FINAL
TECHNICAL MEMORANDUM 2021
LONG TERM MONITORING OF
LANDFILL AREAS OF CONCERN
FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK
(Document Control # NEBECOS-0196-GRI)

PREPARED FOR:	Mr. David Farnsworth/Former Griffiss Air Force Base, Base Realignment and Closure (BRAC) Environmental Coordinator (BEC) and Contracting Officer's Representative (COR)
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DATE:	December 2022

INTRODUCTION AND OBJECTIVES

Bhate Environmental Associates, Inc. (Bhate), in association with Environmental Chemical Corporation (ECC), was retained by the Air Force Civil Engineer Center (AFCEC), under Contract Number FA8903-20-D-0001, to perform long term monitoring (LTM) activities at multiple sites at the former Griffiss Air Force Base (AFB) and the former Plattsburgh AFB. Under this contract, Bhate has prepared this Technical Memorandum (Tech Memo) for the landfill areas of concern (AOCs) at the former Griffiss AFB, which include:

- LF001 – Landfill 1 AOC
- LF002 – Landfill 2/3 AOC
- LF003 – Landfill 7 AOC
- LF007 – Landfill 5 AOC
- LF009 – Landfill 6 AOC

A LTM program was developed for each Landfill AOC using the New York Codes of Rules and Regulations (NYCRR) Part 360 Regulations (New York State Department of Environmental Conservation [NYSDEC], December 2016). The purpose of this Tech Memo is to document LTM completed at these landfills in May and December 2021. Previous LTM events completed by Bhate under the Performance Based Remediation (PBR) contract are documented in the Technical Memorandum 2020 Long Term Monitoring of Landfill Areas of Concern (Bhate, April 2021), Technical Memorandum 2019 Long Term Monitoring of Landfill Areas of Concern (Bhate, May 2020), Technical Memorandum 2018 Long Term Monitoring of Landfill Areas of Concern (Bhate, May 2019), Technical Memorandum 2017 Long Term Monitoring of Landfill Areas of

Concern (Bhate, June 2018), and Technical Memorandum [Fall of 2016] Long Term Monitoring of Landfill Areas of Concern (Bhate, May 2017). All activities performed at the Landfill AOCs in 2021 are based on the elements provided in each Landfill AOC individual work plan as referenced in the following sections. Locations of the Former Griffiss AFB and the five landfill AOCs are presented on **Attachment A - Figure 1**.

All of the former Griffiss AFB landfills selected and implemented the presumptive remedy alternative as described in their associated Records of Decision (RODs). The presumptive remedy implemented at these landfills includes the use of engineering controls, institutional controls, and monitoring.

Per Title 6 of the Codes, Rules, and Regulations of New York (CRR-NY) Part 360, the gas monitoring points at LF001, LF002, and LF009 must be maintained and sampled during the post-closure period for a minimum of 30 years. Since each of these landfills have been monitored for over 5 years, modifications to sampling and analysis requirements may be requested. Under 6 CRR-NY 360, the concentration of methane and other explosive gases generated by the facility must not exceed 25 percent (%) of the lower explosive limit (LEL) for gases in structures on or off-site, excluding gas control or recovery system components; and the LEL for the gases at or beyond the property boundary. Therefore, further optimization or removal of a probe or vent from the monitoring program, is based upon four consecutive years of minimal or no LEL detections.

LF001 – LANDFILL 1 AOC

LF001 (Landfill 1 AOC) is located in the northern portion of the former Griffiss AFB and is approximately 22 acres in size. **Attachment A - Figure 2** presents the LF001 (Landfill 1 AOC) site map, including the locations of gas monitoring probes and gas vents. The wastes disposed within LF001 consisted of general refuse, hard-fill, and boiler ash, buried using trench and cover methods. An estimated 90,000 to 100,000 cubic yards (CY) of wastes were disposed of at the site from 1960 to 1973. Groundwater flow rate at LF001 is approximately 2,000 feet per year, and groundwater flows to the southwest (FPM Remediations, Inc. [FPM]/CAPE, December 2015). The ROD for LF001 was signed by the United States Environmental Protection Agency (USEPA) on June 5, 2000 (Air Force Real Property Agency [AFRPA], February 2000). The landfill was re-graded and capped in 2003. The cap components include a gas venting layer, a low-permeability layer, drainage layer, barrier protection layer, and a topsoil layer. The Final Amendment to the ROD for LF001 was signed by the USEPA on September 25, 2009 (AFRPA, September 2009). The remedial action objectives (RAOs) for LF001 (Landfill 1 AOC) are:

- Consolidation of various debris and waste areas into the main landfill boundary in order to reduce the area to be capped and the potential for nearby wildlife and human populations to be exposed to the landfill mass;
- Significantly reduce infiltration of rainwater and snow-melt water through the landfill mass in order to minimize the potential for leachate generation and groundwater contamination; and
- Monitoring the groundwater and stream environment (which may include, but is not necessarily limited to, sediment, surface water, and biota) downgradient of the site to evaluate the effectiveness of the presumptive remedy.

Landfill Gas Monitoring

Landfill gas monitoring is performed at LF001 (Landfill 1 AOC) to identify the presence and concentration of methane at or near the landfill. There were originally 31 gas vents installed when the landfill was capped. One vent, LF1GV-23, was abandoned in 2005 during installation of the passive gas trench (AFRPA, April 2010). Seven vents, LF1GV-15, -16, -26, and -28 through -31, were previously removed from the monitoring program after four consecutive years of minimal or no LEL detections. The current monitoring schedule includes gas monitoring at the following 23 remaining vents: LF1GV-01 through -14, -17 through 22, -24, -25, and -27. On December 1, 2021, Bhate completed landfill gas monitoring at LF001 (Landfill 1 AOC), including a total of 9 gas monitoring probes and 23 landfill gas vents (**Attachment B - Table 1**).

During the 2021 gas sampling event at LF001 (Landfill 1 AOC), the methane concentrations exceeded 100% of the LEL of 5% at 3 of the 9 gas monitoring probes: LF1GMP-01, LF1GMP-02, and LF1GMP-03. These probes are located just south and west of the landfill boundary. Methane concentrations at the six remaining gas monitoring probes were measured at 0% during the December 1, 2021 monitoring event. Methane concentrations at LG1GMP-13 and LF1GMP-16 have been measured at either 0% or <0.1% LEL for the past four annual gas monitoring events. Methane concentrations at all 23 gas vents were measured at 0% LEL. Methane concentrations at LG1GV-24 and LF1GV-27 have been measured at either 0% or <0.1% LEL for the past four annual gas monitoring events.

Landfill Inspections

Since April 2005, landfill inspections and cover maintenance have been performed at LF001 (Landfill 1 AOC). Inspections and maintenance were optimized following the Spring 2010 sampling event and are now conducted on a semiannual basis (Spring and Fall) with annual landfill cover mowing occurring around the same time as the Fall inspection. Land Use Control/Institutional Controls (LUC/ICs) were implemented in accordance with the ROD and are verified annually as part of the landfill cover inspection program. During the reporting period, landfill inspections were performed at LF001 on May 25, 2021 (Spring inspection), and December 1, 2021 (Fall inspection). The landfill inspection reports for May and December 2021 are presented in **Attachment C**. The locations and orientations of photos taken during the two LF001 inspections are presented on **Attachment A - Figure 2**.

On December 1, 2021, it was noted that animal burrows were found at LF1GV-13 and LF1GV-22.

Groundwater and Surface Water Sampling

Groundwater and surface water sampling did not take place in 2021 as water samples are collected biennially (in even years). The last sampling event was conducted in June 2020.

Beaver Control Measures

Beaver removal was conducted during the week of July 13, 2020. During the May 2021 inspection, beaver activity was present at the site. Breaches to the beaver dam made by the beaver control subcontractor were found to have been repaired and the pond had refilled.

Conclusions and Recommendations

The 2021 inspections did not identify any major deficiencies that would jeopardize the integrity of the cover, and there is optimal vegetation cover present on the cap. Based on the *Final Basewide Uniform Federal Policy – Quality Assurance Project Plan, Long Term Monitoring, Former Griffiss Air Force Base, Rome, New York* (UFP-QAPP) (Bhate, April 2022), it is recommended that the frequency of landfill cap inspections continue semiannually with a limited landfill inspection in the Spring and the more comprehensive inspection in the Fall to correlate with annual mowing and landfill gas monitoring. To address the minor items identified in 2021, the following activities are recommended to be performed in 2022:

- Animal burrows located at LF1GV-13 and LF1GV-22 will need to be filled in.

Based on historical landfill gas monitoring coupled with the 2021 gas monitoring results, the passive gas trench along the northwest side of the landfill is operating properly. Methane concentrations at LG1GMP-13, LF1GMP-16, LG1GV-24, and LF1GV-27 have been measured at 0% or <0.1% LEL for four consecutive events and are recommended for removal from the sampling plan.

Measures to remove beaver activities along Six Mile Creek at the toe of the landfill were undertaken in July 2020 in an effort to regain access to LF1MW-6. Beavers once again colonized the area by the May 2021 inspection and LF1MW-6 was inundated. Beaver removal from the habitat does not appear to present a lasting solution and alternate surface water sampling in the vicinity of LF1MW-6 is recommended.

LF002 – LANDFILL 2/3 AOC

LF002 (Landfill 2/3 AOC) is approximately 13 acres in size and located in the northeastern portion of the base. **Attachment A - Figure 3** presents the LF002 (Landfill 2/3 AOC) site map. The wastes at LF002 consisted of hard-fill in the southern portion of Landfill 2, on-board aircraft wastes in the northern portion of Landfill 2 and approximately 1 ton of wetted and double-bagged asbestos waste in Landfill 3, located in the eastern portion of Landfill 2. The ROD for LF002 (AFRPA, March 2000) was signed by the USEPA on June 5, 2000. The landfill was re-graded and capped during the summer of 2003. The cap components include a gas venting layer, a low-permeability layer, drainage layer, barrier protection layer, and a topsoil layer. The RAOs for LF002 (Landfill 2/3 AOC) are:

- Consolidation of various debris and waste areas into the main landfill boundary in order to reduce the area to be capped and the potential for nearby wildlife and human populations to be exposed to the landfill mass;
- Significantly reduce infiltration of rainwater and snow-melt water through the landfill mass in order to minimize the potential for leachate generation and groundwater contamination;
- Monitoring the groundwater and stream environment (which may include, but is not necessarily limited to, sediment, surface water, and biota) downgradient of the site; and

- Implementation of institutional controls in the form of deed restrictions of the main landfill boundary to prohibit use of the area and groundwater.

Landfill Gas Monitoring

Landfill gas monitoring has been performed at LF002 (Landfill 2/3 AOC) to identify the presence and concentration of methane at or near the landfill. Based upon historical data, LF2GMP-03, LF2VENT-02, and LF2VENT-08 were eliminated from future monitoring and have not been monitored since 2018. On December 1, 2021, Bhate completed landfill gas monitoring including four gas monitoring probes (LF2GMP-02, -05, -06, and -08) and eight landfill gas vents (LF2VENT-01, -04, -05, -06, -07, -12, -13, and -14) (**Attachment B - Table 2**). Results from the gas monitoring events at LF002 (Landfill 2/3 AOC) indicate methane concentrations measured at the monitoring probes were 0%. The sole methane detection at the landfill gas vents was reported at Vent-05 at a concentration of 8%.

Landfill Inspections

Since April 2005, landfill inspections and cover maintenance have been performed at LF002 (Landfill 2/3 AOC). Inspections and maintenance were conducted on a quarterly basis and optimized following the Spring 2010 sampling event to a semiannual basis. Landfill cover mowing is conducted on an annual basis (Fall). LUC/ICs have been implemented by the ROD and are verified annually as part of the landfill cover inspection program. During the reporting period, landfill inspections were performed at LF002 on May 25, 2021 (Spring inspection), and December 1, 2021 (Fall inspection). The landfill inspection reports for May and December 2021 are presented in **Attachment C**. The location and orientation of photos taken during the LF002 inspections are presented on **Attachment A - Figure 3**. No animal burrows or cap damage were observed during either Spring or Fall 2021 inspection events.

Groundwater and Surface Water Sampling

Water samples are collected every 5 years from select locations at LF002 (Landfill 2/3 AOC). The last sampling event was conducted in May 2019 and the next sampling event is planned for 2024.

Conclusions and Recommendations

The 2021 inspections did not identify any major deficiencies that would jeopardize the integrity of the cover and there is optimal vegetation cover present on the cap. The Spring 2022 inspection should include removal of any downed trees and dead branches that have fallen on the fence line over the winter. This recommendation should be considered a standing recommendation as a number of branches and downed trees are commonly found across the fence line.

Based on the *Final UFP-QAPP* (Bhate, April 2022), it is recommended that the landfill inspection frequency continue semiannually with a limited landfill inspection in the Spring and the more comprehensive inspection in the Fall to correlate with annual mowing and landfill gas monitoring. Results from the gas sampling events at LF002 (Landfill 2/3 AOC) continue to show site-wide stabilization of methane concentrations. Based upon historical data and Fall 2021 readings, it is recommended that landfill gas monitoring cease at the following locations: LF2GMP-06, LF2GMP-08, LF2VENT-01, LF2VENT-07, LF2VENT-13, and LF2VENT-14. Abandonment of existing vents and GMPs is not recommended in case future monitoring becomes necessary.

LF003 – LANDFILL 7 AOC AND LF007 – LANDFILL 5 AOC

LF003 (Landfill 7 AOC) is approximately 11 acres in size, was active from 1950 through 1954, and is located northeast of Runway 15/33 (**Attachment A - Figure 4**). The wastes disposed of at this landfill consisted of domestic refuse, solid waste, liquid wastes, petroleum products, and miscellaneous base operations waste (such as airplane parts). Waste was placed into four trenches in the landfill area and subsequently burned. The ROD for LF003 (Landfill 7 AOC) (AFRPA, March 2000) was signed by the USEPA on June 6, 2000. The landfill was re-graded and capped in 2002. The landfill was capped with an 18-inch low permeability soil layer, covered by a 6-inch layer of topsoil, and seeded with grass (FPM/CAPE, December 2015). The RAOs for LF003 (Landfill 7 AOC) are:

- Consolidation of various debris and waste areas into the main landfill boundary in order to reduce the area to be capped and the potential for nearby wildlife and human populations to be exposed to the landfill mass;
- Significantly reduce infiltration of rainwater and snow-melt water through the landfill mass in order to minimize the potential for leachate generation and groundwater contamination;
- Monitoring the groundwater and stream environment (which may include, but is not necessarily limited to, sediment, surface water, and biota) downgradient of the site; and
- Implementation of institutional controls in the form of deed restrictions of the main landfill boundary to prohibit use of the area and groundwater.

LF007 (Landfill 5 AOC) is approximately 4 acres in size and is located in the south-central portion of the base (**Attachment A - Figure 5**). The waste at LF007 consisted of domestic wastes, reportedly having been burned and then buried. Approximately 18,000 CY of wastes were disposed of at the site from 1950 through 1960. The ROD for LF007 (AFRPA, March 2000) was signed by the USEPA on June 5, 2000. The landfill was re-graded and capped in 2002. The cap components include a low-permeability layer, drainage layer, barrier protection layer, and a topsoil layer. The RAOs for LF007 (Landfill 5 AOC) are:

- Consolidation of various debris and waste areas into the main landfill boundary in order to reduce the area to be capped and the potential for nearby wildlife and human populations to be exposed to the landfill mass;
- Reduce infiltration of rainwater and snow-melt water through the landfill mass in order to minimize the potential for leachate generation and groundwater contamination;
- Monitoring the groundwater and stream environment (which may include, but is not necessarily limited to, sediment, surface water, and biota) downgradient of the site; and
- Implementation of institutional controls in the form of deed restrictions of the main landfill boundary to prohibit use of the area and groundwater.

Landfill Gas Monitoring

Landfill gas monitoring is not required at LF003 (Landfill 7 AOC) or LF007 (Landfill 5 AOC).

Landfill Inspections

Since September 2003, landfill inspections and cover maintenance have been performed at LF003 (Landfill 7 AOC) and LF007 (Landfill 5 AOC). Inspections and maintenance were conducted on a quarterly basis and optimized following the Spring 2010 sampling event to a semiannual basis. Landfill cover mowing is conducted on an annual basis (Fall). LUC/ICs have been implemented by the ROD and are verified annually as part of the landfill cover inspection program. During the reporting period, landfill inspections were performed at LF003 and LF007 on May 28, 2021 (Spring inspection), and December 2 and 3, 2021 (Fall inspection). The landfill inspection reports (including photos) for May and December 2021 are presented in **Attachment C**. The location and orientation of photos taken during the LF003 and LF007 inspections are presented on **Figure 4** and **Figure 5**, respectively, within **Attachment A**. The following minor issues were noted during the 2021 inspection events at LF003 and LF007:

- Signage on the west side of LF003 was found to be bent in May 2021 and was re-straightened at that time. The sign was missing by the Fall inspection in December 2021.
- At LF007, the access gate located to the northwest of the landfill is being bypassed by vehicle traffic which has resulted in the creation of a new de-facto roadway that provides unauthorized access to the vicinity of the landfill (see "LF007 – Spring" photo "Gate Bypass to Access Road, Facing Southeast (S1)" in **Attachment C - Landfill Inspection Reports**). The gate being bypassed serves an access road and is not part of the landfill boundary or operation. While the gate serving the access road is being bypassed, a ditch and berm separating the access road from the landfill remain intact and prevent vehicular traffic onto the landfill cap, thus ensuring that the remedy remains protective. Additionally, the signage at the boundary of the landfill along the access road is present and conspicuous.

Groundwater and Surface Water Sampling

Water samples are collected every 5 years from select locations at LF003 (Landfill 7 AOC). The last sampling event was in 2019 and the next sampling event is planned for 2024.

Water samples are collected every 5 years from select locations at LF007 (Landfill 5 AOC). The last sampling event was in May 2019 and the next sampling event is planned for 2024.

Conclusions and Recommendations

The 2021 inspections did not identify any major deficiencies that would jeopardize the integrity of the cover at either landfill and there is optimal vegetation cover present on the caps at both LF003 and LF007. The missing sign at LF003 will need replacement in 2022. Additional fencing is recommended at the entrance to LF007 to prevent further bypass of the access gate.

Based on the *Final UFP-QAPP* (Bhate, April 2022), it is recommended that the frequency continue semiannually with a limited landfill inspection in the Spring and the more comprehensive inspection in the Fall to coincide with annual mowing at both LF003 and LF007.

LF009 – LANDFILL 6 AOC

LF009 (Landfill 6 AOC) is approximately 15.7 acres in size and is located near the southern boundary of the base. **Attachment A - Figure 6** presents the LF009 (Landfill 6 AOC) site map. The wastes disposed at the landfill include general refuse and hard-fill that was buried and some of which was burned at the site. An estimated 38,000 to 62,000 CY of wastes were disposed at the site from 1955 to 1959. During the 1980s, although the landfill was no longer active, an unknown quantity of fuel-contaminated soil from the tank excavations at Tank Farms 1 and 3 was disposed of in the southern portion of LF009 (Landfill 6 AOC). In 1986, a clay cap was constructed over the fuel-contaminated soils area. The ROD (AFRPA, February 2001) for LF009 was signed by the USEPA on June 7, 2001. The cap was completed in 2004. The cap components include a gas venting layer, a 12-inch low-permeability layer, drainage layer, barrier protection layer, at least 6-inches of topsoil and seeded with grass (FPM/CAPE, December 2015). The RAOs for LF009 (Landfill 6 AOC) are:

- Consolidation of various debris and waste areas into the main landfill boundary in order to reduce the area to be capped and the potential for nearby wildlife and human populations to be exposed to the landfill mass;
- Significantly reduce infiltration of rainwater and snow-melt water through the landfill mass in order to minimize the potential for leachate generation and groundwater contamination;
- Monitoring the groundwater and stream environment (which may include, but is not necessarily limited to, sediment, surface water, and biota) downgradient of the site to evaluate the effectiveness of the presumptive remedy; and
- Implementation of institutional controls in the form of deed restrictions within the main landfill boundary and for the affected groundwater to prohibit use of the area and groundwater.

Site SD052-02 borders LF009 (Landfill 6 AOC) to the north (**Attachment A - Figure 6**) and is associated with a plume that is located downgradient of former maintenance facilities in Buildings 774 and 776, and former fuel pump house Building 775. Site SD052-04 is the LF009 (Landfill 6 AOC) trichloroethene (TCE) site plume, located immediately downgradient to the south of LF009 (Landfill 6 AOC). The most contaminated portion of the plume is located southwest of the landfill beneath the floodplain of Three Mile Creek. Monitoring of chlorinated VOCs in groundwater at LF009 (Landfill 6 AOC) is completed as part of remedial efforts at Site SD052-04. The approximate groundwater flow direction is shown with an arrow pointing southwest on **Attachment A - Figure 6**. This direction is a change from past long-term monitoring reports that have shown multiple flow directions across the landfill. Those varying directional arrows appeared to show topographical surface water flow across the landfill and not groundwater flow which should be predominantly one direction. **Attachment A - Figure 6** reflects the generalized groundwater flow from Site SD052-02, which is just upgradient of the landfill.

Landfill Gas Monitoring

Landfill gas monitoring has been performed at the site to identify the presence and concentration of methane at or near the landfill. On December 2, 2021, four scheduled landfill gas vents (LF6VENT-02, LF6VENT-03, LF6VENT-04, and LF6VENT-06) were monitored (**Attachment B - Table 3**). Methane concentrations were above the LEL of 5% at two vents, LF6VENT-02 and LF6VENT-04, with measurements of 18% and 8%, respectively. Methane concentrations were measured at 0% at LF6VENT-03 and LF6VENT-06. Methane concentrations at LF6VENT-06 have been measured at either 0% or <0.1% LEL for the past four annual gas monitoring events.

Landfill Inspections

Landfill inspections and cover maintenance have been performed at the site since 2006. Inspections and maintenance were conducted on a quarterly basis and optimized following the Spring 2010 sampling event to a semiannual basis. Landfill cover mowing is conducted on an annual basis (Fall). LUC/ICs have been implemented by the ROD and are verified annually as part of the landfill cover inspection program. During the reporting period, landfill inspections were performed at LF009 on May 25, 2021 (Spring inspection), and December 2, 2021 (Fall inspection). The landfill inspection reports (including photos) for May and December 2021 are presented in **Attachment C.** The location and orientation of photos taken during the LF009 inspections are presented on **Attachment A - Figure 6.**

Groundwater, Leachate, and Surface Water Sampling

Water samples are collected every 5 years from select locations at LF009 (Landfill 6 AOC). The last sampling event was in May 2019 and the next sampling event is planned for 2024.

Conclusions and Recommendations

The inspections did not identify any major deficiencies that would jeopardize the integrity of the cover, and there is optimal vegetation cover on the cap. Based on the *Final UFP-QAPP* (Bhate, April 2022), it is recommended that the frequency continue semiannually with a limited landfill inspection in the Spring and the more comprehensive inspection in the Fall to correlate with annual mowing and landfill gas monitoring. Landfill gas monitoring from 2011 to 2020 shows that methane levels were stable or absent at monitored gas probes. Based upon historical data (FPM/CAPE, December 2015) coupled with the Fall 2021 readings, Bhate recommends that landfill gas monitoring for the Fall of 2022 continue to only include the following four LF009 vents: LF6VENT-02, LF6VENT-03, LF6VENT-04, and LF6VENT-06. Methane concentrations at LF6VENT-06 have been measured at 0% or <0.1% LEL for four consecutive events and are recommended for removal from the sampling plan.

REFERENCES

AFRPA. February 2000. *Final Record of Decision for the Landfill 1 Area of Concern at the Former Griffiss Air Force Base, Rome, New York*. (Administrative Record [AR] 1403)

AFRPA. March 2000. *Final Record of Decision for the Landfill 2/3 Area of Concern at the Former Griffiss Air Force Base, Rome, New York.* (AR 1415)

AFRPA. March 2000. *Final Record of Decision for the Landfill 7 Area of Concern at the Former Griffiss Air Force Base, Rome, New York*. (AR 1418)

AFRPA. March 2000. *Final Record of Decision for the Landfill 5 Area of Concern at the Former Griffiss Air Force Base, Rome, New York*. (AR 1417)

AFRPA. February 2001. *Final Record of Decision for the Landfill 6 Area of Concern at the Former Griffiss Air Force Base, Rome, New York*. (AR 1451)

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Bhate. May 2017. *Technical Memorandum Long Term Monitoring of Landfill Areas of Concern Former Griffiss Air Force Base Rome, New York*.

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Bhate. May 2019. *Final Technical Memorandum 2018 Long Term Monitoring of Landfill Areas of Concern, Former Griffiss Air Force Base Rome, New York*.

Bhate. May 2020. *Final Technical Memorandum 2019 Long Term Monitoring of Landfill Areas of Concern, Former Griffiss Air Force Base Rome, New York.*

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FPM/CAPE. December 2015. *Final 2015 Annual Long Term Monitoring Report/Optimized Exit Strategy Report Landfill Areas of Concern (LF001 (Landfill 1 AOC), LF002 (Landfill 2/3 AOC), LF003 (Landfill 7 AOC), LF007 (Landfill 5 AOC), and LF009 (Landfill 6 AOC)) Former Griffiss Air Force Base Rome, New York*. (AR 459955)

NYSDEC. June 1998. *Division of Water Technical and Operational Guidance Series (1.1.1) Table 1.*

NYSDEC. December 2016. *Title 6 of the Codes, Rules and Regulations of New York (CRR-NY) Subpart 360-2 Landfills.*

ATTACHMENT A – FIGURES

Former Griffiss Air Force Base
Landfill AOC Sites Location Map

Figure 1

Technical Memorandum 2021 Long-Term Monitoring
of Landfill Areas of Concern
Former Griffiss Air Force Base, Rome, New York

DRAWN BY: MRM

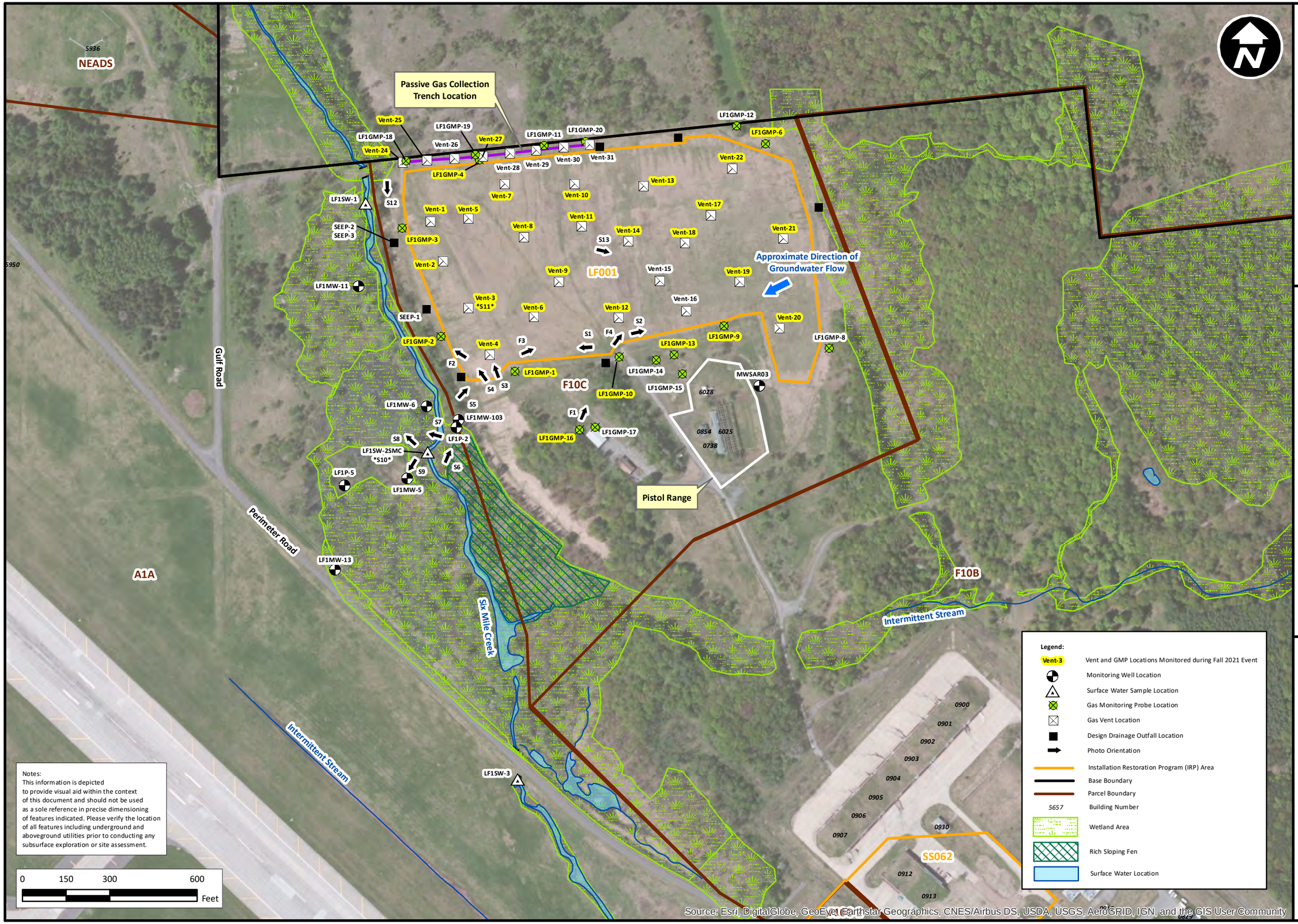
DATE: 5/3/2022

SCALE: As Shown

PROJECT NO: MSC2021.0012.1007.0002

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LF001 (Landfill 1 AOC) 2021 Inspections

Figure 2

Technical Memorandum 2021 Long-Term Monitoring
of Landfill Areas of Concern
Former Griffiss Air Force Base, Rome, New York

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DATE: 5/3/2022

SCALE: As Shown

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GMP-03
S4
S5
VENT-01
VENT-02
GMP-04
GMP-08
F3
S3
VENT-03
LF002
GMP-02
Approximate Direction of Groundwater Flow
GMP-05
LF2MW-14
S6
S7
VENT-13
VENT-04
LF2SW-3
LF2MW2-1
GMP-09
VENT-07
VENT-14
VENT-05
GMP-01
F1
VENT-12
VENT-10
VENT-11
VENT-06
S1
GMP-06
S9
S8
S2
A6
LF2MW-13
F2
LF2MW-4
VENT-09
VENT-08
LF2SW-2
GMP-07
Perimeter Road
LF2MW-12
LF2SW-1
LF2MW-100
A1A
AFRL 7
N0797
0762

Notes:
This information is depicted to provide visual aid within the context of this document and should not be used as a sole reference in precise dimensioning of features indicated. Please verify the location of all features including underground and aboveground utilities prior to conducting any subsurface exploration or site assessment.

0 100 200 400
Feet

Legend:
- VENT-12 — Vent and GMP Locations Monitored during Fall 2021 Event
- Monitoring Well Location
- Surface Water Sample Location
- Gas Monitoring Probe Location
- Gas Vent Location
- Photo Orientation
- Installation Restoration Program (IRP) Area
- Base Boundary
- Parcel Boundary
- 5657 — Building Number
- Culvert / Stormwater Drain
- Wetland Area

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

LF002 (Landfill 2/3 AOC) 2021 Inspections

Figure 3

Technical Memorandum 2021 Long-Term Monitoring
of Landfill Areas of Concern
Former Griffiss Air Force Base, Rome, New York

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LF003 (Landfill 7 AOC) 2021 Inspections

Figure 4

Technical Memorandum 2021 Long-Term Monitoring
of Landfill Areas of Concern
Former Griffiss Air Force Base, Rome, New York

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1007.0002

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F2A
F11C
F11B
F11A
F11Da
NEADS
0700
LF007
Perimeter Road
Three Mile Creek
Approximate Direction of Groundwater Flow
S1
F3
S6
S7
S8
S9
S10
S3
S4
S2
F2
S5
F1
LF5MW-1A
LF5MW-3
LF5MW-100R
LF5MW-5
MW49D07
LF5SW-1
LF5SW-2
LF5SW-3

Notes:
This information is depicted to provide visual aid within the context of this document and should not be used as a sole reference in precise dimensioning of features indicated. Please verify the location of all features including underground and aboveground utilities prior to conducting any subsurface exploration or site assessment.

0 50 100 200
Feet

Legend:
- Monitoring Well Location
- Surface Water Sample Location
- Photo Orientation
- Installation Restoration Program (IRP) Area
- Base Boundary
- Parcel Boundary
- 5657 Building Number
- Wetland Area
- Surface Water Location

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

LF007 (Landfill 5 AOC) 2021 Inspections

Figure 5

Technical Memorandum 2021 Long-Term Monitoring
of Landfill Areas of Concern
Former Griffiss Air Force Base, Rome, New York

DRAWN BY: MRM

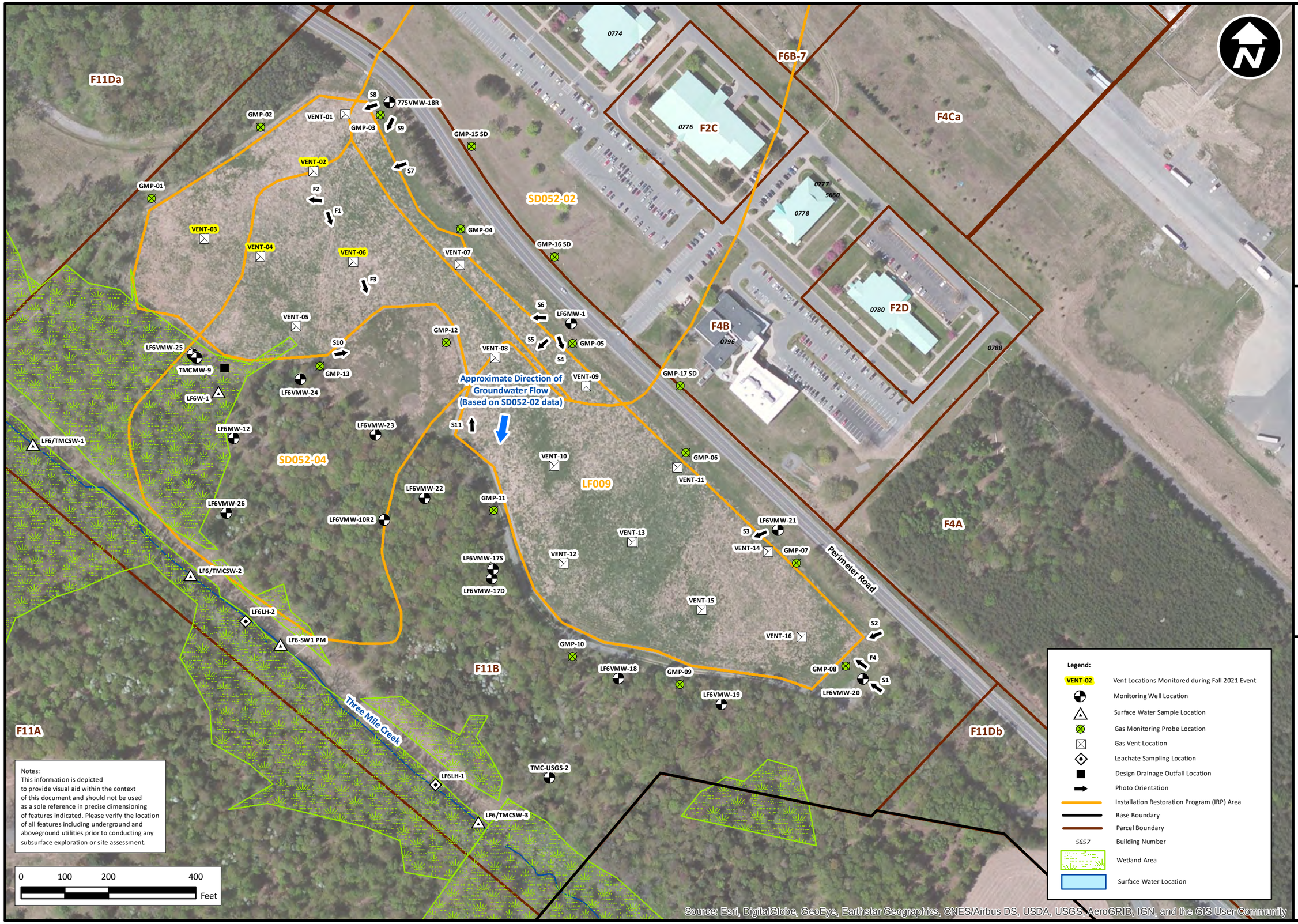
DATE: 5/3/2022

SCALE: As Shown

PROJECT NO: MSC2021.0012.1007.0002

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LF009 (Landfill 6 AOC) 2021 Inspections

Figure 6

Technical Memorandum 2021 Long-Term Monitoring
of Landfill Areas of Concern
Former Griffiss Air Force Base, Rome, New York

DRAWN BY: MRM

DATE: 5/3/2022

SCALE: As Shown

PROJECT NO.: MSC2021.0012.1007.0002

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ATTACHMENT B – TABLES

Table 1
LF001 (Landfill 1 AOC) Landfill Gas Monitoring Results (2010-2021)

Sample Location	1-Feb-10				5-May-10				31-Aug-10				26-Oct-10			
	Barometric Pressure (in.) =			29.45-29.50	Barometric Pressure (in.) =			29.04-29.23	Barometric Pressure (in.) =			29.40-29.29	Barometric Pressure (in.) =			29.13-29.20
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF1GMP-01	>100	45.5	2.1	20.6	>100	32.4	2.5	18.8	>100	52.5	0.9	24.6	>100	48.4	2.4	24.7
LF1GMP-02	0	0.0	14.4	2.1	>100	8.1	0.0	12.8	>100	28.6	0.1	18.1	26	1.3	7.9	3.6
LF1GMP-03	>100	5.7	8.1	8.1	>100	18.2	0.0	22.1	>100	43.7	0.1	34.6	>100	46.1	0.8	34.0
LF1GMP-04	10	0.5	14.3	4.5	>100	17.6	0.0	24.2	>100	53.8	0.1	40.9	>100	24.8	8.6	20.4
LF1GMP-06	>100	70.8	0.0	4.3	>100	44.8	0.0	6.3	>100	79.5	0.3	8.9	>100	24.2	12.9	3.5
LF1GMP-08	0	0.0	20.5	1.1	0	0.0	16.3	2.5	0	0.0	7.4	8.4	0	0.0	18.8	0.8
LF1GMP-09	47	2.4	7.7	4.0	>100	11.2	0.0	12.5	>100	45.7	0.3	22.9	60	3.0	17.5	1.8
LF1GMP-10	>100	9.0	6.8	10.7	>100	10.2	0.5	15.1	>100	18.1	0.3	21.6	0	0.0	18.8	0.5
LF1GMP-11	0	0.0	23.8	0.1	0	0.0	16.1	2.3	0	0.0	15.2	3.3	0	0.0	20.1	0.4
LF1GMP-12	0	0.0	21.4	1.5	0	0.0	18.5	1.5	0	0.0	17.9	2.3	0	0.0	19.9	0.7
LF1GMP-13	0	0.0	18.1	1.3	0	0.0	15.1	2.2	0	0.0	7.4	7.1	0	0.0	19.1	0.4
LF1GMP-14	0	0.0	21.6	0.6	0	0.0	19.0	0.5	0	0.0	15.6	2.0	0	0.0	18.9	0.4
LF1GMP-15	0	0.0	22.3	0.1	0	0.0	19.2	0.5	0	0.0	18.6	1.3	0	0.0	18.6	0.8
LF1GMP-16	0	0.0	19.9	1.5	0	0.0	19.1	1.6	0	0.0	17.7	2.5	0	0.0	18.7	1.7
LF1GMP-17	0	0.0	19.6	1.5	0	0.0	19.4	1.5	0	0.0	17.5	2.5	1	0.1	19.7	0.8
LF1GMP-18	0	0.0	22.0	0.1	0	0.0	19.6	0.2	0	0.0	17.5	2.4	0	0.0	19.6	1.0
LF1GMP-19	0	0.0	22.0	0.3	0	0.0	18.6	0.7	53	2.6	7.1	5.2	0	0.0	20.2	0.3
LF1GMP-20	2	0.1	22.7	0.1	0	0.0	19.6	0.0	0	0.0	20.1	0.0	0	0.0	20.3	0.3
LF1GV-01	0	0.0	22.1	0.2	>100	8.0	13.6	8.1	>100	26.3	8.8	23.2	9	0.5	15.4	6.4
LF1GV-02	2	0.1	21.3	0.5	>100	7.6	12.5	9.8	>100	11.8	14.7	9.6	32	1.6	15.3	6.7
LF1GV-03	3	0.1	21.0	0.7	>100	5.4	14.0	6.8	>100	27.5	8.0	21.0	>100	8.5	12.9	9.1
LF1GV-04	0	0.0	22.0	0.3	>100	15.2	0.3	20.9	>100	24.2	5.5	22.2	>100	10.3	9.7	13.3
LF1GV-05	>100	6.1	19.5	8.8	>100	5.7	14.8	6.7	>100	23.7	10.0	19.3	17	0.9	14.8	7.6
LF1GV-06	>100	7.4	2.9	17.1	>100	8.2	6.8	12.2	>100	32.8	4.3	25.3	56	2.8	10.8	13.2
LF1GV-07	>100	6.6	14.6	7.3	3	0.1	20.9	0.1	>100	16.1	13.6	14.2	15	0.9	15.7	6.4
LF1GV-08	>100	6.5	17.0	4.8	13	0.6	20.6	0.5	>100	9.5	16.7	6.2	14	0.7	15.7	5.1
LF1GV-09	47	2.3	19.2	2.1	16	0.8	20.6	0.7	>100	9.8	16.4	6.8	8	0.4	15.4	5.7
LF1GV-10	>100	5.0	8.4	11.8	2	0.1	20.7	0.2	>100	15.4	13.4	13.0	76	3.8	11.8	13.4
LF1GV-11	79	3.9	18.4	3.1	3	0.1	20.8	0.2	>100	5.2	18.0	3.9	11	0.6	15.9	5.6
LF1GV-12	60	3.0	16.9	4.2	3	0.2	20.6	0.3	>100	14.5	13.1	12.4	28	1.4	14.4	8.0
LF1GV-13	>100	20.4	0.4	22.5	2	0.1	20.3	0.9	>100	13.5	12.8	11.4	90	4.3	9.8	14.6
LF1GV-14	>100	5.0	17.5	3.9	46	2.3	19.7	1.3	>100	5.0	18.2	3.5	11	0.6	15.2	5.9
LF1GV-15	24	1.2	17.9	2.8	5	0.2	20.6	0.4	>100	6.5	16.6	6.9	0	0.0	16.8	3.4
LF1GV-16	6	0.3	18.3	1.9	0	0.0	20.9	0.0	>100	8.8	14.0	7.5	34	1.7	11.2	9.6
LF1GV-17	31	1.5	21.1	1.3	37	1.7	19.9	1.4	>100	5.8	17.5	5.1	17	0.9	15.4	6.2
LF1GV-18	22	1.1	20.6	1.4	21	1.0	20.0	0.9	>100	9.3	15.9	6.9	13	0.7	15.7	4.8
LF1GV-19	52	2.5	17.5	3.3	8	0.3	20.5	0.5	>100	15.4	12.5	10.3	63	3.1	10.8	10.0
LF1GV-20	58	2.9	18.7	1.9	28	1.4	20.1	0.6	>100	10.1	13.5	6.5	62	3.1	9.9	9.5
LF1GV-21	>100	5.9	18.9	2.4	76	3.8	19.6	1.1	>100	17.5	14.0	6.7	47	2.4	13.0	6.6
LF1GV-22	>100	7.3	16.0	5.5	12	0.6	20.6	0.5	>100	8.6	15.9	6.8	34	1.9	13.7	8.2
LF1GV-23	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
LF1GV-24	0	0.0	22.3	0.1	0	0.0	14.9	1.9	>100	18.9	0.4	21.3	0	0.0	19.6	0.5
LF1GV-25	0	0.0	22.2	0.1	0	0.0	16.1	2.8	>100	26.9	0.2	26.5	39	1.9	17.0	3.2
LF1GV-26	0	0.0	22.1	0.2	0	0.0	19.8	0.1	>100	10.8	12.0	10.4	68	3.4	17.8	3.2
LF1GV-27	0	0.0	21.8	0.1	0	0.0	19.6	0.2	33	1.7	18.7	2.9	>100	10.7	13.6	8.0
LF1GV-28	0	0.0	22.0	0.1	0	0.0	17.7	1.4	5	0.2	19.7	0.3	11	0.6	20.2	0.4
LF1GV-29	0	0.0	19.6	1.6	0	0.0	19.9	0.1	26	1.3	17.8	2.4	>100	8.8	11.4	8.2
LF1GV-30	0	0.0	21.9	0.1	0	0.0	19.6	0.3	>100	8.6	10.4	11.7	0	0.0	20.2	0.4
LF1GV-31	0	0.0	21.8	0.1	0	0.0	14.2	4.1	>100	5.6	9.5	9.0	0	0.0	19.5	0.7

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit
- - = Not Monitored

Table 1
LF001 (Landfill 1 AOC) Landfill Gas Monitoring Results (2010-2021)

	12-May-11				18-Oct-11				7-May-12				4-Oct-12			
	Barometric Pressure (in.) =			29.41-29.21	Barometric Pressure (in.) =			29.11-29.14	Barometric Pressure (in.) =			29.02-29.34	Barometric Pressure (in.) =			29.49-29.56
Sample Location	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF1GMP-01	>100	36.9	0.8	22.2	0	0.0	21.2	0.0	>100	20.4	0.9	22.5	>100	30.5	3.9	19.4
LF1GMP-02	>100	11.7	2.6	12.9	0	0.0	21.2	0.0	>100	21.7	0.0	13.9	>100	16.3	2.3	9.7
LF1GMP-03	>100	25.9	0.0	25.4	>100	44.3	0.6	35.2	>100	24.3	0.0	28.1	>100	38.2	1.3	30.8
LF1GMP-04	>100	32.7	0.0	27.4	>100	44.6	0.4	39.5	>100	31.4	0.0	28.4	56	2.8	19.3	3.1
LF1GMP-06	>100	70.1	0.0	3.5	0	0.0	20.8	0.2	>100	52.9	0.0	5.0	>100	77.3	0.2	8.7
LF1GMP-08	0	0.0	14.4	3.4	0	0.0	20.0	1.0	0	0.0	13.4	3.4	0	0.0	20.6	0.4
LF1GMP-09	>100	20.5	1.1	7.6	59	2.8	17.4	1.8	>100	19.2	0.0	11.5	>100	43.5	1.5	24.4
LF1GMP-10	>100	11.2	0.6	15.9	>100	16.2	2.1	18.1	>100	13.0	0.2	15.1	53	2.5	17.1	4.1
LF1GMP-11	0	0.0	17.1	1.1	0	0.0	20.3	0.8	0	0.0	17.4	2.7	0	0.0	20.9	0.2
LF1GMP-12	0	0.0	19.1	0.5	0	0.0	20.2	1.6	0	0.0	20.5	1.6	0	0.0	20.7	0.6
LF1GMP-13	0	0.0	13.5	1.7	0	0.0	12.4	4.4	0	0.0	18.3	1.7	0	0.0	20.5	0.3
LF1GMP-14	0	0.0	18.4	0.4	0	0.0	19.6	0.6	0	0.0	21.5	0.3	0	0.0	20.7	0.7
LF1GMP-15	0	0.0	18.8	1.3	0	0.0	20.6	0.6	0	0.0	21.2	0.6	0	0.0	20.0	0.9
LF1GMP-16	0	0.0	18.7	1.4	0	0.0	21.1	0.0	0	0.0	22.0	0.0	0	0.0	20.7	0.2
LF1GMP-17	0	0.0	18.4	1.4	0	0.0	21.1	0.0	0	0.0	18.3	1.7	0	0.0	20.7	0.1
LF1GMP-18	0	0.0	19.7	0.0	0	0.0	21.0	0.5	0	0.0	20.5	1.7	0	0.0	15.0	3.4
LF1GMP-19	0	0.0	17.0	0.4	0	0.0	21.2	0.1	0	0.0	20.4	0.5	0	0.0	17.9	1.9
LF1GMP-20	0	0.0	19.9	0.0	0	0.0	21.4	0.0	0	0.0	21.9	0.0	0	0.0	21.2	0.0
LF1GV-01	>100	7.2	15.9	5.9	0	0.0	21.5	0.1	>100	6.0	18.9	5.0	>100	18.9	4.4	21.7
LF1GV-02	>100	14.0	10.5	12.7	0	0.0	20.2	1.6	>100	7.4	17.9	6.4	>100	25.4	2.6	26.3
LF1GV-03	>100	32.7	0.0	28.6	0	0.0	21.0	0.4	74	3.8	19.8	3.0	>100	24.9	6.2	23.8
LF1GV-04	>100	20.8	4.4	20.4	0	0.0	21.2	0.3	0	0.0	22.0	0.1	>100	17.0	12.9	14.7
LF1GV-05	>100	14.5	13.5	12.3	0	0.0	21.2	0.6	>100	24.9	8.5	21.6	>100	26.7	6.6	25.2
LF1GV-06	>100	20.3	7.9	17.8	0	0.0	21.4	0.2	>100	25.5	2.3	26.0	>100	20.7	3.1	23.9
LF1GV-07	>100	12.6	15.0	8.4	0	0.0	21.9	0.0	>100	9.5	17.4	7.3	>100	20.4	10.7	18.5
LF1GV-08	>100	6.6	17.8	4.3	0	0.0	21.8	0.0	>100	22.4	11.8	12.4	>100	13.2	14.4	8.4
LF1GV-09	>100	10.7	16.6	4.6	0	0.0	21.8	0.0	>100	28.4	9.1	18.0	>100	12.3	13.4	10.2
LF1GV-10	>100	11.3	14.0	9.6	0	0.0	21.6	0.1	>100	17.8	11.9	16.9	>100	33.3	2.5	31.5
LF1GV-11	>100	8.4	17.2	4.5	0	0.0	22.0	0.0	>100	7.3	18.3	5.4	>100	18.5	9.2	16.2
LF1GV-12	81	4.0	18.3	4.1	0	0.0	22.0	0.0	>100	32.6	8.5	23.7	>100	15.0	9.7	15.8
LF1GV-13	>100	13.0	11.3	10.7	19	0.9	17.0	4.1	>100	18.6	11.4	14.7	>100	21.0	8.2	18.5
LF1GV-14	>100	6.7	16.9	4.3	6	0.3	21.1	0.7	>100	9.8	16.4	6.8	62	3.0	18.8	3.0
LF1GV-15	77	4.0	17.5	3.6	0	0.0	21.8	0.1	>100	8.3	17.3	4.7	25	1.2	19.5	1.5
LF1GV-16	62	3.5	15.1	4.7	0	0.0	21.9	0.0	>100	8.5	15.7	5.7	0	0.0	21.1	0.0
LF1GV-17	>100	6.0	17.7	4.0	10	0.5	20.2	1.4	>100	23.2	10.9	14.9	0	0.0	21.2	0.0
LF1GV-18	74	3.7	18.4	2.9	0	0.0	21.6	0.1	>100	6.4	18.5	4.1	0	0.0	21.0	0.1
LF1GV-19	>100	9.9	14.2	7.2	0	0.0	20.0	1.8	>100	7.7	17.8	4.4	0	0.0	21.2	0.0
LF1GV-20	>100	11.2	11.8	7.0	0	0.0	21.4	0.1	>100	6.0	18.3	2.8	0	0.0	21.2	0.0
LF1GV-21	>100	19.5	12.5	7.1	0	0.0	21.3	0.1	>100	10.3	18.5	2.7	0	0.1	21.1	0.0
LF1GV-22	>100	7.6	15.7	5.2	0	0.0	21.3	0.3	>100	17.2	11.6	13.2	0	0.0	21.2	0.0
LF1GV-23	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
LF1GV-24	0	0.0	2.6	10.9	0	0.0	21.1	0.0	>100	5.8	6.1	7.6	>100	14.7	1.6	22.7
LF1GV-25	5	0.8	13.1	4.4	0	0.0	21.5	0.0	2	0.1	22.0	0.1	6	0.3	20.9	0.3
LF1GV-26	0	0.0	20.5	0.0	0	0.0	21.6	0.0	0	0.0	21.9	0.0	0	0.0	21.1	0.0
LF1GV-27	53	2.2	15.8	4.4	0	0.0	21.3	0.3	>100	12.2	12.3	8.8	0	0.0	21.1	0.0
LF1GV-28	0	0.0	20.4	0.0	0	0.0	21.6	0.0	0	0.0	21.9	0.0	0	0.0	21.1	0.0
LF1GV-29	0	0.0	20.4	0.0	0	0.0	21.6	0.0	0	0.0	22.0	0.0	0	0.0	21.1	0.0
LF1GV-30	0	0.0	20.6	0.0	0	0.0	21.5	0.5	2	0.2	21.9	0.0	0	0.0	21.2	0.0
LF1GV-31	0	0.0	19.3	1.2	0	0.0	20.1	1.3	0	0.0	20.5	0.2	4	0.2	20.5	0.6

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit
- - = Not Monitored

Table 1
LF001 (Landfill 1 AOC) Landfill Gas Monitoring Results (2010-2021)

Sample Location	29-Apr-13				21-Oct-13				7-May-14				18-Nov-14			
	Barometric Pressure (in.) =			29.59-29.63	Barometric Pressure (in.) =			29.35-29.41	Barometric Pressure (in.) =			29.51-29.62	Barometric Pressure (in.) =			29.49-29.51
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF1GMP-01	0	0.0	20.8	0.1	>100	23.5	4.9	16.7	0	0.0	20.8	0.0	>100	23.0	4.1	17.2
LF1GMP-02	0	0.0	20.9	0.1	61	3.0	16.9	3.0	0	0.0	20.8	0.0	0	0.0	14.8	2.4
LF1GMP-03	0	0.0	20.9	0.0	>100	21.9	8.2	15.8	55	2.7	8.6	6.0	>100	25.6	0.0	16.1
LF1GMP-04	0	0.0	20.8	0.2	>100	21.8	0.2	25.6	0	0.0	20.8	0.0	>100	36.1	1.4	14.8
LF1GMP-06	>100	25.0	9.2	3.1	>100	7.8	11.4	2.4	3	0.1	20.5	0.1	0	0.0	19.7	0.6
LF1GMP-08	0	0.0	18.8	1.6	28	1.3	0.9	13.2	0	0.0	20.5	0.1	0	0.0	20.1	0.1
LF1GMP-09	3	0.1	20.7	0.2	>100	44.2	0.4	18.5	43	2.1	17.8	0.7	>100	8.1	12.3	5.8
LF1GMP-10	25	1.2	18.8	0.5	>100	13.9	2.1	11.7	29	1.4	16.8	0.3	>100	10.3	0.9	14.4
LF1GMP-11	0	0.0	18.6	1.9	0	0.0	18.5	1.8	0	0.0	20.3	0.4	0	0.0	20.9	0.6
LF1GMP-12	0	0.0	19.7	1.2	0	0.0	19.7	1.2	0	0.0	19.6	1.5	0	0.0	20.9	0.2
LF1GMP-13	0	0.0	19.9	0.8	0	0.0	20.0	1.3	0	0.0	19.5	0.7	0	0.0	20.7	1.3
LF1GMP-14	0	0.0	20.9	0.0	0	0.0	13.1	4.5	0	0.0	16.7	1.8	0	0.0	18.8	0.7
LF1GMP-15	0	0.0	17.5	1.6	0	0.0	18.8	1.1	0	0.0	19.7	0.6	0	0.0	19.1	0.0
LF1GMP-16	0	0.0	19.8	1.3	0	0.0	19.2	1.2	0	0.0	20.1	1.0	0	0.0	19.4	0.1
LF1GMP-17	0	0.0	19.7	1.3	0	0.0	20.8	0.7	0	0.0	20.8	0.2	0	0.0	18.7	0.5
LF1GMP-18	0	0.0	20.8	0.1	0	0.0	19.6	1.9	0	0.0	20.9	0.0	0	0.0	18.0	1.1
LF1GMP-19	0	0.0	20.9	0.0	0	0.0	20.8	0.4	0	0.0	20.7	0.0	0	0.0	20.1	0.0
LF1GMP-20	0	0.0	20.8	0.0	0	0.0	20.7	0.0	0	0.0	20.7	0.0	0	0.0	19.9	1.2
LF1GV-01	0	0.0	20.9	0.0	79	3.9	16.2	6.3	3	0.1	20.0	0.3	>100	8.2	13.4	7.2
LF1GV-02	0	0.0	20.8	0.0	>100	6.4	12.1	10.5	7	0.3	19.0	1.3	>100	6.2	16.8	5.0
LF1GV-03	0	0.0	20.7	0.0	59	3.0	15.4	5.8	7	0.4	17.9	2.5	14	0.7	20.1	0.6
LF1GV-04	0	0.0	20.7	0.0	>100	6.7	8.8	12.5	14	0.7	15.2	6.4	0	0.0	20.3	0.0
LF1GV-05	0	0.0	21.1	0.0	>100	6.2	15.2	7.6	5	0.2	19.7	0.4	0	0.0	19.9	0.1
LF1GV-06	0	0.0	21.1	0.0	>100	6.8	8.2	12.8	9	0.4	10.3	7.2	0	0.0	21.2	0.0
LF1GV-07	0	0.0	21.1	0.0	68	3.9	17.9	4.2	>100	5.2	11.7	9.2	0	0.0	21.1	0.0
LF1GV-08	5	0.2	21.1	0.1	>100	7.3	16.0	6.9	46	2.3	17.6	2.9	22	1.5	14.8	5.3
LF1GV-09	2	0.1	21.1	0.1	79	4.0	15.8	3.7	63	3.1	15.7	4.0	0	0.0	19.9	0.0
LF1GV-10	0	0.0	20.9	0.0	>100	9.0	9.7	12.4	3	0.1	16.1	2.8	0	0.0	19.7	0.1
LF1GV-11	0	0.0	20.9	0.0	>100	6.0	16.6	4.0	29	1.4	17.9	1.4	0	0.0	19.8	0.1
LF1GV-12	0	0.0	21.1	0.0	>100	5.2	9.5	11.1	7	0.3	16.9	2.4	0	0.0	20.1	0.0
LF1GV-13	1	0.1	21.0	0.0	>100	5.3	16.8	4.6	82	4.1	13.6	5.7	51	2.6	2.4	13.8
LF1GV-14	0	0.0	21.0	0.0	47	2.4	19.0	2.1	87	4.4	13.9	5.2	0	0.0	20.1	0.0
LF1GV-15	0	0.0	21.0	0.0	20	1.0	20.4	1.0	5	0.2	18.1	1.3	0	0.0	18.8	0.5
LF1GV-16	0	0.0	21.2	0.0	65	3.3	9.1	8.6	0	0.0	16.8	1.9	0	0.0	19.1	0.0
LF1GV-17	0	0.0	21.1	0.0	80	4.2	17.9	3.7	75	4.0	17.1	2.7	0	0.0	20.3	0.0
LF1GV-18	0	0.0	21.3	0.0	93	4.7	15.5	5.3	>100	8.0	5.7	11.7	0	0.0	18.9	0.7
LF1GV-19	0	0.0	21.2	0.0	>100	10.5	5.3	14.9	45	2.3	8.3	9.7	0	0.0	19.5	0.0
LF1GV-20	0	0.0	21.2	0.0	>100	5.3	16.6	3.7	30	1.5	17.5	1.3	0	0.0	19.4	0.0
LF1GV-21	2	0.1	21.1	0.0	>100	9.7	15.3	4.9	>100	6.0	14.8	3.6	0	0.0	19.5	0.0
LF1GV-22	0	0.0	21.1	0.0	>100	6.2	15.1	6.9	>100	7.9	9.3	9.1	0	0.0	20.2	0.0
LF1GV-23	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
LF1GV-24	0	0.0	19.3	0.9	0	0.0	17.2	2.0	0	0.0	19.1	1.2	0	0.0	20.1	0.0
LF1GV-25	0	0.0	20.9	0.1	3	0.2	20.9	0.4	0	0.0	20.8	0.0	0	0.0	20.0	0.9
LF1GV-26	0	0.0	21.1	0.0	9	0.5	20.4	0.4	0	0.0	20.8	0.0	0	0.0	20.0	0.0
LF1GV-27	0	0.0	20.4	0.4	0	0.0	20.5	1.1	0	0.0	20.9	0.0	0	0.0	18.7	0.8
LF1GV-28	0	0.0	21.2	0.0	0	0.0	21.4	0.1	0	0.0	20.9	0.0	0	0.0	18.8	1.5
LF1GV-29	0	0.0	21.1	0.0	0	0.0	17.9	1.8	0	0.0	20.8	0.2	0	0.0	21.0	0.0
LF1GV-30	0	0.0	21.1	0.0	0	0.0	21.3	0.1	0	0.0	20.3	0.5	0	0.0	19.5	1.0
LF1GV-31	0	0.0	19.9	0.6	0	0.0	20.5	0.5	0	0.0	20.6	0.4	0	0.0	20.0	0.0

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit
- - = Not Monitored

Table 1
LF001 (Landfill 1 AOC) Landfill Gas Monitoring Results (2010-2021)

	18-May-15				14-Sep-15				6-Dec-16				7-Nov-17			
	Barometric Pressure (in.) =			29.28-29.62	Barometric Pressure (in.) =			29.36-29.54	Barometric Pressure (in.) =			29.53-29.54	Barometric Pressure (in.) =			29.51 - 29.51
Sample Location	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF1GMP-01	0	0 0	20.8	0.0	> 100	25.4	0.1	24.1	0	0	21.1	0.1	0.0	0.0	21.4	0.1
LF1GMP-02	0	0.0	20.2	0.0	> 100	31.6	0.0	15.2	43	2.1	1	10.1	> 100	25.2	0.7	15.3
LF1GMP-03	31	18	18.5	3.7	> 100	40.8	0.0	36.6	> 100	9.4	6.3	15.3	> 100	19.6	9.0	17.8
LF1GMP-04	0	0 0	21.1	0.0	> 100	47.3	0.0	41.5	0	0	21.1	0.4	14.0	0.7	16.5	1.9
LF1GMP-06	> 100	32.2	8.1	3.6	> 100	77.0	0.1	7.3	> 100	9.1	14.6	3.2	> 100	40.0	2.6	5.0
LF1GMP-08	0	0 0	21.3	0.0	0	0.0	15.3	4.4	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-09	0	0 0	21.0	0.0	> 100	34.9	0.1	20.6	> 100	22.7	7.7	7.5	0.0	0.0	21.2	0.0
LF1GMP-10	0	0 0	20.8	0.0	> 100	14.1	2.0	18.5	21	1	19.3	0.4	0.0	0.0	21.2	0.0
LF1GMP-11	0	0 0	21.2	0.0	1	0.0	1 4.2	6.4	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-12	0	0. 0	20.4	0.8	2	0.1	20.0	0.7	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-13	0	0 0	19.8	1.0	1	0.0	19.6	1.0	0	0	18.7	1.5	0.0	0.0	19.4	1.6
LF1GMP-14	0	0 0	20.9	0.0	0	0.0	17.4	2.9	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-15	0	0 0	20.8	0.1	0	0.0	19.6	1.2	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-16	0	0 0	20.3	1.0	0	0.0	20.3	0.2	0	0	19.8	1.7	0.0	0.0	21.5	0.0
LF1GMP-17	0	0 0	20.0	1.5	1	0.0	20.4	0.1	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-18	0	0 0	20.9	0.0	1	0.0	13.1	0.8	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-19	0	0 0	21.2	0.0	3	0.1	18.7	1.5	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-20	0	0. 0	21.3	0.0	1	0.0	20.4	0.1	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-01	> 100	31.7	1.5	31.7	0	0.0	20.6	0.1	0	0	21.3	0.1	0.0	0.0	21.4	0.1
LF1GV-02	> 100	5.7	16.6	6.7	0	0.0	20.7	0.0	0	0	21.2	0.4	0.0	0.0	21.3	0.2
LF1GV-03	> 100	7.5	15.7	5.9	0	0.0	20.7	0.0	0	0	21.3	0.1	0.0	0.0	21.3	0.1
LF1GV-04	0	0 0	21.2	0.0	0	0.0	20.7	0.0	0	0	21.4	0	0.0	0.0	21.2	0.0
LF1GV-05	5	0.3	21.1	0.1	0	0.0	21	0.0	0	0	20.5	1	0.0	0.0	21.5	0.0
LF1GV-06	> 100	18.9	7.3	20.3	1	0.0	20.5	0.0	0	0	20.9	0.2	0.0	0.0	21.4	0.0
LF1GV-07	64	3.5	19.5	3.7	0	0.0	21.0	0.0	0	0	20.6	0.7	0.0	0.0	21.5	0.1
LF1GV-08	> 100	14.8	15.5	10.3	0	0.0	21.3	0.0	0	0	20.7	0.5	0.0	0.0	21.5	0.0
LF1GV-09	> 100	13.9	11.7	10.5	0	0.0	21.2	0.0	0	0	21.1	0.1	0.0	0.0	21.3	0.1
LF1GV-10	> 100	5 3	17.8	5.7	1	0.1	21.1	0.0	0	0	0.8	20	0.0	0.0	21.4	0.1
LF1GV-11	> 100	4.3	18.9	4.9	0	0.0	21.1	0.0	5	0.2	2.6	18.4	0.0	0.0	21.5	0.1
LF1GV-12	> 100	6.5	17.6	6.8	0	0.0	20.5	0.0	0	0	20.9	0.1	0.0	0.0	21.2	0.0
LF1GV-13	> 100	12.2	13.8	12.3	1	0.0	21.0	0.0	0	0	20.7	1	0.0	0.0	21.4	0.1
LF1GV-14	> 100	11.4	14.7	8.4	0	0.0	20.7	0.0	8	0.4	14.6	7.4	0.0	0.0	21.4	0.2
LF1GV-15	63	3.1	19.3	4.2	1	0.0	20.7	0.0	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-16	17	0.9	20.1	2.6	0	0.0	20.7	0.0	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-17	> 100	13.70	15.3	8.6	1	0.0	20.5	0.0	13	0.6	17.6	1.9	0.0	0.0	21.3	0.3
LF1GV-18	> 100	15.4	16.4	7.2	1	0.0	20.6	0.0	0	0	21	0.1	0.0	0.0	21.4	0.1
LF1GV-19	> 100	8.6	17.9	5.9	0	0.0	20.6	0.0	1	0	17	4.7	0.0	0.0	21.3	0.2
LF1GV-20	> 100	17.9	9.5	9.3	0	0.0	20.6	0.0	9	0.4	18.9	1.7	0.0	0.0	21.3	0.2
LF1GV-21	> 100	11.1	18.5	4.3	0	0.0	20.7	0.0	3	0.1	20.2	0.7	1.0	0.0	21.3	0.1
LF1GV-22	> 100	10.6	16.5	6.6	1	0.0	20.5	0.0	0	0	19.2	2	0.0	0.0	21.4	0.1
LF1GV-23	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
LF1GV-24	> 100	5.5	1.1	11.7	14	0.3	19.4	2.3	0	0	21.2	0	0.0	0.0	21.5	0.0
LF1GV-25	> 100	10.5	5.2	8.9	0	0.1	20.2	0.0	0	0	20.8	0.6	0.0	0.0	20.6	1.0
LF1GV-26	0	0.0	21.7	0.1	0	0.0	20.1	0.0	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-27	> 100	9.5	9.3	12.4	5	0.7	21.3	0.0	0	0	19.8	0.9	0.0	0.0	21.5	0.0
LF1GV-28	0	0.0	21.7	0.0	0	0.0	21.3	0.0	0	0	20.3	0.4	- -	- -	- -	- -
LF1GV-29	2	0.1	21.5	0.0	0	0.0	21.2	0.0	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-30	0	0 0	21.1	2.5	0	0.0	21.3	0.0	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-31	0	0 0	17.3	3.0	0	0.0	20.1	0.9	- -	- -	- -	- -	- -	- -	- -	- -

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit
- - = Not Monitored

Table 1
LF001 (Landfill 1 AOC) Landfill Gas Monitoring Results (2010-2021)

	20-Oct-18				2-Oct-19			
	Barometric Pressure (in.) =			29.58 - 29.57	Barometric Pressure (in.) =			29.34 - 29.38
Sample Location	Hydrogen Sulfide (ppm)	Methane (%)	Oxygen (%)	Carbon Monoxide (ppm)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF1GMP-01	0	>5	15.98	0	3.0	<0.1	21.0	0.1
LF1GMP-02	0	<0.1	20.9	0	<100	23.4	8.9	5.6
LF1GMP-03	0	<0.1	20.9	0	2.0	<0.1	21.2	0.0
LF1GMP-04	0	0.2	20.9	0	<100	56.2	2.6	5.6
LF1GMP-06	0	0.25	20.9	0	<100	24.6	8.2	4.7
LF1GMP-08	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-09	0	<0.1	20.9	0	7	0.3	20.6	0.2
LF1GMP-10	0	<0.1	20.9	0	2.0	<0.1	20.8	0.0
LF1GMP-11	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-12	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-13	0	<0.1	20.9	0	1	<0.1	19.2	1.4
LF1GMP-14	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-15	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-16	0	<0.1	19.6	0	2	<0.1	21	0.0
LF1GMP-17	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-18	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-19	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-20	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-01	0	<0.1	20.9	0	2	<0.1	21.3	0.0
LF1GV-02	0	<0.1	20.9	0	2	<0.1	21.2	0.0
LF1GV-03	0	<0.1	20.9	0	2	<0.1	21.2	0.0
LF1GV-04	0	<0.1	20.9	0	2	<0.1	21.0	0.0
LF1GV-05	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-06	0	<0.1	20.9	0	2	<0.1	20.9	0.0
LF1GV-07	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-08	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-09	0	0.1	20.9	0	2	<0.1	20.9	0.0
LF1GV-10	0	0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-11	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-12	0	<0.1	20.9	0	2	<0.1	20.9	0.0
LF1GV-13	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-14	0	0.2	20.9	0	2	<0.1	21.1	0.0
LF1GV-15	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-16	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-17	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-18	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-19	0	<0.1	20.9	0	2	<0.1	21.00	0.0
LF1GV-20	0	<0.1	20.9	0	2	<0.1	20.9	0.0
LF1GV-21	0	<0.1	20.9	0	2	<0.1	21.0	0.0
LF1GV-22	0	<0.1	20.9	0	2	<0.1	21.2	0.0
LF1GV-23	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
LF1GV-24	0	<0.1	20.9	0	2	<0.1	21.2	0.0
LF1GV-25	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-26	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-27	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-28	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-29	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-30	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-31	- -	- -	- -	- -	- -	- -	- -	- -

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit
- - = Not Monitored

Table 1
LF001 (Landfill 1 AOC) Landfill Gas Monitoring Results (2010-2021)

Sample Location	22-Sep-20					1-Dec-21				
	Barometric Pressure (in.) =				30.0 - 30.3	Barometric Pressure (in.) =				30.0 - 30.1
	Hydrogen Sulfide (ppm)	Methane (%)	Oxygen (%)	Carbon Monoxide (ppm)	VOC (ppm)	Hydrogen Sulfide (ppm)	Methane (%)	Oxygen (%)	Carbon Monoxide (ppm)	VOC (ppm)
LF1GMP-01	0.5	3.5	7.7	5	130.2	0	>5	8.5	0	49.6
LF1GMP-02	0	>5	12.7	0	39.3	0	>5	9.3	0	8.3
LF1GMP-03	0.5	4.4	7.2	5	6	0	>5	19.3	0	5.6
LF1GMP-04	0	2.8	3.2	12	0	0	0	20.9	0	0
LF1GMP-06	0	>5	18.1	0	0	0	0	20.3	0	0
LF1GMP-08	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-09	0	4.2	12.1	3	18.6	0	0	20.9	0	0
LF1GMP-10	0	>5	3.6	8	5.1	0	0	20.9	0	0.1
LF1GMP-11	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-12	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-13	0.5	0	21.2	0	0	0	0	20.9	0	0
LF1GMP-14	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-15	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-16	0	0	20.9	0	0	0	0	19.2	0	0
LF1GMP-17	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-18	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-19	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-20	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-01	0	>5	20.8	0	0	0	0	20.9	0	0
LF1GV-02	0	>5	18.4	0	0	0	0	20.9	0	0
LF1GV-03	0	>5	19.2	0	0	0	0	20.9	0	0.1
LF1GV-04	0	3.2	19.1	0	0	0	0	20.9	0	0.1
LF1GV-05	0	>5	16.1	0	0	0	0	20.9	0	0
LF1GV-06	0	>5	18.4	0	0.9	0	0	20.9	0	0.1
LF1GV-07	0	>5	21.2	0	0	0	0	20.9	0	0
LF1GV-08	0	>5	15.6	0	3.5	0	0	20.9	0	0
LF1GV-09	0	>5	15.5	0	0	0	0	20.9	0	0.1
LF1GV-10	0	>5	14	0	0	0	0	20.9	0	0
LF1GV-11	0	3.0	20.8	0	0	0	0	20.9	0	0
LF1GV-12	0	>5	18.9	0	0	0	0	20.9	0	0
LF1GV-13	0	>5	18.9	0	0	0	0	20.9	0	0
LF1GV-14	0	3.5	20.3	0	0	0	0	20.9	0	0
LF1GV-15	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-16	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-17	0	>5	20.4	0	0	0	0	20.9	0	0
LF1GV-18	0	4.7	20.4	0	0	0	0	20.9	0	0
LF1GV-19	0	>5	17.7	0	0	0	0	20.9	0	0
LF1GV-20	0	3.7	18.8	0	0	0	0	20.9	0	0
LF1GV-21	0	4.6	20.9	0	0	0	0	20.9	0	0
LF1GV-22	0	3.5	20.9	0	0	0	0	20.9	0	0
LF1GV-23	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
LF1GV-24	0	0	21.8	0	0	0	0	20.9	0	0
LF1GV-25	0	0.9	20.9	0	0	0	0	20.9	0	0
LF1GV-26	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-27	0	0	21.7	0	0.4	0	0	20.9	0	0
LF1GV-28	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-29	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-30	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-31	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit
- - = Not Monitored

Table 2
LF002 (Landfill 2/3 AOC) Landfill Gas Monitoring Results (2010-2021)

	3-Feb-10				6-May-10				26-Oct-10				11-May-11				19-Oct-11				9-May-12			
	Barometric Pressure (in.) = 29.34				Barometric Pressure (in.) = 29.05-29.06				Barometric Pressure (in.) = 29.24				Barometric Pressure (in.) = 29.21				Barometric Pressure (in.) = 29.11-29.14				Barometric Pressure (in.) = 28.89-28.95			
Sample Location	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF2GMP-01	0	0.0	21.1	0.1	0	0.0	16.9	2.2	0	0.0	18.5	1.6	0	0.0	20.2	0.5	0	0.0	16.3	2.8	0	0.0	21.7	0.0
LF2GMP-02	0	0.0	21.5	0.0	>100	5.4	1.0	16.3	0	0.0	15.8	4.8	4	0.2	18.4	1.4	>100	7.6	4.6	16.6	0	0.0	22.0	0.0
LF2GMP-03	3	0.1	21.1	0.4	0	0.0	21.0	0.0	0	0.0	17.4	2.5	0	0.0	19.5	1.3	0	0.0	19.0	2.3	0	0.0	22.0	0.0
LF2GMP-04	14	0.7	19.1	1.9	0	0.0	21.0	0.0	0	0.0	18.1	1.8	0	0.0	20.6	0.0	0	0.0	21.2	0.2	31	1.6	20.8	0.4
LF2GMP-05	0	0.0	22.0	0.1	0	0.0	21.0	0.0	0	0.0	18.4	1.5	0	0.0	11.7	2.1	>100	7.6	0.5	12.3	9	0.4	21.4	0.2
LF2GMP-06	0	0.0	10.3	6.9	0	0.0	21.3	0.0	3	0.2	17.4	2.2	0	0.0	8.8	5.3	0	0.0	6.2	10.2	>100	12.9	10.8	9.4
LF2GMP-07	0	0.0	21.3	1.2	0	0.0	20.9	0.5	5	0.3	18.1	2.3	0	0.0	18.7	1.5	0	0.0	19.2	2.9	0	0.0	21.5	0.1
LF2GMP-08	0	0.0	21.8	0.4	0	0.0	20.5	0.6	0	0.0	18.4	1.8	0	0.0	19.9	0.8	0	0.0	21.1	0.9	32	1.9	18.1	1.2
LF2GMP-09	0	0.0	21.9	0.3	0	0.0	21.0	0.3	0	0.0	18.9	1.3	0	0.0	20.3	0.3	0	0.0	21.8	0.0	0	0.0	22.3	0.1
LF2VENT-01	34	1.7	19.9	0.9	43	2.1	18.4	1.1	0	0.0	19.5	0.6	51	2.5	17.0	1.1	33	1.6	18.8	1.4	0	0.0	22.1	0.0
LF2VENT-02	0	0.0	21.9	0.2	0	0.0	21.0	0.0	0	0.0	19.4	0.6	2	0.1	20.0	0.0	0	0.0	21.9	0.0	0	0.0	22.3	0.1
LF2VENT-03	55	2.8	19.9	1.0	7	0.3	20.4	0.3	0	0.0	19.4	0.7	16	0.7	19.1	0.4	0	0.0	21.8	0.0	0	0.0	22.6	0.1
LF2VENT-04	11	0.5	19.4	1.7	41	2.0	14.2	5.2	1	0.0	19.1	0.9	86	5.2	16.6	1.2	60	2.8	17.6	1.9	2	0.1	22.1	0.1
LF2VENT-05	11	0.6	21.6	0.5	77	3.8	16.7	3.8	0	0.0	19.1	0.9	45	2.6	18.2	1.4	20	1.0	18.8	1.6	0	0.0	22.3	0.1
LF2VENT-06	>100	6.8	14.7	6.8	>100	7.1	12.0	7.9	0	0.0	18.8	1.3	>100	9.5	9.5	8.5	>100	13.2	12.2	9.3	0	0.0	17.1	3.0
LF2VENT-07	0	0.0	22.0	0.1	2	0.1	17.2	1.1	0	0.0	19.5	0.6	5	0.3	17.7	0.5	0	0.0	22.0	0.0	75	3.6	3.8	14.2
LF2VENT-08	0	0.0	22.1	0.1	0	0.0	19.0	1.0	6	0.3	19.1	1.1	3	0.1	16.0	1.6	0	0.0	16.3	2.3	0	0.0	21.7	0.1
LF2VENT-09	0	0.0	22.1	0.1	0	0.0	18.4	1.8	7	0.4	19.4	0.8	3	0.1	12.7	2.1	10	0.5	11.1	4.1	4	0.2	21.5	0.4
LF2VENT-10	0	0.0	22.0	0.1	0	0.0	20.8	0.1	0	0.0	19.5	0.7	0	0.0	18.2	0.3	0	0.0	20.3	0.4	0	0.0	22.2	0.1
LF2VENT-11	2	0.1	21.5	0.3	6	0.3	17.5	1.4	0	0.0	19.5	0.7	12	0.6	14.7	1.5	0	0.0	20.0	0.6	0	0.0	22.7	0.0
LF2VENT-12	4	0.2	21.3	0.4	15	0.7	18.4	1.4	0	0.0	19.5	0.7	76	4.0	14.9	1.0	0	0.0	21.7	0.1	0	0.0	21.0	1.9
LF2VENT-13	9	0.4	21.0	0.4	36	1.8	18.4	0.9	0	0.0	19.4	0.6	37	1.8	17.3	0.7	13	0.6	19.1	0.9	0	0.0	21.2	1.0
LF2VENT-14	92	4.6	16.4	1.7	34	1.7	14.5	2.5	0	0.0	19.5	0.6	76	4.0	14.9	1.0	2	0.1	21.4	0.1	0	0.0	22.1	0.4

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit

Table 2
LF002 (Landfill 2/3 AOC) Landfill Gas Monitoring Results (2010-2021)

	4-Oct-12				1-May-13				15-Oct-13				8-May-14				18-Nov-14				27-May-15			
	Barometric Pressure (in.) = 29.43-29.57				Barometric Pressure (in.) = 29.71-29.81				Barometric Pressure (in.) = 29.48-29.65				Barometric Pressure (in.) = 29.48-29.51				Barometric Pressure (in.) = 29.57				Barometric Pressure (in.) = 29.42-29.49			
Sample Location	**LEL (%)**	**Methane (%)**	**Oxygen (%)**	**Carbon Dioxide (%)**	**LEL (%)**	**Methane (%)**	**Oxygen (%)**	**Carbon Dioxide (%)**	**LEL (%)**	**Methane (%)**	**Oxygen (%)**	**Carbon Dioxide (%)**	**LEL (%)**	**Methane (%)**	**Oxygen (%)**	**Carbon Dioxide (%)**	**LEL (%)**	**Methane (%)**	**Oxygen (%)**	**Carbon Dioxide (%)**	**LEL (%)**	**Methane (%)**	**Oxygen (%)**	**Carbon Dioxide (%)**
LF2GMP-01	0	0.0	17.3	2.4	0	0.0	18.5	1.6	0	0.0	20.3	0.4	0	0.0	20.4	0.3	0	0.0	20.1	1.2	0	0.0	18.6	2.0
LF2GMP-02	>100	8.4	0.0	21.7	0	0.0	21.0	0.0	>100	10.2	0.2	19.4	17	0.9	1.5	12.6	0	0.0	20.2	0.1	0	0.0	21.4	0.0
LF2GMP-03	0	0.0	20.8	0.0	0	0.0	20.8	0.0	0	0.0	20.4	0.9	0	0.0	19.4	0.0	0	0.0	18.9	0.6	0	0.0	21.6	0.0
LF2GMP-04	0	0.0	20.8	0.0	0	0.0	20.8	0.0	0	0.0	20.9	0.3	0	0.0	19.2	0.0	0	0.0	19.5	0.0	0	0.0	21.7	0.0
LF2GMP-05	63	3.0	3.3	13.9	0	0.0	20.9	0.0	>100	7.6	0.0	10.3	0	0.0	14.9	1.2	12	0.7	16.1	0.9	0	0.0	21.8	0.0
LF2GMP-06	0	0.0	20.6	0.5	0	0.0	20.7	0.1	0	0.0	8.0	0.9	0	0.0	19.0	0.0	20	1.0	15.0	1.2	10	0.8	18.7	0.9
LF2GMP-07	0	0.0	19.0	2.3	0	0.0	20.7	0.3	0	0.0	18.9	2.5	0	0.0	19.1	1.2	0	0.0	19.7	0.3	0	0.0	20.1	0.1
LF2GMP-08	0	0.0	20.6	0.5	0	0.0	20.2	0.6	0	0.0	20.7	0.7	0	0.0	20.1	0.5	0	0.0	19.9	0.0	0	0.0	21.2	0.0
LF2GMP-09	0	0.0	20.6	0.3	0	0.0	20.7	0.3	0	0.0	21.0	0.4	0	0.0	20.7	0.3	0	0.0	19.9	0.0	0	0.0	20.4	0.0
LF2VENT-01	0	0.0	20.9	0.0	4	0.2	20.7	0.1	2	0.2	20.8	0.4	7	0.4	19.2	0.1	0	0.0	20.1	0.1	0	0.0	21.5	0.0
LF2VENT-02	0	0.0	21.0	0.0	0	0.0	20.9	0.0	1	0.1	21.5	0.0	0	0.0	19.5	0.0	0	0.0	20.2	0.0	0	0.0	21.5	0.0
LF2VENT-03	0	0.0	21.0	0.0	0	0.0	20.9	0.0	0	0.0	21.3	0.0	0	0.0	20.5	0.1	0	0.0	20.1	0.2	0	0.0	21.4	0.0
LF2VENT-04	4	0.2	18.7	1.1	2	0.1	20.8	0.0	35	1.8	19.8	0.8	0	0.0	20.8	0.1	0	0.0	19.9	0.6	0	0.0	21.2	0.0
LF2VENT-05	12	0.6	20.3	0.7	3	0.1	20.8	0.0	15	0.8	20.3	0.7	0	0.0	19.3	0.0	0	0.0	19.6	0.0	0	0.0	21.6	0.0
LF2VENT-06	92	4.6	10.3	10.3	10	0.4	19.4	0.4	>100	15.2	10.9	10.3	0	0.0	11.3	5.9	0	0.1	20.1	0.3	4	0.3	16	3.2
LF2VENT-07	0	0.0	21.0	0.0	2	0.1	20.8	0.0	0	0.0	21.5	0.0	0	0.0	20.5	0.0	6	0.3	18.1	0.6	0	0.0	20.7	0.2
LF2VENT-08	0	0.0	21.0	0.0	2	0.1	20.4	0.1	0	0.0	21.1	0.1	0	0.0	20.9	0.0	0	0.0	18.9	0.0	0	0.0	21.6	0.0
LF2VENT-09	0	0.0	21.0	0.0	0	0.0	19.3	0.4	0	0.0	18.8	1.4	0	0.0	12.7	1.9	0	0.0	19.5	0.0	0	0.0	21.5	0.0
LF2VENT-10	0	0.0	21.0	0.0	0	0.0	20.6	0.0	0	0.0	21.2	0.2	0	0.0	20.5	0.1	0	0.0	19.5	0.0	0	0.0	21.5	0.0
LF2VENT-11	0	0.0	21.0	0.0	0	0.0	20.7	0.0	0	0.0	19.6	0.7	0	0.0	20.2	0.0	0	0.0	20.1	0.0	0	0.0	21.5	0.0
LF2VENT-12	2	0.1	20.0	0.2	0	0.0	20.7	0.0	5	0.3	18.8	1.4	0	0.0	20.6	0.0	0	0.0	19.7	0.1	0	0.0	21.5	0.0
LF2VENT-13	0	0.0	21.0	0.0	0	0.0	20.9	0.0	5	0.3	20.4	0.3	2	0.1	19.4	0.0	18	0.8	14.2	2.4	3	0.2	21.1	0.0
LF2VENT-14	0	0.0	20.9	0.0	0	0.0	20.8	0.0	86	4.3	15.7	1.8	0	0.0	20.5	0.0	12	0.5	15.1	1.7	0	0.0	11.2	4.4

Notes:
> = Greater than
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Table 2
LF002 (Landfill 2/3 AOC) Landfill Gas Monitoring Results (2010-2021)

	9-Sep-15				6-Dec-16				7-Nov-17				20-Oct-18				2-Oct-19			
	Barometric Pressure (in.) = 29.33-29.42				Barometric Pressure (in.) = 29.48-29.46				Barometric Pressure (in.) = 29.51 - 29.51				Barometric Pressure (in.) = 29.54-29.55				Barometric Pressure (in.) = 29.22 - 29.25			
Sample Location	**LEL (%)**	**Methane (%)**	**Oxygen (%)**	**Carbon Dioxide (%)**	**LEL (%)**	**Methane (%)**	**Oxygen (%)**	**Carbon Dioxide (%)**	**LEL (%)**	**Methane (%)**	**Oxygen (%)**	**Carbon Dioxide (%)**	**Hydrogen Sulfide (ppm)**	**Methane (%)**	**Oxygen (%)**	**Carbon Monoxide (ppm)**	**LEL (%)**	**Methane (%)**	**Oxygen (%)**	**Carbon Dioxide (%)**
LF2GMP-01	0	0.0	20.4	0.1	0	0	20.1	0.1	--	--	--	--	--	--	--	--	--	--	--	--
LF2GMP-02	> 100	8.4	0.1	20.0	15	0.7	8.1	11.7	0.0	0.0	19.0	3.1	0	<0.1	20.9	0	17	0.8	18.7	1.7
LF2GMP-03	0	0.0	20.6	0.0	0	0	19.3	0.9	0.0	0.0	21.4	0.0	0	<0.1	20.9	0	--	--	--	--
LF2GMP-04	0	0.0	20.6	0.0	0	0	20.6	0.3	--	--	--	--	--	--	--	--	--	--	--	--
LF2GMP-05	> 100	11.4	0.3	10	0	0	13.9	5.5	0.0	0.0	10.3	4.5	0	<0.1	20.9	0	73	3.6	13.6	3.0
LF2GMP-06	0	0.0	18.8	1.4	0	0	7.5	8.6	0.0	0.0	9.5	4.7	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF2GMP-07	0	0.0	20.4	00	0	0	19.5	1.2	--	--	--	--	--	--	--	--	--	--	--	--
LF2GMP-08	0	0.1	20.4	0.3	3	0.1	18.2	1.9	0.0	0.0	21.2	0.0	0	<0.1	20.9	0	2	<0.1	20.5	0.8
LF2GMP-09	0	0.0	20.7	0.0	0	0	20.7	0.3	--	--	--	--	--	--	--	--	--	--	--	--
LF2VENT-01	0	0.0	20.8	0.0	7	0.3	19.7	0.4	2.0	0.1	19.6	0.6	0	<0.1	20.9	0	2	<0.1	20.6	0.0
LF2VENT-02	0	0.0	20.8	0.0	0	0	20.8	0	0.0	0.0	21.2	0.1	0	<0.1	20.9	0	--	--	--	--
LF2VENT-03	0	0.0	20.8	0.0	0	0	21	0	--	--	--	--	--	--	--	--	--	--	--	--
LF2VENT-04	0	0.0	20.8	0.0	28	1.4	19.2	0.6	40.0	1.1	20.3	0.7	0	<0.1	20.9	0	31	1.5	20.1	0.9
LF2VENT-05	0	0.0	20.7	0.0	5	0.2	20	0.4	60.0	2.7	16.4	2.5	0	<0.1	20.9	0	43	2.2	19.0	1.8
LF2VENT-06	0	0.0	20.8	0.0	90	4.5	17.2	3.1	> 100	17.6	7.8	12.0	0	<0.1	20.9	0	8	0.4	20.8	0.1
LF2VENT-07	0	0.0	20.8	0.0	0	0	20.3	0.9	0.0	0.0	21.3	0.1	0	<0.1	20.9	0	2	<0.1	20.8	0.0
LF2VENT-08	0	0.0	20.8	0.0	0	0	20.5	0	0.0	0.0	20.6	0.3	0	<0.1	20.9	0	--	--	--	--
LF2VENT-09	0	0.0	20.8	0.0	0	0	14	2	--	--	--	--	--	--	--	--	--	--	--	--
LF2VENT-10	0	0.0	20.8	0.0	0	0	20.4	0.1	--	--	--	--	--	--	--	--	--	--	--	--
LF2VENT-11	0	0.0	20.8	0.0	0	0	19.7	0.2	--	--	--	--	--	--	--	--	--	--	--	--
LF2VENT-12	0	0.0	20.8	0.0	0	0	19.9	0.2	0.0	0.0	20.2	0.8	0	<0.1	20.9	0	7	0.3	20.6	0.2
LF2VENT-13	0	0.0	20.8	0.0	5	0.3	18.9	0.5	0.0	0.0	20.0	0.4	0	<0.1	20.9	0	2	<0.1	20.6	0.0
LF2VENT-14	0	0.0	20.8	0.0	0	0	20.9	0	0.0	0.0	21.3	0.0	0	<0.1	20.9	0	2	<0.1	20.8	0.0

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit

Table 2
LF002 (Landfill 2/3 AOC) Landfill Gas Monitoring Results (2010-2021)

	22-Sep-20					1-Dec-21				
	Barometric Pressure (in.) = 30.0 - 30.3					Barometric Pressure (in.) = 30.1 - 30.1				
Sample Location	Hydrogen Sulfide (ppm)	Methane (%)	Oxygen (%)	Carbon Monoxide (ppm)	VOC (ppm)	Hydrogen Sulfide (ppm)	Methane (%)	Oxygen (%)	Carbon Monoxide (ppm)	VOC (ppm)
LF2GMP-01	--	--	--	--	--	--	--	--	--	--
LF2GMP-02	0	1.85	15.3	1	0	0	0	20.0	0	0.1
LF2GMP-03	--	--	--	--	--	--	--	--	--	--
LF2GMP-04	--	--	--	--	--	--	--	--	--	--
LF2GMP-05	0	0	20.6	0	0.1	0	0	19.1	0	0
LF2GMP-06	0	0	20.5	0	0	0	0	20.4	0	0
LF2GMP-07	--	--	--	--	--	--	--	--	--	--
LF2GMP-08	0	0	20.9	0	0	0	0	20.3	0	0
LF2GMP-09	--	--	--	--	--	--	--	--	--	--
LF2VENT-01	0	0	19.9	0	0	0	0	20.9	0	0
LF2VENT-02	--	--	--	--	--	--	--	--	--	--
LF2VENT-03	--	--	--	--	--	--	--	--	--	--
LF2VENT-04	0	0.6	16.1	0	3.8	0	0	20.9	0	0
LF2VENT-05	0.5	>5	14.5	2	2.0	0	8.0	20.9	0	0
LF2VENT-06	1.0	>5	17.4	0	0.6	0	0	20.9	0	0
LF2VENT-07	0	0	16.7	0	0.1	0	0	20.9	0	0
LF2VENT-08	--	--	--	--	--	--	--	--	--	--
LF2VENT-09	--	--	--	--	--	--	--	--	--	--
LF2VENT-10	--	--	--	--	--	--	--	--	--	--
LF2VENT-11	--	--	--	--	--	--	--	--	--	--
LF2VENT-12	0	>5	15.5	0	0	0	0	20.9	0	0
LF2VENT-13	0	0	18.2	0	0.1	0	0	20.9	0	0.1
LF2VENT-14	0	0	20.2	0	0	0	0	20.9	0	0

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit

Table 3
LF009 (Landfill 6 AOC) Landfill Gas Monitoring Results (2010-2021)

Sample Location	2-Feb-10				7-May-10				26-Oct-10			
	Barometric Pressure (in.) =			NS	Barometric Pressure (in.) =			29.18-29.38	Barometric Pressure (in.) =			29.19-29.20
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF6GMP-01	NS	NS	NS	NS	0	0.0	20.6	0.1	0	0.0	19.4	0.5
LF6GMP-02	NS	NS	NS	NS	0	0.0	20.9	0.1	0	0.0	11.8	6.6
LF6GMP-03	NS	NS	NS	NS	0	0.0	20.9	0.0	0	0.0	15.6	2.7
LF6GMP-04	NS	NS	NS	NS	0	0.0	20.9	0.0	0	0.0	19.4	1.0
LF6GMP-05	NS	NS	NS	NS	0	0.0	20.9	0.0	0	0.0	20.6	0.2
LF6GMP-06	NS	NS	NS	NS	0	0.0	19.7	0.9	0	0.0	20.4	0.4
LF6GMP-07	NS	NS	NS	NS	0	0.0	17.6	3.4	0	0.0	16.3	4.6
LF6GMP-08	NS	NS	NS	NS	0	0.0	10.2	9.2	0	0.0	5.4	13.8
LF6GMP-09	NS	NS	NS	NS	0	0.0	17.4	3.1	0	0.0	14.2	5.9
LF6GMP-10	NS	NS	NS	NS	0	0.0	19.8	1.0	0	0.0	19.7	1.0
LF6GMP-11	NS	NS	NS	NS	0	0.0	19.9	1.1	0	0.0	18.0	2.7
LF6GMP-12	NS	NS	NS	NS	0	0.0	20.3	0.6	0	0.0	18.8	1.9
LF6GMP-13	NS	NS	NS	NS	0	0.0	20.2	0.7	0	0.0	18.9	1.5
LF6GMP-14	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
LF6GMP-15S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-15D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-01	NS	NS	NS	NS	0	0.0	19.7	0.7	0	0.0	20.7	0.1
LF6VENT-02	NS	NS	NS	NS	0	0.0	20.4	0.1	0	0.0	20.6	0.0
LF6VENT-03	NS	NS	NS	NS	0	0.0	20.2	0.5	0	0.0	20.6	0.1
LF6VENT-04	NS	NS	NS	NS	0	0.0	18.5	1.6	0	0.0	20.7	0.0
LF6VENT-05	NS	NS	NS	NS	0	0.0	20.1	0.8	0	0.0	20.2	0.2
LF6VENT-06	NS	NS	NS	NS	0	0.0	20.2	0.4	0	0.0	20.7	0.0
LF6VENT-07	NS	NS	NS	NS	0	0.0	19.4	0.8	0	0.0	20.2	0.0
LF6VENT-08	NS	NS	NS	NS	0	0.0	19.8	0.6	0	0.0	20.3	0.0
LF6VENT-09	NS	NS	NS	NS	0	0.0	19.5	0.7	0	0.0	20.4	0.0
LF6VENT-10	NS	NS	NS	NS	0	0.0	19.6	0.9	0	0.0	20.4	0.1
LF6VENT-11	NS	NS	NS	NS	0	0.0	19.5	0.9	0	0.0	20.6	0.0
LF6VENT-12	NS	NS	NS	NS	0	0.0	20.1	0.7	0	0.0	20.5	0.0
LF6VENT-13	NS	NS	NS	NS	0	0.0	17.3	2.0	0	0.0	20.6	0.0
LF6VENT-14	NS	NS	NS	NS	0	0.0	19.2	1.4	0	0.0	20.6	0.0
LF6VENT-15	NS	NS	NS	NS	0	0.0	18.7	1.5	0	0.0	20.6	0.0
LF6VENT-16	NS	NS	NS	NS	0	0.0	15.7	4.1	0	0.0	20.7	0.0

Notes:

NI = Not Installed

NS = Not Sampled

- - = Not Monitored

% = percent

in. = inches

LEL = Lower Explosive Limit

Table 3
LF009 (Landfill 6 AOC) Landfill Gas Monitoring Results (2010-2021)

Sample Location	16-May-11				19-Oct-11				10-May-12			
	Barometric Pressure (in.) =			29.14-29.19	Barometric Pressure (in.) =			29.11-29.14	Barometric Pressure (in.) =			28.99-29.32
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF6GMP-01	0	0.0	19.4	0.3	0	0.0	12.0	7.0	0	0.0	19.3	0.8
LF6GMP-02	0	0.0	20.9	0.1	0	0.0	19.7	0.8	0	0.0	22.8	0.1
LF6GMP-03	0	0.0	20.6	0.1	0	0.0	16.1	3.0	0	0.0	22.2	0.1
LF6GMP-04	0	0.0	20.8	0.0	0	0.0	14.8	5.7	0	0.0	22.4	0.1
LF6GMP-05	0	0.0	20.8	0.0	0	0.0	18.8	2.7	0	0.0	22.7	0.1
LF6GMP-06	0	0.0	20.8	0.1	0	0.0	19.0	2.6	0	0.0	22.8	0.2
LF6GMP-07	0	0.0	20.8	0.0	0	0.0	16.6	5.2	0	0.0	23.0	0.1
LF6GMP-08	0	0.0	12.7	5.5	0	0.0	4.6	14.7	0	0.0	23.0	0.1
LF6GMP-09	0	0.0	14.6	5.2	0	0.0	14.1	6.2	0	0.0	20.2	1.8
LF6GMP-10	0	0.0	20.8	0.0	0	0.0	20.5	1.4	0	0.0	22.9	0.1
LF6GMP-11	0	0.0	18.9	2.1	0	0.0	18.5	3.0	0	0.0	23.0	0.1
LF6GMP-12	0	0.0	18.2	2.1	0	0.0	18.4	3.4	0	0.0	22.8	0.2
LF6GMP-13	0	0.0	18.5	2.5	0	0.0	18.3	3.4	0	0.0	22.2	0.7
LF6GMP-14	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
LF6GMP-15S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-15D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-01	0	0.0	20.3	0.6	0	0.0	14.0	2.2	0	0.0	21.9	0.2
LF6VENT-02	0	0.0	20.7	0.0	24	1.2	6.2	0.4	0	0.0	21.4	0.7
LF6VENT-03	0	0.0	20.7	0.2	14	0.7	4.7	8.1	0	0.0	20.5	1.0
LF6VENT-04	0	0.0	20.8	0.1	>100	10.7	0.3	6.0	0	0.0	19.4	1.6
LF6VENT-05	0	0.0	20.9	0.0	0	0.0	9.9	6.8	0	0.0	21.6	0.6
LF6VENT-06	0	0.0	20.8	0.0	2	0.0	8.9	1.3	0	0.0	22.4	0.0
LF6VENT-07	0	0.0	20.4	0.0	0	0.0	14.5	5.9	0	0.0	20.6	0.7
LF6VENT-08	0	0.0	20.4	0.0	0	0.0	16.2	4.5	0	0.0	19.7	1.8
LF6VENT-09	0	0.0	19.9	0.6	0	0.0	17.7	2.9	0	0.0	21.5	0.9
LF6VENT-10	0	0.0	20.5	0.0	0	0.0	14.6	5.2	0	0.0	21.1	0.8
LF6VENT-11	0	0.0	20.7	0.0	0	0.0	16.7	3.7	0	0.0	22.5	0.1
LF6VENT-12	0	0.0	20.3	0.5	0	0.0	14.6	5.2	0	0.0	22.2	0.2
LF6VENT-13	0	0.0	20.4	0.3	0	0.0	13.8	6.4	0	0.0	20.3	1.5
LF6VENT-14	0	0.0	20.5	0.4	0	0.0	16.3	4.0	0	0.0	22.2	0.1
LF6VENT-15	0	0.0	18.3	2.8	0	0.0	10.7	7.0	0	0.0	21.9	0.4
LF6VENT-16	0	0.0	13.4	5.7	0	0.0	10.0	7.7	0	0.0	16.4	3.0

Notes:

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- - = Not Monitored

% = percent

in. = inches

LEL = Lower Explosive Limit

Table 3
LF009 (Landfill 6 AOC) Landfill Gas Monitoring Results (2010-2021)

Sample Location	5-Oct-12				2-May-13				15-Oct-13			
	Barometric Pressure (in.) =			29.44	Barometric Pressure (in.) = 29.73-29.85				Barometric Pressure (in.) =			29.47-29.58
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF6GMP-01	0	0.0	11.0	2.4	0	0.0	20.6	0.0	0	0.0	14.4	4.4
LF6GMP-02	0	0.0	12.4	6.7	0	0.0	20.3	0.0	0	0.0	11.6	7.1
LF6GMP-03	0	0.0	16.3	2.7	0	0.0	20.6	0.0	0	0.0	16.5	2.7
LF6GMP-04	0	0.0	15.3	5.4	0	0.0	20.6	0.0	0	0.0	15.6	5.4
LF6GMP-05	0	0.0	18.8	2.0	0	0.0	20.6	0.0	0	0.0	19.0	2.0
LF6GMP-06	0	0.0	18.6	2.4	0	0.0	20.5	0.1	0	0.0	18.7	2.5
LF6GMP-07	0	0.0	17.0	4.2	0	0.0	20.0	0.5	0	0.0	17.1	4.6
LF6GMP-08	0	0.0	11.4	8.5	0	0.0	12.2	5.8	0	0.0	7.3	12.7
LF6GMP-09	0	0.0	15.3	5.2	0	0.0	18	1.7	0	0.0	16.5	4.6
LF6GMP-10	0	0.0	19.5	1.2	0	0.0	20.3	0.0	0	0.0	19.4	2.2
LF6GMP-11	0	0.0	18.5	2.5	0	0.0	20.0	0.7	0	0.0	19.2	2.2
LF6GMP-12	0	0.0	18.3	2.6	0	0.0	18.6	1.3	0	0.0	18.3	2.9
LF6GMP-13	0	0.0	17.8	3.0	0	0.0	19.0	1.3	0	0.0	18.5	2.9
LF6GMP-14	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
LF6GMP-15S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-15D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-01	0	0.0	11.0	2.4	0	0.0	20.1	0.3	0	0.0	12.3	2.5
LF6VENT-02	35	1.7	4.1	0.6	0	0.0	19.6	0.0	58	2.9	4.5	0.4
LF6VENT-03	16	0.8	4.4	9.2	5	0.2	17.8	1.1	58	2.9	5.4	9.2
LF6VENT-04	>100	8.1	0.7	7.4	0	0.0	19.6	0.7	>100	10.5	4.8	4.5
LF6VENT-05	0	0.0	8.1	8.7	0	0.0	19.9	0.6	0	0.0	10.1	6.8
LF6VENT-06	0	0.0	8.5	0.8	0	0.0	20.0	0.2	17	0.9	5.2	1.1
LF6VENT-07	0	0.0	13.6	5.3	0	0.0	20.5	0.5	0	0.0	13.4	5.8
LF6VENT-08	0	0.0	15.5	3.7	0	0.0	20.7	0.4	0	0.0	12.4	6.1
LF6VENT-09	0	0.0	16.7	3.0	0	0.0	20.4	0.4	0	0.0	17.2	3.0
LF6VENT-10	0	0.0	11.0	6.4	0	0.0	20.3	0.6	0	0.0	9.2	8.5
LF6VENT-11	0	0.0	16.0	3.8	0	0.0	20.5	0.5	0	0.0	17.3	3.3
LF6VENT-12	0	0.0	11.6	5.7	0	0.0	19.0	1.3	0	0.0	8.4	9.4
LF6VENT-13	0	0.0	12.1	7.1	0	0.0	20.4	0.6	0	0.0	13.8	6.7
LF6VENT-14	0	0.0	16.4	3.3	0	0.0	20.2	0.5	0	0.0	16.6	3.5
LF6VENT-15	0	0.0	5.8	9.7	0	0.0	19.4	1.1	0	0.0	18.6	2.5
LF6VENT-16	0	0.0	8.3	7.3	0	0.0	18.2	1.9	0	0.0	12.5	6.6

Notes:

NI = Not Installed

NS = Not Sampled

- - = Not Monitored

% = percent

in. = inches

LEL = Lower Explosive Limit

Table 3
LF009 (Landfill 6 AOC) Landfill Gas Monitoring Results (2010-2021)

Sample Location	8-May-14				19-Nov-14				5-May-15			
	Barometric Pressure (in.) =			29.48-29.57	Barometric Pressure (in.) =			29.52-29.60	Barometric Pressure (in.) =			29.67-29.75
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF6GMP-01	0	0.0	19.5	0.2	0	0.0	19.5	2.0	0	0.0	19.9	0.7
LF6GMP-02	0	0.0	13.0	4.3	0	0.0	15.7	4.8	0	0.0	15.8	3.7
LF6GMP-03	0	0.0	17.2	1.6	0	0.0	18.1	1.7	0	0.0	20.9	0.2
LF6GMP-04	0	0.0	17.1	2.8	0	0.0	17.8	3.3	0	0.0	18.4	2.9
LF6GMP-05	0	0.0	19.5	8.0	0	0.0	16.2	3.7	0	0.0	20.5	0.9
LF6GMP-06	0	0.0	19.0	12.0	0	0.0	18.5	2.9	0	0.0	20.3	1.4
LF6GMP-07	0	0.0	20.3	0.1	0	0.0	19.1	2.1	0	0.0	20.2	1.3
LF6GMP-08	0	0.0	20.0	0.2	0	0.0	11.0	9.5	0	0.0	14.0	5.8
LF6GMP-09	0	0.0	17.8	1.9	0	0.0	18.2	3.7	0	0.0	20.1	1.4
LF6GMP-10	0	0.0	20.5	0.0	0	0.0	16.1	3.8	0	0.0	21.4	0.0
LF6GMP-11	0	0.0	19.7	0.9	0	0.0	14.5	4.0	0	0.0	20.9	1.2
LF6GMP-12	0	0.0	18.3	1.7	0	0.0	19.4	2.1	0	0.0	19.8	l.8
LF6GMP-13	0	0.0	19.0	1.3	0	0.0	20.0	1.8	0	0.0	20.5	1.5
LF6GMP-14	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
LF6GMP-15S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-15D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-01	0	0.0	17.4	1.1	0	0.0	19.1	1.5	0	0.1	19.8	1.1
LF6VENT-02	0	0.0	12.3	0.0	0	0.0	19.8	0.2	0	0.0	20.9	0.0
LF6VENT-03	0	0.0	13.8	3.1	0	0.0	19.9	0.6	0	0.1	20.5	0.9
LF6VENT-04	80	4.0	5.3	3.3	0	0.0	19.9	0.5	0	0.0	20.3	0.5
LF6VENT-05	0	0.0	13.9	3.1	0	0.0	20.0	0.5	0	0.0	19.7	1.7
LF6VENT-06	0	0.0	12.4	0.7	0	0.0	20.6	0.2	0	0.2	20.8	0.0
LF6VENT-07	0	0.0	17.7	2.1	0	0.0	20.6	0.3	0	0.1	20.7	0.9
LF6VENT-08	0	0.0	15.8	2.9	0	0.0	20.7	0.3	0	0.1	20.9	0.6
LF6VENT-09	0	0.0	18.8	1.3	0	0.0	20.6	0.3	0	0.0	20.9	0.3
LF6VENT-10	0	0.0	16.6	2.6	0	0.0	20.5	0.2	0	0.1	20.6	0.7
LF6VENT-11	0	0.0	19.1	1.3	0	0.0	20.7	0.2	0	0.1	20.6	0.5
LF6VENT-12	0	0.0	15.7	2.7	0	0.0	20.2	0.2	0	0.0	20.5	1.0
LF6VENT-13	0	0.0	16.6	3.6	0	0.0	19.8	0.5	0	0.0	18.9	2.3
LF6VENT-14	0	0.0	18.8	1.6	0	0.0	19.5	0.2	0	0.1	20.4	1.2
LF6VENT-15	0	0.0	15.3	4.2	0	0.0	19.6	0.2	0	0.0	19.0	3.2
LF6VENT-16	0	0.0	14.9	4.8	0	0.0	19.4	0.5	0	0.0	18.1	3.7

Notes:

NI = Not Installed

NS = Not Sampled

- - = Not Monitored

% = percent

in. = inches

LEL = Lower Explosive Limit

Table 3
LF009 (Landfill 6 AOC) Landfill Gas Monitoring Results (2010-2021)

Sample Location	9-Sep-15				30-Nov-16				7-Nov-17			
	Barometric Pressure (in.) =			29.32-29.48	Barometric Pressure (in.) =			29.87-29.75	Barometric Pressure (in.) =			29.49 - 29.49
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF6GMP-01	0	0.0	18.9	1.5	0	0	20.7	0.2	- -	- -	- -	- -
LF6GMP-02	0	0.0	20.6	0.1	0	0	13.2	6.4	- -	- -	- -	- -
LF6GMP-03	0	0.0	20.7	0.0	0	0	20.4	0.5	- -	- -	- -	- -
LF6GMP-04	0	0.0	20.7	0.0	0	0	16.6	4.9	- -	- -	- -	- -
LF6GMP-05	0	0.0	20.6	0.0	0	0	18.7	2.6	- -	- -	- -	- -
LF6GMP-06	0	0.0	20.5	0.1	0	0	18.3	3.3	- -	- -	- -	- -
LF6GMP-07	0	0.0	20.5	0.1	0	0	20.7	0.3	- -	- -	- -	- -
LF6GMP-08	0	0.0	20.1	0.8	0	0	8.8	11.1	- -	- -	- -	- -
LF6GMP-09	0	0.0	20.0	0.9	0	0	20	1.1	- -	- -	- -	- -
LF6GMP-10	0	0.0	20.3	0.4	0	0	20.3	1.2	- -	- -	- -	- -
LF6GMP-11	0	0.0	20.7	0.1	0	0	20.1	1.4	- -	- -	- -	- -
LF6GMP-12	0	0.0	20.7	0.1	0	0	18.6	2.9	- -	- -	- -	- -
LF6GMP-13	0	0.0	20.4	0.4	0	0	20.2	1	- -	- -	- -	- -
LF6GMP-14	NI	NI	NI	NI	NI	NI	NI	NI	- -	- -	- -	- -
LF6GMP-15S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-15D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-01	1	0.0	20.9	0.0	0	0	16.7	2.4	- -	- -	- -	- -
LF6VENT-02	0	0.0	20.8	0.0	3	0.1	13.4	0.4	0.0	0.0	18.8	0.4
LF6VENT-03	0	0.0	20.7	0.0	0	0	15.1	4.3	0.0	0.0	18.5	2.2
LF6VENT-04	0	0.0	20.8	0.0	3	0.1	12.8	2.6	0.0	0.0	19.1	1.7
LF6VENT-05	1	0.0	20.8	0.0	0	0	17	3.3	- -	- -	- -	- -
LF6VENT-06	0	0.2	20.8	0.0	0	0	16.3	0.9	0.0	0.0	19.7	0.6
LF6VENT-07	1	0.0	20.8	0.0	0	0	16.4	4.4	- -	- -	- -	- -
LF6VENT-08	1	0.0	20.7	0.0	0	0	21	0.1	- -	- -	- -	- -
LF6VENT-09	1	0.0	19.9	0.7	0	0	17.5	3.3	- -	- -	- -	- -
LF6VENT-10	1	0.0	12.8	5.9	0	0	11.1	7.5	- -	- -	- -	- -
LF6VENT-11	1	0.0	18.2	2.2	0	0	17.4	3.7	- -	- -	- -	- -
LF6VENT-12	0	0.0	12.3	7.4	0	0	14.5	5	- -	- -	- -	- -
LF6VENT-13	0	0.0	13.7	6.2	0	0	14.4	5.6	- -	- -	- -	- -
LF6VENT-14	0	0.0	17.4	2.4	0	0	20.8	0.1	- -	- -	- -	- -
LF6VENT-15	2	0.1	3.8	17.4	0	0	9.2	10.2	- -	- -	- -	- -
LF6VENT-16	2	0.1	5.7	12.6	0	0	9.7	9.9	- -	- -	- -	- -

Notes:

NI = Not Installed

NS = Not Sampled

- - = Not Monitored

% = percent

in. = inches

LEL = Lower Explosive Limit

Table 3
LF009 (Landfill 6 AOC) Landfill Gas Monitoring Results (2010-2021)

Sample Location	19-Oct-18				2-Oct-19			
	Barometric Pressure (in.) =			30.03 - 29.96	Barometric Pressure (in.) =			29.38
	Hydrogen Sulfide (ppm)	Methane (%)	Oxygen (%)	Carbon Monoxide (ppm)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF6GMP-01	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-02	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-03	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-04	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-05	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-06	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-07	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-08	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-09	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-10	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-11	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-12	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-13	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-14	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-15S	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-15D	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16S	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16D	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17S	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17D	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-01	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-02	0	1	7	0	2	<0.1	20.8	0.0
LF6VENT-03	0	0.2	9.5	0	2	<0.1	20.6	0.0
LF6VENT-04	0	3.4	8.8	0	2	<0.1	20.7	0.0
LF6VENT-05	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-06	0	<0.1	14.8	0	2	<0.1	20.7	0.0
LF6VENT-07	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-08	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-09	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-10	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-11	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-12	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-13	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-14	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-15	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-16	- -	- -	- -	- -	- -	- -	- -	- -

Notes:

NI = Not Installed

NS = Not Sampled

- - = Not Monitored

% = percent

in. = inches

LEL = Lower Explosive Limit

Table 3
LF009 (Landfill 6 AOC) Landfill Gas Monitoring Results (2010-2021)

Sample Location	22-Sep-20					2-Dec-21				
	Barometric Pressure (in.) =				30.0 - 30.3	Barometric Pressure (in.) =				29.7 - 29.8
	Hydrogen Sulfide (ppm)	Methane (%)	Oxygen (%)	Carbon Monoxide (ppm)	VOC (ppm)	Hydrogen Sulfide (ppm)	Methane (%)	Oxygen (%)	Carbon Monoxide (ppm)	VOC (ppm)
LF6GMP-01	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-02	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-03	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-04	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-05	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-06	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-07	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-08	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-09	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-10	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-11	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-12	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-13	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-14	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-15S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-15D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-01	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-02	0	2.6	12.5	0	0	0	18.0	8.3	0	0.4
LF6VENT-03	0	0.75	13.1	0	0	0	0	20.9	0	0
LF6VENT-04	0	4.35	18.4	0	0	0	8.0	11.9	0	0.2
LF6VENT-05	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-06	0	0	15.8	0	0	0	0	15.9	0	0
LF6VENT-07	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-08	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-09	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-10	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-11	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-12	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-13	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-14	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-15	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-16	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Notes:

NI = Not Installed

NS = Not Sampled

- - = Not Monitored

% = percent

in. = inches

LEL = Lower Explosive Limit

ATTACHMENT C – LANDFILL INSPECTION REPORTS

Attachment C-1 –
Spring 2021 Landfill Inspection Reports

LANDFILL: LF001
INSPECTION REPORT

2021

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Spring Inspection Response to Storm Event? NO
Date of Inspection: 5/25/2021
Personnel Present: Junaid Dawud
Weather Conditions: mostly sunny, light wind, 70's

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: good, no damage found

Slopes: good

Cover Vegetation: good

Leachate Breakouts: good

Vectors: Rats nest in Vent-25 turbine, vent turbine replaced.
Beavers are still/again present at SMC

Drainage: good.

Institutional Controls: good

Monitoring Wells: LF1MW-6 "drowned" by beaver pond

Gas Probes: good. Visibility marker on bollard for GMP-6 repaired.

Gas Vents: Some turbines do not turn freely. ex: -3, -26, -27, -29, -16

Security Fencing/Gates: Good. one sign near GMP-6 was down, repaired.

Comments/Follow Up Needs:

LANDFILL: LF002
INSPECTION REPORT

2021

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Spring
Response to Storm Event? (No)
Date of Inspection: 5/25/2021
Personnel Present: Junaid Dawud
Weather Conditions: mostly sunny, light wind, 70s

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: good

Slopes: good

Cover Vegetation: good

Leachate Breakouts: good

Vectors: good (no signs of major digging, etc)

Drainage: good

Institutional Controls: good

Monitoring Wells: good

Gas Probes: good

Gas Vents: good

Security Fencing/Gates: Downed trees and limbs on North & east fencelines. Most removed.

Comments/Follow Up Needs:
Minor Fence repair along U/E fence from trees on the metal lines

LANDFILL: LF003
INSPECTION REPORT

2021

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Spring
Response to Storm Event? No
Date of Inspection: 5/28/2021
Personnel Present: Junaid Dawud
Weather Conditions: Overcast, low clouds, mod wind, 40s

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: good

Slopes: good

Cover Vegetation: good

Leachate Breakouts: NA

Vectors: none

Drainage: good

Institutional Controls: good.

Monitoring Wells: good

Gas Probes: NA

Gas Vents: NA

Security Fencing/Gates: good. one sign bent, re-straigtened.

Comments/Follow Up Needs:

LANDFILL: LF007
INSPECTION REPORT

2021

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Spring
Response to Storm Event? No
Date of Inspection: 5/25/21
Personnel Present: Junaid Dawud
Weather Conditions: mostly sunny, light wind, ~70's

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: good

Slopes: good

Cover Vegetation: good

Leachate Breakouts: good

Vectors: none

Drainage: good

Institutional Controls: Access road gate bypass happening.

Monitoring Wells: good

Gas Probes: NA

Gas Vents: NA

Security Fencing/Gates: all signs good.

Comments/Follow Up Needs:

LANDFILL: LF009
INSPECTION REPORT

2021

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Spring
Response to Storm Event? No
Date of Inspection: 5/25/2021
Personnel Present: Junaid Dawud
Weather Conditions: Cloudy, mod wind, ~70's

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: good

Slopes: good

Cover Vegetation: good

Leachate Breakouts: good

Vectors: none

Drainage: good

Institutional Controls:

Monitoring Wells: good

good. Bollard visibility markers repaired

Gas Probes: good.

Gas Vents: good.

Security Fencing/Gates: good.

Comments/Follow Up Needs:

LF001 – Spring

South-Central Boundary, Facing West (S1)



South-Central Boundary, Facing East (S2)



LF001 – Spring

Southeast Boundary, Facing North-Northwest Towards Vent-4 and Vent-3 (S3)



Southeast Boundary, Facing Northwest (S4)



LF001 – Spring

At Southwest Signage, Facing Northeast Towards Vent-4 (S5)



Southwest Near Six-Mile Creek, Facing Northeast Towards LF1P-2 and LF1MW-103 (S6)



LF001 – Spring

At Six-Mile Creek, Facing West-Northwest (S7)



Across Six-Mile Creek to West, Facing Northwest (S8)



LF001 – Spring

Across Six-Mile Creek to West, Facing Southwest Towards LF1MW-5 (S9)



Beaver Activity at Six-Mile Creek (S10)



LF001 – Spring

Inactive Turbine at Vent-3 (S11)



Northwest Boundary, Facing South (S12)



LF001 – Spring

Center of Site, Facing Southeast (S13)



LF002 – Spring

Damaged Fencing at Southeast Boundary, Facing South (S1)



Damaged Fencing at Southeast Boundary, Facing East (S2)



LF002 - Spring

Damaged Fencing at Northeast Boundary, Facing North (S3)



Northwest Corner of Landfill, Facing East-Southeast (S4)



LF002 - Spring

Northwest Corner of Landfill, Facing Southeast (S5)



At Vent-13, Facing East (S6)



LF002 - Spring

At Vent-13, Facing South (S7)



At Vent-06, Facing Northwest (S8)



LF002 - Spring

At Vent-12, Facing Northeast (S9)



LF003 – Spring

At Southeast Corner of South Cell, Facing West-Northwest (S1)



At Northwest Corner of South Cell, Facing Southeast (S2)



LF003 – Spring

At North Between Cells, Facing South (S3)



At North Between Cells, Facing West-Northwest (S4)



LF003 – Spring

At West Corner of North Cell, Facing Southeast (S5)



At South Between Cells, Facing Southeast (S6)



LF003 – Spring

At South Between Cells, Facing East
(S7)



LF007 – Spring

Gate Bypass to Access Road, Facing Southeast (S1)



On Access Road, Facing South (S2)



LF007 – Spring

On Access Road, Facing Northwest (S3)



On Access Road, Facing Southwest (S4)



LF007 – Spring

South IRP Boundary Near LF5MW-5, Facing North (S5)



Northwest Boundary, Facing East-Southeast (S6)



LF007 – Spring

Northwest Boundary, Facing Southwest (S7)



At LF5MW-3, Facing Northeast (S8)



LF007 – Spring

At LF5MW-3, Facing Southwest (S9)



Southwest of LF007 Near Three Mile Creek, Facing Southwest (S10)



LF009 – Spring

Southeast near LF6VMW-20, Facing Northwest (S1)



Southeast Corner of IRP Boundary, Facing West-Southwest (S2)



LF009 – Spring

East Boundary Near LF6VMW-21, Facing West-Southwest Towards Vent-14 (S3)



East Boundary Near LF6MW-1, Facing South-Southeast (S4)



LF009 – Spring

East Boundary Near LF6MW-1, Facing Southwest (S5)



East Boundary Near LF6MW-1, Facing West (S6)



LF009 – Spring

Northeast Boundary, Facing West-Southwest (S7)



Northeast Boundary Near 775VMW-18R, Facing West-Southwest (S8)



LF009 – Spring

Northeast Boundary Near 775VMW-18R, Facing Southwest (S9)



Northwest Boundary Near GMP-13, Facing East (S10)



LF009 – Spring

South-Central Boundary, Facing North (S11)



Attachment C-2 –
Fall 2021 Landfill Inspection Reports

GaR
26A
KEV

LANDFILL: LF001
INSPECTION REPORT

2021

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Fall Inspection Response to Storm Event? No
Date of Inspection: 12/01/2021
Personnel Present: Stan Haskins
Weather Conditions: partly cloudy, 37°F, slight Breeze

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: good

Slopes: fine

Cover Vegetation: good mowed and recent slow cover

Leachate Breakouts: none observed

Vectors: Burrows @ GV-13 and GV-22

Drainage: good

Institutional Controls: in place

Monitoring Wells: ok

Gas Probes: checked & fine

Gas Vents: ok, slight breeze, insufficient to observe turbines moving

Security Fencing/Gates: ok, locked

Comments/Follow Up Needs: Fill Burrows

Landfill Inspection Fall 2021 Barometric Pressure 30.07 in Hg

Gas Vent Monitoring

LANDFILL: LF001

Date: 12/01/2021

Location	O2 %	CO ppm	LEL %	H2S ppm	VOC ppm	Time
GMP						
LF1GMP-01	8.5	0	99	0	49.6	9:42
LF1GMP-02	9.3	0	89	0	8.3	9:56
LF1GMP-03	19.3	0	58 ~~59~~ %	0	5.6	10:05
LF1GMP-04	20.9	0	0	0	0.0	10:32
LF1GMP-06	20.3	0	0	0	0.0	10:56
LF1GMP-09	20.9	0	0	0	0.0	~~9:36~~ 11:14
LF1GMP-10	20.9	0	0	0	0.1	9:29
LF1GMP-13	20.9	0	0	0	0.0	11:18
LF1GMP-16	19.2	0	0	0	0.1	9:14
GV						
LF1GV-01	20.9	0	0	0	0.0	10:03
LF1GV-02	20.9	0	0	0	0.0	10:01
LF1GV-03	20.9	0	0	0	0.1	9:58
LF1GV-04	20.9	0	0	0	0.1	9:52
LF1GV-05	20.9	0	0	0	0.0	10:25
LF1GV-06	20.9	0	0	0	0.1	9:38
LF1GV-07	20.9	0	0	0	0.0	10:27
LF1GV-08	20.9	0	0	0	0.0	10:37
LF1GV-09	20.9	0	0	0	0.1	9:36
LF1GV-10	20.9	0	0	0	0.0	10:42
LF1GV-11	20.9	0	0	0	0.0	10:40
LF1GV-12	20.9	0	0	0	0.0	9:31
LF1GV-13	20.9	0	0	0	0.0	10:4
LF1GV-14	20.9	0	0	0	0.0	10:
LF1GV-17	20.9	0	0	0	0.0	11:
LF1GV-18	20.9	0	0	0	0.0	11
LF1GV-19	20.9	0	0	0	0.0	1
LF1GV-20	20.9	0	0	0	0.0	

Buccow

LFGU1 Cont 12/1/21

	O2	CO	LEL	H2S	VOC	Time
LF1GV-21	20.9	0	0	0	0.0	11:08
LF1GV-22	20.9	0	0	0	0.0	10:52
LF1GV-24	20.9	0	0	0	0.0	10:18
LF1GV-25	20.9	0	0	0	0.0	10:21
LF1GV-27	20.9	0	0	0	0.0	10:33

Barren

LANDFILL: LF002
INSPECTION REPORT

2021

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Fall Response to Storm Event? No
Date of Inspection: 12/01/2024
Personnel Present: Stan Haskins
Weather Conditions: clear to Pty Cloudy 39°F

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: good

Slopes: fine

Cover Vegetation: good condition

Leachate Breakouts: none observed

Vectors: none observed

Drainage: fine

Institutional Controls: in order

Monitoring Wells: good condition

Gas Probes: checked - ok

Gas Vents: checked - ok

Security Fencing/Gates: in order

Comments/Follow Up Needs: n/a

Landfill Inspection Fall 2021
Gas Vent Monitoring
LANDFILL: LF002
Date: 12/01/2021

Barometric Pressure 30.10 in Hg

39°F partly Cloudy, Calm

Location	O2 %	CO ppm	LEL %	H2S ppm	VOC ppm	Time
GMP						
LF2GMP-02	20.0	0	0	0	0.1	1538
LF2GMP-05	19.1	0	0	0	0.0	1553
LF2GMP-06	20.94	0	0	0	0.0	1605
LF2GMP-08	20.3	0	0	0	0.0	1555
GV						
LF2VENT-01	20.9	0	0	0	0.0	1541
LF2VENT-04	20.9	0	0	0	0.0	1547
LF2VENT-05	20.9	0	0.0	0	0.0	1602
LF2VENT-06	20.9	0	0	0	0.0	1608
LF2VENT-07	20.9	0	0	0	0.0	16:25
LF2VENT-12	20.9	0	0	0	0.0	16:13
LF2VENT-13	20.9	0	0	0	0.1	1535
LF2VENT-14	20.9	0	0	0	0.0	1610

LANDFILL: LF003
INSPECTION REPORT

2021

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Fall
Response to Storm Event? No
Date of Inspection: 12/2/2021
Personnel Present: Stan Haskins
Weather Conditions: overcast, occ. H.rain, 46°F, Calm. Rain over most hour

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: good

Slopes: fine

Cover Vegetation: good Mowed recently

Leachate Breakouts: none observed

Vectors: none observed

Drainage: South end of north LF is soggy on slope to draw between the 2 LFs

Institutional Controls: one missing sign on west ~~side~~ side of north LF

Monitoring Wells: good

Gas Probes: none

Gas Vents: none

Security Fencing/Gates: ok

Comments/Follow Up Needs: check for drainage in Spring

LANDFILL: LF009
INSPECTION REPORT

2021

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Fall Response to Storm Event? No
Date of Inspection: 12/02/2021
Personnel Present: Stan Haskins
Weather Conditions: overcast, 38°F, calm, no precipitation

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: good

Slopes: fine

Cover Vegetation: good, own perimeter recently mowed, center not mowed

Leachate Breakouts: none observed

Vectors: none observed

Drainage: good

Institutional Controls: in place, signs good

Monitoring Wells: fine

Gas Probes: good cond

Gas Vents: good cond. monitored GV 2, 4, 5, 6

Security Fencing/Gates: only one gate on South Side (OK)

Comments/Follow Up Needs: none

Landfill Inspection Fall 2021 Barometric Pressure 29.71 in Hg
Gas Vent Monitoring
LANDFILL: LF009
Date: 12/02/2021 38°F, Overcast, no precip, Calm

Location	O2	CO	LEL	H2S	VOC	Time
GV						
LF6VENT-02	20.3	0	18%	0	0.4	0812
LF6VENT-03	20.9	0	0	0	0.0	0823
LF6VENT-04	14.9	0	0.1	0	0.2	0821
LF6VENT-06	15.9	0	0	0	0.0	0817

LANDFILL: LF007
INSPECTION REPORT

2021

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Fall Response to Storm Event? No
Date of Inspection: 12/3/24
Personnel Present: Stan Haskins
Weather Conditions: clear, 36°F, Breezy

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: good

Slopes: fine

Cover Vegetation: recently mowed, good condition

Leachate Breakouts: none observed

Vectors: none,

Drainage: ok

Institutional Controls: Sign in good shape

Monitoring Wells: OK

Gas Probes: none

Gas Vents: none

Security Fencing/Gates: no fence, Gate is bypassed by road.

Comments/Follow Up Needs:

LF001 – Fall

Near LF1GMP-17, Facing Northeast (F1)



Near Vent-4, Facing Northwest (F2)



LF001 – Fall

Near Vent-4, Facing East-Northeast (F3)



Near LF1GMP-10, Facing Northeast (F4)



LF002 – Fall

Near Vent-11, Facing North (F1)



Near Vent-11, Facing South (F2)



LF002 – Fall

Fenceline Near GMP-08, Facing West-Northwest
(F3)



LF003 – Fall

At South Cell, Facing Northwest (F1)



At South-Central Boundary of North Cell, Facing Northwest (F2)



LF003 – Fall

Well Marker at LF7MW-23 (F3)



Between Cells, Facing East (F4)



LF007 – Fall

South Boundary, Facing North (F1)



West Boundary, Facing Northeast (F2)



LF007 – Fall

Gate to Access Road, Facing Southeast (F3)



LF009 – Fall

Between Vent-02 and Vent-06, Facing Southeast (F1)



Between Vent-02 and Vent-06, Facing West (F2)



LF009 – Fall

Near Vent-06, Facing South-Southeast (F3)



Near LF6VMW-20, Facing Northwest (F4)

