	182.5	182.0	182.8
Jan 13	182.8	182.4	183.2
Jan 14	182.8	181.6	183.3
Jan 15	181.6	181.1	182.3
Jan 16	182.2	181.6	182.8
Jan 17	182.5	182.2	183.0
Jan 18	182.0	181.6	182.3
Jan 19	181.7	181.2	182.1
Jan 20	181.3	180.7	181.8
Jan 21	181.9	181.2	182.7
Jan 22	182.3	182.1	182.5
Jan 23	182.0	181.5	182.4
Jan 24	181.3	180.7	181.8
Jan 25	181.5	170.3	184.1
Jan 26	180.9	180.4	182.5
Jan 27	180.9	180.5	181.4
Jan 28	181.2	180.9	181.5
Jan 29	181.2	180.7	181.7
Jan 30	181.1	180.4	181.7
Summary	**182.1**	**180.9**	**183.1**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 57

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	48.9	40.7	67.6
Jan 2	54.7	39.3	75.6
Jan 3	59.6	47.7	74.2
Jan 4	52.2	38.0	75.8
Jan 5	55.1	39.6	79.6
Jan 6	58.5	44.0	72.2
Jan 7	68.5	52.9	86.1
Jan 8	63.6	49.8	84.2
Jan 9	66.0	59.5	79.6
Jan 10	62.8	56.8	65.5
Jan 11	42.6	33.1	55.9
Jan 12	41.5	32.1	65.7
Jan 13	47.4	32.1	71.8
Jan 14	50.9	40.4	64.7
Jan 15	34.9	32.1	42.2
Jan 16	45.1	32.1	62.0
Jan 17	51.1	44.2	57.4
Jan 18	40.4	33.4	51.6
Jan 19	40.0	34.0	53.9
Jan 20	37.9	32.1	51.2
Jan 21	47.6	32.1	72.3
Jan 22	51.3	39.3	66.4
Jan 23	45.6	35.9	69.1
Jan 24	36.1	32.1	43.9
Jan 25	40.1	34.0	44.2
Jan 26	33.3	32.1	41.6
Jan 27	36.0	32.1	46.4
Jan 28	35.9	32.1	50.7
Jan 29	36.0	32.1	49.1
Jan 30	34.8	32.1	41.4
Summary	**47.3**	**33.3**	**68.5**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 58

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	103.0	101.7	103.8
Jan 2	103.8	102.5	104.7
Jan 3	104.1	103.2	104.9
Jan 4	103.3	102.6	105.2
Jan 5	103.5	102.6	105.3
Jan 6	103.7	102.6	104.5
Jan 7	104.2	103.4	105.4
Jan 8	104.0	102.6	105.6
Jan 9	104.0	103.5	105.1
Jan 10	103.8	102.7	104.6
Jan 11	101.3	100.4	102.7
Jan 12	101.9	101.0	103.4
Jan 13	102.0	101.0	103.5
Jan 14	97.0	88.9	101.7
Jan 15	98.8	93.7	101.8
Jan 16	100.8	99.6	101.7
Jan 17	97.2	89.5	100.3
Jan 18	96.9	93.1	100.8
Jan 19	100.7	99.0	102.3
Jan 20	101.1	99.5	102.2
Jan 21	102.1	101.1	104.3
Jan 22	101.2	99.8	101.9
Jan 23	101.3	99.8	103.5
Jan 24	100.7	100.1	101.8
Jan 25	88.1	50.1	102.8
Jan 26	100.0	99.0	101.7
Jan 27	100.5	99.8	101.2
Jan 28	100.7	100.0	101.8
Jan 29	100.5	99.6	101.4
Jan 30	100.1	99.1	100.9
Summary	**101.0**	**88.1**	**104.2**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 59

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	104.7	103.5	105.8
Jan 2	105.9	103.6	107.7
Jan 3	106.9	105.4	108.5
Jan 4	105.2	103.5	106.9
Jan 5	105.7	103.2	107.3
Jan 6	110.4	104.1	121.0
Jan 7	121.9	121.1	122.4
Jan 8	122.2	120.6	123.6
Jan 9	123.6	122.5	124.9
Jan 10	124.5	123.8	125.5
Jan 11	122.5	120.9	124.6
Jan 12	121.5	113.1	124.1
Jan 13	124.7	122.1	127.0
Jan 14	126.8	124.1	128.1
Jan 15	119.6	108.8	125.2
Jan 16	122.3	113.6	127.2
Jan 17	110.7	108.5	113.9
Jan 18	107.2	105.3	110.1
Jan 19	105.5	104.4	107.0
Jan 20	104.4	102.3	106.1
Jan 21	111.7	102.7	120.5
Jan 22	121.8	120.5	122.9
Jan 23	121.6	113.5	124.3
Jan 24	122.4	121.7	123.7
Jan 25	96.0	39.2	123.7
Jan 26	104.6	101.8	109.8
Jan 27	103.0	101.7	104.4
Jan 28	102.6	100.1	104.4
Jan 29	102.3	100.8	103.6
Jan 30	102.3	100.1	103.3
Summary	**112.8**	**96.0**	**126.8**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 60

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	58.6	55.1	67.2
Jan 2	62.3	53.8	72.2
Jan 3	65.7	59.9	75.2
Jan 4	63.1	54.0	76.6
Jan 5	65.6	56.5	80.0
Jan 6	66.1	57.8	74.6
Jan 7	72.9	64.3	82.7
Jan 8	70.6	60.5	84.6
Jan 9	71.2	67.1	80.3
Jan 10	69.1	64.5	72.3
Jan 11	52.5	43.1	63.8
Jan 12	51.6	40.4	69.2
Jan 13	56.1	44.6	70.4
Jan 14	54.4	42.8	61.9
Jan 15	40.3	36.8	45.6
Jan 16	48.3	38.0	64.8
Jan 17	51.1	46.1	56.4
Jan 18	43.2	39.4	50.0
Jan 19	46.6	41.7	57.3
Jan 20	45.0	37.5	54.5
Jan 21	53.8	40.5	72.6
Jan 22	67.2	52.8	89.9
Jan 23	102.9	90.2	115.8
Jan 24	110.4	105.8	115.3
Jan 25	110.5	82.9	124.3
Jan 26	110.6	104.1	119.8
Jan 27	108.7	104.7	113.7
Jan 28	108.7	105.3	115.0
Jan 29	112.9	106.5	118.0
Jan 30	113.4	108.2	116.3
Summary	**71.8**	**40.3**	**113.4**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 61

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	151.0	150.4	151.7
Jan 2	151.9	151.3	152.7
Jan 3	152.2	151.4	153.0
Jan 4	148.9	147.3	151.6
Jan 5	147.0	107.1	153.2
Jan 6	150.4	147.3	151.8
Jan 7	147.6	146.4	150.7
Jan 8	146.3	145.5	147.4
Jan 9	148.1	145.7	150.7
Jan 10	150.0	147.2	151.5
Jan 11	143.2	140.9	147.1
Jan 12	143.0	141.9	144.3
Jan 13	143.8	142.1	145.4
Jan 14	144.2	141.6	145.6
Jan 15	141.4	140.9	142.0
Jan 16	143.1	141.0	144.9
Jan 17	143.5	142.3	144.4
Jan 18	142.7	141.8	144.1
Jan 19	144.9	141.2	151.2
Jan 20	149.3	145.8	151.0
Jan 21	152.0	149.5	154.2
Jan 22	152.8	152.0	153.6
Jan 23	152.5	151.1	153.3
Jan 24	151.9	150.7	152.8
Jan 25	159.8	153.0	175.9
Jan 26	149.9	146.9	153.5
Jan 27	149.4	147.5	151.5
Jan 28	150.4	149.5	151.0
Jan 29	151.1	149.9	152.6
Jan 30	152.1	151.4	152.9
Summary	**148.5**	**141.4**	**159.8**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 62

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	95.4	93.3	100.6
Jan 2	97.6	93.9	100.7
Jan 3	98.5	94.6	102.6
Jan 4	94.9	90.7	100.0
Jan 5	95.3	90.7	101.7
Jan 6	95.5	90.9	99.6
Jan 7	98.0	93.6	103.0
Jan 8	95.8	74.5	109.5
Jan 9	96.0	91.9	100.9
Jan 10	93.6	89.4	97.7
Jan 11	78.6	69.9	87.6
Jan 12	79.4	70.4	92.5
Jan 13	79.9	69.7	92.2
Jan 14	81.0	73.2	86.8
Jan 15	68.4	63.8	72.5
Jan 16	74.9	68.2	84.9
Jan 17	77.5	72.6	83.9
Jan 18	72.3	68.2	77.7
Jan 19	70.1	63.4	77.6
Jan 20	68.7	62.2	80.1
Jan 21	83.9	62.6	106.7
Jan 22	100.0	96.7	102.3
Jan 23	97.2	92.2	101.0
Jan 24	92.5	90.5	94.8
Jan 25	81.2	40.4	97.2
Jan 26	86.2	81.4	92.0
Jan 27	85.9	82.0	90.2
Jan 28	86.5	82.4	91.9
Jan 29	86.0	82.1	95.6
Jan 30	86.3	83.9	90.0
Summary	**86.6**	**68.4**	**100.0**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 63

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	36.4	27.7	53.9
Jan 2	40.1	26.6	58.0
Jan 3	45.9	34.2	59.8
Jan 4	39.5	26.6	59.8
Jan 5	42.3	27.5	64.5
Jan 6	45.7	31.8	58.2
Jan 7	54.7	37.3	71.5
Jan 8	49.2	34.0	69.4
Jan 9	52.6	42.9	67.3
Jan 10	53.7	47.2	55.1
Jan 11	34.4	26.6	45.8
Jan 12	32.5	26.6	47.0
Jan 13	37.2	26.6	54.7
Jan 14	39.3	31.8	53.7
Jan 15	27.0	26.6	31.1
Jan 16	32.1	26.6	46.4
Jan 17	37.8	32.7	46.3
Jan 18	30.5	26.6	36.6
Jan 19	30.1	26.6	40.5
Jan 20	28.7	26.6	35.3
Jan 21	38.7	26.6	56.8
Jan 22	40.7	28.6	53.3
Jan 23	35.2	26.6	54.2
Jan 24	29.1	26.6	36.1
Jan 25	32.8	27.4	37.6
Jan 26	27.6	26.6	34.4
Jan 27	27.4	26.6	31.0
Jan 28	27.8	26.6	34.5
Jan 29	27.9	26.6	35.8
Jan 30	27.9	26.6	33.7
Summary	**36.8**	**27.0**	**54.7**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 64

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	36.6	27.4	53.1
Jan 2	40.2	26.6	58.8
Jan 3	46.0	34.3	60.0
Jan 4	39.1	26.6	57.6
Jan 5	42.3	27.5	63.4
Jan 6	46.0	31.8	59.8
Jan 7	54.9	37.2	69.6
Jan 8	49.3	34.4	69.3
Jan 9	52.4	42.9	69.5
Jan 10	54.1	48.2	55.4
Jan 11	35.7	26.6	46.8
Jan 12	32.5	26.6	50.3
Jan 13	36.7	26.6	54.6
Jan 14	39.4	31.3	53.8
Jan 15	27.1	26.6	30.6
Jan 16	32.4	26.6	50.5
Jan 17	38.3	32.6	51.7
Jan 18	31.1	26.6	38.9
Jan 19	30.4	26.6	40.9
Jan 20	28.6	26.6	37.2
Jan 21	38.7	26.6	59.0
Jan 22	41.0	27.8	56.5
Jan 23	35.7	26.6	54.4
Jan 24	29.4	26.6	36.4
Jan 25	33.0	27.1	38.3
Jan 26	27.5	26.6	33.8
Jan 27	27.8	26.6	34.5
Jan 28	27.7	26.6	31.9
Jan 29	28.0	26.6	36.9
Jan 30	27.9	26.6	33.0
Summary	**37.0**	**27.1**	**54.9**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 65

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	136.6	135.9	137.4
Jan 2	137.6	136.8	138.4
Jan 3	138.0	137.5	138.8
Jan 4	137.3	136.7	138.1
Jan 5	137.5	136.2	138.6
Jan 6	137.6	137.1	138.2
Jan 7	137.4	136.5	138.3
Jan 8	137.1	135.4	138.6
Jan 9	137.1	136.1	138.3
Jan 10	136.9	135.2	138.3
Jan 11	132.8	130.8	135.3
Jan 12	133.5	131.3	135.3
Jan 13	133.3	130.8	135.7
Jan 14	130.9	120.8	134.7
Jan 15	109.0	100.4	120.1
Jan 16	102.3	97.0	106.5
Jan 17	97.0	90.0	101.5
Jan 18	84.8	78.4	95.3
Jan 19	77.0	70.5	84.0
Jan 20	73.2	68.3	79.0
Jan 21	104.2	68.6	145.2
Jan 22	137.5	134.5	140.8
Jan 23	127.0	113.0	134.0
Jan 24	109.2	99.9	116.9
Jan 25	90.2	34.7	117.9
Jan 26	94.8	80.2	109.3
Jan 27	79.6	72.9	85.0
Jan 28	72.0	65.4	80.8
Jan 29	73.5	65.6	79.7
Jan 30	74.5	68.8	82.9
Summary	**113.6**	**72.0**	**138.0**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 66

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	168.0	159.1	171.8
Jan 2	170.6	165.6	172.7
Jan 3	171.3	169.7	173.0
Jan 4	170.9	168.4	173.3
Jan 5	169.4	166.5	172.0
Jan 6	169.9	168.1	171.9
Jan 7	170.1	166.1	171.6
Jan 8	174.4	128.5	195.2
Jan 9	191.1	178.9	196.1
Jan 10	189.2	181.2	196.3
Jan 11	176.7	173.9	181.6
Jan 12	174.7	172.5	176.1
Jan 13	184.5	170.1	195.6
Jan 14	194.9	186.9	196.3
Jan 15	180.6	174.7	188.6
Jan 16	185.5	174.2	196.2
Jan 17	177.0	172.3	184.2
Jan 18	164.1	155.8	173.3
Jan 19	184.8	164.3	195.6
Jan 20	187.5	173.9	196.2
Jan 21	191.7	181.0	196.9
Jan 22	193.0	184.7	197.1
Jan 23	187.4	180.9	197.0
Jan 24	175.9	169.8	178.5
Jan 25	172.9	162.5	180.7
Jan 26	168.5	165.5	174.0
Jan 27	166.9	163.9	169.1
Jan 28	165.0	161.4	169.4
Jan 29	162.6	159.1	166.9
Jan 30	159.2	154.9	164.6
Summary	**176.6**	**159.2**	**194.9**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 67

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	169.0	156.2	173.7
Jan 2	171.8	166.1	175.9
Jan 3	172.0	168.3	174.9
Jan 4	167.7	160.0	171.6
Jan 5	169.5	164.8	174.5
Jan 6	169.8	163.9	173.6
Jan 7	169.7	163.2	173.0
Jan 8	168.4	161.3	172.7
Jan 9	170.8	165.7	175.2
Jan 10	170.3	158.7	176.3
Jan 11	159.2	146.8	171.1
Jan 12	167.8	163.2	172.5
Jan 13	169.8	166.3	173.6
Jan 14	167.7	145.3	174.0
Jan 15	155.1	141.3	170.6
Jan 16	167.3	161.1	170.6
Jan 17	165.1	157.3	170.2
Jan 18	162.4	153.3	171.8
Jan 19	160.6	149.3	174.0
Jan 20	159.7	143.2	169.3
Jan 21	166.3	163.1	169.2
Jan 22	165.1	157.8	171.8
Jan 23	163.0	154.7	169.2
Jan 24	155.2	144.9	165.8
Jan 25	165.2	150.0	175.9
Jan 26	158.5	152.1	172.1
Jan 27	165.2	161.7	169.0
Jan 28	165.5	159.6	172.4
Jan 29	165.1	158.7	170.1
Jan 30	163.9	155.2	168.9
Summary	**165.6**	**155.1**	**172.0**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 68

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	136.6	132.7	138.6
Jan 2	138.0	136.8	139.5
Jan 3	137.7	136.0	139.0
Jan 4	120.3	108.3	136.7
Jan 5	117.5	112.6	123.2
Jan 6	117.5	112.5	122.8
Jan 7	120.6	115.0	124.2
Jan 8	123.6	113.5	131.7
Jan 9	131.0	123.5	134.4
Jan 10	134.5	132.7	136.2
Jan 11	131.9	129.7	133.8
Jan 12	134.0	131.0	136.6
Jan 13	135.6	132.9	137.7
Jan 14	133.2	127.8	136.5
Jan 15	132.6	121.9	137.1
Jan 16	135.0	132.4	137.3
Jan 17	131.5	126.8	136.1
Jan 18	133.2	129.6	138.9
Jan 19	133.9	127.2	139.5
Jan 20	134.4	128.7	138.7
Jan 21	145.2	129.9	161.6
Jan 22	155.3	148.9	161.8
Jan 23	147.6	141.9	154.4
Jan 24	140.0	136.7	143.1
Jan 25	134.5	86.3	149.7
Jan 26	139.6	136.0	149.9
Jan 27	136.5	134.0	137.8
Jan 28	135.6	134.0	137.2
Jan 29	137.1	133.3	142.5
Jan 30	139.4	134.6	147.1
Summary	**134.1**	**117.5**	**155.3**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 69

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	110.6	108.9	113.7
Jan 2	112.0	110.1	114.1
Jan 3	112.9	111.9	114.5
Jan 4	112.6	111.0	115.4
Jan 5	112.9	110.6	115.7
Jan 6	112.8	111.4	114.1
Jan 7	114.5	113.2	117.9
Jan 8	114.5	112.8	117.7
Jan 9	113.0	111.5	114.3
Jan 10	110.5	109.0	112.4
Jan 11	106.4	103.7	109.0
Jan 12	107.5	104.6	112.0
Jan 13	108.8	106.0	112.5
Jan 14	108.8	106.5	111.2
Jan 15	105.2	103.9	106.5
Jan 16	107.8	105.3	111.6
Jan 17	109.1	107.8	110.7
Jan 18	107.8	106.4	110.4
Jan 19	107.3	104.9	110.3
Jan 20	107.8	106.4	110.4
Jan 21	107.3	103.8	113.3
Jan 22	104.3	102.4	109.0
Jan 23	103.0	99.2	108.3
Jan 24	96.8	94.3	98.9
Jan 25	78.4	33.5	100.1
Jan 26	95.4	92.1	99.4
Jan 27	92.7	88.5	97.4
Jan 28	92.2	88.8	96.2
Jan 29	91.5	89.1	95.5
Jan 30	87.6	82.3	91.0
Summary	**105.1**	**78.4**	**114.5**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 70

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	37.6	29.8	60.4
Jan 2	41.8	29.8	63.9
Jan 3	46.6	34.9	63.7
Jan 4	41.6	29.8	67.9
Jan 5	43.5	29.8	71.2
Jan 6	46.1	31.3	61.0
Jan 7	56.6	38.1	77.3
Jan 8	49.2	33.7	73.4
Jan 9	52.8	42.0	70.1
Jan 10	54.5	49.3	57.9
Jan 11	38.2	29.8	48.0
Jan 12	35.9	29.8	55.7
Jan 13	38.0	29.8	57.9
Jan 14	40.2	32.3	56.9
Jan 15	30.2	29.8	33.7
Jan 16	34.5	29.8	56.1
Jan 17	38.5	33.2	54.7
Jan 18	33.6	29.8	45.4
Jan 19	33.9	29.8	48.1
Jan 20	32.5	29.8	47.7
Jan 21	41.6	29.8	69.8
Jan 22	43.2	29.8	66.3
Jan 23	38.2	29.8	61.2
Jan 24	31.6	29.8	37.4
Jan 25	33.6	29.8	38.3
Jan 26	30.4	29.8	34.4
Jan 27	31.5	29.8	44.5
Jan 28	30.7	29.8	37.7
Jan 29	31.5	29.8	42.2
Jan 30	30.8	29.8	35.5
Summary	**39.0**	**30.2**	**56.6**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 71

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	141.1	140.6	141.5
Jan 2	141.4	141.0	141.8
Jan 3	141.7	141.3	142.1
Jan 4	141.4	141.1	141.7
Jan 5	141.5	141.2	141.8
Jan 6	141.4	141.0	141.9
Jan 7	141.7	141.4	142.0
Jan 8	141.9	141.5	142.6
Jan 9	141.4	140.5	142.0
Jan 10	140.4	139.1	141.4
Jan 11	139.3	138.3	140.1
Jan 12	140.2	139.7	141.1
Jan 13	140.7	140.3	141.1
Jan 14	140.5	139.3	141.2
Jan 15	139.4	138.7	140.5
Jan 16	140.5	139.8	141.0
Jan 17	140.5	139.7	140.9
Jan 18	140.1	139.5	140.7
Jan 19	139.7	138.6	140.5
Jan 20	140.0	138.8	140.7
Jan 21	140.7	139.8	141.2
Jan 22	140.6	140.1	141.0
Jan 23	140.3	139.1	140.8
Jan 24	138.8	138.1	140.1
Jan 25	129.7	90.0	140.6
Jan 26	138.9	138.1	140.1
Jan 27	138.8	137.9	140.0
Jan 28	139.1	137.9	140.3
Jan 29	140.0	138.6	140.5
Jan 30	139.4	137.5	140.5
Summary	**140.0**	**129.7**	**141.9**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 72

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	137.3	136.4	138.3
Jan 2	138.2	137.3	139.2
Jan 3	138.7	138.3	139.7
Jan 4	138.2	137.3	139.4
Jan 5	138.7	137.5	139.9
Jan 6	138.8	137.5	139.9
Jan 7	139.2	138.0	140.4
Jan 8	139.8	138.7	141.2
Jan 9	138.0	135.7	140.1
Jan 10	133.9	130.4	137.9
Jan 11	128.6	125.9	130.3
Jan 12	133.5	129.0	136.5
Jan 13	135.8	133.8	137.4
Jan 14	135.3	130.5	137.0
Jan 15	130.8	129.7	133.4
Jan 16	134.4	132.4	136.4
Jan 17	134.4	131.7	135.7
Jan 18	133.6	131.8	135.3
Jan 19	132.4	130.4	134.8
Jan 20	133.1	131.3	134.5
Jan 21	135.6	133.7	138.0
Jan 22	135.2	134.3	136.2
Jan 23	134.2	131.3	135.5
Jan 24	132.0	129.6	134.3
Jan 25	122.4	85.7	135.3
Jan 26	126.0	123.9	128.8
Jan 27	129.4	127.1	131.6
Jan 28	130.1	127.6	133.0
Jan 29	132.3	128.3	133.8
Jan 30	131.7	128.7	134.2
Summary	**134.0**	**122.4**	**139.8**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 73

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	118.2	117.8	118.8
Jan 2	118.6	118.2	119.2
Jan 3	118.9	118.4	119.4
Jan 4	118.7	118.2	119.7
Jan 5	118.9	118.2	120.0
Jan 6	118.9	118.4	119.4
Jan 7	117.3	114.1	120.0
Jan 8	114.9	113.6	116.4
Jan 9	113.4	112.1	114.9
Jan 10	111.3	109.2	112.9
Jan 11	107.7	106.1	109.6
Jan 12	106.4	100.2	111.6
Jan 13	98.8	96.1	103.7
Jan 14	93.0	85.9	96.2
Jan 15	81.7	78.9	85.1
Jan 16	86.2	80.6	94.1
Jan 17	89.1	86.2	92.2
Jan 18	86.0	83.0	89.4
Jan 19	81.5	77.6	86.4
Jan 20	77.7	72.5	82.9
Jan 21	90.0	73.8	110.7
Jan 22	108.7	107.5	110.1
Jan 23	106.9	104.3	109.6
Jan 24	103.0	101.9	104.7
Jan 25	88.7	41.1	103.5
Jan 26	100.5	98.2	102.6
Jan 27	100.5	98.2	103.1
Jan 28	100.3	98.4	102.7
Jan 29	100.2	98.6	102.3
Jan 30	98.4	94.3	100.4
Summary	**102.5**	**77.7**	**118.9**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 74

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	116.6	113.2	119.0
Jan 2	119.3	117.7	121.5
Jan 3	119.2	118.1	120.9
Jan 4	116.9	114.6	118.7
Jan 5	118.4	115.8	120.3
Jan 6	119.1	117.3	120.8
Jan 7	118.7	117.5	120.5
Jan 8	118.8	116.4	121.4
Jan 9	117.5	113.7	120.5
Jan 10	115.9	113.1	119.4
Jan 11	106.9	101.3	113.8
Jan 12	112.2	105.4	116.8
Jan 13	118.1	114.3	121.9
Jan 14	118.9	110.9	122.8
Jan 15	109.7	106.8	112.8
Jan 16	115.2	111.0	119.7
Jan 17	114.9	112.0	117.7
Jan 18	113.5	110.2	116.0
Jan 19	110.5	105.5	115.0
Jan 20	110.4	107.1	113.5
Jan 21	115.2	110.6	119.6
Jan 22	115.6	113.1	117.4
Jan 23	113.9	108.3	116.2
Jan 24	109.0	105.5	113.3
Jan 25	95.4	36.3	123.4
Jan 26	106.8	102.8	115.1
Jan 27	107.8	104.3	110.7
Jan 28	108.9	106.4	113.0
Jan 29	111.6	106.5	114.9
Jan 30	111.4	106.8	114.6
Summary	**113.5**	**95.4**	**119.3**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 75

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	98.6	95.4	103.5
Jan 2	103.5	98.4	107.1
Jan 3	103.7	100.4	107.7
Jan 4	101.8	96.6	107.8
Jan 5	103.4	96.7	111.3
Jan 6	102.3	98.2	107.8
Jan 7	104.0	101.8	109.9
Jan 8	104.5	99.0	111.6
Jan 9	117.3	103.3	128.2
Jan 10	124.4	122.6	126.2
Jan 11	122.0	120.8	122.8
Jan 12	89.0	29.8	124.3
Jan 13	41.9	29.8	68.6
Jan 14	41.6	33.7	59.3
Jan 15	30.1	29.8	34.0
Jan 16	35.5	29.8	58.6
Jan 17	39.8	34.7	56.6
Jan 18	33.9	29.8	50.6
Jan 19	34.2	29.8	50.9
Jan 20	33.9	29.8	47.6
Jan 21	42.9	29.8	69.8
Jan 22	44.6	32.6	64.2
Jan 23	39.6	29.8	65.2
Jan 24	31.0	29.8	36.4
Jan 25	33.4	29.8	37.6
Jan 26	30.5	29.8	36.2
Jan 27	32.5	29.8	43.1
Jan 28	31.4	29.8	39.6
Jan 29	32.3	29.8	47.6
Jan 30	30.6	29.8	35.4
Summary	**63.8**	**30.1**	**124.4**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 76

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	127.1	126.8	127.2
Jan 2	127.2	127.0	127.4
Jan 3	127.3	127.2	127.6
Jan 4	127.4	127.1	127.6
Jan 5	127.4	127.2	127.8
Jan 6	127.4	127.2	127.6
Jan 7	124.8	60.2	127.8
Jan 8	127.6	127.3	128.1
Jan 9	127.5	127.2	127.7
Jan 10	127.0	126.7	127.5
Jan 11	126.4	126.2	126.5
Jan 12	126.7	126.4	126.9
Jan 13	126.7	126.5	127.0
Jan 14	126.6	126.3	126.8
Jan 15	126.2	126.1	126.3
Jan 16	126.5	126.3	126.8
Jan 17	126.6	126.3	126.8
Jan 18	126.4	126.2	126.6
Jan 19	126.2	126.0	126.5
Jan 20	126.1	125.9	126.3
Jan 21	126.3	125.9	126.7
Jan 22	126.3	126.1	126.5
Jan 23	126.2	125.8	126.6
Jan 24	126.0	125.7	126.1
Jan 25	120.1	75.8	126.6
Jan 26	125.6	125.4	125.8
Jan 27	125.6	125.5	125.9
Jan 28	125.6	125.4	125.8
Jan 29	125.8	125.5	126.0
Jan 30	125.8	125.5	126.0
Summary	**126.3**	**120.1**	**127.6**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 77

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	38.8	31.1	57.9
Jan 2	44.2	29.9	65.6
Jan 3	48.4	39.6	62.8
Jan 4	44.3	29.9	67.1
Jan 5	46.9	29.9	71.8
Jan 6	47.4	33.6	61.4
Jan 7	58.0	42.7	75.1
Jan 8	52.7	37.2	72.9
Jan 9	53.8	45.1	69.2
Jan 10	54.7	49.4	57.1
Jan 11	36.8	29.9	48.1
Jan 12	36.7	29.9	51.4
Jan 13	40.9	29.9	59.4
Jan 14	40.6	32.1	54.7
Jan 15	29.9	29.9	29.9
Jan 16	34.7	29.9	48.4
Jan 17	39.2	34.3	48.0
Jan 18	32.4	29.9	37.7
Jan 19	32.9	29.9	44.2
Jan 20	31.7	29.9	40.1
Jan 21	41.8	29.9	62.6
Jan 22	43.0	31.0	56.3
Jan 23	37.9	29.9	59.8
Jan 24	31.0	29.9	36.8
Jan 25	33.6	29.9	38.3
Jan 26	30.3	29.9	35.2
Jan 27	30.9	29.9	36.2
Jan 28	31.0	29.9	38.7
Jan 29	31.1	29.9	37.5
Jan 30	30.5	29.9	35.0
Summary	**39.5**	**29.9**	**58.0**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 78

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	104.2	102.1	106.2
Jan 2	105.8	104.2	107.6
Jan 3	107.2	105.7	109.2
Jan 4	105.6	102.7	108.7
Jan 5	106.8	104.3	109.6
Jan 6	107.2	105.8	108.7
Jan 7	107.4	105.5	110.3
Jan 8	107.8	105.3	111.6
Jan 9	106.0	103.3	108.2
Jan 10	104.4	100.9	107.2
Jan 11	98.2	95.6	101.0
Jan 12	101.6	98.2	107.2
Jan 13	104.8	101.9	107.7
Jan 14	105.0	99.6	107.2
Jan 15	98.4	96.3	100.3
Jan 16	102.4	99.0	107.0
Jan 17	102.4	98.5	104.7
Jan 18	101.8	98.7	104.3
Jan 19	99.4	96.1	102.5
Jan 20	98.7	94.3	101.8
Jan 21	104.0	99.6	108.9
Jan 22	103.8	101.6	107.2
Jan 23	103.8	100.9	108.5
Jan 24	101.9	99.2	104.1
Jan 25	97.7	61.7	108.1
Jan 26	95.6	91.3	99.3
Jan 27	95.8	91.8	101.0
Jan 28	96.3	92.8	100.1
Jan 29	98.2	94.5	100.4
Jan 30	98.8	96.3	101.7
Summary	**102.4**	**95.6**	**107.8**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 79

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	39.8	33.4	54.3
Jan 2	45.4	31.7	61.7
Jan 3	49.5	40.0	62.9
Jan 4	45.3	31.3	65.0
Jan 5	47.8	32.3	69.0
Jan 6	48.7	35.8	62.0
Jan 7	58.1	43.0	74.5
Jan 8	53.6	39.4	71.9
Jan 9	54.5	46.8	70.0
Jan 10	54.8	50.5	57.1
Jan 11	37.9	29.9	48.8
Jan 12	36.9	29.9	55.0
Jan 13	40.6	29.9	56.8
Jan 14	41.3	34.2	54.9
Jan 15	30.0	29.9	31.6
Jan 16	35.6	29.9	56.7
Jan 17	40.2	35.1	54.4
Jan 18	33.2	29.9	42.8
Jan 19	33.3	29.9	45.6
Jan 20	32.4	29.9	43.6
Jan 21	42.0	29.9	63.4
Jan 22	43.9	31.2	60.9
Jan 23	38.3	29.9	57.7
Jan 24	31.2	29.9	37.3
Jan 25	33.8	29.9	37.9
Jan 26	30.4	29.9	34.9
Jan 27	31.2	29.9	39.9
Jan 28	30.9	29.9	36.6
Jan 29	31.2	29.9	38.6
Jan 30	30.6	29.9	35.0
Summary	**40.1**	**30.0**	**58.1**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 80

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	37.0	29.8	58.3
Jan 2	42.8	29.8	65.4
Jan 3	46.7	34.5	63.8
Jan 4	42.0	29.8	64.9
Jan 5	44.6	29.8	69.4
Jan 6	46.5	31.4	61.7
Jan 7	55.8	37.3	74.7
Jan 8	50.5	34.6	73.7
Jan 9	52.9	42.4	69.4
Jan 10	54.7	50.4	56.9
Jan 11	36.6	29.8	48.6
Jan 12	35.9	29.8	54.2
Jan 13	39.9	29.8	60.1
Jan 14	40.0	30.7	56.1
Jan 15	30.0	29.8	32.9
Jan 16	34.1	29.8	48.1
Jan 17	38.4	32.4	52.1
Jan 18	32.4	29.8	43.1
Jan 19	33.3	29.8	44.9
Jan 20	32.1	29.8	40.4
Jan 21	41.4	29.8	63.5
Jan 22	42.2	29.8	62.2
Jan 23	38.1	29.8	61.7
Jan 24	31.2	29.8	37.0
Jan 25	33.4	29.8	38.5
Jan 26	30.3	29.8	34.2
Jan 27	31.1	29.8	37.7
Jan 28	30.8	29.8	37.3
Jan 29	31.1	29.8	38.1
Jan 30	30.5	29.8	34.4
Summary	**38.9**	**30.0**	**55.8**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 81

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	161.6	160.0	162.7
Jan 2	162.7	161.6	163.5
Jan 3	162.8	161.6	163.3
Jan 4	161.7	160.6	162.4
Jan 5	161.7	160.4	162.6
Jan 6	161.3	159.4	162.3
Jan 7	160.3	159.4	160.8
Jan 8	160.3	159.8	161.0
Jan 9	161.2	159.6	162.9
Jan 10	161.1	157.3	163.6
Jan 11	159.7	157.0	161.5
Jan 12	162.9	160.6	165.0
Jan 13	165.8	163.8	168.1
Jan 14	166.9	162.4	168.8
Jan 15	162.5	160.1	164.7
Jan 16	165.8	164.0	167.5
Jan 17	165.7	163.9	167.1
Jan 18	164.9	163.4	166.7
Jan 19	163.5	161.0	166.4
Jan 20	163.0	159.7	165.2
Jan 21	165.4	163.7	167.4
Jan 22	165.8	164.2	167.0
Jan 23	165.2	162.2	166.9
Jan 24	163.9	161.6	165.8
Jan 25	135.4	41.7	176.0
Jan 26	160.9	159.1	164.5
Jan 27	162.4	160.9	164.0
Jan 28	163.1	161.1	165.8
Jan 29	165.0	162.3	167.0
Jan 30	165.6	163.7	167.0
Summary	**162.3**	**135.4**	**166.9**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 82

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	167.9	164.6	170.3
Jan 2	169.2	165.9	170.3
Jan 3	169.6	169.0	170.1
Jan 4	167.8	164.8	169.1
Jan 5	167.8	165.8	168.9
Jan 6	167.5	163.7	169.1
Jan 7	167.2	164.4	168.9
Jan 8	168.8	168.1	169.9
Jan 9	166.6	163.0	169.0
Jan 10	160.7	153.4	167.1
Jan 11	149.7	142.6	154.6
Jan 12	158.2	154.1	162.1
Jan 13	162.4	159.3	165.6
Jan 14	162.5	154.5	166.1
Jan 15	155.9	151.9	161.4
Jan 16	164.9	162.4	166.6
Jan 17	164.2	160.3	166.9
Jan 18	163.3	160.2	166.0
Jan 19	160.7	154.9	166.6
Jan 20	160.5	154.2	165.7
Jan 21	165.5	163.0	167.5
Jan 22	165.4	162.3	167.1
Jan 23	165.4	162.6	167.1
Jan 24	164.9	162.8	166.6
Jan 25	159.8	149.4	166.5
Jan 26	151.6	144.2	157.5
Jan 27	155.0	150.2	159.0
Jan 28	155.4	150.4	162.3
Jan 29	161.6	153.8	165.1
Jan 30	163.9	161.3	165.3
Summary	**162.8**	**149.7**	**169.6**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 83

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	150.6	146.8	154.1
Jan 2	152.6	151.0	153.7
Jan 3	152.6	150.6	154.6
Jan 4	150.7	148.8	152.9
Jan 5	152.0	149.6	154.4
Jan 6	153.7	150.3	157.7
Jan 7	161.0	107.7	172.2
Jan 8	171.7	170.8	172.6
Jan 9	171.0	168.7	172.2
Jan 10	169.6	166.9	172.1
Jan 11	163.3	156.8	167.0
Jan 12	169.3	166.1	171.8
Jan 13	171.3	169.5	173.5
Jan 14	171.2	165.7	174.0
Jan 15	166.9	164.0	170.9
Jan 16	171.0	168.9	172.6
Jan 17	170.3	167.0	172.7
Jan 18	169.4	166.4	171.8
Jan 19	167.9	164.8	171.3
Jan 20	168.3	164.6	170.7
Jan 21	170.3	167.2	172.4
Jan 22	170.3	168.2	171.9
Jan 23	169.7	166.6	171.7
Jan 24	168.0	165.7	170.3
Jan 25	148.7	83.7	177.1
Jan 26	166.0	162.9	170.2
Jan 27	167.6	165.3	169.5
Jan 28	167.1	164.4	171.3
Jan 29	169.4	166.0	171.4
Jan 30	169.4	166.5	171.4
Summary	**164.7**	**148.7**	**171.7**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 84

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	168.7	166.9	170.0
Jan 2	169.9	168.6	171.3
Jan 3	170.1	168.9	171.2
Jan 4	168.6	164.7	170.1
Jan 5	169.3	167.5	171.6
Jan 6	169.2	167.1	171.9
Jan 7	168.9	166.7	171.6
Jan 8	169.0	165.4	171.9
Jan 9	167.1	162.3	172.4
Jan 10	160.8	159.8	162.1
Jan 11	158.8	158.1	159.8
Jan 12	157.9	154.8	158.7
Jan 13	160.0	157.8	161.5
Jan 14	161.6	159.8	162.5
Jan 15	159.5	159.0	160.2
Jan 16	160.7	159.7	161.6
Jan 17	160.8	160.1	161.5
Jan 18	160.3	159.5	160.8
Jan 19	159.7	158.9	160.6
Jan 20	159.1	158.3	159.8
Jan 21	160.4	158.9	162.2
Jan 22	160.8	160.1	161.7
Jan 23	160.2	159.0	161.4
Jan 24	159.2	158.6	160.1
Jan 25	154.6	114.3	168.9
Jan 26	158.5	156.8	161.2
Jan 27	158.4	157.2	159.8
Jan 28	158.6	157.9	159.5
Jan 29	159.3	157.7	160.2
Jan 30	159.6	158.9	160.0
Summary	**162.3**	**154.6**	**170.1**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 85

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	148.6	147.8	150.4
Jan 2	149.6	148.9	150.6
Jan 3	150.0	149.1	150.8
Jan 4	148.9	146.8	150.2
Jan 5	149.6	146.1	153.8
Jan 6	150.0	147.0	154.0
Jan 7	149.3	147.1	151.1
Jan 8	148.5	147.2	150.3
Jan 9	146.3	143.4	148.4
Jan 10	145.1	141.6	147.5
Jan 11	138.0	135.6	141.2
Jan 12	138.0	130.6	145.6
Jan 13	132.7	130.4	134.7
Jan 14	128.5	115.3	133.7
Jan 15	107.8	101.1	112.7
Jan 16	110.6	106.0	117.5
Jan 17	103.7	91.8	108.9
Jan 18	97.2	90.2	104.9
Jan 19	103.7	93.8	117.5
Jan 20	106.1	93.5	117.1
Jan 21	86.2	41.9	120.8
Jan 22	114.4	110.6	123.5
Jan 23	111.6	105.3	117.8
Jan 24	105.2	101.6	110.6
Jan 25	93.9	35.8	123.0
Jan 26	100.6	93.0	111.3
Jan 27	106.9	100.6	116.1
Jan 28	106.3	101.8	116.3
Jan 29	112.8	102.9	118.3
Jan 30	115.1	110.1	117.8
Summary	**123.5**	**86.2**	**150.0**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 86

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	142.7	142.4	143.1
Jan 2	143.2	142.7	143.7
Jan 3	143.4	143.2	143.8
Jan 4	143.0	142.6	143.4
Jan 5	143.4	142.7	144.0
Jan 6	143.7	143.2	144.3
Jan 7	143.9	143.6	144.4
Jan 8	143.9	143.3	144.6
Jan 9	143.7	143.3	144.1
Jan 10	143.6	143.2	144.3
Jan 11	142.3	141.7	143.4
Jan 12	143.3	142.3	144.0
Jan 13	144.3	143.4	145.1
Jan 14	145.0	144.2	145.5
Jan 15	143.7	143.3	144.5
Jan 16	144.5	144.0	144.9
Jan 17	144.6	143.7	144.9
Jan 18	144.5	144.1	144.9
Jan 19	144.4	144.1	144.9
Jan 20	144.2	143.7	144.6
Jan 21	145.1	144.0	145.8
Jan 22	144.8	144.5	145.3
Jan 23	144.2	143.5	144.9
Jan 24	143.7	143.3	144.3
Jan 25	136.6	74.6	147.4
Jan 26	143.3	142.9	144.2
Jan 27	143.9	143.3	144.3
Jan 28	144.1	143.6	144.7
Jan 29	144.4	143.7	144.9
Jan 30	144.6	144.2	144.8
Summary	**143.7**	**136.6**	**145.1**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 87

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	70.7	63.3	83.3
Jan 2	69.7	62.4	82.8
Jan 3	71.8	65.1	81.8
Jan 4	69.8	58.6	85.2
Jan 5	72.4	61.0	87.9
Jan 6	69.4	59.9	80.5
Jan 7	72.0	63.6	82.6
Jan 8	70.0	56.6	87.7
Jan 9	71.7	67.9	82.4
Jan 10	63.5	55.3	72.5
Jan 11	44.9	38.1	54.2
Jan 12	49.2	38.8	67.3
Jan 13	55.4	42.1	73.4
Jan 14	58.3	44.7	67.3
Jan 15	40.3	36.6	45.3
Jan 16	52.0	38.2	64.2
Jan 17	56.2	49.5	60.7
Jan 18	49.3	44.9	58.2
Jan 19	47.2	41.2	55.7
Jan 20	45.7	38.5	51.1
Jan 21	55.9	38.7	77.3
Jan 22	59.1	52.6	68.2
Jan 23	54.2	42.4	72.1
Jan 24	42.8	38.9	50.9
Jan 25	43.0	39.2	48.4
Jan 26	32.4	29.9	41.8
Jan 27	37.3	29.9	48.6
Jan 28	38.9	34.7	47.2
Jan 29	40.1	32.2	51.3
Jan 30	39.9	33.9	46.4
Summary	**54.8**	**32.4**	**72.4**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 88

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	164.9	164.6	165.2
Jan 2	165.3	164.6	165.7
Jan 3	165.3	164.9	165.9
Jan 4	164.7	164.1	165.1
Jan 5	165.1	164.6	165.6
Jan 6	165.3	164.7	165.9
Jan 7	165.0	164.5	165.3
Jan 8	164.9	164.4	165.7
Jan 9	166.0	164.8	167.2
Jan 10	167.7	166.8	168.8
Jan 11	165.8	164.9	166.8
Jan 12	166.3	165.3	167.2
Jan 13	166.9	166.2	167.6
Jan 14	167.2	165.5	167.9
Jan 15	165.3	164.8	165.8
Jan 16	165.8	164.9	167.1
Jan 17	165.7	164.8	166.6
Jan 18	165.4	164.8	165.8
Jan 19	164.5	163.8	165.4
Jan 20	163.9	162.8	164.7
Jan 21	165.4	164.5	166.6
Jan 22	165.3	164.7	165.8
Jan 23	165.2	164.7	165.7
Jan 24	164.9	164.3	165.6
Jan 25	165.4	140.4	173.2
Jan 26	163.9	162.7	165.9
Jan 27	163.8	163.1	164.7
Jan 28	163.7	163.1	164.2
Jan 29	163.9	162.9	164.8
Jan 30	163.7	162.9	164.3
Summary	**165.2**	**163.7**	**167.7**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 89

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	191.2	190.0	192.3
Jan 2	194.0	189.3	197.9
Jan 3	198.3	198.0	198.6
Jan 4	198.6	198.3	198.9
Jan 5	198.7	198.4	199.0
Jan 6	198.6	198.3	198.8
Jan 7	197.7	194.1	198.8
Jan 8	193.6	192.7	194.0
Jan 9	193.4	193.0	193.9
Jan 10	193.0	192.1	193.6
Jan 11	191.3	190.3	192.4
Jan 12	192.0	191.5	192.6
Jan 13	178.5	53.1	192.3
Jan 14	177.6	52.8	188.7
Jan 15	176.7	174.2	180.6
Jan 16	176.0	173.8	178.9
Jan 17	178.6	175.5	182.5
Jan 18	177.6	173.1	179.8
Jan 19	171.7	169.3	174.5
Jan 20	169.5	166.2	172.8
Jan 21	177.9	169.1	189.9
Jan 22	183.2	165.8	189.6
Jan 23	170.9	156.4	189.4
Jan 24	174.2	166.6	185.2
Jan 25	155.5	36.9	187.6
Jan 26	158.2	145.7	168.7
Jan 27	164.9	146.5	183.9
Jan 28	166.1	151.7	188.0
Jan 29	174.7	158.0	187.9
Jan 30	178.9	166.1	187.1
Summary	**181.7**	**155.5**	**198.7**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 90

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	131.3	131.1	131.7
Jan 2	131.5	131.1	131.9
Jan 3	131.6	131.3	131.9
Jan 4	131.4	131.1	131.7
Jan 5	131.5	131.1	132.0
Jan 6	131.6	131.2	131.9
Jan 7	131.7	131.4	132.0
Jan 8	131.6	131.0	132.3
Jan 9	131.4	131.1	131.7
Jan 10	131.1	130.8	131.4
Jan 11	130.4	130.0	131.0
Jan 12	130.7	130.3	131.3
Jan 13	131.0	130.6	131.4
Jan 14	131.1	130.3	131.5
Jan 15	130.3	130.0	131.1
Jan 16	130.9	130.5	131.3
Jan 17	130.8	130.5	131.1
Jan 18	130.3	129.6	131.0
Jan 19	130.5	130.3	130.8
Jan 20	130.4	129.8	130.7
Jan 21	130.7	130.1	131.5
Jan 22	130.8	130.6	131.2
Jan 23	130.6	130.0	131.2
Jan 24	130.1	129.8	130.6
Jan 25	106.6	40.1	132.9
Jan 26	130.0	129.7	130.7
Jan 27	130.2	129.9	130.6
Jan 28	129.9	129.5	130.5
Jan 29	130.0	129.6	130.4
Jan 30	129.7	129.2	130.0
Summary	**130.0**	**106.6**	**131.7**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 91

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	155.6	152.2	157.5
Jan 2	156.7	154.3	158.1
Jan 3	157.1	155.5	158.1
Jan 4	156.2	154.8	157.5
Jan 5	156.5	155.1	157.7
Jan 6	156.3	154.8	157.7
Jan 7	156.6	154.6	158.4
Jan 8	156.8	154.0	158.4
Jan 9	157.2	155.2	158.4
Jan 10	155.7	152.1	157.9
Jan 11	151.2	148.0	154.8
Jan 12	153.9	152.8	155.5
Jan 13	155.0	153.4	157.1
Jan 14	155.3	146.6	158.4
Jan 15	151.6	147.2	155.3
Jan 16	155.4	153.0	157.8
Jan 17	156.4	148.5	160.6
Jan 18	156.1	151.6	159.8
Jan 19	153.8	148.6	157.2
Jan 20	153.6	149.1	156.1
Jan 21	155.3	153.2	157.5
Jan 22	156.0	153.0	157.8
Jan 23	154.2	149.6	156.6
Jan 24	152.0	148.7	154.6
Jan 25	150.6	102.5	157.0
Jan 26	150.1	147.7	154.2
Jan 27	151.4	150.2	153.1
Jan 28	150.9	148.0	153.7
Jan 29	152.2	149.0	154.2
Jan 30	152.7	149.4	154.4
Summary	**154.4**	**150.1**	**157.2**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 92

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	115.0	81.3	144.1
Jan 2	135.0	93.7	155.1
Jan 3	145.1	128.0	155.7
Jan 4	135.2	102.4	148.0
Jan 5	134.9	103.9	150.9
Jan 6	128.2	98.9	150.8
Jan 7	129.1	109.0	152.5
Jan 8	150.4	133.9	160.4
Jan 9	150.7	119.3	161.1
Jan 10	133.7	96.2	156.2
Jan 11	87.1	73.3	106.8
Jan 12	115.5	100.1	131.1
Jan 13	126.1	106.5	144.5
Jan 14	119.2	77.1	151.3
Jan 15	90.3	71.0	131.5
Jan 16	116.3	94.0	133.8
Jan 17	110.1	78.9	134.5
Jan 18	101.2	78.8	132.4
Jan 19	96.6	74.7	127.5
Jan 20	97.4	67.9	121.8
Jan 21	110.5	91.5	126.5
Jan 22	108.7	82.4	127.0
Jan 23	105.7	77.3	123.8
Jan 24	94.3	82.4	109.4
Jan 25	97.5	68.9	124.4
Jan 26	59.1	48.0	84.5
Jan 27	67.5	51.9	81.8
Jan 28	66.9	53.0	100.3
Jan 29	79.6	54.2	101.3
Jan 30	83.2	60.9	101.9
Summary	**109.7**	**59.1**	**150.7**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 93

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	71.2	65.1	75.3
Jan 2	81.7	74.1	88.7
Jan 3	87.8	80.3	98.7
Jan 4	85.0	74.7	101.2
Jan 5	90.3	80.2	110.6
Jan 6	92.0	85.5	100.4
Jan 7	95.3	81.5	105.6
Jan 8	96.7	86.0	115.8
Jan 9	96.0	85.3	106.4
Jan 10	103.4	87.0	121.2
Jan 11	93.2	84.7	108.4
Jan 12	90.3	69.6	106.0
Jan 13	60.6	43.5	78.1
Jan 14	44.4	33.2	59.4
Jan 15	30.8	29.9	35.3
Jan 16	39.0	30.5	62.8
Jan 17	40.1	33.6	56.4
Jan 18	33.9	29.9	47.1
Jan 19	35.7	29.9	49.8
Jan 20	36.3	29.9	47.9
Jan 21	47.6	32.1	72.4
Jan 22	48.0	36.3	65.2
Jan 23	43.6	32.4	67.6
Jan 24	37.8	31.2	47.4
Jan 25	40.7	33.4	49.3
Jan 26	35.5	30.1	44.9
Jan 27	41.9	36.1	56.5
Jan 28	40.9	34.5	51.1
Jan 29	37.0	30.6	49.8
Jan 30	34.4	29.9	44.4
Summary	**60.4**	**30.8**	**103.4**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 94

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	134.0	126.2	138.1
Jan 2	137.1	131.5	140.1
Jan 3	139.6	137.5	141.0
Jan 4	140.4	137.1	143.3
Jan 5	142.1	138.4	144.7
Jan 6	142.1	139.7	145.4
Jan 7	143.1	139.9	146.3
Jan 8	146.4	143.6	148.5
Jan 9	147.1	142.8	149.1
Jan 10	147.7	144.3	150.4
Jan 11	145.7	142.7	147.6
Jan 12	148.5	145.7	150.0
Jan 13	139.6	134.4	146.1
Jan 14	122.1	105.0	133.4
Jan 15	115.1	105.8	127.2
Jan 16	119.6	111.8	125.7
Jan 17	107.9	100.8	114.8
Jan 18	105.7	99.7	115.2
Jan 19	113.5	103.4	125.6
Jan 20	118.4	107.8	127.0
Jan 21	122.9	117.0	131.0
Jan 22	117.2	110.9	122.9
Jan 23	120.4	112.7	124.6
Jan 24	120.2	116.3	124.9
Jan 25	117.7	101.8	129.2
Jan 26	119.3	116.4	123.1
Jan 27	121.8	118.7	124.3
Jan 28	118.8	112.5	125.6
Jan 29	113.1	106.3	120.9
Jan 30	106.7	97.8	111.6
Summary	**127.8**	**105.7**	**148.5**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 95

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	136.7	136.1	137.8
Jan 2	137.0	135.9	138.1
Jan 3	137.2	136.2	137.8
Jan 4	136.4	133.9	137.9
Jan 5	136.4	134.5	138.1
Jan 6	137.0	136.2	137.6
Jan 7	137.4	136.8	138.2
Jan 8	136.9	135.7	138.0
Jan 9	136.2	135.0	137.2
Jan 10	134.4	133.2	135.6
Jan 11	131.9	130.6	133.3
Jan 12	115.8	74.9	133.2
Jan 13	95.2	69.8	127.4
Jan 14	135.0	131.1	137.6
Jan 15	130.5	126.9	135.3
Jan 16	116.9	45.2	136.0
Jan 17	134.8	132.2	136.8
Jan 18	135.0	133.2	136.6
Jan 19	131.9	131.0	133.0
Jan 20	131.9	130.6	132.8
Jan 21	128.1	114.4	132.8
Jan 22	134.3	130.4	136.9
Jan 23	133.2	129.3	135.7
Jan 24	129.8	126.5	133.9
Jan 25	110.2	55.2	134.5
Jan 26	131.3	129.5	134.5
Jan 27	130.6	128.1	133.3
Jan 28	129.6	120.6	133.1
Jan 29	123.7	120.2	130.4
Jan 30	128.5	127.1	130.0
Summary	**130.1**	**95.2**	**137.4**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 96

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	126.1	122.3	127.4
Jan 2	127.5	125.3	129.2
Jan 3	128.3	126.9	129.4
Jan 4	128.2	126.4	130.2
Jan 5	129.0	127.6	130.7
Jan 6	129.1	128.0	130.5
Jan 7	130.2	129.1	131.4
Jan 8	130.5	127.1	132.2
Jan 9	131.4	130.9	132.7
Jan 10	130.1	127.4	131.9
Jan 11	126.6	123.7	129.8
Jan 12	126.4	125.3	127.4
Jan 13	125.2	123.9	127.2
Jan 14	118.3	108.2	125.5
Jan 15	119.0	110.1	125.5
Jan 16	123.6	120.8	124.7
Jan 17	121.5	111.7	124.3
Jan 18	120.2	114.4	125.5
Jan 19	123.6	119.9	126.6
Jan 20	124.6	121.4	126.4
Jan 21	126.1	123.8	127.6
Jan 22	126.0	123.6	127.8
Jan 23	125.6	123.0	127.7
Jan 24	123.7	120.3	126.7
Jan 25	107.6	47.9	128.8
Jan 26	123.5	121.6	127.3
Jan 27	123.4	121.5	124.4
Jan 28	122.4	119.7	125.3
Jan 29	123.0	121.3	124.8
Jan 30	122.0	119.6	123.7
Summary	**124.7**	**107.6**	**131.4**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 97

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	159.1	157.8	160.2
Jan 2	159.5	158.7	160.3
Jan 3	159.4	158.2	160.4
Jan 4	158.4	157.3	159.7
Jan 5	158.2	156.4	159.6
Jan 6	158.1	157.2	158.9
Jan 7	157.9	156.0	160.1
Jan 8	157.5	155.0	159.5
Jan 9	158.6	157.7	159.5
Jan 10	156.8	153.6	158.8
Jan 11	154.7	152.2	156.9
Jan 12	156.8	155.3	157.6
Jan 13	158.4	156.6	160.2
Jan 14	164.0	159.9	169.9
Jan 15	156.7	153.7	162.4
Jan 16	158.1	155.0	161.6
Jan 17	163.4	159.6	168.8
Jan 18	163.3	161.4	166.3
Jan 19	157.2	154.7	161.1
Jan 20	155.6	152.0	158.1
Jan 21	156.6	153.9	159.5
Jan 22	159.6	158.1	161.0
Jan 23	157.4	154.5	158.8
Jan 24	154.4	152.3	156.7
Jan 25	156.5	149.7	165.7
Jan 26	151.6	150.2	155.2
Jan 27	152.9	151.7	154.3
Jan 28	152.7	151.2	153.9
Jan 29	153.7	151.4	155.7
Jan 30	154.0	151.8	155.6
Summary	**157.4**	**151.6**	**164.0**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 98

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	55.9	50.5	67.0
Jan 2	60.4	51.2	74.4
Jan 3	65.4	58.2	75.9
Jan 4	60.2	50.9	76.8
Jan 5	61.4	50.3	79.5
Jan 6	64.3	53.9	72.8
Jan 7	71.3	60.5	83.9
Jan 8	67.4	56.7	84.3
Jan 9	70.0	63.7	80.0
Jan 10	69.2	63.6	72.3
Jan 11	50.0	39.9	62.4
Jan 12	45.9	34.4	67.3
Jan 13	49.1	37.7	67.5
Jan 14	53.3	46.1	66.3
Jan 15	41.2	35.4	45.3
Jan 16	49.1	37.1	65.7
Jan 17	56.2	53.2	62.1
Jan 18	51.5	47.5	60.2
Jan 19	50.1	44.5	60.6
Jan 20	47.1	40.2	56.8
Jan 21	54.5	39.9	75.6
Jan 22	59.4	51.7	70.1
Jan 23	55.7	47.6	72.8
Jan 24	49.1	45.0	56.0
Jan 25	54.4	48.7	58.4
Jan 26	42.7	35.0	54.6
Jan 27	42.2	33.5	57.2
Jan 28	45.7	42.8	53.8
Jan 29	45.7	39.0	58.6
Jan 30	47.7	43.0	53.7
Summary	**54.5**	**41.2**	**71.3**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 99

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	141.0	140.8	141.4
Jan 2	141.2	140.9	141.7
Jan 3	141.1	140.9	141.4
Jan 4	140.8	140.5	141.1
Jan 5	140.9	140.5	141.4
Jan 6	140.9	140.6	141.5
Jan 7	140.8	140.5	141.2
Jan 8	140.6	140.0	141.2
Jan 9	140.4	140.0	140.9
Jan 10	140.3	139.9	140.7
Jan 11	140.0	139.6	140.5
Jan 12	140.4	140.1	141.4
Jan 13	141.0	140.4	141.6
Jan 14	141.3	140.5	141.8
Jan 15	140.5	140.0	141.0
Jan 16	141.3	141.0	141.7
Jan 17	141.7	141.2	142.3
Jan 18	141.6	141.4	142.0
Jan 19	141.7	141.5	142.0
Jan 20	141.7	141.3	142.0
Jan 21	142.2	141.6	143.1
Jan 22	142.4	142.2	142.9
Jan 23	142.2	141.6	142.8
Jan 24	141.5	141.0	142.0
Jan 25	124.8	77.3	143.8
Jan 26	141.2	140.8	142.3
Jan 27	141.3	141.0	141.8
Jan 28	141.3	141.1	141.9
Jan 29	141.8	141.1	142.1
Jan 30	141.8	141.3	142.1
Summary	**140.7**	**124.8**	**142.4**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 100

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jan 1	158.5	158.2	158.7
Jan 2	138.0	136.8	139.5
Jan 3	158.8	158.5	159.0
Jan 4	120.3	108.3	136.7
Jan 5	158.6	158.4	158.8
Jan 6	117.5	112.5	122.8
Jan 7	158.8	158.6	159.0
Jan 8	123.6	113.5	131.7
Jan 9	158.9	158.6	159.3
Jan 10	134.5	132.7	136.2
Jan 11	158.1	157.5	158.9
Jan 12	134.0	131.0	136.6
Jan 13	158.3	157.7	158.7
Jan 14	133.2	127.8	136.5
Jan 15	157.3	156.9	157.7
Jan 16	135.0	132.4	137.3
Jan 17	158.1	157.8	158.3
Jan 18	133.2	129.6	138.9
Jan 19	157.5	157.1	157.8
Jan 20	134.4	128.7	138.7
Jan 21	157.8	157.1	158.2
Jan 22	155.3	148.9	161.8
Jan 23	157.6	157.2	157.9
Jan 24	140.0	136.7	143.1
Jan 25	156.0	143.6	161.1
Jan 26	139.6	136.0	149.9
Jan 27	157.0	156.6	157.3
Jan 28	135.6	134.0	137.2
Jan 29	156.9	156.5	157.2
Jan 30	139.4	134.6	147.1
Summary	**157.9**	**156.0**	**159.0**

Appendix D

Solid Waste Permit 588 Daily Borehole Temperature Averages

Appendix D Table of Contents

Section Page

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 1

	Depth from Surface					
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft
1-Jan	161.4	219.5	224.6	250.9	246.5	260.7
2-Jan	161.7	222.2	224.8	249.3	246.7	260.9
3-Jan	161.9	220.0	224.8	251.2	246.7	260.9
4-Jan	162.1	222.4	224.7	249.0	246.5	260.9
5-Jan	162.6	242.7	224.7	234.2	246.7	260.9
6-Jan	162.7	262.3	224.8	223.6	246.8	261.0
7-Jan	163.0	236.6	224.9	236.5	247.0	261.2
8-Jan	162.9	251.4	224.7	223.1	246.9	261.0
9-Jan	163.1	279.0	224.9	211.2	246.9	261.1
10-Jan	164.1	256.0	224.9	219.4	247.1	261.2
11-Jan	163.0	236.9	224.9	227.2	246.4	260.6
12-Jan	162.9	247.6	224.8	222.0	246.4	260.5
13-Jan	163.0	242.9	225.0	223.1	246.6	260.7
14-Jan	161.9	248.3	224.8	221.0	246.8	260.7
15-Jan	161.2	236.2	224.3	224.7	246.4	260.4
16-Jan	161.0	231.3	224.0	229.3	246.4	260.4
17-Jan	161.2	232.6	224.2	231.4	246.6	260.6
18-Jan	161.2	239.0	224.0	224.4	246.5	260.4
19-Jan	161.2	235.7	224.0	226.2	246.4	260.3
20-Jan	161.1	230.0	224.0	231.5	246.2	260.3
21-Jan	161.5	231.1	224.3	230.8	246.5	260.6
22-Jan	161.6	235.2	224.2	224.9	246.6	260.6
23-Jan	161.5	229.7	224.1	227.7	246.5	260.6
24-Jan	161.4	228.8	224.0	227.6	246.4	260.5
25-Jan	161.5	228.8	223.8	227.5	246.5	260.5
26-Jan	161.3	228.5	223.7	227.2	246.3	260.3
27-Jan	160.8	227.4	223.8	227.8	246.3	260.3
28-Jan	159.6	228.8	224.0	227.2	246.4	260.4
29-Jan	159.2	229.9	223.8	226.2	246.1	260.1
30-Jan	-	-	-	-	-	-
31-Jan	-	-	-	-	-	-
Average	**161.8**	**236.6**	**224.4**	**229.5**	**246.6**	**260.6**

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 5

	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Jan	186.7	212.2	212.5	222.0	230.4	233.4	212.5	202.3
2-Jan	186.7	212.4	212.7	222.2	230.6	233.6	212.7	202.5
3-Jan	187.1	212.5	212.7	222.1	230.6	233.6	212.8	202.5
4-Jan	187.2	212.4	212.7	222.1	230.6	233.5	212.7	202.5
5-Jan	187.1	212.5	212.8	222.3	230.6	233.7	212.9	202.6
6-Jan	186.4	212.4	212.6	222.2	230.5	233.6	212.9	202.5
7-Jan	185.4	212.8	213.1	222.5	230.9	233.9	213.2	202.9
8-Jan	179.7	212.6	212.7	222.2	230.6	233.6	212.9	202.5
9-Jan	173.0	212.6	212.8	222.2	230.7	233.6	212.9	202.6
10-Jan	167.4	212.6	212.9	222.2	230.7	233.6	213.0	202.6
11-Jan	157.5	212.2	212.5	221.9	230.2	233.2	212.6	202.2
12-Jan	152.8	212.3	212.5	222.0	230.3	233.3	212.7	202.3
13-Jan	151.6	212.3	212.5	222.0	230.2	233.2	212.6	202.2
14-Jan	170.1	212.2	212.5	222.1	230.2	233.2	212.7	202.2
15-Jan	165.9	212.0	212.3	222.1	230.1	233.0	212.5	202.0
16-Jan	156.9	212.0	212.3	222.1	230.1	233.1	212.5	202.0
17-Jan	160.1	212.1	212.4	222.1	230.2	233.2	212.7	202.2
18-Jan	164.7	212.0	212.3	221.9	230.2	233.1	212.5	202.1
19-Jan	185.1	212.0	212.3	221.9	230.2	233.1	212.5	202.0
20-Jan	186.1	211.9	212.2	221.8	230.2	233.1	212.4	202.0
21-Jan	186.1	212.1	212.4	222.1	230.5	233.4	212.7	202.3
22-Jan	186.3	212.0	212.3	222.0	230.4	233.3	212.6	202.2
23-Jan	186.5	212.1	212.3	222.1	230.4	233.3	212.7	202.3
24-Jan	185.9	211.8	212.1	222.0	230.2	233.1	212.3	202.0
25-Jan	184.5	211.8	212.0	221.9	230.1	233.0	212.2	202.0
26-Jan	183.5	211.8	212.0	221.9	230.1	233.0	212.2	201.9
27-Jan	181.0	211.9	212.2	221.9	230.1	233.1	212.1	201.9
28-Jan	180.1	211.8	212.1	221.8	230.2	233.1	212.1	201.9
29-Jan	178.9	211.9	212.1	221.8	230.2	233.1	212.1	201.9
30-Jan	178.1	211.8	212.0	221.9	230.1	233.1	211.9	201.9
31-Jan	177.3	211.7	211.9	221.8	230.0	233.0	211.8	201.8
Average	**177.0**	**212.2**	**212.4**	**222.0**	**230.3**	**233.3**	**212.5**	**202.2**

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 6

	Depth from Surface				
Date	25 ft	50 ft	75 ft	100 ft	125 ft
1-Jan	176.9	185.5	*	187.8	187.9
2-Jan	179.1	187.9	*	190.0	190.2
3-Jan	181.1	186.7	*	188.7	188.8
4-Jan	180.9	188.7	*	190.9	191.0
5-Jan	180.5	189.1	*	191.1	191.3
6-Jan	181.1	190.5	*	192.1	192.2
7-Jan	183.6	190.0	*	191.4	191.4
8-Jan	183.7	188.6	*	189.8	189.9
9-Jan	183.7	188.5	*	189.6	189.7
10-Jan	179.4	188.1	*	189.8	189.8
11-Jan	170.5	185.8	*	187.6	187.8
12-Jan	170.7	185.8	*	187.4	187.7
13-Jan	171.6	187.7	*	189.6	189.7
14-Jan	173.7	188.7	*	190.8	190.9
15-Jan	173.6	183.8	*	185.7	185.8
16-Jan	173.1	185.4	*	187.1	187.4
17-Jan	173.0	186.0	*	187.7	188.0
18-Jan	172.8	183.5	*	185.6	185.8
19-Jan	172.0	185.7	*	187.8	188.0
20-Jan	170.5	189.2	*	191.2	191.4
21-Jan	171.1	189.2	*	191.1	191.5
22-Jan	172.1	187.2	*	188.7	189.3
23-Jan	172.0	189.2	*	189.9	191.3
24-Jan	171.3	185.0	*	185.6	186.9
25-Jan	170.9	185.4	*	186.0	187.5
26-Jan	170.1	185.2	*	185.6	187.1
27-Jan	171.2	185.5	*	185.5	187.1
28-Jan	171.3	188.0	*	187.7	189.4
29-Jan	170.7	189.7	*	189.2	190.9
30-Jan	169.9	188.5	*	187.9	189.5
31-Jan	168.7	186.5	*	186.0	187.7
Average	**174.5**	**187.2**	**N/A**	**188.5**	**189.1**

* Indicates sensor reading issues

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 8

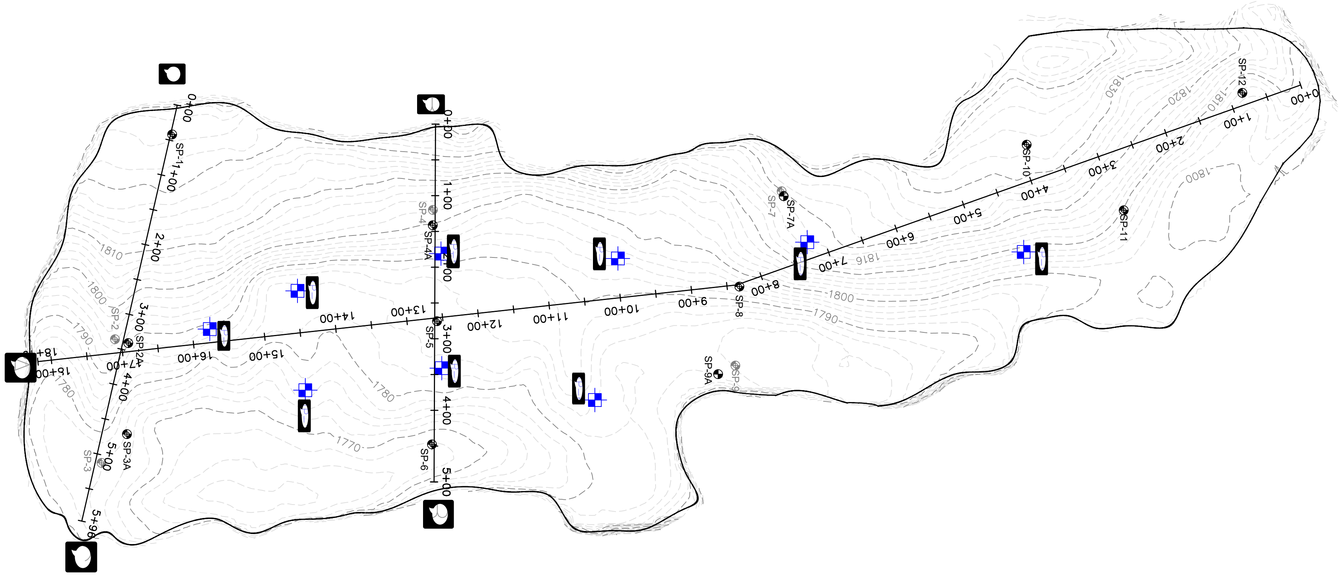
	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Jan	185.8	192.4	192.7	186.7	198.7	198.6	186.0	161.8
2-Jan	186.2	192.5	192.8	194.9	198.7	198.7	186.1	168.9
3-Jan	186.2	192.5	192.8	194.9	198.8	198.7	186.1	169.0
4-Jan	186.1	192.7	193.0	195.2	199.0	198.8	186.1	169.1
5-Jan	186.3	192.6	192.9	195.1	198.9	198.7	186.0	168.9
6-Jan	186.4	192.6	192.9	195.1	198.9	198.8	186.2	169.0
7-Jan	178.6	192.8	193.2	187.2	199.1	199.0	186.3	169.2
8-Jan	186.2	192.7	193.0	195.3	199.0	198.8	186.1	169.0
9-Jan	185.5	192.9	193.1	195.4	199.2	198.9	186.3	169.2
10-Jan	185.2	192.9	193.1	195.4	199.2	199.0	186.1	169.2
11-Jan	184.3	192.5	192.7	195.0	198.8	198.6	185.8	168.7
12-Jan	184.2	192.6	192.8	195.2	199.0	198.7	186.0	168.8
13-Jan	184.8	192.5	192.8	195.0	199.0	198.6	185.9	168.8
14-Jan	185.2	192.4	192.7	194.8	198.8	198.7	185.8	168.8
15-Jan	184.4	192.1	192.5	194.6	198.5	198.4	185.6	168.4
16-Jan	184.1	192.3	192.6	194.8	198.8	198.6	178.0	168.6
17-Jan	184.3	192.4	192.7	194.9	198.8	198.6	185.7	168.7
18-Jan	184.2	192.4	192.7	194.9	198.8	198.6	185.7	168.6
19-Jan	183.6	192.3	192.6	194.8	198.8	198.5	185.6	168.4
20-Jan	183.4	192.4	192.7	195.0	198.9	198.4	185.6	168.4
21-Jan	184.0	192.5	192.9	195.2	199.1	198.7	185.7	168.6
22-Jan	184.2	192.6	192.9	195.1	199.1	198.7	185.8	168.6
23-Jan	184.0	192.6	192.9	195.2	199.1	198.7	185.8	168.5
24-Jan	183.8	192.4	192.7	195.0	199.0	198.5	185.5	168.3
25-Jan	179.5	192.3	192.5	194.7	198.8	198.5	185.5	168.2
26-Jan	177.4	192.3	192.5	194.8	198.7	198.4	185.4	168.1
27-Jan	181.0	192.3	192.6	194.9	198.8	198.4	185.4	168.1
28-Jan	181.4	192.3	192.6	194.8	198.8	198.3	185.5	168.1
29-Jan	181.3	192.3	192.6	194.8	198.8	198.4	185.5	168.0
30-Jan	181.7	192.3	192.6	194.8	198.9	198.5	185.5	168.1
31-Jan	180.8	192.1	192.4	194.6	198.7	198.3	185.4	167.9
Average	**183.7**	**192.5**	**192.8**	**194.5**	**198.9**	**198.6**	**185.6**	**168.4**

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 9

	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Jan	109.8	149.0	148.7	147.1	142.2	130.2	114.9	103.6
2-Jan	110.0	149.1	148.7	147.4	142.4	130.3	115.1	103.8
3-Jan	110.0	149.2	148.8	147.4	142.5	130.4	115.1	103.9
4-Jan	110.0	149.2	148.9	147.4	142.4	130.2	115.0	103.8
5-Jan	110.0	149.3	148.9	147.5	142.5	130.3	115.1	103.9
6-Jan	109.8	149.2	148.8	147.5	142.5	130.4	115.2	103.9
7-Jan	110.4	149.6	149.2	147.9	142.9	130.9	115.5	104.3
8-Jan	110.0	149.4	149.0	147.6	142.7	130.8	115.3	104.1
9-Jan	110.1	149.5	149.1	147.6	142.6	130.8	115.4	104.2
10-Jan	107.5	149.3	148.7	147.8	142.8	130.9	115.5	104.3
11-Jan	106.5	148.1	147.5	147.3	142.2	130.4	114.9	103.6
12-Jan	108.0	148.6	148.3	147.1	142.1	130.1	114.8	103.6
13-Jan	108.7	148.8	148.4	147.2	142.2	130.3	114.9	103.6
14-Jan	109.1	148.7	148.3	147.2	142.1	130.4	114.9	103.5
15-Jan	109.1	148.5	148.2	146.7	141.8	130.0	114.6	103.0
16-Jan	109.6	148.7	148.5	146.7	141.8	129.9	114.6	103.0
17-Jan	110.1	149.1	148.8	146.9	142.0	129.9	114.8	103.3
18-Jan	110.1	149.0	148.8	146.8	141.9	129.6	114.7	103.2
19-Jan	110.2	149.0	148.7	146.7	141.9	129.5	114.7	103.2
20-Jan	110.1	149.0	148.8	146.5	141.8	129.4	114.5	103.0
21-Jan	110.7	149.5	149.2	147.0	142.2	129.7	115.0	103.4
22-Jan	110.7	149.5	149.1	147.1	142.2	129.7	115.0	103.5
23-Jan	110.7	149.4	149.1	147.1	142.2	129.7	115.0	103.5
24-Jan	110.2	149.0	148.8	146.7	141.8	129.3	114.6	103.1
25-Jan	110.0	148.9	148.6	146.9	141.9	129.4	114.7	103.1
26-Jan	108.2	148.2	147.7	146.7	141.7	129.2	114.4	102.8
27-Jan	108.8	148.4	148.1	146.5	141.7	129.2	114.4	102.9
28-Jan	108.8	148.5	148.1	146.5	141.8	129.3	114.5	102.9
29-Jan	109.1	148.6	148.2	146.5	141.7	129.3	114.5	102.7
30-Jan	109.3	148.6	148.3	146.6	141.7	129.4	114.6	102.8
31-Jan	109.2	148.4	148.0	146.4	141.5	129.1	114.4	102.5
Average	**109.5**	**148.9**	**148.6**	**147.0**	**142.1**	**129.9**	**114.9**	**103.4**

Appendix E

Monthly Topography Analysis



THE CONTOUR LINES ONLY WITHIN THE FENCE
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NTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFO
BE USED FOR DESIGN, MODIFICATION, OR CONSTRU
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TOPOGRAPHY CAPTURED ON JANUARY 14, 2025 BY

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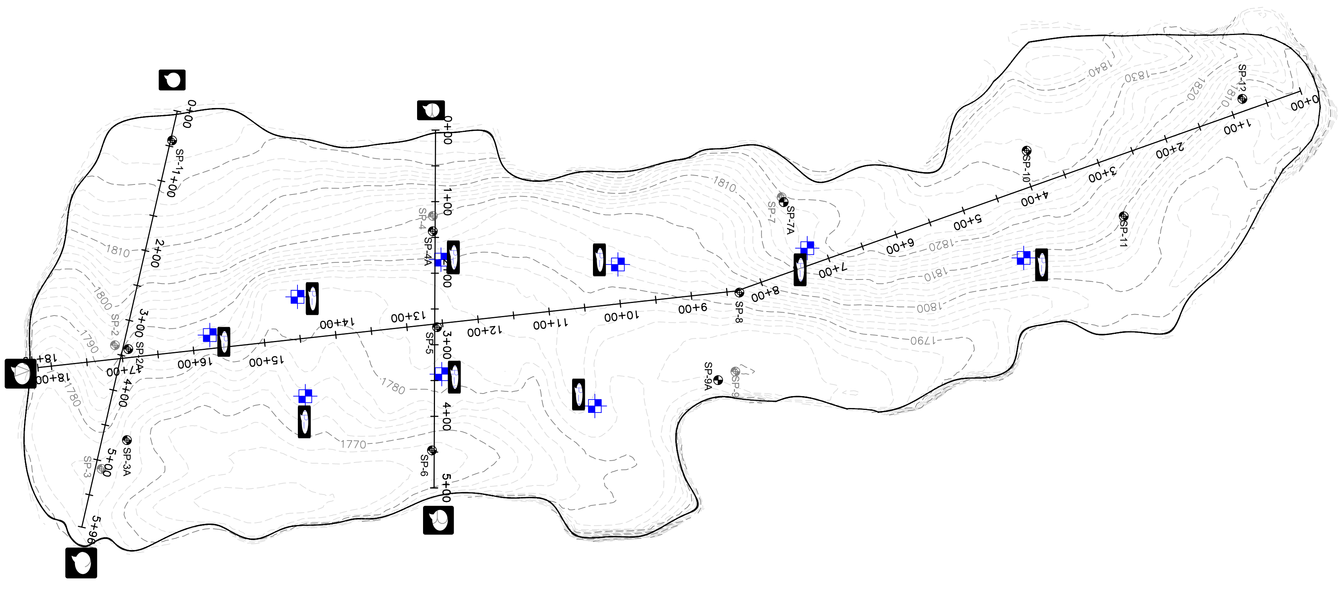
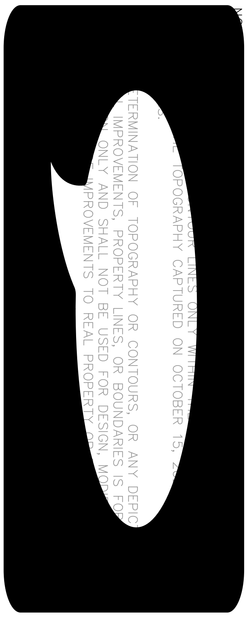
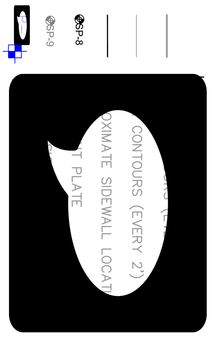
SP-8
CONTOURS (EVERY 2')
OXIMATE SIDEWALL LOCAT
T PLATE

1	SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113 PH. (804) 378-7440 FAX. (804) 378-7433	CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VIRGINIA 24201
8		JANUARY 2025 LANDFILL TOPOGRAPHY MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588







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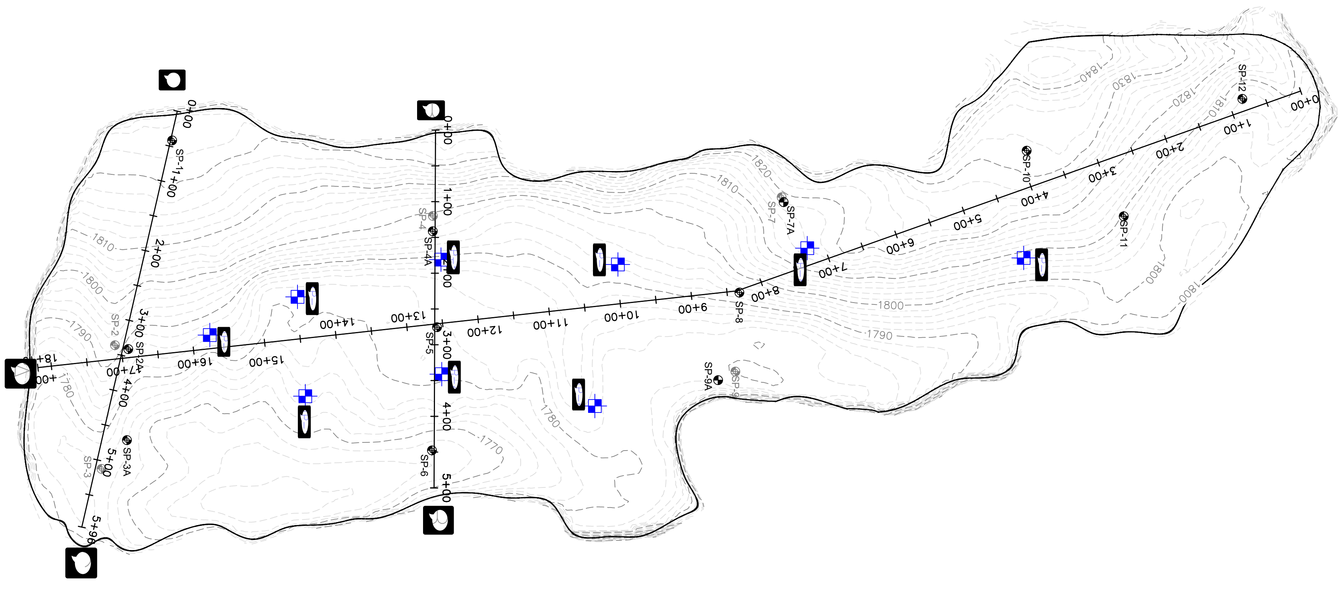
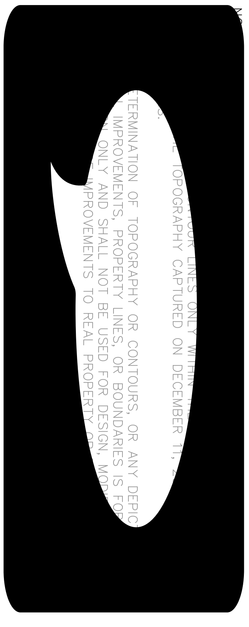
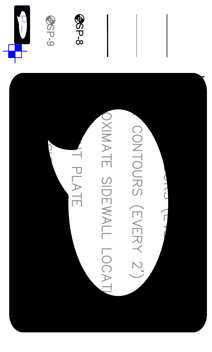
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

OCTOBER 2025
LANDFILL TOPOGRAPHY

MONTHLY TOPOGRAPHY ANALYSIS
SOLID WASTE PERMIT #588







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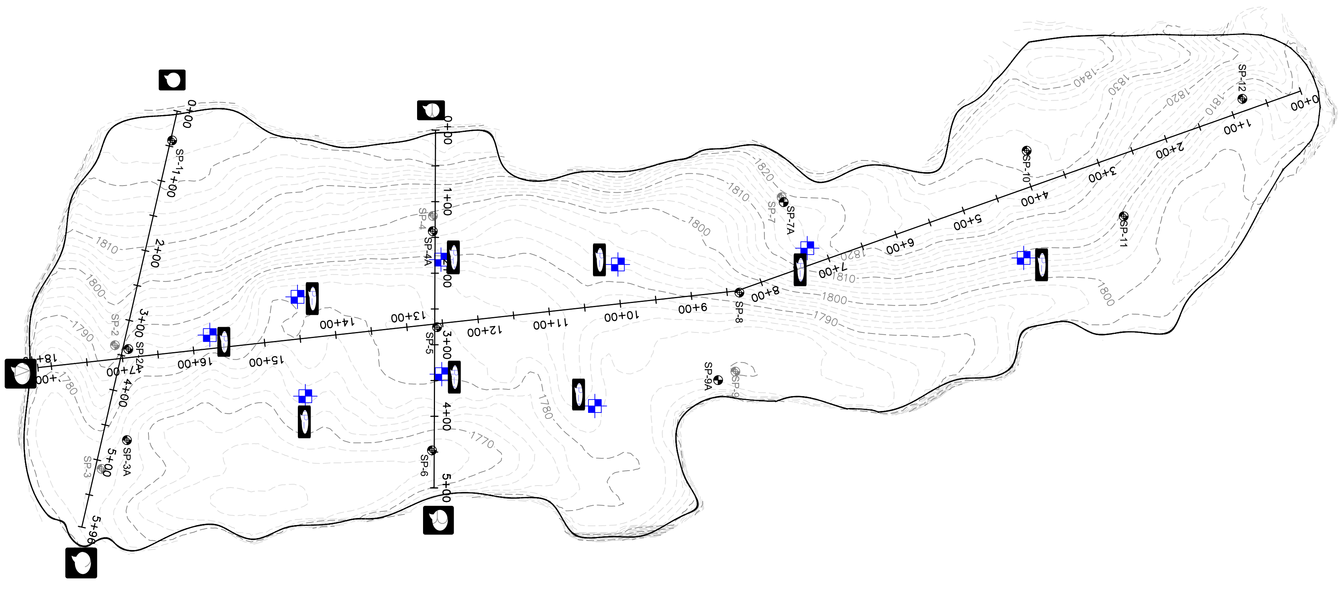
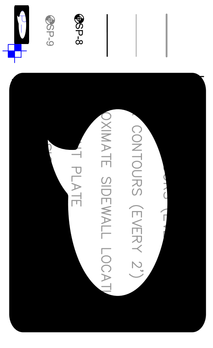
CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

DECEMBER 2025
LANDFILL TOPOGRAPHY

MONTHLY TOPOGRAPHY ANALYSIS
SOLID WASTE PERMIT #588





4	SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113 PH. (804) 378-7440 FAX. (804) 378-7433	CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VIRGINIA 24201	JANUARY 2026 LANDFILL TOPOGRAPHY MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588

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	

JANUARY VOLUME CHANGE
DECEMBER 2025 TO JANUARY 2026

MONTHLY TOPOGRAPHY ANALYSIS
SOLID WASTE PERMIT #588

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

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5

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	

JANUARY VOLUME CHANGE
OCTOBER 2025 TO JANUARY 2026

MONTHLY TOPOGRAPHY ANALYSIS
SOLID WASTE PERMIT #588

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

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6

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	

JANUARY VOLUME CHANGE
JANUARY 2025 TO JANUARY 2026

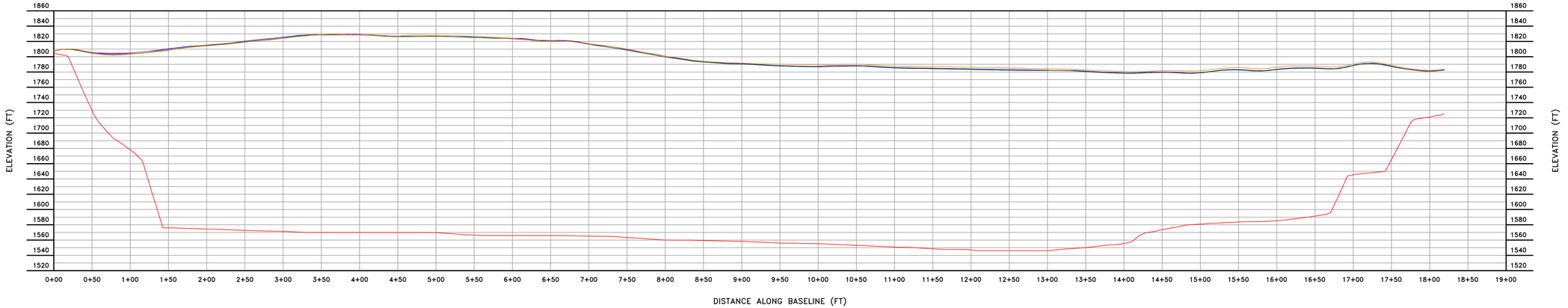
MONTHLY TOPOGRAPHY ANALYSIS
SOLID WASTE PERMIT #588

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

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH: (804) 378-7440 FAX: (804) 378-7453

7

LONGITUDINAL PROFILE A ALIGN



LONGITUDINAL PROFILE B ALIGN

LONGITUDINAL PROFILE C ALIGN

PROFILES

MONTHLY TOPOGRAPHY ANALYSIS
SOLID WASTE PERMIT #588

CITY OF BRISTOL INTEGRATED SOLID
WASTE MANAGEMENT FACILITY
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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 January 2, 2026 to January 30, 2026. The recorded stroke count data from each well during December 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	1/2/2026	1/30/2026	# of strokes between measurements	Estimated liquid removed (gallons)
EW36A			-	0
EW49			4,708	1412
EW50	105008	105008	2,281	684
EW52	1709400	1709400	28,779	8634
EW53	1239179	1239179	-	0
EW55			-	0
EW59	73387	73387	41,910	12573
EW60	3790909	3790909	5,848	1754
EW61	362366	362366	11,559	3468
EW62	242365	242365	217,850	65355
EW65			6,997	2099
EW66	158829	158829	102,984	30895
EW67	39058	39058	-	0
EW68			5,093	1528
EW76	2662095	2662095	-	0
EW78			24,420	2735
EW82	338555	338555	-	0
EW85			3,455	387
EW87	367785	367785	-	0
EW88	340749	340749	27	3
EW89	470766	470766	59,398	17819
EW93	776124	776124	-	0
EW94	1409957	1409957	-	0
EW98	1946997	1946997	63,993	19198
TP-4	2733510	2733510	1	0
EW36A	27684	27684	-	0
Total Estimated Liquid Removal				168,545