December 20, 2024

Alan Noell
Washington State Department of Ecology
15700 Dayton Avenue North
Shoreline, Washington 98133

Subject: Go East Landfill/Alpine Estates Landfill Gas Monitoring Data Update

Dear Mr. Noell:

As discussed in the Go East Landfill/Alpine Estate Landfill Gas Monitoring Data Update, dated June 14, 2024 (June 14 Letter), Herrera observed recent upward trends in methane levels at the landfill perimeter soil gas probes after removing the soil vapor extraction unit from the landfill perimeter collection trench and individual probes in November of 2023. This most recent upward trend led Herrera towards additional action to better control methane presence. In the June 14 Letter, five steps (if needed) were outlined to investigate the source and extent of methane on the Go East Landfill/Alpine Estates property and attempt to bring methane levels down in the soil gas surrounding the landfill boundary. The Go East Landfill/Alpine Estate Landfill Gas Monitoring Data Update, dated July 31, 2024 (July 31 Letter), presented the results of monitoring of Step 1. This letter presents results of monitoring since Step 2 was implemented on August 8, 2024.

Per Step 2 of the June 14 Letter, the portable soil vapor extraction unit (blower) has been kept installed and operating. It is positioned near GP-7 to provide vacuum on the perimeter trench through the sump by GP-7. Discharge is routed through the Landfill Gas Vent connected to sumps by GP-7 and GP-9. Caps were added to the other two vent pipe connections at the sumps, by GP-11 and GP-2, to prevent atmospheric air from being pulled into the trench and to try to increase vacuum influence on the landfill perimeter trench. The vent pipe connection at the sump, by GP-9, was also capped to prevent recirculation of landfill gas through the collection system. Figure 1 shows a map of the site and the locations of the probes, sumps, and vents. Methane concentrations at the blower and probes were collected weekly when the barometric pressure was declining. Tables 1 through 12 in Attachment A are continuations of Table 3 from the February 8, 2024 Landfill Gas Monitoring Readiness at Go East Landfill/Alpine Estates Development technical memorandum, with updated data through December 2, 2024. Table 13 in Attachment A shows the reads collected at the blower. The blower reads represent the content of landfill gas collected from the perimeter collection trench with the dilution valve at the blower closed. The dilution valve is operated so that emissions via the Landfill Gas Vent connected to sumps by GP-7 and GP-9 are kept below the lower explosive limit of 5 percent.

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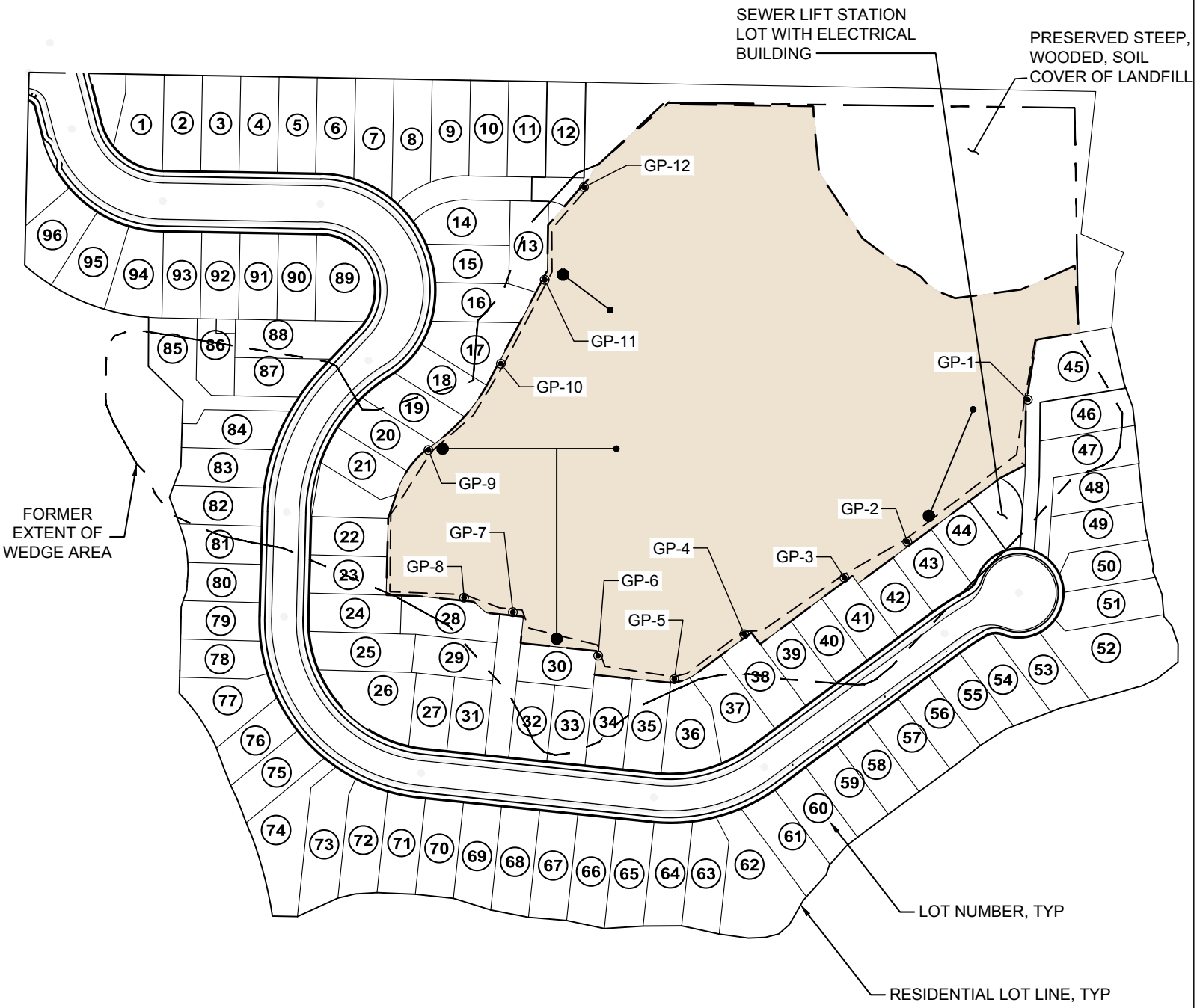
Figure 1.
Landfill Gas Monitoring Locations.



LEGEND

◉ GP-#	LANDFILL PERIMETER SOIL GAS PROBE	— — — —	GRAVEL TRENCH WITH 2 IN PERF PIPE
●	LANDFILL GAS SUMP	———	GRAVEL TRENCH WITH 2 IN PIPE
•	LANDFILL GAS VENT	▭	CAPPED AND CLOSED LANDFILL AREA

Monitoring results showed reduced methane concentrations at the probes after the caps were added to the vent pipe connections at the sumps by GP-11 and GP-2 on August 8, 2024. As described in the June 14 Letter, if the methane concentrations at probes do not decline after a month of monitoring (or do not decline significantly), Step 3 will be implemented. Because methane concentrations at the probes were trending downward since the blower was installed and the caps were placed at the other vent pipes, Herrera continued with Step 2 for longer than the originally planned month. Step 2 required keeping the blower running and keeping the caps on the vent pipe connections at the sumps by GP-11 and GP-2. Four of the 12 perimeter probes are still reading above the WAC 173-350-400 lower explosive limit of 5 percent methane; however, this number of probes is down from 10 perimeter probes in June.

In November 2024 monitoring, methane reads have been trending upward in GP-10, GP-11, and GP-12. This is likely due to the start of the rainy season and pockets of methane gas being trapped in higher concentrations underneath saturated soils. Additionally, the blower had to be turned off temporarily on November 15, 2024, when heavy rains caused the sumps to fill with water and the blower to pull in large amounts of water rather than landfill gas. The temporary inactive blower has likely also contributed to the recent upward trend in methane levels.

Upward trends in methane levels observed with the rainy season have led Herrera to move forward with the implementation of Step 3. Step 3 involves installing a larger blower unit to increase vacuum influence on the collection trench and keeping the vent pipe connections capped as they are for Step 2. Although methane concentrations stayed mostly consistent after the blower was installed, methane reads at four of the 10 probes have consistently read above the lower explosive limit of 5 percent and upward trends have been observed in the past month of monitoring. To initiate Step 3 a landfill gas sample was collected from the blower on November 8, 2024, and analyzed for the Environmental Protection Agency (EPA) Toxic Organics – 15 (TO-15) constituents by Fremont Analytical in Seattle, Washington. Concentration results of TO-15 analytes from the laboratory (Attachment B) were multiplied by the flow rate observed at the blower at the time of sample collection (80 standard cubic feet per minute (scfm)) to develop loading rates for each analyte. The analyte loading rates were then compared to the regulated limits for Small Quantity Emission Rates (SQERs). SQERs are the level of emissions below which dispersion modeling is not required to demonstrate compliance with Acceptable Source Impact Levels (ASILs). An ASIL is the screening concentration of a toxic air pollutant (TAP) in the ambient air. TAPs are pollutants that are known or suspected to cause cancer or other serious health effects, or adverse environmental effects. The associated SQER emission thresholds were taken from the current Washington Administrative Code (WAC) 173-460 Controls for New Sources of TAPs. A summary data table that includes the analyte loading rates and their comparison to emissions thresholds for the Go East Landfill/Alpine Estates Development property is included in Table 14. All analytes had loading rates lower than the corresponding SQER threshold, indicating that the analytes and total emissions meet compliance and do not require further dispersion modeling to determine compliance.

The current blower unit operating at the Go East Landfill/Alpine Estates Development has a flow rate of approximately 80 scfm. At this flow rate and with the TO-15 analyte concentrations reported

by the laboratory, emissions are in compliance. It was found that, if the flow rate increases to 196 scfm with the same TO-15 analyte concentrations reported by the laboratory, analytes begin to exceed their SQERs.

Herrera is beginning to look into larger blower options that keep landfill gas collected at a rate less than 196 scfm. Additionally, Herrera is working on finding a more permanent location and design for the blower station so that it is as far away as possible from the Alpine Estates homes and its sound and appearance is mitigated. The June 14 Letter originally mentioned that the Go East Landfill/Alpine Estates property would require a discharge permit to operate a larger blower unit. According to Regulation 1 Article 5.03(a)(5) of the Puget Sound Clean Air Agency (PSCAA), gas control equipment having a rated capacity of less than 200 scfm does not trigger source registration. Results of the emission loading analysis showed that no notification to or permit with PSCAA will be required, because flow will be kept below 200 scfm. Herrera also plans to keep the flow below 196 scfm, so that the analytes emissions remain in compliance. Another sample will be collected from the new larger blower once it is up and running, in order to confirm emissions remain in compliance with increased landfill gas extraction.

Monitoring of surface emissions and house ventilation trench monitoring stations in the past month continues to show that the methane observed in the probes is not migrating to the surface or underneath houses. Reads will continue to be collected weekly when the barometric pressure is declining. Data and the progress of the more permanent blower station design and installation will be reported again in the coming months.

Sincerely,

Herrera Environmental Consultants, Inc.

Tyson Wright, P.E.
Senior Engineer

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Attachment A

Tables

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Table 1. Monitoring Results for Landfill Perimeter Soil Gas Probe Number 1.					
Date	**% Methane**	**% Carbon Dioxide**	**% Oxygen**	**% Balance**	**Actions/Key Dates**
11/2/2022	3.9	27.0	0.0	69.2	
11/23/2022	**8.5**	30.5	0.0	61	
1/13/2023	**10.9**	24.1	0.1	64.9	- Turbine vents installed on landfill gas vent (12/12/2022–present)
2/23/2023	**6.3**	21.8	0.1	71.8	- Vacuum extraction from methane trench (2/10/2023–6/16/2023) - Probe valve left open to vent (2/23/2023–3/22/2023)
3/3/2023	0.4	3.5	11.8	84.3	
3/10/2023	0.0	0.3	21.2	78.4	
3/22/2023	0.0	0.8	19.6	79.6	- Probe valve closed (3/22/2023–present)
4/1/2023	1.1	15.6	1.3	82	
5/9/2023	0.0	0	19.9	80.1	
6/15/2023	0.0	0.2	19.6	80.1	
6/27/2023	0.5	13.4	0.1	86	- Blower shut off (6/16/2023–6/17/2023) - Vacuum extraction from methane trench (6/17/2023–6/26/2023) - Blower shut off (6/26/2023–7/24/2023)
7/5/2023	0.6	14.4	0.1	84.9	
8/21/2023	0.0	8.3	9.8	81.9	- Vacuum extraction from methane trench (7/24/2023–8/18/2023) - Blower shut off (8/18/2023–8/23/2023)
9/5/2023	0.0	7.3	11.6	81.1	- Vacuum extraction from methane trench (8/23/2023–11/10/2023)
9/22/2023	0.0	1.2	17.5	81.3	
10/21/2023	0.9	20.5	0.1	78.5	
11/1/2023	1.1	20.1	0.1	78.7	
11/10/2023	1.3	12.1	0.1	86.5	- Blower shut off (11/10/2023–6/19/2024)
11/17/2023	1.4	16.9	0.1	81.6	
11/30/2023	1.7	11.8	0.2	86.3	
12/8/2023	1.8	11.1	0.1	87.0	
1/3/2024	1.9	18.7	0.0	79.4	
3/15/2024	Not read due to construction blockage				
4/3/2024	Not read due to construction blockage				
5/1/2024	Not read due to construction blockage				
5/7/2024	Not read due to construction blockage				
5/15/2024	Not read due to construction blockage				
5/21/2024	Not read due to construction blockage				
5/31/2024	Not read due to construction blockage				
6/7/2024	Not read due to construction blockage				
6/25/2024	Not read due to construction blockage				- Vacuum extraction from methane trench (6/19/2024–11/15/2024)
7/5/2024	Not read due to construction blockage				
7/12/2024	Not read due to construction blockage				
7/16/2024	Not read due to construction blockage				
7/26/2024	Not read due to construction blockage				
8/8/2024	Not read due to construction blockage				- Caps added to the other two vent pipe connections at sumps
8/20/2024	Not read due to construction blockage				
8/24/2024	Not read due to construction blockage				
8/29/2024	Not read due to construction blockage				
9/4/2024	Not read due to construction blockage				
9/19/2024	Not read due to construction blockage				
9/26/2024	Not read due to construction blockage				
10/3/2024	Not read due to construction blockage				
10/8/2024	Not read due to construction blockage				
10/20/2024	Not read due to construction blockage				
10/30/2024	Not read due to construction blockage				
11/8/2024	Not read due to construction blockage				
11/12/2024	Not read due to construction blockage				
11/19/2024	Not read due to construction blockage				- Blower shut off (11/15/2024–present)
11/27/2024	Not read due to construction blockage				
12/2/2024	Not read due to construction blockage				

Notes:

GP-1 was accidently buried when construction on Lot 45 began and still needs to be uncovered.

Figure 1. Methane Content of Landfill Perimeter Soil Gas Probe #1.

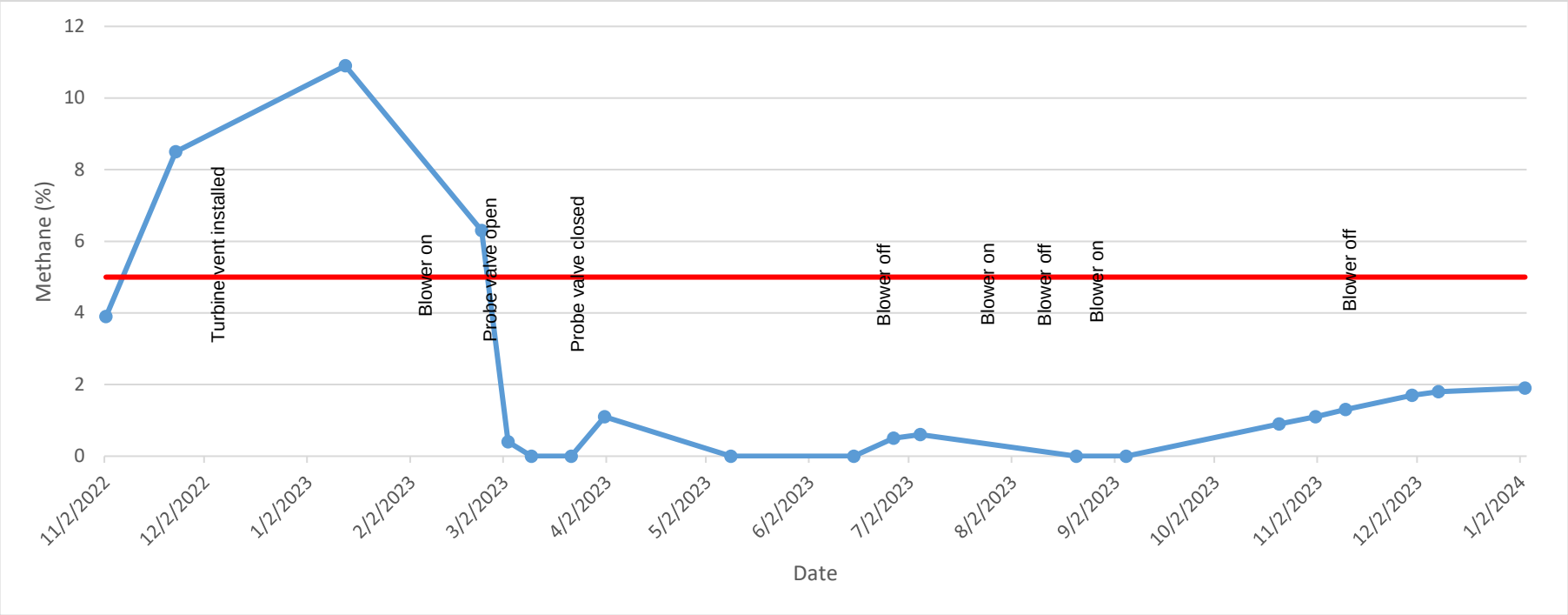

Table 2. Monitoring Results for Landfill Perimeter Soil Gas Probe Number 2.					
Date	**% Methane**	**% Carbon Dioxide**	**% Oxygen**	**% Balance**	**Actions / Key Dates**
11/2/2022	**12.3**	29.2	0.0	58.4	
11/23/2022	**14.1**	26.9	0.0	39.1	
1/13/2023	**15.7**	25.2	0.1	59.1	- Turbine vents installed on landfill gas vent (12/12/2022–present)
2/23/2023	**16.4**	24	0.1	59.6	- Vacuum extraction from methane trench (2/10/2023–6/16/2023) - Probe valve left open to vent (2/23/2023–3/22/2023)
3/3/2023	0.0	1.8	17.7	80.5	
3/10/2023	0.0	0.2	21.3	78.4	
3/22/2023	0.0	0.2	20	79.9	- Probe valve closed (3/22/2023–present)
4/1/2023	0.6	9.9	1.5	87.9	
5/9/2023	0.0	0	20.1	79.8	
6/15/2023	0.0	0.5	19.7	79.8	
6/27/2023	0.0	13.5	0.4	86.1	- Blower shut off (6/16/2023–6/17/2023) - Vacuum extraction from methane trench (6/17/2023–6/26/2023) - Blower shut off (6/26/2023–7/24/2023)
7/5/2023	0.2	15.6	0.1	84.2	
8/21/2023	0.1	22.7	0.1	77.1	- Vacuum extraction from methane trench (7/24/2023–8/18/2023) - Blower shut off (8/18/2023–8/23/2023)
9/5/2023	0.1	22.8	0.1	76.9	- Vacuum extraction from methane trench (8/23/2023–11/10/2023)
9/22/2023	0.0	21.4	0.1	78.4	
10/21/2023	0.9	22.2	0.1	76.9	
11/1/2023	0.9	21.6	0.1	77.4	
11/10/2023	1.3	21.2	0.1	77.4	- Blower shut off (11/10/2023–6/19/2024)
11/17/2023	1.5	20.1	0.1	78.3	
11/30/2023	1.6	20.3	0.1	78.1	
12/8/2023	1.5	19.8	0.0	78.6	
1/3/2024	0.3	18.3	0.0	81.4	
3/15/2024	Not read due to construction blockage				
4/3/2024	2.8	16.2	0.0	81	
5/1/2024	4.7	16.9	0.0	78.5	
5/7/2024	**5.4**	17.8	0.1	76.7	
5/15/2024	**6.0**	17.8	0.1	76.1	
5/21/2024	**6.4**	18	0.1	75.6	
5/31/2024	**6.8**	17.9	0.1	75.2	
6/7/2024	**7.4**	17.5	0.1	75.1	
6/25/2024	**7.7**	18	0.1	74.2	- Vacuum extraction from methane trench (6/19/2024–11/15/2024)
7/5/2024	**5.2**	18	0.1	76.6	
7/12/2024	2.2	17.9	0.1	79.8	
7/16/2024	1.5	17.5	0.2	80.9	
7/26/2024	1.4	19.5	0.0	79.1	
8/8/2024	0	17.8	0.1	82.1	- Caps added to the other two vent pipe connections at sumps
8/20/2024	0.1	17.7	0.2	82	
8/24/2024	0	17.8	0.2	82.1	
8/29/2024	0	17	0.1	82.9	
9/4/2024	0	16.2	0.3	83.4	
9/19/2024	0.2	15.8	1.5	82.6	
9/26/2024	0	16.1	1.9	82	
10/3/2024	0	15.5	3.1	81.4	
10/8/2024	0	15.3	3.4	81.3	
10/20/2024	0	13.9	6	80.1	
10/30/2024	0	14	5.9	80.2	
11/8/2024	0	14.8	3.9	81.3	
11/12/2024	0	14.6	3	82.3	
11/19/2024	0	14.5	3.4	82.1	- Blower shut off (11/15/2024–present)
11/27/2024	0	14.2	3.6	82.2	
12/2/2024	0	13.9	4.8	81.3	

Figure 2. Methane Content of Landfill Perimeter Soil Gas Probe #2.

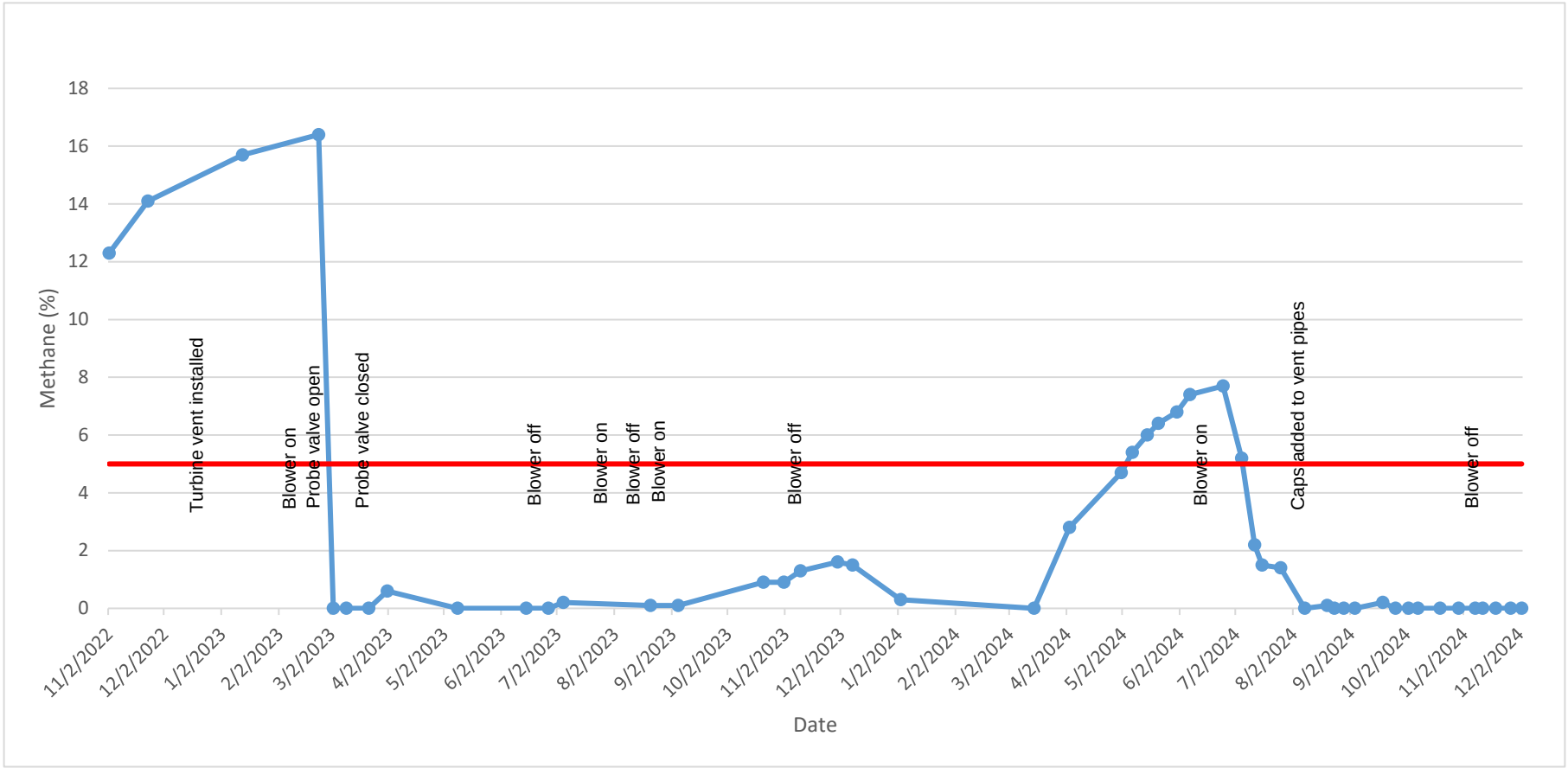

Table 3. Monitoring Results for Landfill Perimeter Soil Gas Probe Number 3.					
Date	**% Methane**	**% Carbon Dioxide**	**% Oxygen**	**% Balance**	**Actions / Key Dates**
11/2/2022	**27.5**	29.2	0.0	43.3	
11/23/2022	**24.0**	24.7	0.0	51.4	
1/13/2023	**23.0**	22.9	0.1	54	- Turbine vents installed on landfill gas vent (12/12/2022–present)
2/23/2023	**16.2**	19.9	1.1	62.8	- Vacuum extraction from methane trench (2/10/2023–6/16/2023) - Probe valves left open to vent (2/23/2023–3/22/2023)
3/3/2023	0.2	1.6	18.2	79.9	
3/10/2023	0.0	0.1	21.6	78.4	
3/22/2023	0.0	0.0	20.2	79.8	- Probe valves closed (3/22/2023–present)
4/1/2023	0.0	11.7	7.5	80.8	
5/9/2023	0.0	0.0	20.3	79.7	
6/15/2023	0.0	0.0	20.4	79.6	
6/27/2023	0.0	13.1	4.7	82.3	- Blower shut off (6/16/2023–6/17/2023) - Vacuum extraction from methane trench (6/17/2023–6/26/2023) - Blower shut off (6/26/2023–7/24/2023)
7/5/2023	0.1	15.8	0.1	84.1	
8/21/2023	1.7	24	0.1	74.2	- Vacuum extraction from methane trench (7/24/2023–8/18/2023) - Blower shut off (8/18/2023–8/23/2023)
9/5/2023	2.7	25.2	0.1	72	- Vacuum extraction from methane trench (8/23/2023–11/10/2023)
9/22/2023	0.2	21.3	0.1	78.4	
10/21/2023	0.0	18	0.2	81.8	
11/1/2023	0.0	17.3	0.1	82.6	
11/10/2023	0.0	17.5	0.2	82.3	- Blower shut off (11/10/2023–6/19/2024)
11/17/2023	0.0	17.0	0.1	82.9	
11/30/2023	0.4	17.4	0.1	82.1	
12/8/2023	0.0	17.9	1.7	80.5	
1/3/2024	5.7	20.2	0.0	74.1	
3/15/2024	Not read due to construction blockage				
4/3/2024	**6.2**	17.7	0.0	76.1	
5/1/2024	**9.3**	18.5	0.0	72.1	
5/7/2024	**10.1**	19.6	0.1	70.2	
5/15/2024	**10.9**	20.2	0.1	68.8	
5/21/2024	**11.4**	20.9	0.1	67.6	
5/31/2024	**12.5**	21.1	0.1	66.3	
6/7/2024	**12.3**	20.9	0.1	66.7	
6/25/2024	**5.0**	21	0.1	73.9	- Vacuum extraction from methane trench (6/19/2024–11/15/2024)
7/5/2024	1.8	20.3	0.1	77.8	
7/12/2024	0.6	19.3	0.1	80	
7/16/2024	0.1	19.1	0.1	80.7	
7/26/2024	0.3	21.5	0.0	78.2	
8/8/2024	0	19.5	0.1	80.5	- Caps added to the other two vent pipe connections at sumps
8/20/2024	0.1	18.3	0.1	81.5	
8/24/2024	0	17.4	1	81.7	
8/29/2024	0	13.1	5.1	81.8	
9/4/2024	0	12.3	4.1	83.5	
9/19/2024	0.2	12.4	5.3	82.1	
9/26/2024	0.1	12.3	5.5	82.1	
10/3/2024	0.1	12.3	6.2	81.4	
10/8/2024	0	13.2	4.8	82	
10/20/2024	0	9.9	9.8	80.3	
10/30/2024	0	9.6	10.8	79.6	
11/8/2024	0	10	8.4	81.7	
11/12/2024	0	10	6.8	83.2	
11/19/2024	0	10.2	6.9	82.9	- Blower shut off (11/15/2024–present)
11/27/2024	0	10.4	6.8	82.8	
12/2/2024	0	9.8	7.1	83.1	

Figure 3. Methane Content of Landfill Perimeter Soil Gas Probe #3.

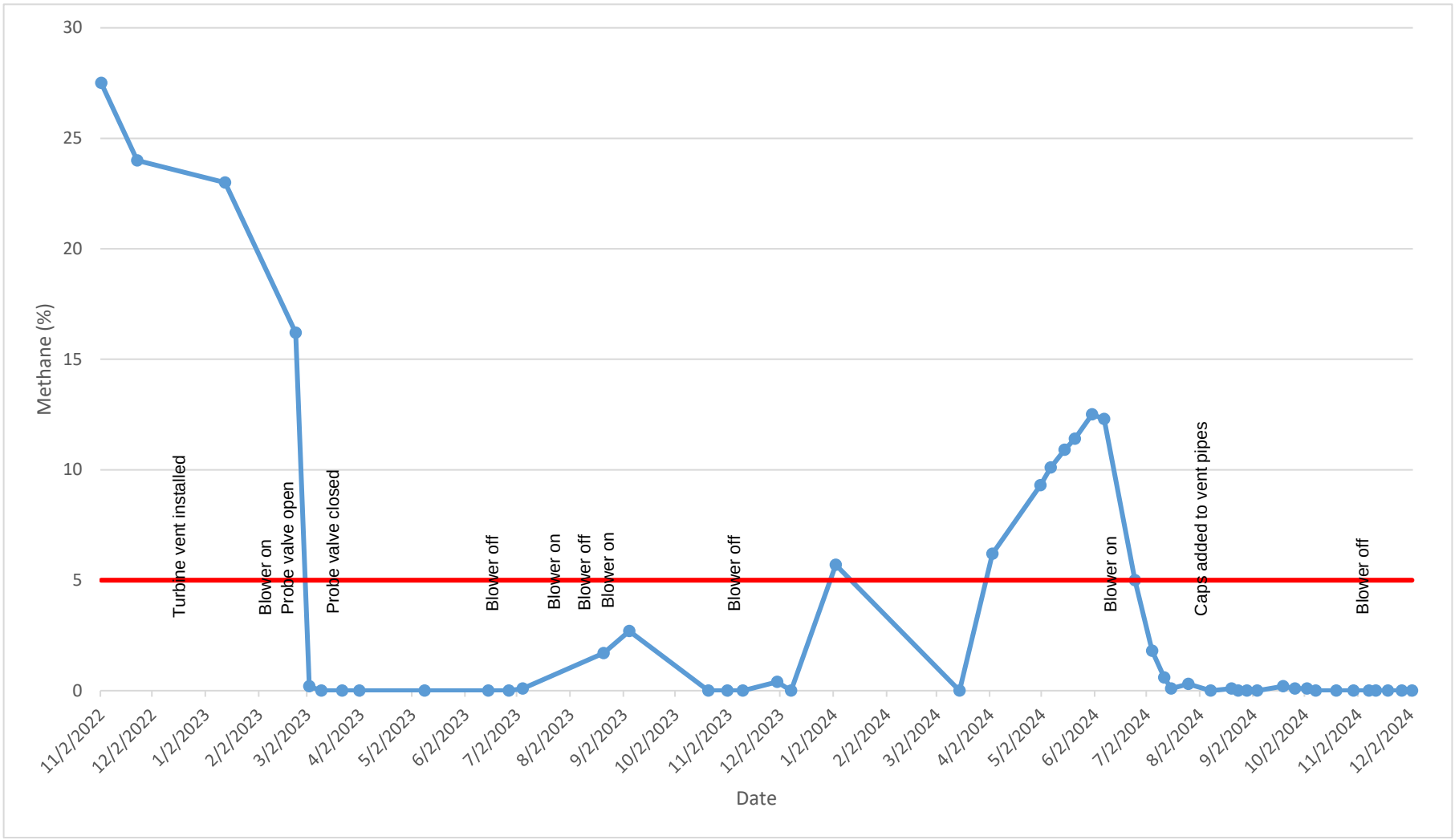

Table 4. Monitoring Results for Landfill Perimeter Soil Gas Probe Number 4.					
Date	**% Methane**	**% Carbon Dioxide**	**% Oxygen**	**% Balance**	**Actions / Key Dates**
11/2/2022	**28.4**	31.7	0.1	39.8	
11/23/2022	**32.9**	27.7	0.0	39.3	
1/13/2023	**32.5**	26.5	0.0	41	- Turbine vents installed on landfill gas vent (12/12/2022–present)
2/23/2023	**31.6**	25.6	0.1	42.7	- Vacuum extraction from methane trench (2/10/2023–6/16/2023) - Perimeter probe valves left open to vent (2/23/2023–3/22/2023)
3/3/2023	0.0	0.2	20.9	79	
3/10/2023	0.0	0.1	21.6	78.3	
3/22/2023	0.0	0.0	20.4	79.6	- Perimeter probe valves closed (3/22/2023–present)
4/1/2023	**11.1**	10.5	0.0	78.3	
5/9/2023	0.6	14.3	3.2	81.9	- Vacuum extraction from soil gas probes (4/17/2023–6/16/2023)
6/15/2023	3.6	21.1	0.2	75.1	
6/27/2023	4.0	23.4	0.0	72.6	- Blower shut off (6/16/2023–6/17/2023) - Perimeter probe valve closed (6/16/2023 -6/17/2023) - Vacuum extraction from methane trench (6/17/2023–6/26/2023) - Vacuum extraction from soil gas probes (6/17/2023–6/26/2023) - Blower shut off (6/26/2023–7/24/2023) - Perimeter probe valve closed (6/26/2023 -7/24/2023)
7/5/2023	4.6	23.2	0.1	72.2	
8/21/2023	4.6	21.9	0.1	73.4	- Vacuum extraction from soil gas probes (7/21/2023–8/18/2023) - Vacuum extraction from methane trench (7/24/2023–8/18/2023) - Blower shut off (8/18/2023–8/23/2023) - Perimeter probe valve closed (8/18/2023 -8/23/2023)
9/5/2023	4.2	21.1	0.4	74.4	- Vacuum extraction from methane trench (8/23/2023–11/10/2023) - Vacuum extraction from soil gas probes (8/23/2023–11/10/2023)
9/22/2023	3.8	20.3	0.5	75.3	
10/21/2023	2.4	19.8	0.1	77.8	
11/1/2023	2.1	19.3	0.1	78.5	
11/10/2023	2.7	19.9	0.1	77.4	- Blower shut off (11/10/2023–6/19/2024) - Perimeter probe valve closed (11/10/2023–present)
11/17/2023	3.0	19.6	0.1	77.4	
11/30/2023	3.7	20.5	0.1	75.7	
12/8/2023	4.0	20.7	0.0	75.2	
1/3/2024	1.8	15.7	0.0	82.5	
3/15/2024	**10.6**	24.0	0.0	65.4	
4/3/2024	**11.6**	17.4	0.0	71	
5/1/2024	**14.1**	17.9	0.0	68	
5/7/2024	**15.4**	19.2	0.1	65.3	
5/15/2024	**15.0**	19.1	0.1	65.9	
5/21/2024	**15.4**	19.3	0.0	65.2	
5/31/2024	**15.4**	19.2	0.1	65.3	
6/7/2024	**15.1**	18.6	0.1	66.2	
6/25/2024	**14.4**	18.6	0.1	66.8	- Vacuum extraction from methane trench (6/19/2024–11/15/2024)
7/5/2024	**11.4**	18.1	0.1	70.3	
7/12/2024	**7.4**	18.4	0.1	74.1	
7/16/2024	**6.0**	19.9	0.1	76	
7/26/2024	**5.7**	21.0	0.0	73.4	
8/8/2024	2.7	19.4	0.1	77.8	- Caps added to the other two vent pipe connections at sumps
8/20/2024	3.2	20	0.1	76.8	
8/24/2024	2.7	20.4	0.1	76.9	
8/29/2024	2.5	19.9	0.1	77.5	
9/4/2024	2.4	19.5	0.1	78	
9/21/2024	2.3	21.5	0	76.2	
9/26/2024	2.6	21.3	0	76.1	
10/2/2024	2.4	21.6	0	76	
10/8/2024	2.3	21.7	0	76	
10/20/2024	2.6	21.2	0.1	76.1	
10/30/2024	2.4	21.6	0.1	76	
11/8/2024	2.4	21.1	0.1	76.4	
11/12/2024	2.7	20.6	0.1	76.6	
11/19/2024	3.2	21	0.1	75.7	- Blower shut off (11/15/2024–present)
11/27/2024	3.8	21.1	0.1	75	
12/2/2024	4.5	21.1	0.1	74.3	

Figure 4. Methane Content of Landfill Perimeter Soil Gas Probe #4.

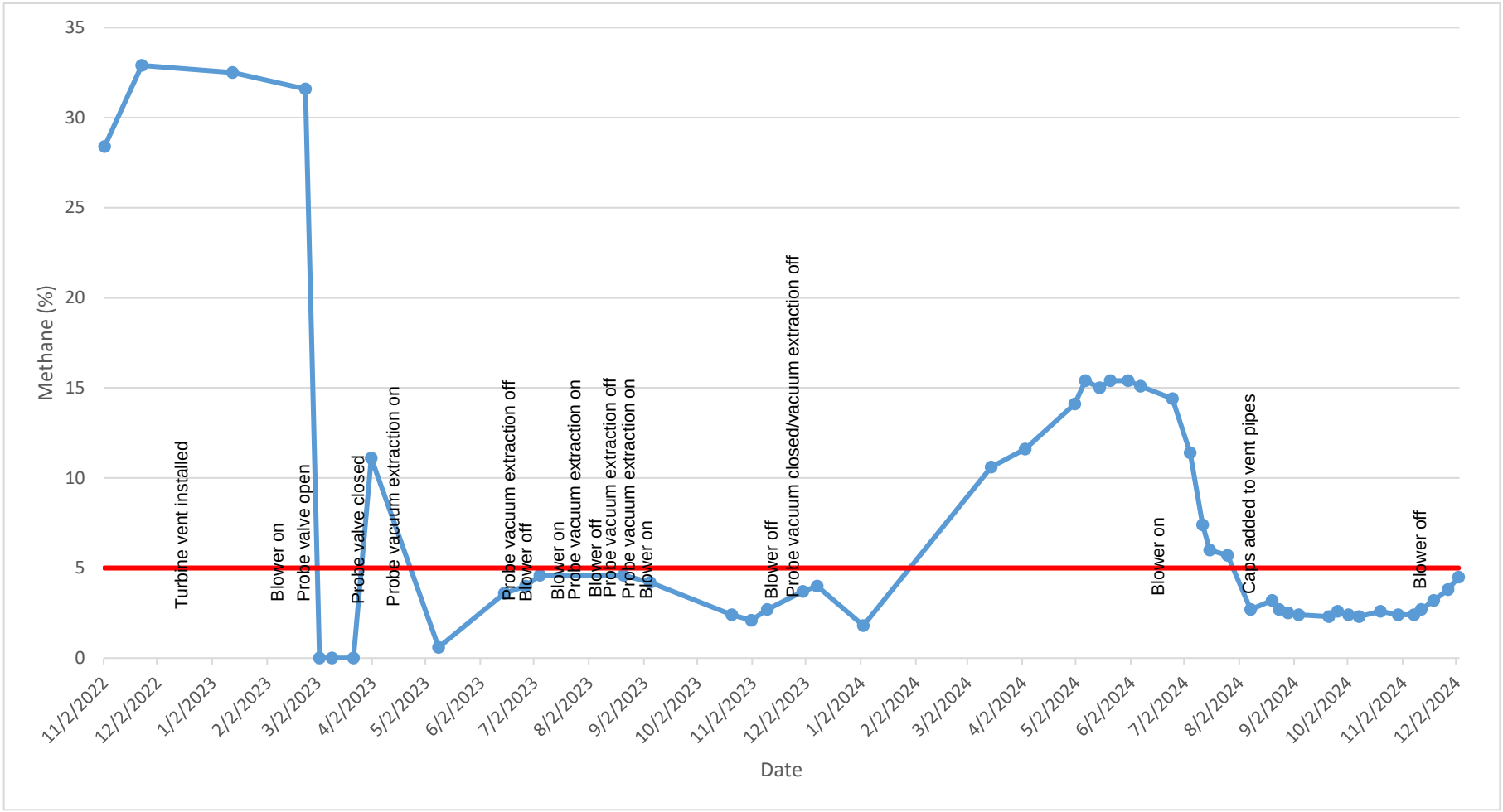

Table 5. Monitoring Results for Landfill Perimeter Soil Gas Probe Number 5.					
Date	**% Methane**	**% Carbon Dioxide**	**% Oxygen**	**% Balance**	**Actions / Key Dates**
11/2/2022	0.0	0.7	21.7	77.6	
11/23/2022	**28.8**	18.3	0.0	52.9	
1/13/2023	**29.0**	18.2	0.1	52.7	- Turbine vents installed on landfill gas vent (12/12/2022–present)
2/23/2023	**25.4**	14.8	1.5	58.3	- Vacuum extraction from methane trench (2/10/2023–6/16/2023) - Perimeter probe valves left open to vent (2/23/2023–3/22/2023)
3/3/2023	0.9	0.6	18.8	79.8	
3/10/2023	0.0	0.1	21.7	78.2	
3/22/2023	0.0	0.0	20.5	79.4	- Perimeter probe valves closed (3/22/2023–present)
4/1/2023	**9.2**	11.8	0.0	79	
5/9/2023	0.4	3.0	15.4	81.2	- Vacuum extraction from soil gas probes (4/17/2023–6/16/2023)
6/15/2023	1.7	13.2	3.2	81.9	
6/27/2023	0.0	13.9	0.5	85.6	- Blower shut off (6/16/2023–6/17/2023) - Perimeter probe valve closed (6/16/2023 -6/17/2023) - Vacuum extraction from methane trench (6/17/2023–6/26/2023) - Vacuum extraction from soil gas probes (6/17/2023–6/26/2023) - Blower shut off (6/26/2023–7/24/2023) - Perimeter probe valve closed (6/26/2023 -7/24/2023)
7/5/2023	0.4	14	0.0	85.5	
8/21/2023	2.6	17.6	0.1	79.7	- Vacuum extraction from soil gas probes (7/21/2023–8/18/2023) - Vacuum extraction from methane trench (7/24/2023–8/18/2023) - Blower shut off (8/18/2023–8/23/2023) - Perimeter probe valve closed (8/18/2023 -8/23/2023)
9/5/2023	3.0	17.3	0.4	79.4	- Vacuum extraction from methane trench (8/23/2023–11/10/2023) - Vacuum extraction from soil gas probes (8/23/2023–11/10/2023)
9/22/2023	2.0	15.8	1.6	80.6	
10/21/2023	1.3	15.6	2.8	80.3	
11/1/2023	0.3	11.5	5.8	82.4	
11/10/2023	0.3	13.3	3.7	82.7	- Blower shut off (11/10/2023–6/19/2024) - Perimeter probe valve closed (11/10/2023–present)
11/17/2023	0.0	10.3	4.9	84.8	
11/30/2023	0.0	12.9	2.1	85.0	
12/8/2023	0.2	15.4	0.0	84.3	
1/3/2024	**9.1**	17.4	0.0	73.5	
3/15/2024	**8.4**	22	0.0	69.6	
4/3/2024	**10.4**	15.4	0.0	74.2	
5/1/2024	**12.8**	16	0.0	71.2	
5/7/2024	**14.7**	17.3	0.1	67.9	
5/15/2024	**13.5**	16.5	0.0	70	
5/21/2024	**13.6**	16.5	0.0	69.9	
5/31/2024	**14**	16.1	0.1	69.9	
6/7/2024	**13.3**	15.3	0.1	71.4	
6/25/2024	**9.6**	13.8	0.1	76.5	- Vacuum extraction from methane trench (6/19/2024–11/15/2024)
7/5/2024	**5.7**	12.8	0.1	81.4	
7/12/2024	2.9	12.8	0.1	84.3	
7/16/2024	0.0	9.6	0.1	90.3	
7/26/2024	1.7	13.3	0.0	85	
8/8/2024	0.0	12.2	0.1	87.7	- Caps added to the other two vent pipe connections at sumps
8/20/2024	0.2	13	0.1	86.7	
8/24/2024	0.0	13.1	0.4	86.5	
8/29/2024	0.0	12.2	1.3	86.4	
9/4/2024	0.0	11.7	1.6	86.8	
9/21/2024	0.1	11.9	3.1	84.9	
9/26/2024	0.1	11.2	3.7	85	
10/3/2024	0	10.9	5.1	84	
10/8/2024	0	10.8	4.8	84.4	
10/20/2024	0	9.6	6.7	83.7	
10/30/2024	0	9.8	7.6	82.6	
11/8/2024	0	9.6	7.7	82.8	
11/12/2024	0	9	7.5	83.5	
11/19/2024	0	11.8	3	85.1	- Blower shut off (11/15/2024–present)
11/27/2024	0	10.2	6.5	83.3	
12/2/2024	0	10.8	5.6	83.6	

Figure 5. Methane Content of Landfill Perimeter Soil Gas Probe #5.

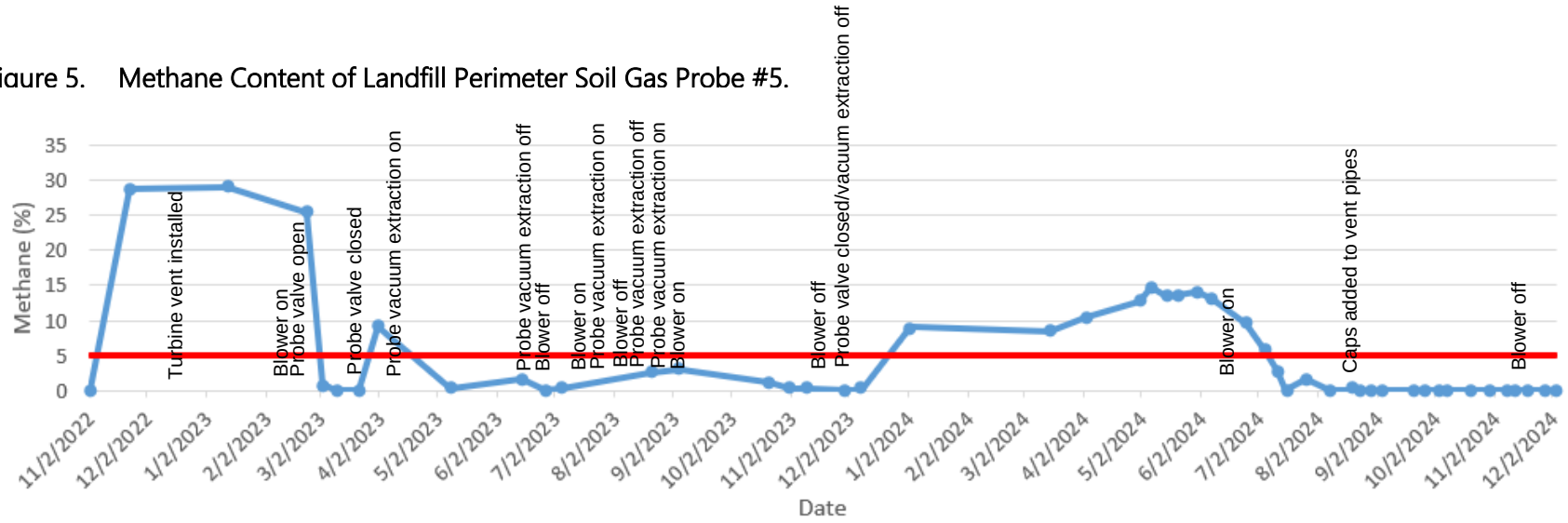

Table 6. Monitoring Results for Landfill Perimeter Soil Gas Probe Number 6.					
Date	**% Methane**	**% Carbon Dioxide**	**% Oxygen**	**% Balance**	**Actions / Key Dates**
11/2/2022	0.0	0.3	21.8	77.8	
11/23/2022	**82.0**	18	0.0	0.0	
1/13/2023	**35.0**	18.5	0.0	46.5	- Turbine vents installed on landfill gas vent (12/12/2022–present)
2/23/2023	**35.4**	15.4	0.2	49	- Vacuum extraction from methane trench (2/10/2023–6/16/2023) - Perimeter probe valves left open to vent (2/23/2023–3/22/2023)
3/3/2023	**17.6**	13.4	3.3	65.8	
3/10/2023	**22.2**	22.2	0.2	55.5	- Vacuum extraction from soil gas probes (3/10/2023–6/16/2023)
3/22/2023	**11.6**	21.8	0.1	66.5	
4/1/2023	**8.7**	22.3	0.1	68.9	
5/9/2023	0.0	0.0	21	79	
6/15/2023	1.0	3.2	16	79.8	
6/27/2023	**5.5**	16.7	0.0	77.8	- Blower shut off (6/16/2023–6/17/2023) - Perimeter probe valve closed (6/16/2023 -6/17/2023) - Vacuum extraction from methane trench (6/17/2023–6/26/2023) - Vacuum extraction from soil gas probes (6/17/2023–6/26/2023) - Blower shut off (6/26/2023–7/24/2023) - Perimeter probe valve closed (6/26/2023 -7/24/2023)
7/5/2023	4.8	14.4	0.0	80.8	
8/21/2023	**7.1**	15.8	0.6	76.6	- Vacuum extraction from soil gas probes (7/21/2023–8/18/2023) - Vacuum extraction from methane trench (7/24/2023–8/18/2023) - Blower shut off (8/18/2023–8/23/2023) - Perimeter probe valve closed (8/18/2023 -8/23/2023)
9/5/2023	**8.1**	16.5	0.9	74.5	- Vacuum extraction from methane trench (8/23/2023–11/10/2023) - Vacuum extraction from soil gas probes (8/23/2023–11/10/2023)
9/22/2023	**6.8**	17.5	0.8	74.9	
10/21/2023	**5.0**	19.5	0.1	75.5	
11/1/2023	4.3	19.2	0.1	76.4	
11/10/2023	0.0	0.1	20.9	79	- Blower shut off (11/10/2023–6/19/2024) - Perimeter probe valve closed (11/10/2023–present)
11/17/2023	3.7	17.7	0.1	78.5	
11/30/2023	2.9	17.1	0.0	80.0	
12/8/2023	3.2	14.6	0.0	82.2	
1/3/2024	3.5	15.6	0.0	80.9	
3/15/2024	**13.8**	22.7	0.0	63.5	
4/3/2024	**17.9**	16.5	0.0	65.6	
5/1/2024	**19.7**	16.7	0.0	63.6	
5/7/2024	**21.7**	17.6	0.1	60.7	
5/15/2024	**20.3**	17	0.0	62.8	
5/21/2024	**18.1**	16.4	0.0	65.5	
5/31/2024	**18.8**	15.9	0.0	65.3	
6/7/2024	**17.9**	14.9	0.0	67.2	
6/25/2024	**18.3**	14.7	0.0	67	- Vacuum extraction from methane trench (6/19/2024–11/15/2024)
7/5/2024	**15.6**	15.6	0.1	68.7	
7/12/2024	**10.7**	16.7	0.1	72.5	
7/16/2024	**9.4**	15.4	0.1	75.1	
7/26/2024	**10.4**	16.7	0.0	72.9	
8/8/2024	**6**	15.6	0.1	78.3	- Caps added to the other two vent pipe connections at sumps
8/20/2024	**7.6**	17.6	0.1	74.8	
8/24/2024	**6.8**	18.1	0.1	75	
8/29/2024	**6.2**	15.7	0.1	78.1	
9/4/2024	**6.2**	17	0.1	76.7	
9/21/2024	**5**	16.9	0	78.1	
9/26/2024	4.5	16.1	0	79.4	
10/3/2024	3.9	16	0	80.1	
10/8/2024	4.7	18.1	0.1	77.1	
10/20/2024	3.5	15.4	0.1	81	
10/30/2024	3.4	16.1	0	80.4	
11/8/2024	4.2	17.1	0	78.7	
11/12/2024	**5.2**	17.1	0	77.6	
11/19/2024	4.4	16.1	0.1	79.5	- Blower shut off (11/15/2024–present)
11/27/2024	4.9	17.2	0.1	77.8	
12/2/2024	**8.3**	17.8	0	73.8	

Figure 6. Methane Content of Landfill Perimeter Soil Gas Probe #6.

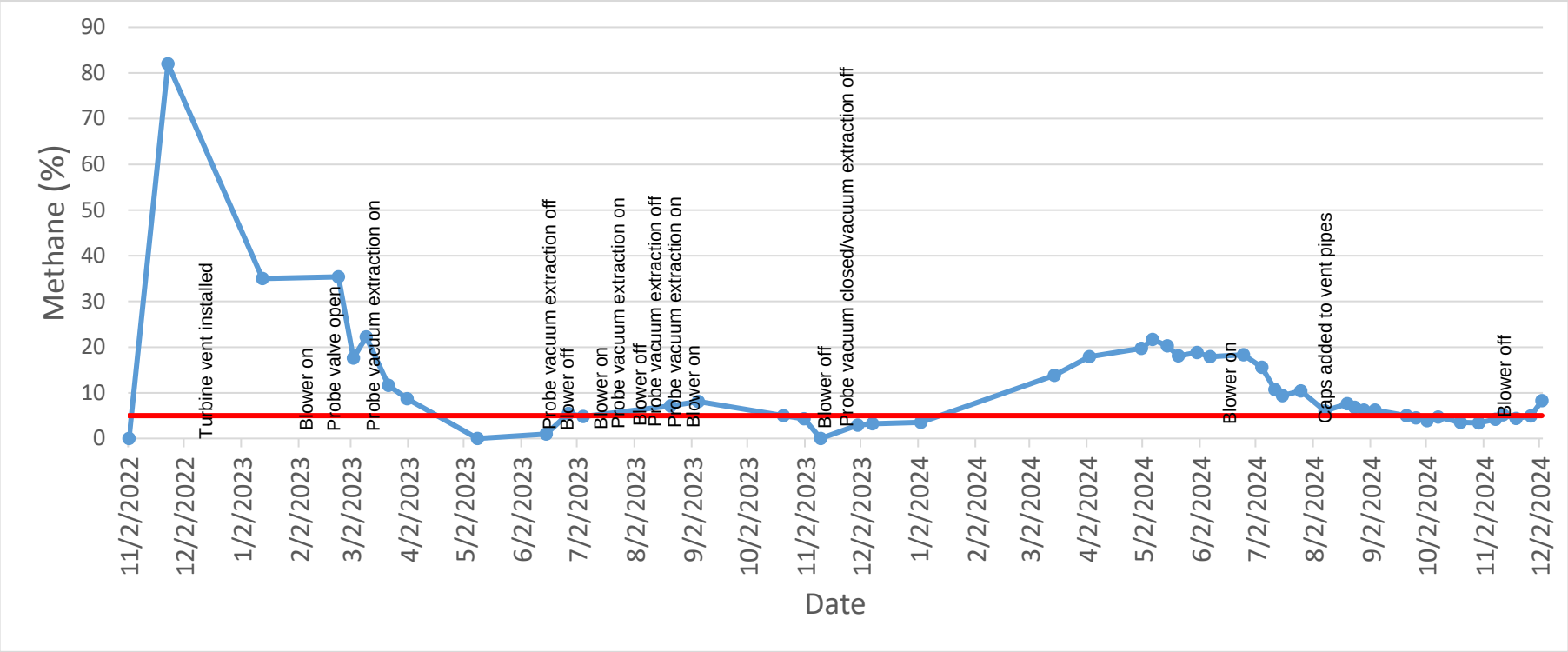

Table 7. Monitoring Results for Landfill Perimeter Soil Gas Probe Number 7.					
Date	**% Methane**	**% Carbon Dioxide**	**% Oxygen**	**% Balance**	**Actions / Key Dates**
11/2/2022	**35.5**	20.7	0.0	43.4	
11/23/2022	**38**	20.0	0.0	42.6	
1/13/2023	**36.4**	20.6	0.1	43	- Turbine vents installed on landfill gas vent (12/12/2022–present)
2/23/2023	**37.9**	19.6	0.1	42.4	- Vacuum extraction from methane trench (2/10/2023–6/16/2023) - Perimeter probe valves left open to vent (2/23/2023–3/22/2023)
3/3/2023	**13.1**	6.1	12.7	68.2	
3/10/2023	**26.7**	18.3	3.1	51.9	- Vacuum extraction from soil gas probes (3/10/2023–6/16/2023)
3/22/2023	**17.2**	18.4	1.4	63	
4/1/2023	**12.8**	20.5	1.2	65.5	
5/9/2023	4.6	15.8	4.0	75.6	
6/15/2023	4.2	18.6	0.2	77	
6/27/2023	0.2	18.8	0.2	80.7	- Blower shut off (6/16/2023–6/17/2023) - Perimeter probe valve closed (6/16/2023–6/17/2023) - Vacuum extraction from methane trench (6/17/2023–6/26/2023) - Vacuum extraction from soil gas probes (6/17/2023–6/26/2023) - Blower shut off (6/26/2023–7/24/2023) - Perimeter probe valve closed (6/26/2023 -7/24/2023)
7/5/2023	2.3	16.2	0.0	81.5	
8/21/2023	0.7	14.9	0.3	84	- Vacuum extraction from soil gas probes (7/21/2023–8/18/2023) - Vacuum extraction from methane trench (7/24/2023–8/18/2023) - Blower shut off (8/18/2023–8/23/2023) - Perimeter probe valve closed (8/18/2023 -8/23/2023)
9/5/2023	**8.1**	17.9	0.1	73.9	- Vacuum extraction from methane trench (8/23/2023–11/10/2023) - Vacuum extraction from soil gas probes (8/23/2023–8/25/2023) - Perimeter probe valve closed and removed from vacuum extraction system (8/25/2023–present)
9/22/2023	**8.5**	17.9	0.1	73.5	
10/21/2023	**7.4**	19.1	0.1	73.4	
11/1/2023	**6.6**	19.2	0.0	74.1	
11/10/2023	**7.3**	20.3	0.1	72.4	- Blower shut off (11/10/2023–6/19/2024)
11/17/2023	**6.8**	18.7	0.1	74.5	
11/30/2023	**6.7**	20.5	0.0	72.7	
12/8/2023	**6.8**	19.2	0.0	74.0	
1/3/2024	**8.5**	18.2	0.0	73.3	
3/15/2024	**14.5**	21.7	0.0	63.8	
4/3/2024	**16.5**	14.3	0.0	69.2	
5/1/2024	**18.6**	16.7	0.0	64.7	
5/7/2024	**16.8**	17.5	0.1	65.5	
5/15/2024	**18.3**	18.7	0.0	63	
5/21/2024	**20**	19.5	0.1	60.4	
5/31/2024	**19.8**	20.7	0.1	59.5	
6/7/2024	**20.2**	19.9	0.1	59.8	
6/25/2024	**22.5**	17.7	0.3	59.5	- Vacuum extraction from methane trench (6/19/2024–11/15/2024)
7/5/2024	**19.6**	17.1	0.2	63.1	
7/12/2024	**13.2**	16.2	0.1	70.4	
7/16/2024	**11.0**	15.5	0.1	73.4	
7/26/2024	**11.7**	17.2	0.0	71.1	
8/8/2024	**5.6**	15.8	0.1	78.5	- Caps added to the other two vent pipe connections at sumps
8/20/2024	4.4	16.1	0.3	79.3	
8/24/2024	**7.5**	17.2	0	75.3	
8/29/2024	**7**	17	0.1	75.9	
9/4/2024	**5.6**	16.5	0.1	77.8	
9/21/2024	**5**	17.2	0	77.8	
9/26/2024	4.8	16.8	0	78.4	
10/3/2024	4.9	17.3	0	77.8	
10/8/2024	3.6	17.1	0.3	79	
10/20/2024	**5.1**	16.8	0.1	78	
10/30/2024	**6.3**	17.6	0.1	76	
11/8/2024	4.7	15.8	0	79.3	
11/12/2024	4.5	16.3	0.1	79.1	
11/19/2024	2.5	13.2	0.1	84.2	- Blower shut off (11/15/2024–present)
11/27/2024	3.8	13.6	0.1	82.5	
12/2/2024	4.4	14	0.1	81.5	

Figure 7. Methane Content of Landfill Perimeter Soil Gas Probe #7.

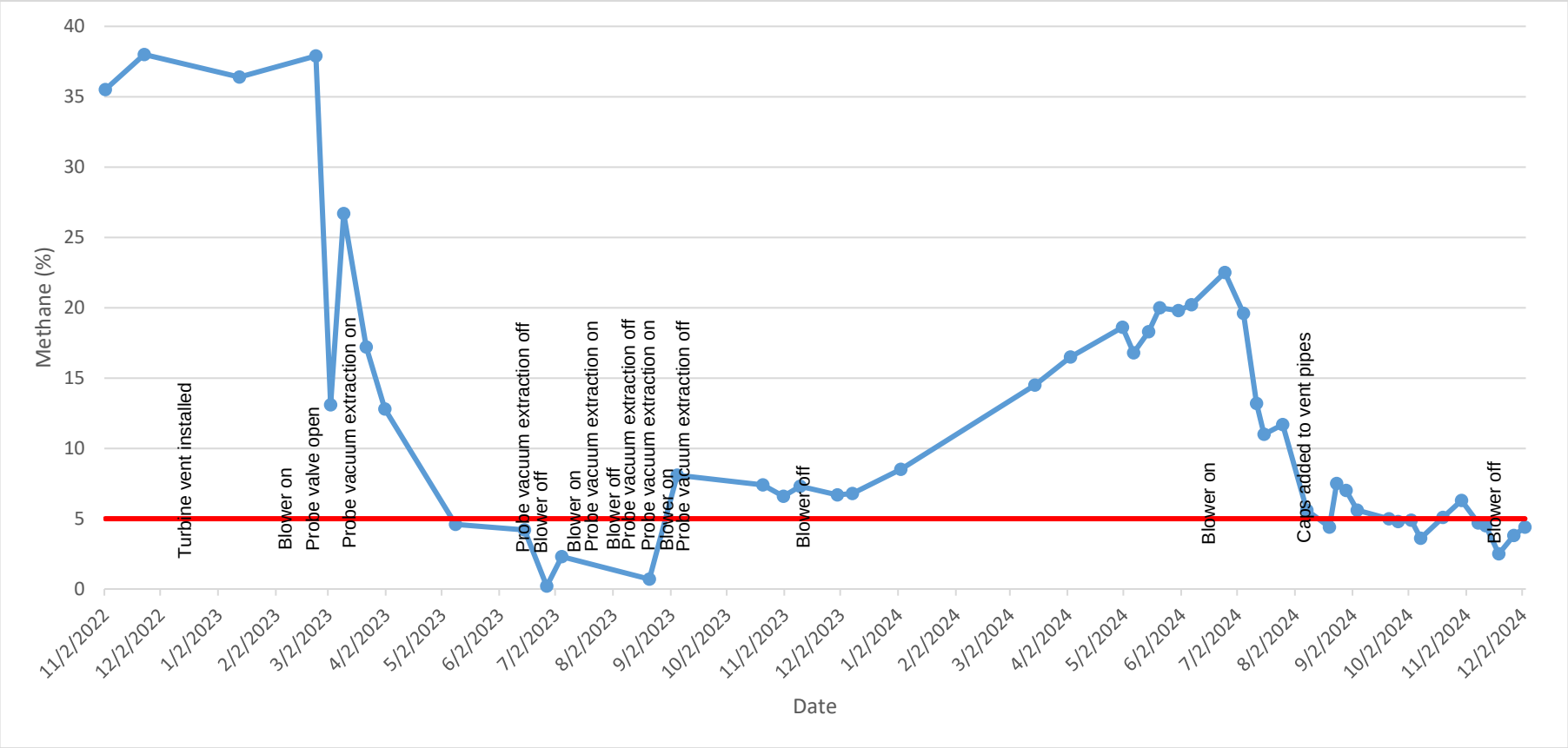

Table 8. Monitoring Results for Landfill Perimeter Soil Gas Probe Number 8.					
Date	**% Methane**	**% Carbon Dioxide**	**% Oxygen**	**% Balance**	**Actions / Key Dates**
11/2/2022	**35.6**	23.7	0.0	40.7	
11/23/2022	**37.4**	21	0.0	41.6	
1/13/2023	**37.1**	21.3	0.0	41.6	- Turbine vents installed on landfill gas vent (12/12/2022–present)
2/23/2023	**30.7**	22.7	0.2	46.4	- Vacuum extraction from methane trench (2/10/2023–6/16/2023) - Perimeter probe valves left open to vent (2/23/2023–3/22/2023)
3/3/2023	**9.8**	2.5	16	71.8	
3/10/2023	0.3	0.2	16.2	83.3	- Vacuum extraction from soil gas probes (3/10/2023–6/16/2023)
3/22/2023	3.0	6.3	13.9	76.8	
4/1/2023	1.4	5.3	16.2	77.2	
5/9/2023	0.0	5.4	14.6	80	
6/15/2023	0.0	2.5	17.4	80.1	
6/27/2023	0.0	4.1	13.6	82.3	- Blower shut off (6/16/2023–6/17/2023) - Perimeter probe valve closed (6/16/2023 -6/17/2023) - Vacuum extraction from methane trench (6/17/2023–6/26/2023) - Vacuum extraction from soil gas probes (6/17/2023–6/26/2023) - Blower shut off (6/26/2023–7/24/2023) - Perimeter probe valve closed (6/26/2023 -7/24/2023)
7/5/2023	0.0	8.1	4.0	87.9	
8/21/2023	0.0	6.3	8.4	85.3	- Vacuum extraction from soil gas probes (7/21/2023–8/18/2023) - Vacuum extraction from methane trench (7/24/2023–8/18/2023) - Blower shut off (8/18/2023–8/23/2023) - Perimeter probe valve closed (8/18/2023 -8/23/2023)
9/5/2023	0.0	4.1	14.8	81.1	- Vacuum extraction from methane trench (8/23/2023–11/10/2023) - Vacuum extraction from soil gas probes (8/23/2023–8/25/2023) - Perimeter probe valve closed and removed from vacuum extraction system (8/25/2023–present)
9/22/2023	0.0	5.5	13.7	80.8	
10/21/2023	0.0	5.5	15.1	79.4	
11/1/2023	0.0	4.5	16.6	78.9	
11/10/2023	3.1	12.9	2.9	81	- Blower shut off (11/10/2023–6/19/2024)
11/17/2023	0.0	10.6	8.1	81.3	
11/30/2023	2.4	14.0	0.0	83.5	
12/8/2023	0.0	11.2	3.0	85.8	
1/3/2024	3	11.1	0.0	85.9	
3/15/2024	**8.2**	14.9	0.0	76.9	
4/3/2024	**9.3**	9.9	0.0	80.8	
5/1/2024	**16.2**	13.6	0.0	70.2	
5/7/2024	**14.8**	14.0	0.1	71.2	
5/15/2024	**13.9**	14.5	0.0	71.5	
5/21/2024	**18**	16.0	0.1	66	
5/31/2024	**16**	16.6	0.1	67.3	
6/7/2024	**16.3**	16.4	0.1	67.1	
6/25/2024	0.0	5.1	15.8	79.1	- Vacuum extraction from methane trench (6/19/2024–11/15/2024)
7/5/2024	0.0	3.6	17.4	79	
7/12/2024	0.0	2.4	18.1	66.5	
7/16/2024	0.0	2.0	16.5	70.5	
7/26/2024	0.1	1.6	16.7	81.7	
8/8/2024	0	1.8	18.8	72.1	- Caps added to the other two vent pipe connections at sumps
8/20/2024	0.1	1.9	19.2	78.8	
8/24/2024	0	2.3	18.8	78.9	
8/29/2024	0	2.6	18.6	78.8	
9/4/2024	0	2.5	17.1	80.5	
9/21/2024	0	2.1	18	79.9	
9/26/2024	0	1.9	18	80.1	
10/3/2024	0	1.9	20	78.1	
10/8/2024	0	1.7	18.9	79.4	
10/20/2024	0	1.9	19.6	78.5	
10/30/2024	0	1.8	19.5	78.7	
11/8/2024	0	2	20.9	77.1	
11/12/2024	0	1.9	20.3	77.8	
11/19/2024	0	2.2	20.1	77.7	- Blower shut off (11/15/2024–present)
11/27/2024	0	2.5	19.9	77.6	
12/2/2024	0	1.8	20.9	77.3	

Figure 8. Methane Content of Landfill Perimeter Soil Gas Probe #8.

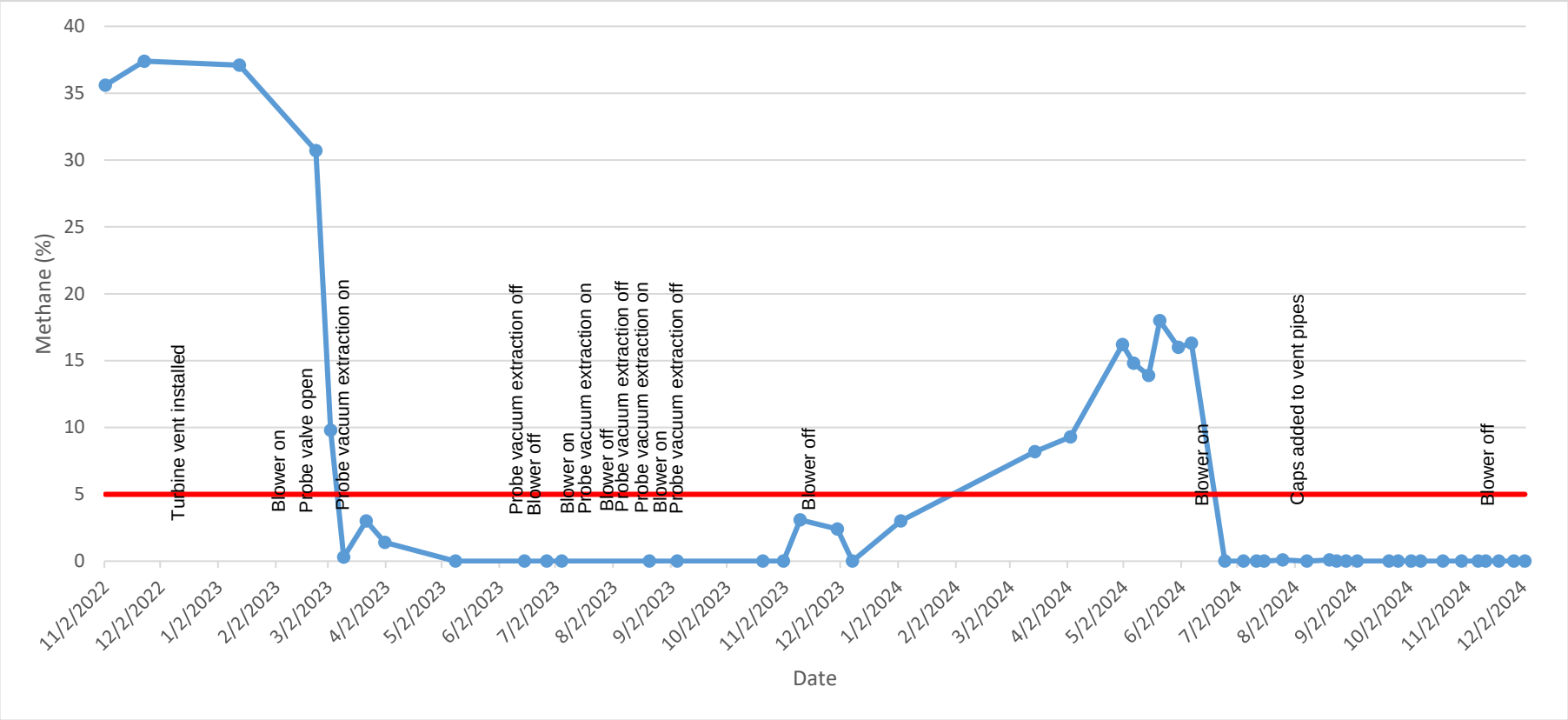

Table 9. Monitoring Results for Landfill Perimeter Soil Gas Probe Number 9.					
Date	**% Methane**	**% Carbon Dioxide**	**% Oxygen**	**% Balance**	**Actions / Key Dates**
11/2/2022	NR	NR	NR	NR	
11/23/2022	4.2	0.1	14	81.7	
1/13/2023	**5.8**	0.1	3.2	90.9	- Turbine vents installed on landfill gas vent (12/12/2022–present)
2/23/2023	NR	NR	NR	NR	- Vacuum extraction from methane trench (2/10/2023–6/16/2023)
3/3/2023	NR	NR	NR	NR	
3/10/2023	0.1	0.1	21.4	78.5	
3/22/2023	0.1	0.0	21.2	78.7	
4/1/2023	2.4	0.1	2.2	95.3	
5/9/2023	3.1	0.1	0.2	96.6	
6/15/2023	0.0	3.1	13.6	83.3	
6/27/2023	0.0	6.2	5	88.8	- Blower shut off (6/16/2023–6/17/2023) - Vacuum extraction from methane trench (6/17/2023–6/26/2023) - Blower shut off (6/26/2023–7/24/2023)
7/5/2023	0.1	8.8	4.7	86.4	
8/21/2023	NR	NR	NR	NR	- Vacuum extraction from methane trench (7/24/2023–8/18/2023) - Blower shut off (8/18/2023–8/23/2023)
9/5/2023	NR	NR	NR	NR	- Vacuum extraction from methane trench (8/23/2023–11/10/2023)
9/22/2023	NR	NR	NR	NR	
10/21/2023	NR	NR	NR	NR	
11/1/2023	NR	NR	NR	NR	
11/10/2023	0.0	6.5	4.9	88.6	- Blower shut off (11/10/2023–6/19/2024)
11/17/2023	0.0	6.5	4.9	88.6	
11/30/2023	0.0	6.5	4.9	88.6	
12/8/2023	0.0	6.5	4.9	88.6	
1/3/2024	0.0	4.7	8.4	86.9	
3/15/2024	0.0	5.5	5.9	88.6	
4/3/2024	0.2	7.8	6.1	86.1	
5/1/2024	0.1	5.6	6.7	87.7	
5/7/2024	0.0	7.2	6.3	86.5	
5/15/2024	0.4	6.3	7.6	86.1	
5/21/2024	0.2	7.9	6.8	85.3	
5/31/2024	0.1	8.6	5.3	86.1	
6/7/2024	0.2	8.2	6.5	85.3	
6/25/2024	0.0	8.5	5.2	86.3	- Vacuum extraction from methane trench (6/19/2024–11/15/2024)
7/5/2024	0.0	7.9	6.7	85.4	
7/12/2024	0.0	8.1	6.2	85.7	
7/16/2024	0.1	7.6	6.6	85.8	
7/26/2024	0.1	7.7	6.5	85.8	
8/8/2024	0	7.6	6.6	85.8	- Caps added to the other two vent pipe connections at sumps
8/20/2024	0.1	7.6	6.7	85.7	
8/24/2024	0	7.7	6.5	85.8	
8/29/2024	0	8	6.5	85.5	
9/4/2024	0	7.9	6.6	85.5	
9/21/2024	0.1	7.7	6.5	85.8	
9/26/2024	0.0	7.2	6.3	86.5	
10/3/2024	0.0	7.9	3.2	88.9	
10/8/2024	0.0	8.5	5.2	86.3	
10/20/2024	0.1	7.6	6.6	85.8	
10/30/2024	0	8.2	6.1	85.7	
11/8/2024	0	8.1	5.6	86.3	
11/12/2024	0	7.7	5.1	87.2	
11/19/2024	0	7.4	6.9	85.7	- Blower shut off (11/15/2024–present)
11/27/2024	0	8.1	5.9	86	
12/2/2024	0	8	5.4	86.6	

Notes:

NR = Not Read

Figure 9. Methane Content of Landfill Perimeter Soil Gas Probe #9.

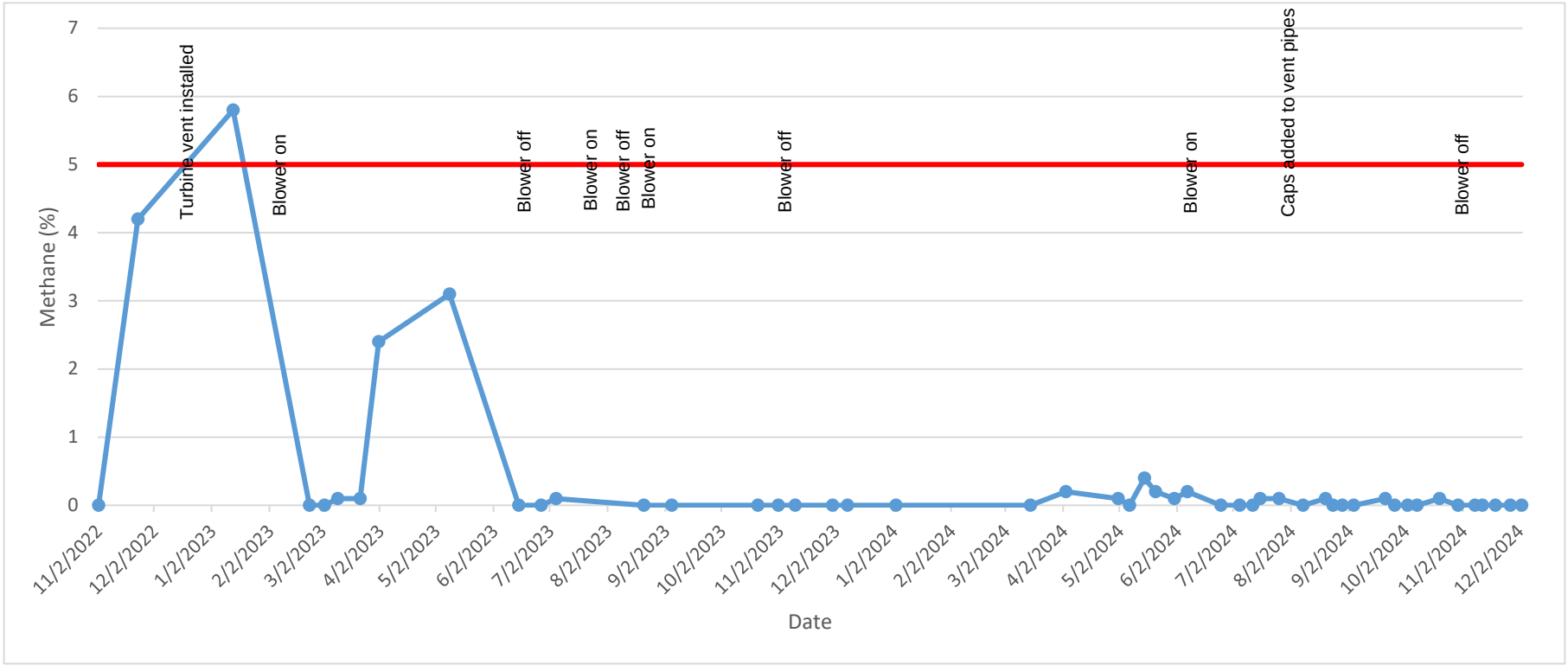

Table 10. Monitoring Results for Landfill Perimeter Soil Gas Probe Number 10.					
Date	**% Methane**	**% Carbon Dioxide**	**% Oxygen**	**% Balance**	**Actions / Key Dates**
11/2/2022	**35.9**	56.4	0.0	7.7	
11/23/2022	**39.3**	53.6	0.0	6.9	
1/13/2023	**41.9**	55.3	0.1	2.7	- Turbine vents installed on landfill gas vent (12/12/2022–present)
2/23/2023	**30.4**	40.5	0.0	29	- Blower installed and turned on (2/10/2023–6/16/2023) - Perimeter probe valves left open to vent (2/23/2023–3/22/2023)
3/3/2023	**32.5**	31.1	0.1	36.3	
3/10/2023	0.0	0.1	21.9	78	
3/22/2023	0.0	0.1	21.1	78.8	- Perimeter probe valves closed (3/22/2023–7/21/2023)
4/1/2023	**12.6**	15.1	0.0	72.3	
5/9/2023	0.0	0.1	20.4	79.5	
6/15/2023	0.0	0.0	21.1	78.9	
6/27/2023	3.3	15.3	0.0	81.4	- Blower shut off (6/16/2023–6/17/2023) - Vacuum extraction from methane trench (6/17/2023–6/26/2023) - Blower shut off (6/26/2023–7/24/2023)
7/5/2023	**6.4**	19.1	0.0	74.5	
8/21/2023	**9.4**	31.3	0.1	59.2	- Vacuum extraction from soil gas probes (7/21/2023–8/18/2023) - Vacuum extraction from methane trench (7/24/2023–8/18/2023) - Blower shut off (8/18/2023–8/23/2023) - Perimeter probe valve closed (8/18/2023 -8/23/2023)
9/5/2023	**10.1**	30.6	0.1	59.2	- Vacuum extraction from methane trench (8/23/2023–11/10/2023) - Vacuum extraction from soil gas probes (8/23/2023–11/10/2023)
9/22/2023	**9.3**	28.8	0.1	61.8	
10/21/2023	**9.7**	28.3	0.1	61.9	
11/1/2023	**10.3**	27.7	0.0	62	
11/10/2023	**10.0**	27.5	0.1	62.4	- Blower shut off (11/10/2023–6/19/2024) - Perimeter probe valve closed (11/10/2023–present)
11/17/2023	**10.7**	27.6	0.0	61.7	
11/30/2023	**15.5**	31.3	0.0	53.1	
12/8/2023	**16.3**	32.2	0.0	51.5	
1/3/2024	**21.4**	35.3	0.0	43.3	
3/15/2024	**27.5**	37.3	0.0	35.2	
4/3/2024	**30.7**	38.5	0.0	30.7	
5/1/2024	**30.6**	35	0.0	34.4	
5/7/2024	**31.8**	38.9	0.1	29.2	
5/15/2024	**30.4**	38.5	0.0	31.1	
5/21/2024	**31.8**	39	0.1	29.1	
5/31/2024	**30.9**	38.6	0.0	30.5	
6/7/2024	**31.4**	38.5	0.1	30.0	
6/25/2024	**29.1**	37.8	0.2	32.9	- Vacuum extraction from methane trench (6/19/2024–11/15/2024)
7/5/2024	**25.4**	36	0.1	38.4	
7/12/2024	**19.2**	32.9	0.1	47.9	
7/16/2024	**17.4**	32.1	0.1	50.4	
7/26/2024	**18.8**	35	0.0	46.2	
8/8/2024	**11.5**	30.8	0.1	57.6	- Caps added to the other two vent pipe connections at sumps
8/20/2024	**13**	30.4	0.1	56.5	
8/24/2024	NR	NR	NR	NR	
8/29/2024	**10.5**	29.2	0.1	60.3	
9/4/2024	**10.1**	28.9	0.1	60.9	
9/19/2024	**9.7**	29.4	0.1	60.8	
9/26/2024	**8.2**	31.1	0	60.7	
10/3/2024	**7.9**	31.1	0	61	
10/8/2024	**7.8**	31.2	0	61	
10/20/2024	**9.8**	30.7	0.1	59.4	
10/30/2024	**10**	30.7	0.1	59.1	
11/8/2024	**10.2**	30.5	0.1	59.3	
11/12/2024	**11.1**	30.1	0.2	58.7	
11/19/2024	**13.3**	31.1	0.1	55.5	- Blower shut off (11/15/2024–present)
11/27/2024	**14.1**	31.8	0.1	54	
12/2/2024	**16.6**	32.7	0.1	50.7	

Notes:

NR = Not Read

Figure 10. Methane Content of Landfill Perimeter Soil Gas Probe #10.

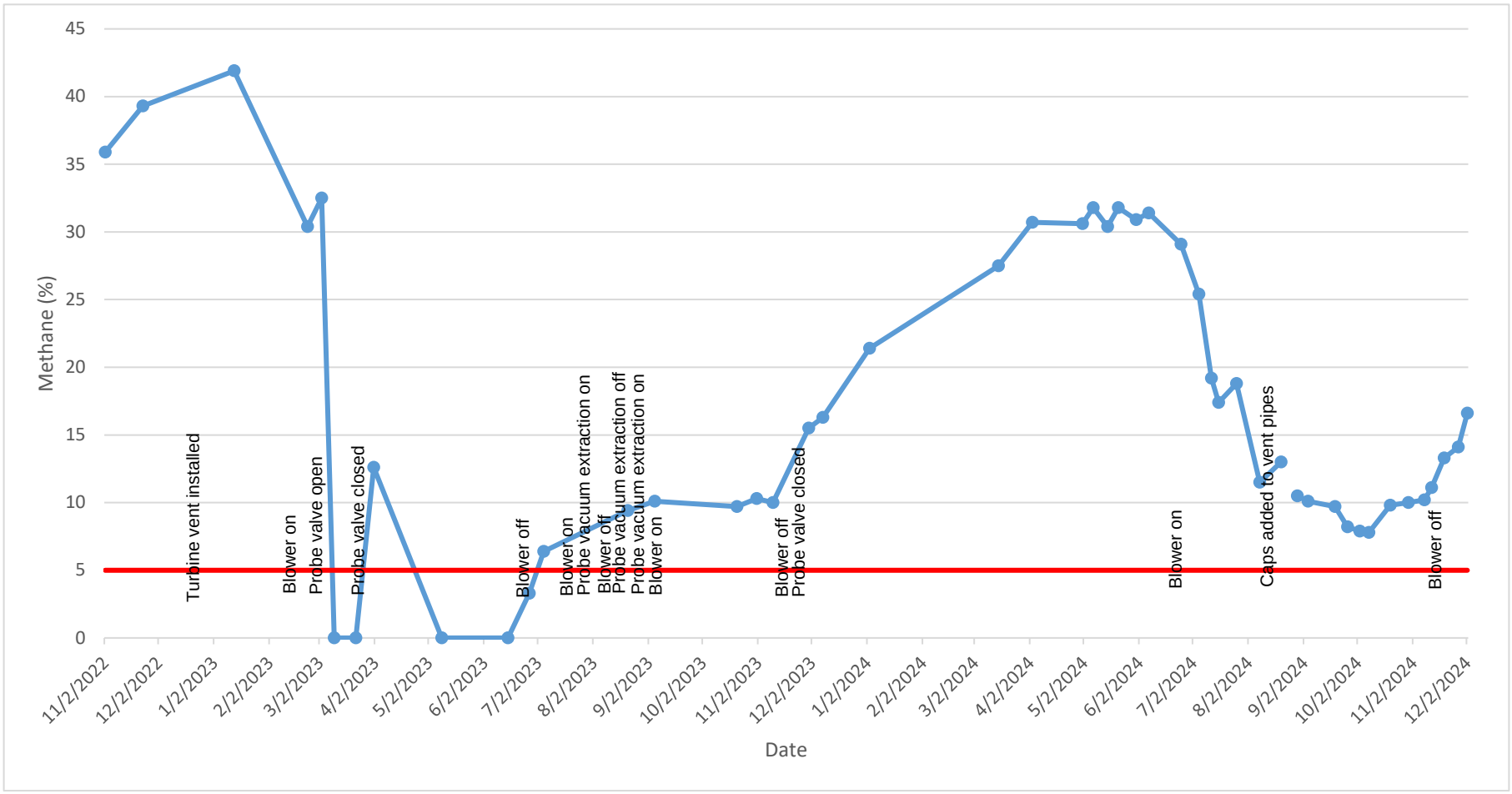

Table 11. Monitoring Results for Landfill Perimeter Soil Gas Probe Number 11.					
Date	**% Methane**	**% Carbon Dioxide**	**% Oxygen**	**% Balance**	**Actions / Key Dates**
11/2/2022	0.0	16.2	8.2	75.7	
11/23/2022	0.6	22.9	2.8	73.7	
1/13/2023	**38.4**	48	0.1	13.5	- Turbine vents installed on landfill gas vent (12/12/2022–present)
2/23/2023	**33.3**	36.3	0.0	30.4	- Vacuum extraction from methane trench (2/10/2023–6/16/2023) - Perimeter probe valves left open to vent (2/23/2023–3/22/2023)
3/3/2023	**30.9**	27	0.1	42	
3/10/2023	0.0	0.3	21.8	77.9	
3/22/2023	0.0	0.2	21.3	78.5	- Perimeter probe valves closed (3/22/2023–7/21/2023)
4/1/2023	**19.1**	25	0.5	55.4	
5/9/2023	0.0	0.7	20	79.3	
6/15/2023	1.5	20.8	0.9	76.8	
6/27/2023	**9.9**	27.2	0.4	62.5	- Blower shut off (6/16/2023–6/17/2023) - Vacuum extraction from methane trench (6/17/2023–6/26/2023) - Blower shut off (6/26/2023–7/24/2023)
7/5/2023	**17.2**	33.6	0.1	49	
8/21/2023	**7.6**	26.3	0.4	65.7	- Vacuum extraction from soil gas probes (7/21/2023–8/18/2023) - Vacuum extraction from methane trench (7/24/2023–8/18/2023) - Blower shut off (8/18/2023–8/23/2023) - Perimeter probe valve closed (8/18/2023–8/23/2023)
9/5/2023	3.1	24	0.5	72.5	- Vacuum extraction from methane trench (8/23/2023–11/10/2023) - Vacuum extraction from soil gas probes (8/23/2023–11/10/2023)
9/22/2023	1.6	21.9	1.8	74.7	
10/21/2023	3.0	25.2	1.6	70.2	
11/1/2023	4.2	27	0.6	68.2	
11/10/2023	3.9	26.1	1.2	68.8	- Blower shut off (11/10/2023–6/19/2024) - Perimeter probe valve closed (11/10/2023–present)
11/17/2023	2.6	21.4	0.1	75.9	
11/30/2023	**17.3**	33.4	0.1	49.2	
12/8/2023	**21.7**	25.8	0.0	52.4	
1/3/2024	**18.0**	29.8	0.4	51.7	
3/15/2024	**18.2**	32.5	0.0	49.3	
4/3/2024	**20.5**	30.3	0.0	49.2	
5/1/2024	**17.7**	28	0.1	54.2	
5/7/2024	**10.2**	27.4	0.6	61.7	
5/15/2024	**19.5**	30.6	0.4	49.5	
5/21/2024	**22.1**	32.6	0.2	45.1	
5/31/2024	**20.9**	32.2	0.2	46.7	
6/7/2024	**18.1**	31	0.2	50.7	
6/25/2024	**6.7**	26.3	0.9	66.1	- Vacuum extraction from methane trench (6/19/2024–11/15/2024)
7/5/2024	3.0	22.7	1.0	73.3	
7/12/2024	1.9	22.2	1.0	74.9	
7/16/2024	4.1	22.8	1.0	72.1	
7/26/2024	**7.7**	27.3	0.6	64.5	
8/8/2024	**6.3**	25.4	0.9	67.4	- Caps added to the other two vent pipe connections at sumps
8/20/2024	**8.7**	25.5	1	64.9	
8/24/2024	**10**	26.3	1.1	62.6	
8/29/2024	**8**	25.5	0.3	66.2	
9/4/2024	**10.2**	26.5	0.5	62.8	
9/19/2024	**12.1**	28.2	0.6	59.1	
9/26/2024	**10.7**	30.4	0.4	58.5	
10/3/2024	**11.3**	31	0.4	57.3	
10/8/2024	**11.6**	30.9	0.6	56.9	
10/20/2024	**14.8**	30.9	0.7	53.6	
10/30/2024	**10.5**	29.6	0.5	59.4	
11/8/2024	**8.2**	26.8	0.5	64.5	
11/12/2024	**17.1**	30.5	0.1	52.3	
11/19/2024	**22.9**	32.9	0.1	44.1	- Blower shut off (11/15/2024–present)
11/27/2024	**22.6**	32.1	0.3	45	
12/2/2024	**22.1**	31.5	0.5	45.9	

Figure 11. Methane Content of Landfill Perimeter Soil Gas Probe #11.

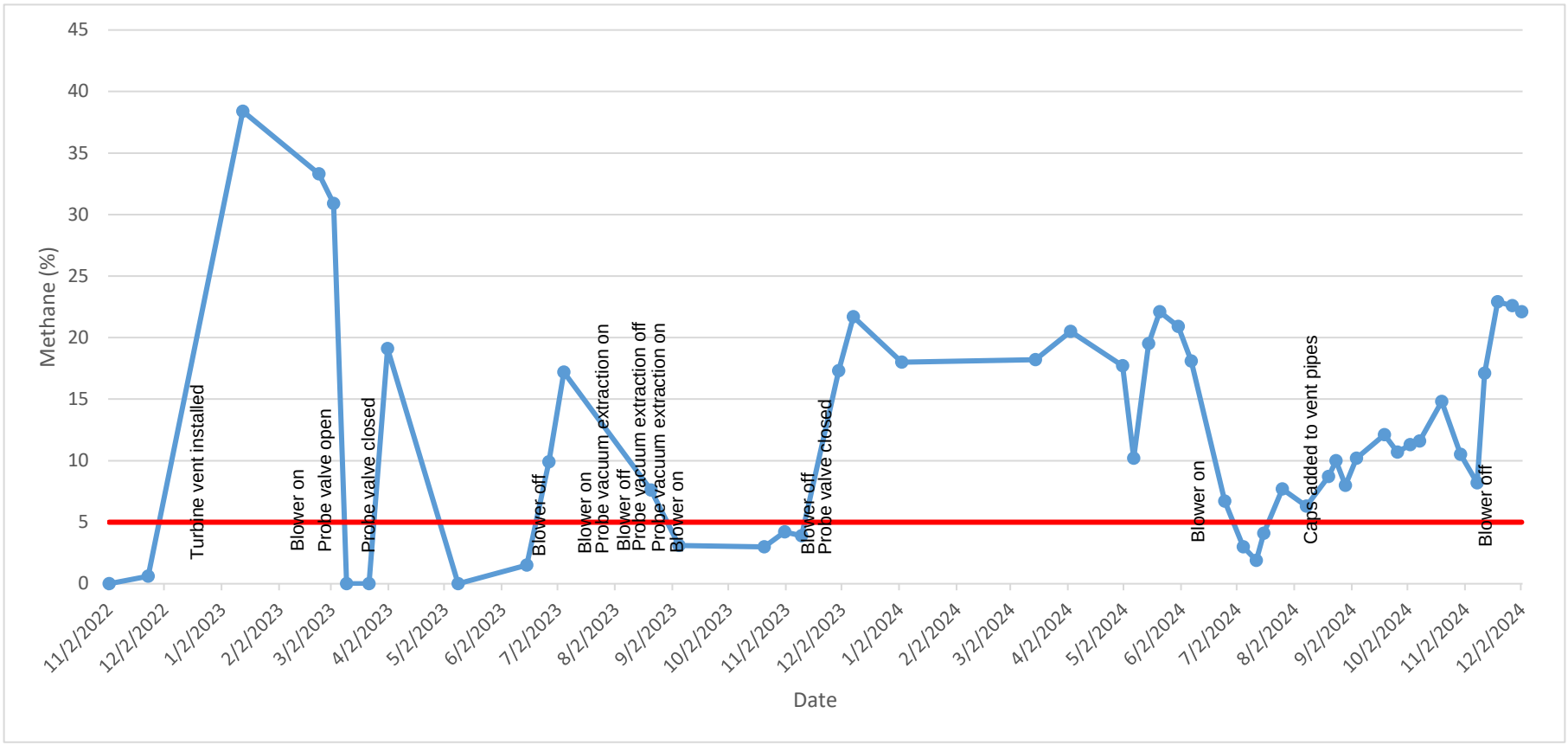

Table 12. Monitoring Results for Landfill Perimeter Soil Gas Probe Number 12.					
Date	**% Methane**	**% Carbon Dioxide**	**% Oxygen**	**% Balance**	**Actions / Key Dates**
11/2/2022	**22.8**	40.6	0.8	35.1	
11/23/2022	0.0	0.2	21.4	78.4	
1/13/2023	**27.9**	42.9	0.3	29	- Turbine vents installed on landfill gas vent (12/12/2022–present)
2/23/2023	**27**	42.2	0.0	30.8	- Vacuum extraction from methane trench (2/10/2023–6/16/2023) - Probe valves left open to vent (2/23/2023–3/22/2023)
3/3/2023	**12.8**	24.9	0.1	62.2	
3/10/2023	0.0	0.1	22	77.9	
3/22/2023	0.0	0.8	20.1	79.1	- Probe valves closed (3/22/2023–present)
4/1/2023	**17.7**	36.1	0.0	46.2	
5/9/2023	0.0	0.0	20.4	79.6	
6/15/2023	0.0	2.0	16.7	81.3	
6/27/2023	2.6	26.3	0.4	70.7	- Blower shut off (6/16/2023–6/17/2023) - Vacuum extraction from methane trench (6/17/2023–6/26/2023) - Blower shut off (6/26/2023–7/24/2023)
7/5/2023	3.1	27.9	0.2	68.7	
8/21/2023	4.3	30.4	0.3	65.1	- Vacuum extraction from methane trench (7/24/2023–8/18/2023) - Blower shut off (8/18/2023–8/23/2023)
9/5/2023	4.3	31.1	0	64.5	- Vacuum extraction from methane trench (8/23/2023–11/10/2023)
9/22/2023	4.1	30.4	0.8	64.6	
10/21/2023	3.2	31.6	0.1	65	
11/1/2023	2.8	27.9	1.8	67.5	
11/10/2023	3.4	30.3	0.1	66.2	- Blower shut off (11/10/2023–6/19/2024)
11/17/2023	3.4	30.4	0.0	66.2	
11/30/2023	**7.2**	32.4	0.0	60.4	
12/8/2023	**7.2**	32.5	0.0	60.4	
1/3/2024	**8.5**	32.8	0.0	58.7	
3/15/2024	**10.7**	34.1	0.0	55.2	
4/3/2024	**11.7**	31.5	0.0	56.8	
5/1/2024	**12.4**	29.4	0.0	58.2	
5/7/2024	**13.6**	32	0.1	54.4	
5/15/2024	**11.9**	30.7	0.0	57.4	
5/21/2024	**12.3**	31.3	0.0	56.4	
5/31/2024	**11.7**	30.6	0.1	57.6	
6/7/2024	**11.9**	30.1	0.1	58	
6/25/2024	**9.2**	28.5	0.1	62.3	- Vacuum extraction from methane trench (6/19/2024–11/15/2024)
7/5/2024	**6.8**	27	0.1	66.1	
7/12/2024	**5.0**	25.5	0.1	69.4	
7/16/2024	4.0	24.2	0.2	71.5	
7/26/2024	4.8	26.5	0.0	68.7	
8/8/2024	2.8	24.1	0.3	72.8	- Caps added to the other two vent pipe connections at sumps
8/20/2024	4.9	24.8	0.1	70.2	
8/24/2024	4.8	25.4	0	69.8	
8/29/2024	NR	NR	NR	NR	
9/4/2024	4.4	24.6	0.1	70.9	
9/19/2024	4.8	26.1	0	69.1	
9/26/2024	4.3	27.8	0	67.9	
10/3/2024	3.7	27.1	0	69.2	
10/8/2024	4.1	28	0	67.9	
10/20/2024	4.6	27.5	0	67.9	
10/30/2024	**5**	28.1	0	66.9	
11/8/2024	4.5	27.8	0	67.7	
11/12/2024	**5.5**	27.4	0.1	67	
11/19/2024	**6.7**	27.8	0.1	65.4	- Blower shut off (11/15/2024–present)
11/27/2024	**7**	28.2	0	64.8	
12/2/2024	**7.7**	28.6	0	63.6	

Notes:

NR = Not Read

Figure 12. Methane Content of Landfill Perimeter Soil Gas Probe #12.

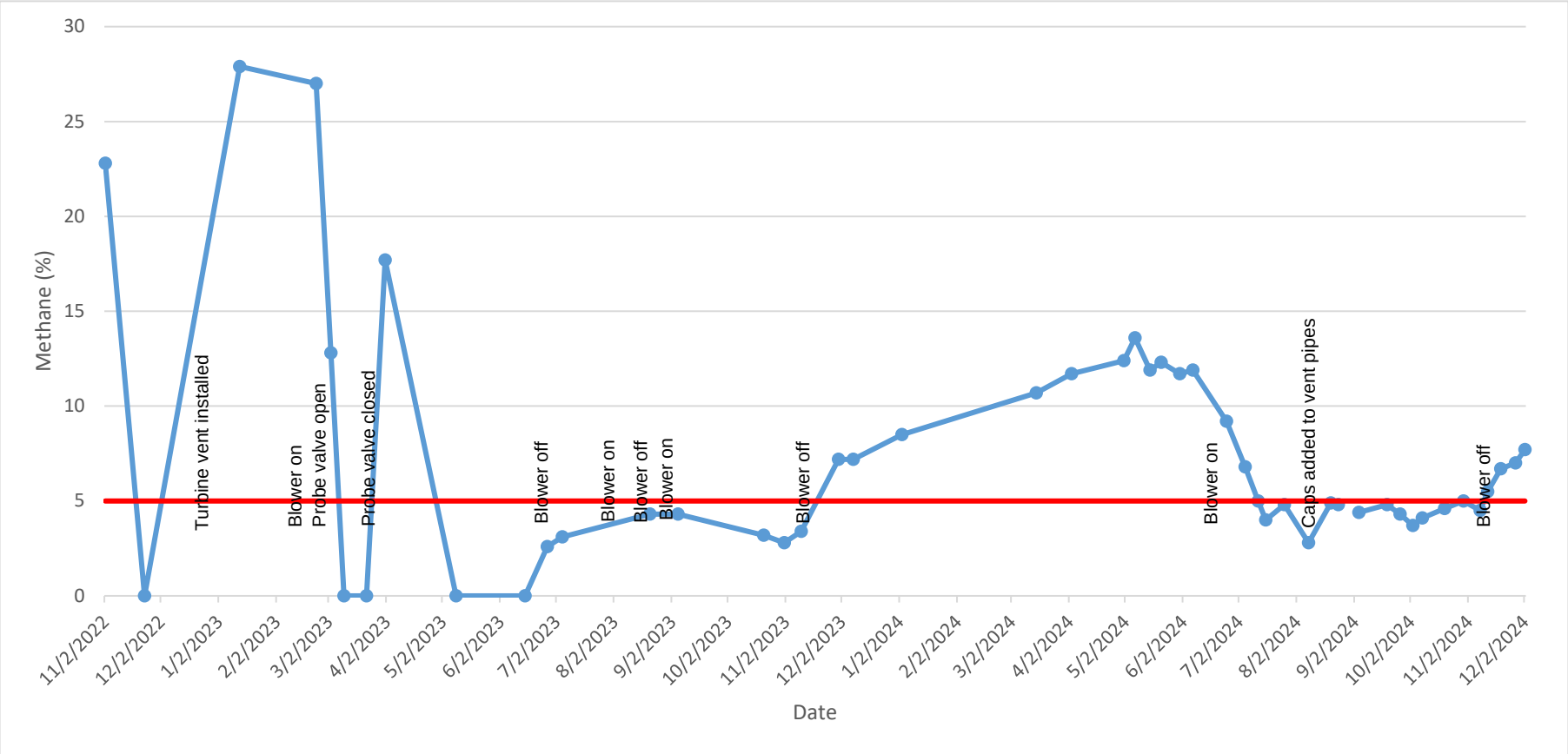

Table 13. Monitoring Results for Soil Vapor Extraction Unit.					
Date	**% Methane**	**% Carbon Dioxide**	**% Oxygen**	**% Balance**	**Actions / Key Dates**
11/2/2022	-	-	-	-	- Blower not installed (11/2/2022–2/10/2023)
11/23/2022	-	-	-	-	
1/13/2023	-	-	-	-	
2/23/2023	NR	NR	NR	NR	- Blower installed, vacuum extraction from methane trench (2/10/2023–6/16/2023)
3/3/2023	**23.8**	19.7	1.6	54.9	
3/10/2023	**20.7**	19.8	4.2	55.3	
3/22/2023	**11.1**	17.8	4.7	66.5	
4/1/2023	**8.7**	19	4.5	67.8	
5/9/2023	3.3	13.8	4.9	78	
6/15/2023	3.2	11.5	7.9	77.3	
6/27/2023	-	-	-	-	- Blower shut off (6/16/2023–6/17/2023) - Vacuum extraction from methane trench (6/17/2023–6/26/2023) - Blower shut off (6/26/2023–7/24/2023)
7/5/2023	-	-	-	-	
8/21/2023	-	-	-	-	- Vacuum extraction from methane trench (7/24/2023–8/18/2023) - Blower shut off (8/18/2023–8/23/2023)
9/5/2023	**6.0**	14.6	6	73.4	- Vacuum extraction from methane trench (8/23/2023–11/10/2023)
9/22/2023	NR	NR	NR	NR	
10/21/2023	4.8	15.7	6.6	72.9	
11/1/2023	4.6	16.5	5.1	73.8	
11/10/2023	3.8	13.6	8.3	74.3	- Blower shut off (11/10/2023–6/19/2024)
11/17/2023	-	-	-	-	
11/30/2023	-	-	-	-	
12/8/2023	-	-	-	-	
1/3/2024	-	-	-	-	
3/15/2024	-	-	-	-	
4/3/2024	-	-	-	-	
5/1/2024	-	-	-	-	
5/7/2024	-	-	-	-	
5/15/2024	-	-	-	-	
5/21/2024	-	-	-	-	
5/31/2024	-	-	-	-	
6/7/2024	-	-	-	-	
6/25/2024	**15.4**	14.3	5.2	65.1	- Vacuum extraction from methane trench (6/19/2024–11/15/2024)
7/5/2024	**11**	13.8	5.8	69.4	
7/12/2024	**7.0**	13.4	7.1	72.4	
7/16/2024	**6.0**	12.7	6.6	74.8	
7/26/2024	**7.1**	14.8	6.7	71.4	
8/8/2024	**3.9**	12.4	7.7	76	- Caps added to the other two vent pipe connections at sumps
8/20/2024	**6**	13.9	6.9	73.2	
8/24/2024	**6**	15.4	5.6	73	
8/29/2024	4.2	15	5.9	73.4	- Dilution valve on blower opened halfway (8/24/24–11/15/2024)
9/4/2024	4.0	14.3	6	74.3	
9/21/2024	4.6	14.5	6.4	74.5	
9/26/2024	4.8	14.8	5.8	74.6	
10/3/2024	4.6	15	6.3	74.1	
10/8/2024	3.9	14.5	6.1	75.5	
10/20/2024	4.4	12.8	8	74.7	
10/30/2024	4.6	12.8	9.4	73.3	
11/8/2024	4.4	13.3	8.3	74.1	
11/12/2024	4.9	11.7	10.2	73.2	- Blower shut off (11/15/2024–present)
11/19/2024	-	-	-	-	
11/27/2024	-	-	-	-	
12/2/2024	-	-	-	-	

Notes:

- = blower not running

NR = Not Read

Figure 13. Methane Content at Blower Over Time.

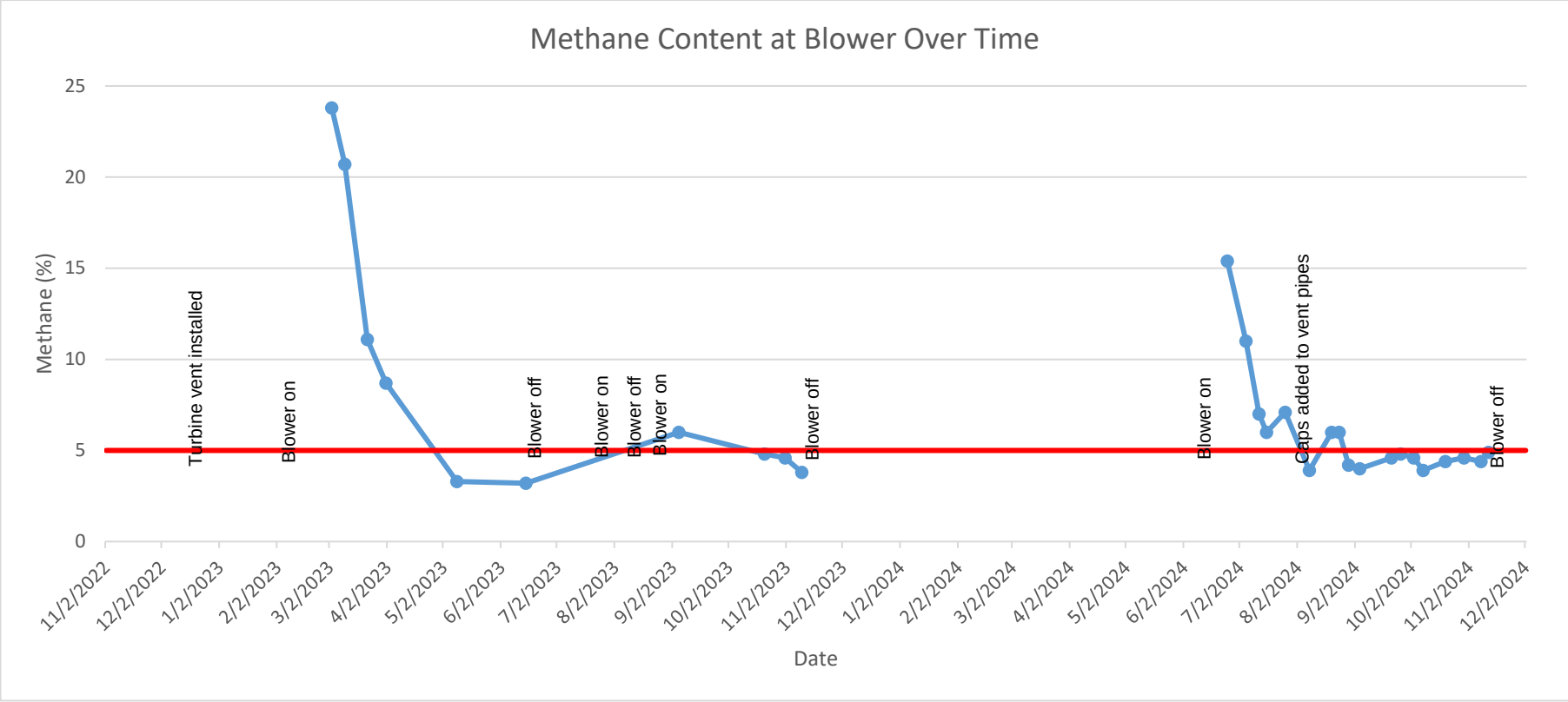

Table 14. Sampling Results and Analysis.

Toxic Air Pollutants (TAPs)	CAS Number	Molecular Weight (g/mol)	Acceptable Source Impact Level (ASIL) (µg/m³)	<=?	Reported Concentration (µg/m³)	Default Conc. (AP-42 Table 2.4-2) (ppmv)	Default Conc. (AP-42 Table 2.4-2) (ug/m³)	Averaging Period	Hours/ Averaging Period	Flow Volume per Averaging Period (scf)	Small Quantity Emission Rate (SQER) (lbs/averaging period)	De Minimis Rate (lbs/averaging period)	Loading Rates (lbs/averaging period)	Loading Rates (lbs/hour)	Loading < SQER?
Carbon disulfide	75-15-0	76.13	800	<	62.3	0.58	1804.82	24-hr	24	115200	800.0	59.000	0.0004480	0.0000187	YES
Carbonyl sulfide (Carbon oxysulfide)	463-58-1	60.07	10	<	49.1	0.49	1203.11	24-hr	24	115200	10.0	0.740	0.0003531	0.0000147	YES
Hydrogen sulfide	7783-06-4	34.08	2	<	360	36	50147.93	24-hr	24	115200	2.0	0.150	0.0025890	0.0001079	YES
1,1,1-Trichloroethane (methyl chloroform)	71-55-6	133.41	5000		0.218	0.48	2617.46	24-hr	24	115200	5000.0	370.000	0.0000016	0.0000001	YES
1,1,2,2-Tetrachloroethane	79-34-5	167.85	0.017		1.37	1.1	7547	year	8760	42048000	0.017	2.800	0.0035962	0.0000004	YES
1,1,2-Trichloroethane (vinyl trichloride)	79-00-5	133.4	0.063	<	0.218	-	-	year	8760	42048000	0.063	10.000	0.0005722	0.0000001	YES
1,1-Dichloroethane (ethylidene dichloride)	75-34-3	98.97	0.63	<	0.162	2.4	9709	year	8760	42048000	0.63	100.000	0.0004252	0.0000000	YES
1,1-Dichloroethylene (1,1-DCE)	75-35-4	96.94	200	<	0.159	0.2	792	24-hr	24	115200	200.0	15.000	0.0000011	0.0000000	YES
1,2,4-Trimethylbenzene	95-63-6	120.19	60	<	9.83	-	-	24-hr	24	115200	60.0	4.400	0.0000707	0.0000029	YES
Ethylene dibromide (EDB, 1,2-dibromoethane)	106-93-4	187.88	0.0017	<	0.0164	0.001	8	year	8760	42048000	0.0017	0.270	0.0000430	0.0000000	YES
Ethylene dichloride (EDC, 1,2-dichloroethane)	107-06-2	98.96	0.038	<	0.162	0.41	1658	year	8760	42048000	0.038	6.200	0.0004252	0.0000000	YES
1,2-Dichloropropane (propylene dichloride)	78-87-5	112.99	0.1		0.924	0.18	831	year	8760	42048000	0.1	16.000	0.0024255	0.0000003	YES
1,3,5-Trimethylbenzene	108-67-8	120.19	60	<	2.95	-	-	24-hr	24	115200	60.0	4.400	0.0000212	0.0000009	YES
1,3-Butadiene (Vinyl ethylene)	106-99-0	54.09	0.033	<	0.442	-	-	year	8760	42048000	0.0	5.400	0.0011602	0.0000001	YES
1,4-Dichlorobenzene	106-46-7	147	0.091	<	1.2	0.21	1262	year	8760	42048000	0.091	15.000	0.0031500	0.0000004	YES
1,4-Dioxane (1,4-Diethylene dioxide)	123-91-1	88.11	0.2		2.16	-	-	year	8760	42048000	0.2	32.000	0.0056699	0.0000006	YES
Methyl ethyl ketone (2-Butanone)	78-93-3	72.11	5000		5.86	7.1	20927	24-hr	24	115200	5000.0	370.000	0.0000421	0.0000018	YES
2-Hexanone (Methyl butyl ketone)	591-78-6	100.16	30		2.46	-	-	24-hr	24	115200	30.0	2.200	0.0000177	0.0000007	YES
Isopropyl alcohol	67-63-0	60.11	3200		43.1	50	122848	1-hr	1	4800	3200.0	5.900	0.0000129	0.0000129	YES
Benzene	71-43-2	78.11	0.13		1.99	-	-	year	8760	42048000	0.13	21.000	0.0052237	0.0000006	YES
Benzyl chloride	100-44-7	126.58	0.02	<	3.11	-	-	year	8760	42048000	0.02	3.300	0.0081636	0.0000009	YES
Bromodichloromethane	75-27-4	163.83	0.027	<	1.34	3.1	20759	year	8760	42048000	0.027	4.400	0.0035175	0.0000004	YES
Tribromomethane (Bromoform)	75-25-2	252.73	0.91		2.07	-	-	year	8760	42048000	0.91	150.000	0.0054337	0.0000006	YES
Bromomethane (methyl bromide)	74-83-9	94.94	5		0.777	-	-	24-hr	24	115200	5.0	0.370	0.0000056	0.0000002	YES
Dichloromethane	75-09-2	84.94	60	<	25.4	14	48606	year	8760	42048000	60.0	9800.000	0.0666741	0.0000076	YES
Hydrogen sulfide	7783-06-4	34.08	2		356	36	50148	24-hr	24	115200	2.0	0.150	0.0025602	0.0001067	YES
Carbon disulfide	75-15-0	76.13	800	<	62.3	0.58	1805	24-hr	24	115200	800.0	59.000	0.0004480	0.0000187	YES
Carbonyl sulfide (Carbon oxysulfide)	463-58-1	60.07	10	<	49.1	0.49	1203	24-hr	24	115200	10.0	0.740	0.0003531	0.0000147	YES
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	108-10-1	100.16	3000	<	2.88	1.9	7778.55	24-hr	24	115200	3000.0	220.000	0.0000207	0.0000009	YES
Acrolein	107-02-8	56.06	0.35	<	0.0312	-	-	24-hr	24	115200	0.35	0.026	0.0000002	0.0000000	YES
Carbon disulfide	75-15-0	76.13	800	<	107	0.58	1805	24-hr	24	115200	800.0	59.000	0.0007695	0.0000321	YES
Carbon tetrachloride	56-23-5	153.84	0.17	<	0.252	0.004	25	year	8760	42048000	0.17	27.000	0.0006615	0.0000001	YES
Chlorobenzene	108-90-7	112.56	1000	<	0.184	0.25	1150	24-hr	24	115200	1000.0	74.000	0.0000013	0.0000001	YES
Chloroethane (ethyl chloride)	75-00-3	64.52	30000	<	1.58	1.3	3428	24-hr	24	115200	30000.0	2200.000	0.0000114	0.0000005	YES

Table 14 (continued). Sampling Results and Analysis

Toxic Air Pollutants (TAPs)	CAS Number	Molecular Weight (g/mol)	Acceptable Source Impact Level (ASIL) (µg/m³)	<=?	Reported Concentration (µg/m³)	Default Conc. (AP-42 Table 2.4-2) (ppmv)	Default Conc. (AP-42 Table 2.4-2) (ug/m³)	Averaging Period	Hours/ Averaging Period	Flow Volume per Averaging Period (scf)	Small Quantity Emission Rate (SQER) (lbs/averaging period)	De Minimis Rate (lbs/averaging period)	Loading Rates (lbs/averaging period)	Loading Rates (lbs/hour)	Loading < SQER?
Chloroform	67-66-3	119.39	0.043	<	0.955	0.03	146	year	8760	42048000	0.043	7.100	0.0025068	0.0000003	YES
Chloromethane (methyl chloride)	74-87-3	50.49	90	<	0.413	1.2	2476	24-hr	24	115200	90.0	6.700	0.0000030	0.0000001	YES
Cyclohexane	110-82-7	84.16	6000	<	2.07	-	-	24-hr	24	115200	6000.0	440.000	0.0000149	0.0000006	YES
Ethyl benzene	100-41-4	106.16	0.4		8.68	4.6	19960	year	8760	42048000	0.4	65.000	0.0227847	0.0000026	YES
1,1,2,3,4,4-Hexachloro-1,3-butadiene (Hexachlorobutadiene)	87-68-3	260.76	0.045		2.13	-	-	year	8760	42048000	0.045	7.400	0.0055912	0.0000006	YES
Methyl methacrylate	80-62-6	100.12	700		8.19	-	-	24-hr	24	115200	700.0	52.000	0.0000589	0.0000025	YES
n-Hexane	110-54-3	86.18	700	<	18.2	6.6	23249	24-hr	24	115200	700.0	52.000	0.0001309	0.0000055	YES
Naphthalene	91-20-3	0.107	0.029		0.519	-	-	year	8760	42048000	0.029	4.800	0.0013624	0.0000002	YES
o-Xylene	95-47-6	106.16	220	<	8.68	-	-	24-hr	24	115200	220.0	16.000	0.0000624	0.0000026	YES
Propylene	115-07-1	3.32	3000		1.03	-	-	24-hr	24	115200	3000.0	220.000	0.0000074	0.0000003	YES
Styrene (Vinylbenzene)	100-42-5	104.15	870		2.56	-	-	24-hr	24	115200	870.0	65.000	0.0000184	0.0000008	YES
Methyl tert-butyl ether (MTBE)	1634-04-4	88.15	3.8		0.721	-	-	year	8760	42048000	3.8	620.000	0.0018926	0.0000002	YES
Tetrachloroethylene (Perchloroethylene)	127-18-4	165.83	0.16	<	13.6	3.7	25079	year	8760	42048000	0.16	27.000	0.0356995	0.0000041	YES
Tetrahydrofuran (Diethylene oxide)	109-99-9	72.11	2000	<	1.77	-	-	24-hr	24	115200	2000.0	150.000	0.0000127	0.0000005	YES
Toluene	108-88-3	92.13	5000	<	13.3	-	-	24-hr	24	115200	5000.0	370.000	0.0000956	0.0000040	YES
trans-1,2-Dichloroethene	156-60-5	96.94	810	<	0.793	2.8	11094.61	24-hr	24	115200	810.0	60.000	0.0000057	0.0000002	YES
Trichloroethylene (Trichloroethene) (TCE)	79-01-6	131.4	0.21	<	0.215	2.8	15038.49	year	8760	42048000	0.21	34.000	0.0005644	0.0000001	YES
Sigma-Aldrich Vinyl acetate	108-05-4	86.09	200		2.11	-	-	24-hr	24	115200	200.0	15.000	0.0000152	0.0000006	YES
Vinyl chloride	75-01-4	62.5	0.11	<	0.511	7.3	18648.92	year	8760	42048000	0.11	18.000	0.0013414	0.0000002	YES

Notes:

ASIL = Acceptable Source Impact Level

SQER = Small Quantity Emission Rate

TAP = Toxic Air Pollutant

scf = standard cubic feet

The SQER is a level of emissions below which dispersion modeling is not required to demonstrate compliance.

The *De Minimis* rate is a level of emissions below which loading does not pose a threat to human health or the environment.

Analyte has concentration less than ASIL.

The Chemical Abstracts Service (CAS) number is a unique and unambiguous number identified for a specific substance.

< means the concentration is less than the reporting limits of the laboratory, and the value reported is the laboratory reporting limit.

The flow rate at the blower on November 8, 2024 was approximately 80 scfm.

Attachment B

Landfill Gas Sample Laboratory Report

HERRERA
Science + Planning + Design

3600 Fremont Ave N
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Herrera Environmental
Tyson Wright
2200 Sixth Ave, Ste 1100
Seattle, WA 98121

RE: Baker View, 22-07954-000
Work Order Number: 2411165

November 18, 2024

Attention Tyson Wright:

Fremont Analytical, Inc, an Alliance Technical Group company, received 1 sample(s) on 11/8/2024 for the analyses presented in the following report.

Major Gases by EPA Method 3C
Siloxanes by EPA Method TO-15
Sulfur Compounds by EPA TO-15 Mod
VOCs and APH by EPA Method TO-15/MA APH
Volatile Organic Compounds by EPA TO-15

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Please note, while the appearance of our logo and branding will update, our commitment to accuracy, speed, and customer service remain values celebrated and shared by Alliance Technical Group. Thank you for the opportunity to serve you.

Sincerely,

Brianna Barnes
Project Manager

CC:
Camryn Steiner
Tyson Wright

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Original

Date: *11/18/2024*

CLIENT: Herrera Environmental
Project: Baker View
Work Order: 2411165

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2411165-001	GELF1	11/08/2024 10:17 AM	11/08/2024 1:20 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Original

Case Narrative

WO#: **2411165**

Date: **11/18/2024**

CLIENT: Herrera Environmental

Project: Baker View

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Air samples are reported in ppbv and ug/m3. Major gases are reported as % ratio of the Major Gases analyzed (Carbon dioxide, Carbon Monoxide, Methane, Nitrogen, Oxygen and Hydrogen).

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Standard temperature and pressure assumes 24.45 = (25C and 1 atm).

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2411165**
Date Reported: **11/18/2024**

CLIENT: Herrera Environmental
Project: Baker View

Lab ID: 2411165-001 **Collection Date:** 11/8/2024 10:17:00 AM
Client Sample ID: **GELF1** **Matrix:** Landfill gas

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Major Gases by EPA Method 3C				Batch ID: R95789		Analyst: CO
Carbon Dioxide	14.2	0.0500		%	1	11/18/2024 1:47:00 PM
Carbon Monoxide	ND	0.0500		%	1	11/18/2024 1:47:00 PM
Methane	4.11	0.0500		%	1	11/18/2024 1:47:00 PM
Nitrogen	72.8	0.0500		%	1	11/18/2024 1:47:00 PM
Oxygen	8.86	0.0500		%	1	11/18/2024 1:47:00 PM
Hydrogen	ND	0.0500		%	1	11/18/2024 1:47:00 PM
BTU	41.6			BTU/ft^3	1	11/18/2024 1:47:00 PM

Analytical Report

Work Order: **2411165**

Date Reported: **11/18/2024**

Client: Herrera Environmental **Collection Date:** 11/8/2024 10:17:00 AM

Project: Baker View

Lab ID: 2411165-001 **Matrix:** Landfill gas

Client Sample ID: GELF1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOCs and APH by EPA Method TO-15/MA APH				Batch ID: R95778		Analyst: LB
Aliphatic Hydrocarbon (EC5-8)	102	30.0		ppbv	1	11/16/2024 10:37:26 PM
Aliphatic Hydrocarbon (EC9-12)	42.3	20.0		ppbv	1	11/16/2024 10:37:26 PM
Aromatic Hydrocarbon (EC9-10)	ND	6.00		ppbv	1	11/16/2024 10:37:26 PM
Surr: 4-Bromofluorobenzene	99.8	70 - 130		%Rec	1	11/16/2024 10:37:26 PM
Siloxanes by EPA Method TO-15				Batch ID: R95653		Analyst: LB
Pentamethyldisiloxane	ND	5.00		ppbv	1	11/9/2024 4:45:00 AM
Hexamethyldisiloxane-L2 (MM)	ND	5.00		ppbv	1	11/9/2024 4:45:00 AM
Hexamethylcyclotrisiloxane (D3)	ND	5.00		ppbv	1	11/9/2024 4:45:00 AM
Octamethyltrisiloxane-L3 (MDM)	ND	5.00		ppbv	1	11/9/2024 4:45:00 AM
Octamethylcyclotetrasiloxane (D4)	ND	5.00		ppbv	1	11/9/2024 4:45:00 AM
Decamethyltetrasiloxane-L4 (MD2M)	ND	5.00		ppbv	1	11/9/2024 4:45:00 AM
Decamethylcyclopentasiloxane (D5)	ND	5.00		ppbv	1	11/9/2024 4:45:00 AM
Surr: 4-Bromofluorobenzene	112	70 - 130		%Rec	1	11/9/2024 4:45:00 AM
Sulfur Compounds by EPA TO-15 Mod				Batch ID: R95676		Analyst: LB
Hydrogen Sulfide	256	200		ppbv	1	11/8/2024 11:30:00 PM
Carbon Disulfide	ND	20.0		ppbv	1	11/9/2024 12:12:00 AM
Methyl Mercaptan	ND	20.0		ppbv	1	11/9/2024 12:12:00 AM
Ethyl Mercaptan	ND	20.0		ppbv	1	11/9/2024 12:12:00 AM
Dimethyl Sulfide	ND	20.0		ppbv	1	11/9/2024 12:12:00 AM
Carbonyl Sulfide	ND	20.0		ppbv	1	11/9/2024 12:12:00 AM
Isopropyl Mercaptan	ND	20.0		ppbv	1	11/9/2024 12:12:00 AM
t-Butyl Mercaptan	ND	20.0		ppbv	1	11/9/2024 12:12:00 AM
n-Propyl Mercaptan	ND	20.0		ppbv	1	11/9/2024 12:12:00 AM
Isobutyl Mercaptan	ND	20.0		ppbv	1	11/9/2024 12:12:00 AM
n-Butyl Mercaptan	ND	20.0		ppbv	1	11/9/2024 12:12:00 AM
Dimethyl Disulfide	ND	20.0		ppbv	1	11/9/2024 12:12:00 AM
Methyl Ethyl Sulfide	ND	20.0		ppbv	1	11/9/2024 12:12:00 AM
Surr: 4-Bromofluorobenzene	92.4	70 - 130		%Rec	1	11/9/2024 12:12:00 AM
Volatile Organic Compounds by EPA TO-15				Batch ID: R95786		Analyst: LB
Propylene	ND	0.600		ppbv	1	11/16/2024 10:37:26 PM
Dichlorodifluoromethane (CFC-12)	2.70	0.200		ppbv	1	11/16/2024 10:37:26 PM
Chloromethane	ND	0.200		ppbv	1	11/16/2024 10:37:26 PM
Dichlorotetrafluoroethane (CFC-114)	ND	0.600		ppbv	1	11/16/2024 10:37:26 PM

Analytical Report

Work Order: **2411165**
Date Reported: **11/18/2024**

Client: Herrera Environmental
Project: Baker View
Lab ID: 2411165-001
Client Sample ID: **GELF1**

Collection Date: 11/8/2024 10:17:00 AM
Matrix: Landfill gas

Volatile Organic Compounds by EPA TO-15

Batch ID: R95786 Analyst: LB

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Vinyl chloride	ND	0.200		ppbv	1	11/16/2024 10:37:26 PM
1,3-Butadiene	ND	0.200		ppbv	1	11/16/2024 10:37:26 PM
Bromomethane	ND	0.200		ppbv	1	11/16/2024 10:37:26 PM
Trichlorofluoromethane (CFC-11)	ND	0.200		ppbv	1	11/16/2024 10:37:26 PM
Chloroethane	ND	0.600		ppbv	1	11/16/2024 10:37:26 PM
Acrolein***	ND	0.0136		ppbv	1	11/16/2024 10:37:26 PM
1,1-Dichloroethene (DCE)	ND	0.0400		ppbv	1	11/16/2024 10:37:26 PM
Acetone	17.6	4.00		ppbv	1	11/16/2024 10:37:26 PM
Isopropyl Alcohol	16.9	2.00	*	ppbv	1	11/16/2024 10:37:26 PM
Methylene chloride	7.30	0.600		ppbv	1	11/16/2024 10:37:26 PM
Carbon disulfide	34.4	2.00		ppbv	1	11/16/2024 10:37:26 PM
trans-1,2-Dichloroethene	ND	0.200		ppbv	1	11/16/2024 10:37:26 PM
Methyl tert-butyl ether (MTBE)	ND	0.200		ppbv	1	11/16/2024 10:37:26 PM
n-Hexane	5.17	2.00		ppbv	1	11/16/2024 10:37:26 PM
1,1-Dichloroethane	ND	0.0400		ppbv	1	11/16/2024 10:37:26 PM
Vinyl acetate	ND	0.600		ppbv	1	11/16/2024 10:37:26 PM
cis-1,2-Dichloroethene	0.660	0.200		ppbv	1	11/16/2024 10:37:26 PM
(MEK) 2-Butanone	1.93	0.600		ppbv	1	11/16/2024 10:37:26 PM
Ethyl acetate	ND	2.00		ppbv	1	11/16/2024 10:37:26 PM
Chloroform	0.195	0.0400		ppbv	1	11/16/2024 10:37:26 PM
Tetrahydrofuran	ND	0.600		ppbv	1	11/16/2024 10:37:26 PM
1,1,1-Trichloroethane	ND	0.0400		ppbv	1	11/16/2024 10:37:26 PM
Carbon tetrachloride	ND	0.0400		ppbv	1	11/16/2024 10:37:26 PM
1,2-Dichloroethane	ND	0.0400		ppbv	1	11/16/2024 10:37:26 PM
Benzene	0.617	0.0400		ppbv	1	11/16/2024 10:37:26 PM
Cyclohexane	ND	0.600		ppbv	1	11/16/2024 10:37:26 PM
Trichloroethene (TCE)	ND	0.0400		ppbv	1	11/16/2024 10:37:26 PM
1,2-Dichloropropane	ND	0.200		ppbv	1	11/16/2024 10:37:26 PM
Methyl methacrylate	ND	2.00		ppbv	1	11/16/2024 10:37:26 PM
Dichlorobromomethane	ND	0.200		ppbv	1	11/16/2024 10:37:26 PM
1,4-Dioxane	ND	0.600		ppbv	1	11/16/2024 10:37:26 PM
cis-1,3-dichloropropene	ND	0.200		ppbv	1	11/16/2024 10:37:26 PM
Toluene	3.52	2.00		ppbv	1	11/16/2024 10:37:26 PM
trans-1,3-dichloropropene	ND	0.600		ppbv	1	11/16/2024 10:37:26 PM
1,1,2-Trichloroethane (TCA)	ND	0.0400		ppbv	1	11/16/2024 10:37:26 PM
Tetrachloroethene (PCE)	ND	2.00		ppbv	1	11/16/2024 10:37:26 PM
Dibromochloromethane	ND	0.200		ppbv	1	11/16/2024 10:37:26 PM
1,2-Dibromoethane (EDB)***	ND	0.00214		ppbv	1	11/16/2024 10:37:26 PM
Chlorobenzene	ND	0.0400		ppbv	1	11/16/2024 10:37:26 PM

Analytical Report

Work Order: **2411165**

Date Reported: **11/18/2024**

Client: Herrera Environmental
Collection Date: 11/8/2024 10:17:00 AM
Project: Baker View
Lab ID: 2411165-001
Matrix: Landfill gas
Client Sample ID: **GELF1**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA TO-15				Batch ID: R95786		Analyst: LB
Ethylbenzene	ND	2.00		ppbv	1	11/16/2024 10:37:26 PM
m,p-Xylene	ND	4.00		ppbv	1	11/16/2024 10:37:26 PM
o-Xylene	ND	2.00		ppbv	1	11/16/2024 10:37:26 PM
Styrene	ND	0.600		ppbv	1	11/16/2024 10:37:26 PM
Bromoform	ND	0.200		ppbv	1	11/16/2024 10:37:26 PM
1,1,2,2-Tetrachloroethane	ND	0.200		ppbv	1	11/16/2024 10:37:26 PM
1,3,5-Trimethylbenzene	ND	0.600		ppbv	1	11/16/2024 10:37:26 PM
1,2,4-Trimethylbenzene	ND	2.00		ppbv	1	11/16/2024 10:37:26 PM
Benzyl chloride	ND	0.600		ppbv	1	11/16/2024 10:37:26 PM
4-Ethyltoluene	ND	0.600		ppbv	1	11/16/2024 10:37:26 PM
1,3-Dichlorobenzene	ND	0.200		ppbv	1	11/16/2024 10:37:26 PM
1,4-Dichlorobenzene	ND	0.200		ppbv	1	11/16/2024 10:37:26 PM
1,2-Dichlorobenzene	ND	0.200		ppbv	1	11/16/2024 10:37:26 PM
1,2,4-Trichlorobenzene	ND	0.600		ppbv	1	11/16/2024 10:37:26 PM
Hexachlorobutadiene	ND	0.200		ppbv	1	11/16/2024 10:37:26 PM
Naphthalene	0.0989	0.0560		ppbv	1	11/16/2024 10:37:26 PM
2-Hexanone	ND	0.600		ppbv	1	11/16/2024 10:37:26 PM
4-Methyl-2-pentanone (MIBK)	0.702	0.600		ppbv	1	11/16/2024 10:37:26 PM
CFC-113	ND	0.600		ppbv	1	11/16/2024 10:37:26 PM
Heptane	0.953	0.600		ppbv	1	11/16/2024 10:37:26 PM
Surr: 4-Bromofluorobenzene	95.4	70 - 130		%Rec	1	11/16/2024 10:37:26 PM

NOTES:
* - Associated LCS is below acceptance criteria. Result may be low-biased.

Work Order: 2411165
CLIENT: Herrera Environmental
Project: Baker View

QC SUMMARY REPORT

VOCs and APH by EPA Method TO-15/MA APH

Sample ID: **LCS-R95578** SampType: **LCS** Units: **ppbv** Prep Date: **11/16/2024** RunNo: **95778**
Client ID: **LCSW** Batch ID: **R95778** Analysis Date: **11/16/2024** SeqNo: **1998649**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (EC5-8)	11.5	7.50	12.00	0	96.2	70	130				
Aliphatic Hydrocarbon (EC9-12)	11.2	5.00	12.00	0	93.0	70	130				
Aromatic Hydrocarbon (EC9-10)	9.18	1.50	10.00	0	91.8	70	130				
Surr: 4-Bromofluorobenzene	3.97		4.000		99.2	70	130				

Sample ID: **MB-R95778** SampType: **MBLK** Units: **ppbv** Prep Date: **11/16/2024** RunNo: **95778**
Client ID: **MBLKW** Batch ID: **R95778** Analysis Date: **11/16/2024** SeqNo: **1998650**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (EC5-8)	ND	7.50									
Aliphatic Hydrocarbon (EC9-12)	ND	5.00									
Aromatic Hydrocarbon (EC9-10)	ND	1.50									
Surr: 4-Bromofluorobenzene	3.83		4.000		95.8	70	130				

Sample ID: **2411165-001AREP** SampType: **REP** Units: **ppbv** Prep Date: **11/16/2024** RunNo: **95778**
Client ID: **GELF1** Batch ID: **R95778** Analysis Date: **11/16/2024** SeqNo: **1998653**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (EC5-8)	100	30.0						102.3	1.93	25	
Aliphatic Hydrocarbon (EC9-12)	42.7	20.0						42.30	0.857	25	
Aromatic Hydrocarbon (EC9-10)	ND	6.00						0		25	
Surr: 4-Bromofluorobenzene	16.0		16.00		100	70	130		0		

Work Order: 2411165
CLIENT: Herrera Environmental
Project: Baker View

QC SUMMARY REPORT

Major Gases by EPA Method 3C

Sample ID: **LCS-R95789** SampType: **LCS** Units: **%** Prep Date: **11/18/2024** RunNo: **95789**
Client ID: **LCSW** Batch ID: **R95789** Analysis Date: **11/18/2024** SeqNo: **1998984**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon Dioxide	99.5	0.0500	100.0	0	99.5	90	110				
Carbon Monoxide	99.8	0.0500	100.0	0	99.8	90	110				
Methane	99.7	0.0500	100.0	0	99.7	90	110				
Nitrogen	99.7	0.0500	100.0	0	99.7	90	110				
Oxygen	100	0.0500	100.0	0	100	90	110				
Hydrogen	99.2	0.0500	100.0	0	99.2	90	110				

Sample ID: **2411165-001AREP** SampType: **REP** Units: **%** Prep Date: **11/18/2024** RunNo: **95789**
Client ID: **GELF1** Batch ID: **R95789** Analysis Date: **11/18/2024** SeqNo: **1998983**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon Dioxide	14.0	0.0500						14.23	1.65	30	
Carbon Monoxide	ND	0.0500						0		30	
Methane	4.05	0.0500						4.109	1.34	30	
Nitrogen	73.1	0.0500						72.80	0.343	30	
Oxygen	8.90	0.0500						8.861	0.428	30	
Hydrogen	ND	0.0500						0		30	
BTU	41.0							41.55	1.34	30	

Work Order: 2411165
CLIENT: Herrera Environmental
Project: Baker View

QC SUMMARY REPORT

Siloxanes by EPA Method TO-15

Sample ID: **LCS-R95653**	SampType: **LCS**	Units: **ppbv**	Prep Date: **11/8/2024**	RunNo: **95653**
Client ID: **LCSW**	Batch ID: **R95653**		Analysis Date: **11/8/2024**	SeqNo: **1996224**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Pentamethyldisiloxane	29.3	5.00	25.00	0	117	70	130				
Hexamethyldisiloxane-L2 (MM)	23.0	5.00	25.00	0	91.9	70	130				
Hexamethylcyclotrisiloxane (D3)	21.0	5.00	25.00	0	84.1	70	130				
Octamethyltrisiloxane-L3 (MDM)	21.8	5.00	25.00	0	87.0	70	130				
Octamethylcyclotetrasiloxane (D4)	18.2	5.00	25.00	0	72.6	70	130				
Decamethyltetrasiloxane-L4 (MD2M)	21.2	5.00	25.00	0	84.6	70	130				
Decamethylcyclopentasiloxane (D5)	26.7	5.00	25.00	0	107	70	130				
Dodecamethylpentasiloxane (L5)	19.5	5.00	25.00	0	77.8	70	130				
Dodecamethylcyclohexasiloxane (D6)	26.5	5.00	25.00	0	106	70	130				
Surr: 4-Bromofluorobenzene	4.40		4.000		110	70	130				

Sample ID: **MB-R95653**	SampType: **MBLK**	Units: **ppbv**	Prep Date: **11/8/2024**	RunNo: **95653**
Client ID: **MBLKW**	Batch ID: **R95653**		Analysis Date: **11/8/2024**	SeqNo: **1996225**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Pentamethyldisiloxane	ND	5.00									
Hexamethyldisiloxane-L2 (MM)	ND	5.00									
Hexamethylcyclotrisiloxane (D3)	ND	5.00									
Octamethyltrisiloxane-L3 (MDM)	ND	5.00									
Octamethylcyclotetrasiloxane (D4)	ND	5.00									
Decamethyltetrasiloxane-L4 (MD2M)	ND	5.00									
Decamethylcyclopentasiloxane (D5)	ND	5.00									
Dodecamethylpentasiloxane (L5)	ND	5.00									
Dodecamethylcyclohexasiloxane (D6)	ND	5.00									
Surr: 4-Bromofluorobenzene	4.30		4.000		108	70	130				

Sample ID: **2411152-001AREP**	SampType: **REP**	Units: **ppbv**	Prep Date: **11/8/2024**	RunNo: **95653**
Client ID: **BATCH**	Batch ID: **R95653**		Analysis Date: **11/8/2024**	SeqNo: **1996228**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Pentamethyldisiloxane	ND	5.00						0		25	

Work Order: 2411165
CLIENT: Herrera Environmental
Project: Baker View

QC SUMMARY REPORT

Siloxanes by EPA Method TO-15

Sample ID: **2411152-001AREP** SampType: **REP** Units: **ppbv** Prep Date: **11/8/2024** RunNo: **95653**
Client ID: **BATCH** Batch ID: **R95653** Analysis Date: **11/8/2024** SeqNo: **1996228**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexamethyldisiloxane-L2 (MM)	ND	5.00						0		25	
Hexamethylcyclotrisiloxane (D3)	ND	5.00						0		25	
Octamethyltrisiloxane-L3 (MDM)	ND	5.00						0		25	
Octamethylcyclotetrasiloxane (D4)	ND	5.00						0		25	
Decamethyltetrasiloxane-L4 (MD2M)	ND	5.00						0		25	
Decamethylcyclopentasiloxane (D5)	ND	5.00						0		25	
Dodecamethylpentasiloxane (L5)	ND	5.00						0		25	
Dodecamethylcyclohexasiloxane (D6)	25.5	5.00						19.02	29.1	25	R
Surr: 4-Bromofluorobenzene	3.59		4.000		89.8	70	130		0		

NOTES:
R - High RPD observed. Samples are non-detect for this analyte; result meets QC requirements.

Work Order: 2411165
CLIENT: Herrera Environmental
Project: Baker View

QC SUMMARY REPORT

Sulfur Compounds by EPA TO-15 Mod

Sample ID: **LCS-R95676** SampType: **LCS** Units: **ppbv** Prep Date: **11/8/2024** RunNo: **95676**
Client ID: **LCSW** Batch ID: **R95676** Analysis Date: **11/8/2024** SeqNo: **1996615**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hydrogen Sulfide	102	20.0	100.0	0	102	70	130				
Carbon Disulfide	102	20.0	100.0	0	102	70	130				
Methyl Mercaptan	96.1	20.0	100.0	0	96.1	70	130				
Ethyl Mercaptan	102	20.0	100.0	0	102	70	130				
Dimethyl Sulfide	101	20.0	100.0	0	101	70	130				
Carbonyl Sulfide	100	20.0	100.0	0	100	70	130				
Isopropyl Mercaptan	100	20.0	100.0	0	100	70	130				
t-Butyl Mercaptan	101	20.0	100.0	0	101	70	130				
n-Propyl Mercaptan	101	20.0	100.0	0	101	70	130				
Isobutyl Mercaptan	101	20.0	100.0	0	101	70	130				
n-Butyl Mercaptan	102	20.0	100.0	0	102	70	130				
Dimethyl Disulfide	101	20.0	100.0	0	101	70	130				
Methyl Ethyl Sulfide	102	20.0	100.0	0	102	70	130				
Surr: 4-Bromofluorobenzene	4.14		4.000		103	70	130				

Sample ID: **MB-R95676** SampType: **MBLK** Units: **ppbv** Prep Date: **11/8/2024** RunNo: **95676**
Client ID: **MBLKW** Batch ID: **R95676** Analysis Date: **11/8/2024** SeqNo: **1996611**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hydrogen Sulfide	ND	20.0									
Carbon Disulfide	ND	20.0									
Methyl Mercaptan	ND	20.0									
Ethyl Mercaptan	ND	20.0									
Dimethyl Sulfide	ND	20.0									
Carbonyl Sulfide	ND	20.0									
Isopropyl Mercaptan	ND	20.0									
t-Butyl Mercaptan	ND	20.0									
n-Propyl Mercaptan	ND	20.0									
Isobutyl Mercaptan	ND	20.0									
n-Butyl Mercaptan	ND	20.0									
Dimethyl Disulfide	ND	20.0									

Work Order: 2411165
CLIENT: Herrera Environmental
Project: Baker View

QC SUMMARY REPORT

Sulfur Compounds by EPA TO-15 Mod

Sample ID: **MB-R95676** SampType: **MBLK** Units: **ppbv** Prep Date: **11/8/2024** RunNo: **95676**
Client ID: **MBLKW** Batch ID: **R95676** Analysis Date: **11/8/2024** SeqNo: **1996611**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl Ethyl Sulfide	ND	20.0									
Surr: 4-Bromofluorobenzene	3.47		4.000		86.7	70	130				

Sample ID: **2411165-001AREP** SampType: **REP** Units: **ppbv** Prep Date: **11/9/2024** RunNo: **95676**
Client ID: **GELF1** Batch ID: **R95676** Analysis Date: **11/9/2024** SeqNo: **1996614**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hydrogen Sulfide	259	20.0						254.5	1.72	25	E
Carbon Disulfide	ND	20.0						0		25	
Methyl Mercaptan	ND	20.0						0		25	
Ethyl Mercaptan	ND	20.0						0		25	
Dimethyl Sulfide	ND	20.0						0		25	
Carbonyl Sulfide	ND	20.0						0		25	
Isopropyl Mercaptan	ND	20.0						0		25	
t-Butyl Mercaptan	ND	20.0						0		25	
n-Propyl Mercaptan	ND	20.0						0		25	
Isobutyl Mercaptan	ND	20.0						0		25	
n-Butyl Mercaptan	ND	20.0						0		25	
Dimethyl Disulfide	ND	20.0						0		25	
Methyl Ethyl Sulfide	ND	20.0						0		25	
Surr: 4-Bromofluorobenzene	3.64		4.000		91.1	70	130		0		

Work Order: 2411165
CLIENT: Herrera Environmental
Project: Baker View

QC SUMMARY REPORT

Volatile Organic Compounds by EPA TO-15

Sample ID: **LCS-R95786** SampType: **LCS** Units: **ppbv** Prep Date: **11/16/2024** RunNo: **95786**
Client ID: **LCSW** Batch ID: **R95786** Analysis Date: **11/16/2024** SeqNo: **1998827**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Propylene	1.99	0.150	2.000	0	99.5	70	130				
Dichlorodifluoromethane (CFC-12)	2.05	0.0500	2.000	0	102	70	130				
Chloromethane	2.06	0.0500	2.000	0	103	70	130				
Dichlorotetrafluoroethane (CFC-114)	2.11	0.150	2.000	0	106	70	130				
Vinyl chloride	2.05	0.0500	2.000	0	103	70	130				
1,3-Butadiene	1.99	0.0500	2.000	0	99.7	70	130				
Bromomethane	2.03	0.0500	2.000	0	101	70	130				
Trichlorofluoromethane (CFC-11)	1.92	0.0500	2.000	0	95.8	70	130				
Chloroethane	2.03	0.150	2.000	0	101	70	130				
Acrolein***	1.86	0.00340	2.000	0	92.9	70	130				
1,1-Dichloroethene (DCE)	1.87	0.0100	2.000	0	93.3	70	130				
Acetone	2.06	1.00	2.000	0	103	70	130				
Isopropyl Alcohol	1.26	0.500	2.000	0	63.1	70	130				S
Methylene chloride	2.08	0.150	2.000	0	104	70	130				
Carbon disulfide	2.10	0.500	2.000	0	105	70	130				
trans-1,2-Dichloroethene	2.02	0.0500	2.000	0	101	70	130				
Methyl tert-butyl ether (MTBE)	2.00	0.0500	2.000	0	99.8	70	130				
n-Hexane	2.12	0.500	2.000	0	106	70	130				
1,1-Dichloroethane	2.01	0.0100	2.000	0	101	70	130				
Vinyl acetate	1.96	0.150	2.000	0	98.1	70	130				
cis-1,2-Dichloroethene	1.98	0.0500	2.000	0	99.1	70	130				
(MEK) 2-Butanone	1.85	0.150	2.000	0	92.4	70	130				
Ethyl acetate	1.94	0.500	2.000	0	97.0	70	130				
Chloroform	2.01	0.0100	2.000	0	101	70	130				
Tetrahydrofuran	1.96	0.150	2.000	0	98.2	70	130				
1,1,1-Trichloroethane	2.02	0.0100	2.000	0	101	70	130				
Carbon tetrachloride	2.02	0.0100	2.000	0	101	70	130				
1,2-Dichloroethane	1.99	0.0100	2.000	0	99.6	70	130				
Benzene	2.00	0.0100	2.000	0	100	70	130				
Cyclohexane	2.07	0.150	2.000	0	103	70	130				
Trichloroethene (TCE)	2.06	0.0100	2.000	0	103	70	130				
1,2-Dichloropropane	2.00	0.0500	2.000	0	99.8	70	130				

Work Order: 2411165
CLIENT: Herrera Environmental
Project: Baker View

QC SUMMARY REPORT

Volatile Organic Compounds by EPA TO-15

Sample ID: **LCS-R95786** SampType: **LCS** Units: **ppbv** Prep Date: **11/16/2024** RunNo: **95786**
Client ID: **LCSW** Batch ID: **R95786** Analysis Date: **11/16/2024** SeqNo: **1998827**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl methacrylate	1.89	0.500	2.000	0	94.5	70	130				
Dichlorobromomethane	1.94	0.0500	2.000	0	97.0	70	130				
1,4-Dioxane	2.04	0.150	2.000	0	102	70	130				
cis-1,3-dichloropropene	1.88	0.0500	2.000	0	93.8	70	130				
Toluene	2.25	0.500	2.000	0	112	70	130				
trans-1,3-dichloropropene	1.80	0.150	2.000	0	90.2	70	130				
1,1,2-Trichloroethane (TCA)	2.04	0.0100	2.000	0	102	70	130				
Tetrachloroethene (PCE)	2.08	0.500	2.000	0	104	70	130				
Dibromochloromethane	1.87	0.0500	2.000	0	93.7	70	130				
1,2-Dibromoethane (EDB)***	2.00	0.000534	2.000	0	100	70	130				
Chlorobenzene	2.22	0.0100	2.000	0	111	70	130				
Ethylbenzene	2.13	0.500	2.000	0	106	70	130				
m,p-Xylene	4.24	1.00	4.000	0	106	70	130				
o-Xylene	2.10	0.500	2.000	0	105	70	130				
Styrene	2.04	0.150	2.000	0	102	70	130				
Bromoform	1.91	0.0500	2.000	0	95.6	70	130				
1,1,2,2-Tetrachloroethane	2.07	0.0500	2.000	0	104	70	130				
1,3,5-Trimethylbenzene	2.05	0.150	2.000	0	103	70	130				
1,2,4-Trimethylbenzene	2.08	0.500	2.000	0	104	70	130				
Benzyl chloride	1.84	0.150	2.000	0	92.0	70	130				
4-Ethyltoluene	2.09	0.150	2.000	0	105	70	130				
1,3-Dichlorobenzene	2.07	0.0500	2.000	0	104	70	130				
1,4-Dichlorobenzene	2.04	0.0500	2.000	0	102	70	130				
1,2-Dichlorobenzene	2.08	0.0500	2.000	0	104	70	130				
1,2,4-Trichlorobenzene	2.03	0.150	2.000	0	102	70	130				
Hexachlorobutadiene	2.06	0.0500	2.000	0	103	70	130				
Naphthalene	1.94	0.0140	2.000	0	97.1	70	130				
2-Hexanone	2.05	0.150	2.000	0	102	70	130				
4-Methyl-2-pentanone (MIBK)	2.01	0.150	2.000	0	100	70	130				
CFC-113	2.27	0.150	2.000	0	113	70	130				
Heptane	2.13	0.150	2.000	0	106	70	130				
Surr: 4-Bromofluorobenzene	3.86		4.000		96.5	70	130				

Work Order: 2411165
CLIENT: Herrera Environmental
Project: Baker View

QC SUMMARY REPORT

Volatile Organic Compounds by EPA TO-15

Sample ID: **LCS-R95786** SampType: **LCS** Units: **ppbv** Prep Date: **11/16/2024** RunNo: **95786**
Client ID: **LCSW** Batch ID: **R95786** Analysis Date: **11/16/2024** SeqNo: **1998827**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:
S - Outlying spike recovery observed (low bias). Samples will be qualified with a *.

Sample ID: **MB-R95786** SampType: **MBLK** Units: **ppbv** Prep Date: **11/16/2024** RunNo: **95786**
Client ID: **MBLKW** Batch ID: **R95786** Analysis Date: **11/16/2024** SeqNo: **1998828**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Propylene	ND	0.150									
Dichlorodifluoromethane (CFC-12)	ND	0.0500									
Chloromethane	ND	0.0500									
Dichlorotetrafluoroethane (CFC-114)	ND	0.150									
Vinyl chloride	ND	0.0500									
1,3-Butadiene	ND	0.0500									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0500									
Chloroethane	ND	0.150									
Acrolein***	ND	0.00340									
1,1-Dichloroethene (DCE)	ND	0.0100									
Acetone	ND	1.00									
Isopropyl Alcohol	ND	0.500									*
Methylene chloride	ND	0.150									
Carbon disulfide	ND	0.500									
trans-1,2-Dichloroethene	ND	0.0500									
Methyl tert-butyl ether (MTBE)	ND	0.0500									
n-Hexane	ND	0.500									
1,1-Dichloroethane	ND	0.0100									
Vinyl acetate	ND	0.150									
cis-1,2-Dichloroethene	ND	0.0500									
(MEK) 2-Butanone	ND	0.150									
Ethyl acetate	ND	0.500									
Chloroform	ND	0.0100									
Tetrahydrofuran	ND	0.150									

Work Order: 2411165
CLIENT: Herrera Environmental
Project: Baker View

QC SUMMARY REPORT

Volatile Organic Compounds by EPA TO-15

Sample ID: **MB-R95786** SampType: **MBLK** Units: **ppbv** Prep Date: **11/16/2024** RunNo: **95786**
Client ID: **MBLKW** Batch ID: **R95786** Analysis Date: **11/16/2024** SeqNo: **1998828**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.0100									
Carbon tetrachloride	ND	0.0100									
1,2-Dichloroethane	ND	0.0100									
Benzene	ND	0.0100									
Cyclohexane	ND	0.150									
Trichloroethene (TCE)	ND	0.0100									
1,2-Dichloropropane	ND	0.0500									
Methyl methacrylate	ND	0.500									
Dichlorobromomethane	ND	0.0500									
1,4-Dioxane	ND	0.150									
cis-1,3-dichloropropene	ND	0.0500									
Toluene	ND	0.500									
trans-1,3-dichloropropene	ND	0.150									
1,1,2-Trichloroethane (TCA)	ND	0.0100									
Tetrachloroethene (PCE)	ND	0.500									
Dibromochloromethane	ND	0.0500									
1,2-Dibromoethane (EDB)***	ND	0.000534									
Chlorobenzene	ND	0.0100									
Ethylbenzene	ND	0.500									
m,p-Xylene	ND	1.00									
o-Xylene	ND	0.500									
Styrene	ND	0.150									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0500									
1,3,5-Trimethylbenzene	ND	0.150									
1,2,4-Trimethylbenzene	ND	0.500									
Benzyl chloride	ND	0.150									
4-Ethyltoluene	ND	0.150									
1,3-Dichlorobenzene	ND	0.0500									
1,4-Dichlorobenzene	ND	0.0500									
1,2-Dichlorobenzene	ND	0.0500									
1,2,4-Trichlorobenzene	ND	0.150									

Work Order: 2411165
CLIENT: Herrera Environmental
Project: Baker View

QC SUMMARY REPORT

Volatile Organic Compounds by EPA TO-15

Sample ID: **MB-R95786** SampType: **MBLK** Units: **ppbv** Prep Date: **11/16/2024** RunNo: **95786**
Client ID: **MBLKW** Batch ID: **R95786** Analysis Date: **11/16/2024** SeqNo: **1998828**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.0500									
Naphthalene	ND	0.0140									
2-Hexanone	ND	0.150									
4-Methyl-2-pentanone (MIBK)	ND	0.150									
CFC-113	ND	0.150									
Heptane	ND	0.150									
Surr: 4-Bromofluorobenzene	3.66		4.000		91.6	70	130				

Sample ID: **2411165-001AREP** SampType: **REP** Units: **ppbv** Prep Date: **11/16/2024** RunNo: **95786**
Client ID: **GELF1** Batch ID: **R95786** Analysis Date: **11/16/2024** SeqNo: **1998900**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Propylene	ND	0.600						0		25	
Dichlorodifluoromethane (CFC-12)	2.69	0.200						2.702	0.643	25	
Chloromethane	ND	0.200						0		25	
Dichlorotetrafluoroethane (CFC-114)	ND	0.600						0		25	
Vinyl chloride	ND	0.200						0		25	
1,3-Butadiene	ND	0.200						0		25	
Bromomethane	ND	0.200						0		25	
Trichlorofluoromethane (CFC-11)	ND	0.200						0		25	
Chloroethane	ND	0.600						0		25	
Acrolein***	ND	0.0136						0		25	
1,1-Dichloroethene (DCE)	ND	0.0400						0		25	
Acetone	17.7	4.00						17.63	0.350	25	
Isopropyl Alcohol	17.5	2.00						16.90	3.75	25	*
Methylene chloride	7.31	0.600						7.295	0.270	25	
Carbon disulfide	34.1	2.00						34.41	1.04	25	
trans-1,2-Dichloroethene	ND	0.200						0		25	
Methyl tert-butyl ether (MTBE)	ND	0.200						0		25	
n-Hexane	5.12	2.00						5.168	0.970	25	
1,1-Dichloroethane	ND	0.0400						0		25	

Work Order: 2411165
CLIENT: Herrera Environmental
Project: Baker View

QC SUMMARY REPORT

Volatile Organic Compounds by EPA TO-15

Sample ID: **2411165-001AREP** SampType: **REP** Units: **ppbv** Prep Date: **11/16/2024** RunNo: **95786**
Client ID: **GELF1** Batch ID: **R95786** Analysis Date: **11/16/2024** SeqNo: **1998900**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	ND	0.600						0		25	
cis-1,2-Dichloroethene	0.651	0.200						0.6604	1.44	25	
(MEK) 2-Butanone	1.99	0.600						1.930	2.98	25	
Ethyl acetate	ND	2.00						0		25	
Chloroform	0.189	0.0400						0.1955	3.50	25	
Tetrahydrofuran	ND	0.600						0		25	
1,1,1-Trichloroethane	ND	0.0400						0		25	
Carbon tetrachloride	ND	0.0400						0		25	
1,2-Dichloroethane	ND	0.0400						0		25	
Benzene	0.623	0.0400						0.6166	1.09	25	
Cyclohexane	ND	0.600						0		25	
Trichloroethene (TCE)	ND	0.0400						0		25	
1,2-Dichloropropane	ND	0.200						0		25	
Methyl methacrylate	ND	2.00						0		25	
Dichlorobromomethane	ND	0.200						0		25	
1,4-Dioxane	ND	0.600						0		25	
cis-1,3-dichloropropene	ND	0.200						0		25	
Toluene	3.34	2.00						3.520	5.39	25	
trans-1,3-dichloropropene	ND	0.600						0		25	
1,1,2-Trichloroethane (TCA)	ND	0.0400						0		25	
Tetrachloroethene (PCE)	ND	2.00						0		25	
Dibromochloromethane	ND	0.200						0		25	
1,2-Dibromoethane (EDB)***	ND	0.00214						0		25	
Chlorobenzene	ND	0.0400						0		25	
Ethylbenzene	ND	2.00						0		25	
m,p-Xylene	ND	4.00						0		25	
o-Xylene	ND	2.00						0		25	
Styrene	ND	0.600						0		25	
Bromoform	ND	0.200						0		25	
1,1,2,2-Tetrachloroethane	ND	0.200						0		25	
1,3,5-Trimethylbenzene	ND	0.600						0		25	
1,2,4-Trimethylbenzene	ND	2.00						0		25	

Work Order: 2411165
CLIENT: Herrera Environmental
Project: Baker View

QC SUMMARY REPORT

Volatile Organic Compounds by EPA TO-15

Sample ID: **2411165-001AREP** SampType: **REP** Units: **ppbv** Prep Date: **11/16/2024** RunNo: **95786**
Client ID: **GELF1** Batch ID: **R95786** Analysis Date: **11/16/2024** SeqNo: **1998900**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzyl chloride	ND	0.600						0		25	
4-Ethyltoluene	ND	0.600						0		25	
1,3-Dichlorobenzene	ND	0.200						0		25	
1,4-Dichlorobenzene	ND	0.200						0		25	
1,2-Dichlorobenzene	ND	0.200						0		25	
1,2,4-Trichlorobenzene	ND	0.600						0		25	
Hexachlorobutadiene	ND	0.200						0		25	
Naphthalene	0.0954	0.0560						0.09892	3.62	25	
2-Hexanone	ND	0.600						0		25	
4-Methyl-2-pentanone (MIBK)	0.696	0.600						0.7024	0.881	25	
CFC-113	ND	0.600						0		25	
Heptane	0.933	0.600						0.9534	2.15	25	
Surr: 4-Bromofluorobenzene	15.3		16.00		95.8	70	130		0		

NOTES:
* - Associated LCS is below acceptance criteria. Result may be low-biased.

Sample Log-In Check List

Client Name:	HERRE	Work Order Number:	2411165
Logged by:	Morgan Wilson	Date Received:	11/8/2024 1:20:00 PM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☐	No ☐	NA ☑
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☐	No ☐	NA ☑
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all hold times (except field parameters, pH e.g.) able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

Item Information

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Air Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical — An Alliance Technical Group Company

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Date: 11/8/2024 Page: 1 of: 1

Laboratory Project No (Internal): 2411165

Project Name: Bakerview

Special Remarks:

Project No: 22-07954-000

Client: Herrera

Address: 2200 6th Ave

Location: Everett

City, State, Zip: Seattle, WA

Collected by: Camryn Steiner

Telephone: 2068547302

Reports to (PM): Tyson Wright

Disposal: Samples will be disposed of one week after report is submitted unless otherwise requested. ☐ Retain volume (specify above) ☐ Return to client

Fax:

Email (PM): csteiner@herrerainc.com

Sample Name	Canister / Flow Reg Serial #	Sample Type (Matrix) *	Container Type **	Expected Fill Time / Flow Rate	Sample Start Date & Time	Field Initial Sample Pressure (" Hg)	Sample End Date & Time	Field Final Sample Pressure (" Hg)	Analysis: Full list VOCs TO15	Select VOCs TO15 ***	APH TO15	Siloxanes TO15	Sulfur TO15	Major Gases 3C	Helium 3C Mod	VOCs 8260	GX/BTEX 8260		Comments
1 GELF1	11086 / FC-29	RNG	1.0L	150CC/MIN	11/8/24 1017	-30	11/8/24 1024	-3	X		X	X	X	X					
2																			
3																			
4																			
5																			

* Matrix Codes: AA = Ambient Air OA = Outdoor Air IA = Indoor Air S = Subslab / Soil Gas SVE = SVE RNG = Biogas / Landfill / Digester

** Container Codes: BV = 1 Liter Bottle Vac 6L = 6L Canister 1L = 1L Canister CYL = High Pressure Cylinder F = Filter S = Sorbent Tube TB = Tedlar Bag

*** Select one: ☐ BTEXN & APH ☐ PCE & Breakdown ☐ Other, specify in comments

Turn-Around Time:
☒ Standard ☐ Next Day ☐ 3 Day ☐ Same Day ☐ 2 Day _____ specify

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x Camryn Steiner	Camryn Steiner	11/8/24	x	gina gerrard	11/8/24 1:20PM
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x			x		