February 23, 2024

Ms. Sunny Becker
Washington State Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008-5452

Subject: 2023 Annual Progress Report, Southwest Harbor Project Remediation Areas 1, 2, 3, and 5
Ecology Facility/Site Numbers 2384, 2385, 2127, and 2383

Dear Sunny:

This letter provides the annual progress report for the Ecology-lead portions of the Southwest Harbor Project (SWHP) for remediation areas (RAs) 1, 2, 3, and 5 and covers landfill gas monitoring for 2023. This report satisfies the reporting requirement stipulated in the consent decrees for these sites, as modified by the Port of Seattle's (Port) November 15, 2016 letter to Ecology, and subsequent communication from Ecology to the Port on December 2, 2016, and June 30, 2017. The reporting frequency for 2023 was reduced from a quarterly basis to an annual basis with Ecology concurrence (Ecology, 2023). The next annual report will be submitted to Ecology in early 2025 and will include 2024 monitoring data.

Due to the consistency of landfill monitoring data, the landfill monitoring frequency was reduced in 2023 from a bi-weekly basis to a monthly basis, with Ecology concurrence (Ecology, 2023).

A. List of site activities that have taken place during the quarter.

<u>Landfill Monitoring:</u>

The landfill gas collection system is currently operating in passive mode. The system was transitioned to passive operation December 2016, by replumbing the system discharge piping to bypass the blower and shutting the blower off.

Landfill gas was monitored at the following locations during this quarter:

- Off-site soil gas monitoring probes located beyond the former landfill margin to the west, along Harbor Avenue (SG-302, SG-303, SG-304, and SG-329).
- On-site soil gas monitoring probes located beyond the former landfill margin to the north and south of the former landfill (VP-1 to the north, and VP-2, VP-3, and VP-4 to the south).
- System sampling ports located at various locations within the gas collection system piping (SP-01 through SP-13).

Monitoring details are shown in Attachment 1. Historical monitoring results are tabulated in Attachment 2; findings for methane in on- and off-site soil gas probes in 2023 are summarized below:

- Methane detections were below the action level of 5 percent and did not exceed 0.6 percent in the off-site perimeter monitoring probes located along Harbor Avenue (SG-302, SG-303, SG-304, and SG-329).

- Methane detections were below the action level of 5 percent in the on-site monitoring probes located north and southeast of the former landfill (VP-1 and VP-3, respectively) and did not exceed 4.4 percent in VP-1 and 0.5 percent in VP-3.

- Methane was detected above the action level of 5 percent in on-site monitoring probes VP-2 (located in the T-5 railyard within the eastern limits of the excavated portion of the landfill) and VP-4 (located beyond the former Heckett Yard to the southwest). Methane in 2023 was detected above the action level in 4 out of the 15 monitoring events at VP-2 and in 2 out of the 15 monitoring events at VP-4. Methane was detected as high as 6.4 percent in VP-2 and 6.1 percent in VP-4. Ecology was notified (Port of Seattle, 2023) of the action level exceedances and details were provided regarding ongoing trends associated with the exceedances. A plan (Landfill Gas Emission and Monitoring Optimization Recommendations, Attachment 3) has been developed for Ecology's review to optimize passive flow from the consolidated landfill to exhaust stacks to reduce horizontal migration of methane to perimeter monitoring points.

- Methane levels collected from the gas collection system piping (SP-01 through SP-13) ranged widely from 0.2 to 82.8 percent in 2023, consistent with previous data. The Landfill Gas Emission and Monitoring Optimization Recommendations memo, provided as Attachment 3, discusses ongoing trends related to methane concentrations within the landfill.

Semiannual Inspection:

The two 2023 semiannual inspections of site pavement caps, drainage, ballast cover areas, fencing, and warning signs were conducted June 28/29 (first semi-annual inspection) and November 29/30 and December 8 (second semi-annual inspection) (Attachment 4).

The next semiannual inspection is scheduled for the second quarter of 2024.

B. Detailed description of any deviations from the required tasks not otherwise documented above or in project plans or amendment requests.

There have been no deviations during 2023.

C. Description of all deviations from the schedule during the current quarter and any planned deviations in the upcoming quarter.

There have been no deviations during 2023 and no deviations are planned in 2024.

D. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule.

No deviations are anticipated.

E. All raw data (including laboratory reports) received by the Port during the past quarter and an identification of the source of the sample.

No raw laboratory data were received during 2023.

F. A list of deliverables and activities for the upcoming quarter.

The next deliverable will be an annual 2024 monitoring report, which will document the ongoing landfill gas monitoring. Prompt notification will be provided to Ecology if methane gas is detected in excess of the 5 percent action level in the perimeter monitoring points in 2024.

Please contact me at (206) 787-3193 if you have any questions or comments about this report.

Sincerely,

Brick Spangler

Brick Spangler
Sr. Environmental Program Manager

Attachments:
Attachment 1 – 2023 Landfill Gas Monitoring Results Memorandum
Attachment 2 – 2023 Landfill Gas Cumulative Monitoring Results Tables
Attachment 3 – Landfill Gas Emission and Monitoring Optimization Recommendations Memo
Attachment 4 – Semiannual Inspections of T-5 Ecology-lead Sites

References:
Port of Seattle (Port). 2023. Email Subject: T-5 Landfill Monitoring Exceedance Notification. From: Spangler, Brick. To: Becker, Sunny. Sent: Monday, August 21, 2023 2:44 PM

Washington State Department of Ecology (Ecology). 2023. Email Subject: RE: SWHP 2022 4th qtr PR. From: Becker, Sunny. To: Spangler, Brick. Sent: Thursday, April 13, 2023 8:17 PM

cc: Paul Kalina, AECOM
Jamalyn Green, AECOM

ATTACHMENT 1

Landfill Gas Monitoring Results Memorandum

AECOM
1111 Third Avenue
Suite 1600
Seattle, WA 98101
aecom.com

Project name:
Terminal 5 CEM Landfill

Project ref:
60693871

To:
Brick Spangler, Port of Seattle

From:
Paul Kalina

CC:

Date:
January 31, 2023

Memo

Subject: **Terminal 5 Landfill Gas Collection System 2023 Monitoring Results**

This memorandum summarizes the results of the 2023 monitoring at the Terminal 5 (T-5) Remediation Area 3 former landfill. The location of the former landfill in relation to nearby features is shown on Figure 1. The landfill gas collection system, soil gas probes, and system monitoring points are shown on Figure 2. A schematic cross-section through the landfill is shown on Figure 3.

Landfill Gas Monitoring

Gas concentrations were measured in the field using an LMS-40 or Landtec GEM 5000 gas analyzer. The landfill gas collection system is currently operating in passive mode. In December 2016, the system was transitioned to passive operation by replumbing the system discharge piping to bypass the blower and shutting the blower off.

The following locations were monitored during this quarter:

- Off-site soil gas probes located beyond the former landfill margin to the west along Harbor Avenue (SG-302, SG-303, SG-304, and SG-329);
- On-site soil gas probes located beyond the former landfill margin to the north, east, southeast, and south of the former landfill (VP-1, VP-3, VP-3, and VP-4, respectively); and
- System sampling ports located at various locations within the gas collection system piping (SP-01 through SP-13).

Results

Complete monitoring results are presented in Attachment 2. A summary of methane concentrations detected in 2023 is provided in the following sections.

Off-Site Soil Gas Probes

Methane did not exceed 0.6 percent in any of the off-site soil gas probes along Harbor Avenue (SG-302, SG-303, SG-304, and SG-329) in 2023 and did not exceed the action level of 5 percent by volume.

On-Site Soil Gas Probes

In 2023, methane was not detected above the action level of 5 percent in soil gas probes VP-1 and VP-3, which are located beyond the former landfill margin to the north and southeast, respectively. Methane was detected above the action level of 5 percent in probes VP-2, and VP-4, which are located beyond the former landfill margin to the east, and southeast, respectively. Methane ranged from 0.0 to 4.4 percent in VP-1, from 1.7 to 6.4 percent in VP-2, from 0.0 to 0.5 percent in VP-3, and from 0.8 to 6.1 percent in VP-4.

Collection System Sampling Ports

Methane levels measured from the gas collection system piping (SP-01 to SP-13) ranged widely from 0.2 to 82.8 percent, consistent with previous monitoring data that show similar spatial and temporal variability of methane levels measured at sampling ports located within the landfill boundary. Readings from the flow meter at the system outlet indicated an average exhaust rate of less than one cubic foot per minute.

Conclusions

Monitoring has been conducted by AECOM since December 28, 2022, including all 2023 monitoring. Due to the consistency of landfill gas monitoring data over time, the 2023 monitoring frequency of twice a month was reduced to once a month, with Ecology concurrence, in April 2023. Methane was detected above the action level of 5 percent in perimeter monitoring probes VP-2 and VP-4. Ecology was notified of the action level exceedances and details were provided regarding ongoing trends associated with the exceedances. A plan has been developed and submitted to the Port of Seattle to optimize passive flow from the consolidated landfill to reduce the horizontal migration of methane to perimeter monitoring points.

Monthly monitoring will continue in 2024 and any exceedances of the methane action level in perimeter monitoring probes will be promptly notified to the Port of Seattle.

Attachments:
Figure 1 – Vicinity Map Showing Nearby Structures
Figure 2 – Site Plan
Figure 3 – Schematic Cross Section
Figure 4 – Methane Monitoring Results

Legend

- Approximate Geomembrane Limits
- Existing Building

0 250 500 1,000 Feet

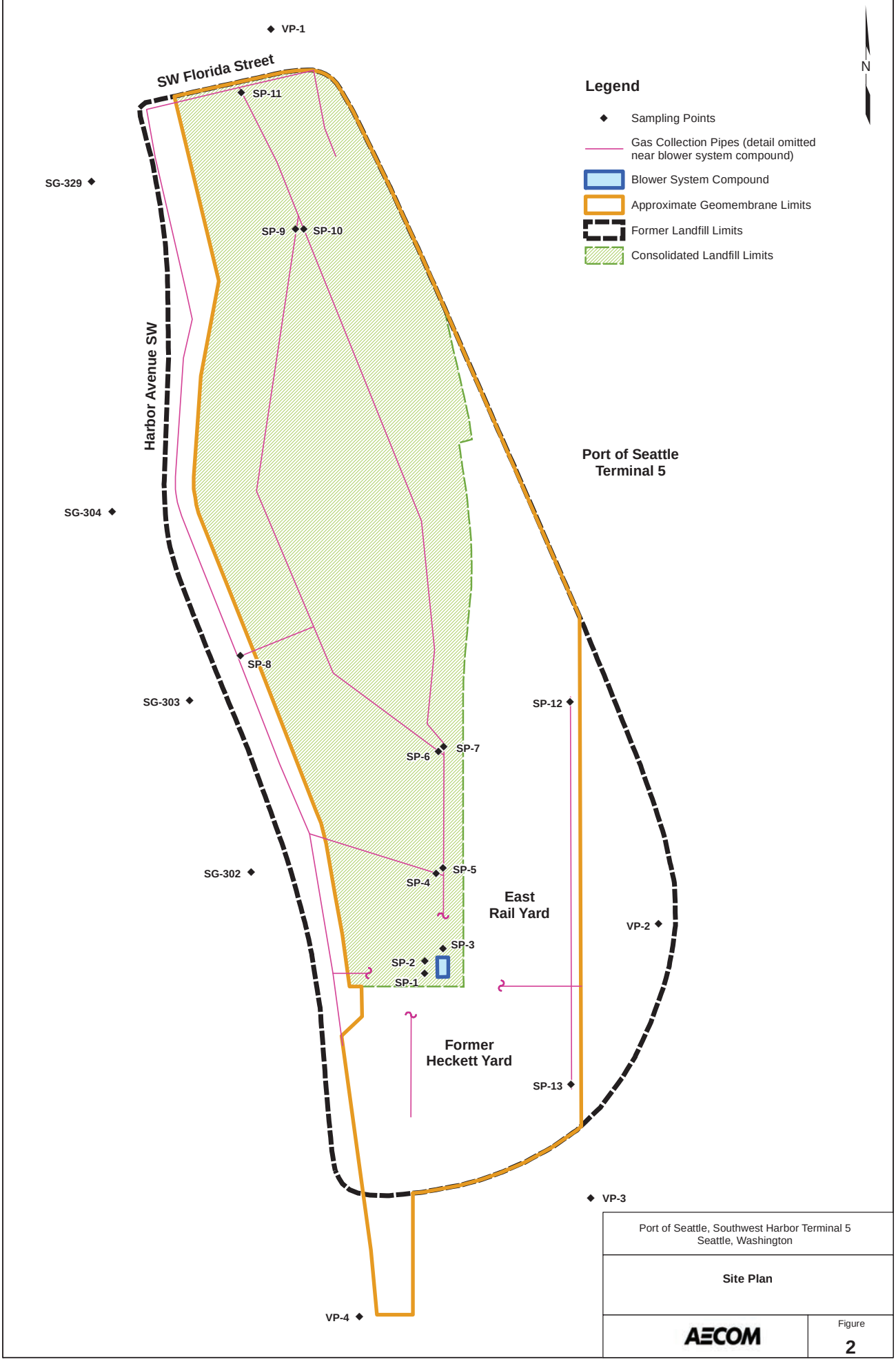
N

Port of Seattle, Southwest Harbor Terminal 5
Seattle, Washington

Vicinity Map Showing Nearby Structures

AECOM

Figure 1



Port of Seattle, Southwest Harbor Terminal 5
Seattle, Washington

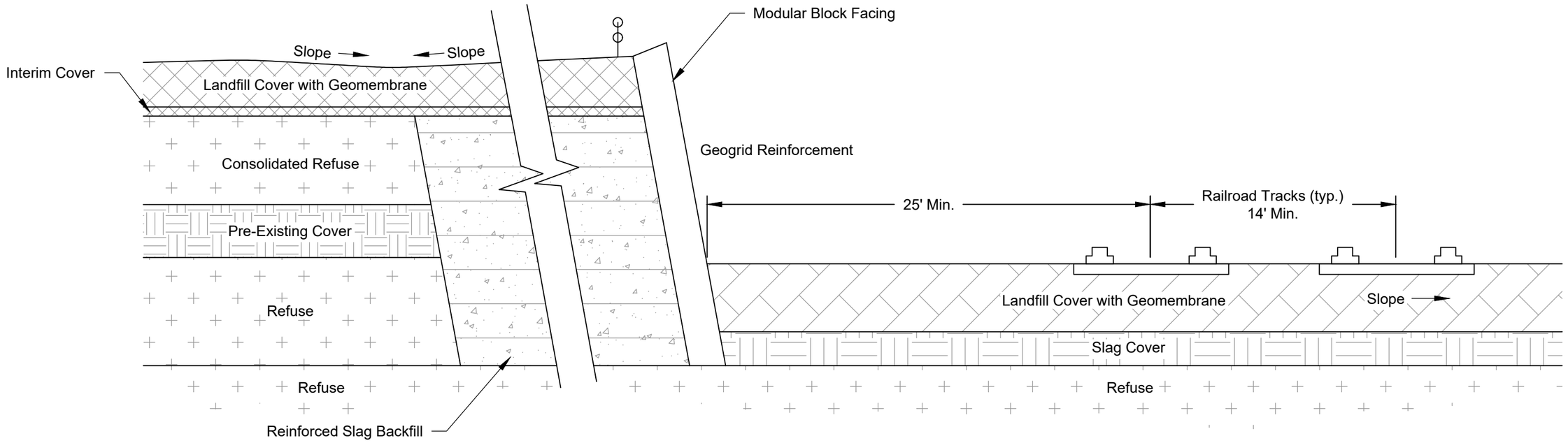
Site Plan

AECOM

Figure
2

West

East



0 6 12

Approximate Scale in Feet

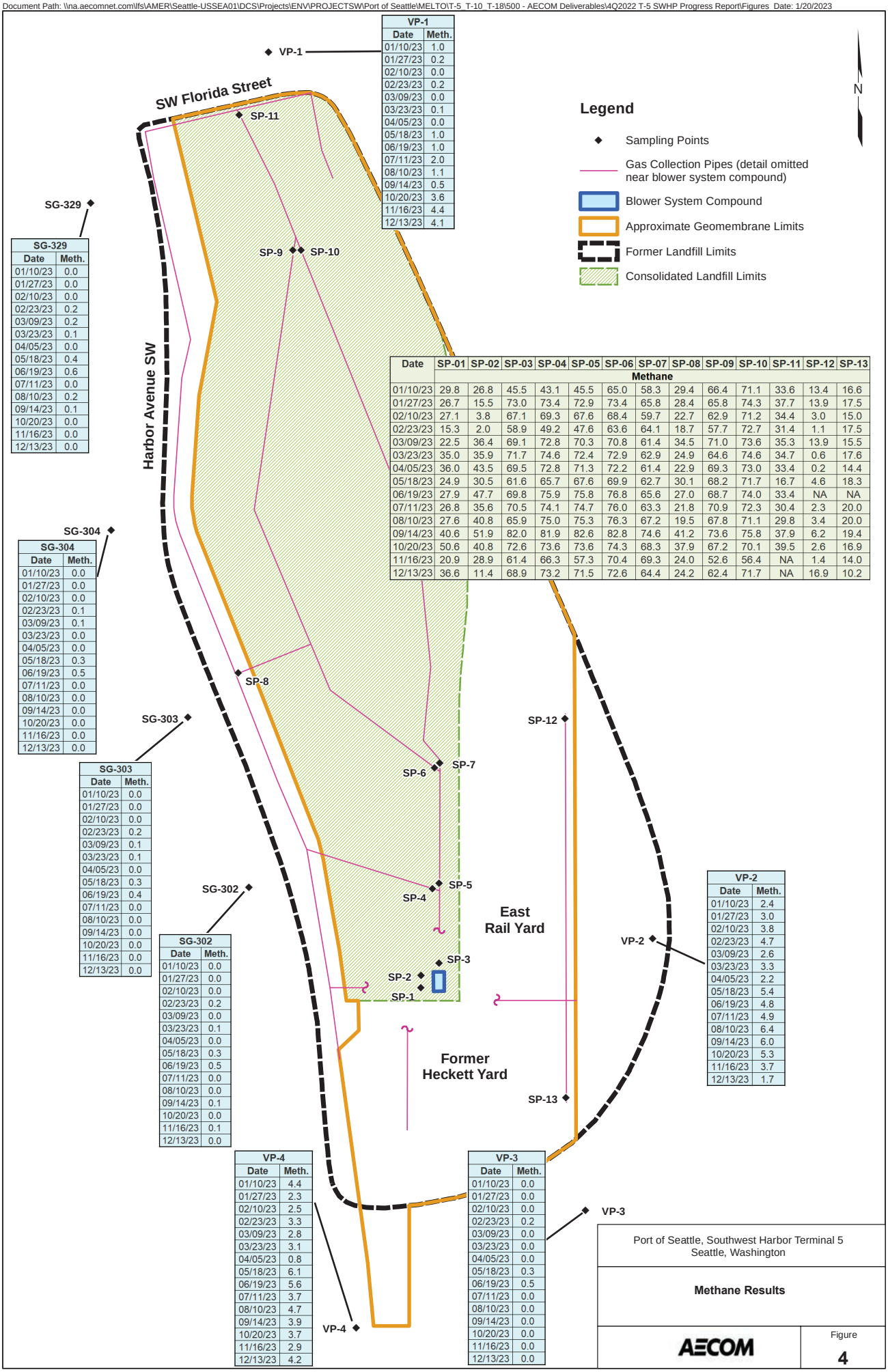
Sources: Figure prepared from PDF "Cross Section - Final Landfill Cover System," created by Woodward-Clyde Consultants, dated 2/21/95.

Port of Seattle, Southwest Harbor Terminal 5
Seattle, Washington

Cap Schematic Cross Section

AECOM

Figure
3



VP-1	
Date	Meth.
01/10/23	1.0
01/27/23	0.2
02/10/23	0.0
02/23/23	0.2
03/09/23	0.0
03/23/23	0.1
04/05/23	0.0
05/18/23	1.0
06/19/23	1.0
07/11/23	2.0
08/10/23	1.1
09/14/23	0.5
10/20/23	3.6
11/16/23	4.4
12/13/23	4.1

SG-329	
Date	Meth.
01/10/23	0.0
01/27/23	0.0
02/10/23	0.0
02/23/23	0.2
03/09/23	0.2
03/23/23	0.1
04/05/23	0.0
05/18/23	0.4
06/19/23	0.6
07/11/23	0.0
08/10/23	0.2
09/14/23	0.1
10/20/23	0.0
11/16/23	0.0
12/13/23	0.0

Date	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
	Methane												
01/10/23	29.8	26.8	45.5	43.1	45.5	65.0	58.3	29.4	66.4	71.1	33.6	13.4	16.6
01/27/23	26.7	15.5	73.0	73.4	72.9	73.4	65.8	28.4	65.8	74.3	37.7	13.9	17.5
02/10/23	27.1	3.8	67.1	69.3	67.6	68.4	59.7	22.7	62.9	71.2	34.4	3.0	15.0
02/23/23	15.3	2.0	58.9	49.2	47.6	63.6	64.1	18.7	57.7	72.7	31.4	1.1	17.5
03/09/23	22.5	36.4	69.1	72.8	70.3	70.8	61.4	34.5	71.0	73.6	35.3	13.9	15.5
03/23/23	35.0	35.9	71.7	74.6	72.4	72.9	62.9	24.9	64.6	74.6	34.7	0.6	17.6
04/05/23	36.0	43.5	69.5	72.8	71.3	72.2	61.4	22.9	69.3	73.0	33.4	0.2	14.4
05/18/23	24.9	30.5	61.6	65.7	67.6	69.9	62.7	30.1	68.2	71.7	16.7	4.6	18.3
06/19/23	27.9	47.7	69.8	75.9	75.8	76.8	65.6	27.0	68.7	74.0	33.4	NA	NA
07/11/23	26.8	35.6	70.5	74.1	74.7	76.0	63.3	21.8	70.9	72.3	30.4	2.3	20.0
08/10/23	27.6	40.8	65.9	75.0	75.3	76.3	67.2	19.5	67.8	71.1	29.8	3.4	20.0
09/14/23	40.6	51.9	82.0	81.9	82.6	82.8	74.6	41.2	73.6	75.8	37.9	6.2	19.4
10/20/23	50.6	40.8	72.6	73.6	73.6	74.3	68.3	37.9	67.2	70.1	39.5	2.6	16.9
11/16/23	20.9	28.9	61.4	66.3	57.3	70.4	69.3	24.0	52.6	56.4	NA	1.4	14.0
12/13/23	36.6	11.4	68.9	73.2	71.5	72.6	64.4	24.2	62.4	71.7	NA	16.9	10.2

SG-304	
Date	Meth.
01/10/23	0.0
01/27/23	0.0
02/10/23	0.0
02/23/23	0.1
03/09/23	0.1
03/23/23	0.0
04/05/23	0.0
05/18/23	0.3
06/19/23	0.5
07/11/23	0.0
08/10/23	0.0
09/14/23	0.0
10/20/23	0.0
11/16/23	0.0
12/13/23	0.0

SG-303	
Date	Meth.
01/10/23	0.0
01/27/23	0.0
02/10/23	0.0
02/23/23	0.2
03/09/23	0.1
03/23/23	0.1
04/05/23	0.0
05/18/23	0.3
06/19/23	0.4
07/11/23	0.0
08/10/23	0.0
09/14/23	0.0
10/20/23	0.0
11/16/23	0.0
12/13/23	0.0

SG-302	
Date	Meth.
01/10/23	0.0
01/27/23	0.0
02/10/23	0.0
02/23/23	0.2
03/09/23	0.0
03/23/23	0.1
04/05/23	0.0
05/18/23	0.3
06/19/23	0.5
07/11/23	0.0
08/10/23	0.0
09/14/23	0.1
10/20/23	0.0
11/16/23	0.1
12/13/23	0.0

VP-2	
Date	Meth.
01/10/23	2.4
01/27/23	3.0
02/10/23	3.8
02/23/23	4.7
03/09/23	2.6
03/23/23	3.3
04/05/23	2.2
05/18/23	5.4
06/19/23	4.8
07/11/23	4.9
08/10/23	6.4
09/14/23	6.0
10/20/23	5.3
11/16/23	3.7
12/13/23	1.7

VP-4	
Date	Meth.
01/10/23	4.4
01/27/23	2.3
02/10/23	2.5
02/23/23	3.3
03/09/23	2.8
03/23/23	3.1
04/05/23	0.8
05/18/23	6.1
06/19/23	5.6
07/11/23	3.7
08/10/23	4.7
09/14/23	3.9
10/20/23	3.7
11/16/23	2.9
12/13/23	4.2

VP-3	
Date	Meth.
01/10/23	0.0
01/27/23	0.0
02/10/23	0.0
02/23/23	0.2
03/09/23	0.0
03/23/23	0.0
04/05/23	0.0
05/18/23	0.3
06/19/23	0.5
07/11/23	0.0
08/10/23	0.0
09/14/23	0.0
10/20/23	0.0
11/16/23	0.0
12/13/23	0.0

Port of Seattle, Southwest Harbor Terminal 5
Seattle, Washington

Methane Results

AECOM

Figure
4

ATTACHMENT 2

Landfill Gas Monitoring Results Tables

Terminal 5 / RA-3 Landfill Gas Monitoring
Parameter: METHANE
(LMS-40 or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
12/13/23	**0.0**	**0.0**	**0.0**	**0.0**	**4.1**	**1.7**	**0.0**	**4.2**	**36.6**	**11.4**	**68.9**	**73.2**	**71.5**	**72.6**	**64.4**	**24.2**	**62.4**	**71.7**	**NA**	**16.9**	**10.2**
11/16/23	**0.1**	**0.0**	**0.0**	**0.0**	**4.4**	**3.7**	**0.0**	**2.9**	**20.9**	**28.9**	**61.4**	**66.3**	**57.3**	**70.4**	**69.3**	**24.0**	**52.6**	**56.4**	**NA**	**1.4**	**14.0**
10/20/23	**0.0**	**0.0**	**0.0**	**0.0**	**3.6**	**5.3**	**0.0**	**3.7**	**50.6**	**40.8**	**72.6**	**73.6**	**73.6**	**74.3**	**68.3**	**37.9**	**67.2**	**70.1**	**39.5**	**2.6**	**16.9**
09/14/23	**0.1**	**0.0**	**0.0**	**0.1**	**0.3**	**6.0**	**0.0**	**3.9**	**40.6**	**51.9**	**82.0**	**81.9**	**82.6**	**82.8**	**74.6**	**41.2**	**73.6**	**75.8**	**37.9**	**6.2**	**19.4**
08/10/23	**0.0**	**0.0**	**0.0**	**0.2**	**1.1**	**6.4**	**0.0**	**4.7**	**27.6**	**40.8**	**65.9**	**75.0**	**75.3**	**76.3**	**67.2**	**19.5**	**67.8**	**71.1**	**29.8**	**3.4**	**20.0**
07/11/23	**0.0**	**0.0**	**0.0**	**0.0**	**2.0**	**4.9**	**0.0**	**3.7**	**26.8**	**35.6**	**70.5**	**74.1**	**74.7**	**76.0**	**63.3**	**21.8**	**70.9**	**72.3**	**30.4**	**2.3**	**20.0**
06/19/23	**0.5**	**0.4**	**0.5**	**0.6**	**1.0**	**4.8**	**0.5**	**5.6**	**27.9**	**47.7**	**69.8**	**75.9**	**75.8**	**76.8**	**65.6**	**27.0**	**68.7**	**74.0**	**33.4**	**NA**	**NA**
05/18/23	**0.3**	**0.3**	**0.3**	**0.4**	**1.0**	**5.4**	**0.3**	**6.1**	**24.9**	**30.5**	**61.6**	**65.7**	**67.6**	**69.9**	**62.7**	**30.1**	**68.2**	**71.7**	**16.7**	**4.6**	**18.3**
04/05/23	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**2.2**	**0.0**	**0.8**	**36.0**	**43.5**	**69.5**	**72.8**	**71.3**	**72.2**	**61.4**	**22.9**	**69.3**	**73.0**	**33.4**	**0.2**	**14.4**
03/23/23	**0.1**	**0.1**	**0.0**	**0.1**	**0.1**	**3.3**	**0.0**	**3.1**	**35.0**	**35.9**	**71.7**	**74.6**	**72.4**	**72.9**	**62.9**	**24.9**	**64.6**	**74.6**	**34.7**	**0.6**	**17.6**
03/09/23	**0.0**	**0.1**	**0.1**	**0.2**	**0.0**	**2.6**	**0.0**	**2.8**	**22.5**	**36.4**	**69.1**	**72.8**	**70.3**	**70.8**	**61.4**	**34.5**	**71.0**	**73.6**	**35.3**	**13.9**	**15.5**
02/23/23	**0.2**	**0.2**	**0.1**	**0.2**	**0.2**	**4.7**	**0.2**	**3.3**	**15.3**	**2.0**	**58.9**	**49.2**	**47.6**	**63.6**	**64.1**	**18.7**	**57.7**	**72.7**	**31.4**	**1.1**	**17.5**
02/10/23	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**3.8**	**0.0**	**2.5**	**27.1**	**3.8**	**67.1**	**69.3**	**67.6**	**68.4**	**59.7**	**22.7**	**62.9**	**71.2**	**34.4**	**3.0**	**15.0**
01/27/23	**0.0**	**0.0**	**0.0**	**0.0**	**0.2**	**3.0**	**0.0**	**2.3**	**26.7**	**15.5**	**73.0**	**73.4**	**72.9**	**73.4**	**65.8**	**28.4**	**65.8**	**74.3**	**37.7**	**13.9**	**17.5**
01/10/23	**0.0**	**0.0**	**0.0**	**0.0**	**1.0**	**2.4**	**0.0**	**4.4**	**29.8**	**26.8**	**45.5**	**43.1**	**45.5**	**65.0**	**58.3**	**29.4**	**66.4**	**71.1**	**33.6**	**13.4**	**16.6**
12/28/22	0.0	0.0	0.0	0.0	0.8	0.8	0.0	--	30.1	9.7	58.4	64.9	57.6	58.0	43.4	25.2	51.1	54.1	--	14.4	16.8
12/14/22	0.0	0.0	0.0	0.0	0.0	2.1	0.0	2.2	0.4	18.7	49.6	53.4	70.8	63.2	59.2	16.2	60.9	63.4	30.5	0.7	9.8
11/17/22	0.0	0.0	0.0	0.0	0.0	0.3	0.0	2.2	1.1	15.6	50.3	51.0	68.9	61.7	54.6	15.3	64.3	65.5	32.1	2.2	15.2
10/19/22	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.7	10.4	48.2	48.2	68.3	60.8	53.2	17.1	64.3	62.6	30.8	0.9	17.3
10/06/22	0.0	0.0	0.0	0.0	0.0	2.1	0.0	2.1	0.8	20.2	8.3	54.6	70.6	56.7	60.1	18.2	63.8	65.5	30.7	0.8	19.3
09/22/22	0.0	0.0	0.0	0.0	0.0	2.3	0.0	2.1	0.7	18.7	50.4	55.1	72.4	60.1	58.9	16.5	63.4	63.5	32.1	0.8	17.8
09/08/22	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.3	0.8	15.3	51.6	54.1	70.3	62.3	59.2	17.3	60.6	65.4	32.1	3.1	16.4
08/11/02	0.0	0.0	0.0	0.0	0.0	0.9	0.2	3.1	0.9	15.4	51.3	52.9	69.8	58.9	56.7	16.3	61.2	60.8	32.6	2.0	19.4
07/28/22	0.0	0.0	0.0	0.0	0.0	0.7	0.0	3.0	0.8	16.4	49.7	55.8	69.3	59.7	57.8	15.0	59.7	62.3	33.0	1.8	22.3
07/13/22	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.8	0.7	20.6	48.4	54.8	70.2	60.2	55.1	15.2	60.8	65.6	31.2	1.6	18.9
06/22/22	0.0	0.0	0.0	0.0	0.0	--	--	2.7	0.6	21.3	47.6	55.3	71.5	63.4	56.3	16.2	63.8	64.8	31.5	0.7	16.4
06/10/22	0.0	0.0	0.0	0.0	0.0	--	--	2.3	0.6	17.3	50.4	56.4	71.4	65.4	56.4	16.9	63.8	65.4	30.8	0.9	15.4
05/27/22	0.0	0.0	0.0	0.0	0.0	--	--	2.4	0.5	16.8	46.3	57.8	70.9	66.2	57.8	18.1	65.4	65.5	33.2	2.6	17.8
05/12/22	0.0	0.0	0.0	0.0	0.0	--	--	2.5	0.8	14.8	47.8	51.6	70.6	63.4	57.6	17.3	64.4	64.3	32.4	2.5	20.9
04/29/22	0.0	0.0	0.0	0.0	0.0	--	--	2.6	0.7	15.4	51.3	50.8	71.5	65.6	58.9	15.4	67.3	66.2	32.5	0.8	18.7
04/06/22	0.0	0.0	0.0	0.0	0.0	--	--	2.7	0.8	15.7	51.4	51.2	72.3	63.5	56.7	15.8	66.5	65.4	32.2	0.7	17.6
03/18/22	0.0	0.0	0.0	0.0	0.0	--	--	2.5	0.6	16.3	49.7	54.6	69.8	59.8	59.6	15.8	64.3	63.7	32.4	0.8	15.0
03/03/22	0.0	0.0	0.0	0.0	0.0	--	--	2.6	0.6	17.4	48.3	54.3	68.9	58.9	58.6	14.3	60.5	63.8	31.8	0.6	20.9
02/18/22	0.0	0.0	0.0	0.0	0.0	--	--	2.3	0.7	15.6	46.7	55.7	70.3	62.5	60.1	17.3	61.2	60.9	30.9	3.1	21.6
02/03/22	0.0	0.0	0.0	0.0	0.0	--	--	2.5	0.3	20.1	50.2	55.8	70.2	63.2	57.8	18.2	59.8	65.2	33.2	0.6	22.0
01/21/22	0.0	0.0	0.0	0.0	0.0	--	--	2.7	0.4	17.3	51.4	55.3	70.5	60.1	57.6	16.4	59.7	64.8	32.8	0.5	15.8
01/06/22	0.0	0.0	0.0	0.0	0.0	--	--	2.8	0.7	17.2	49.8	55.4	71.6	63.7	59.8	16.2	60.3	63.7	33.1	2.5	16.4

Definitions and Notes:

* VP-2 is the only on-site soil gas probe within the limits of the landfill. VP-1, VP-3, and VP-4 are located beyond the landfill limits.

-- Data was not provided for this period. Monitoring was conducted by others, prior to AECOM.

Bold Values in bold were collected by AECOM (Jan 2023 to date).

Value Underlined value denotes a methane concentration in a on/off-site soil gas probe (not connected to landfill gas collection piping) that exceeded the methane LEL of 5%

NA Not accessible.

Green shading indicates monitoring point connected to landfill gas collection piping.

Blue shading indicates perimeter monitoring point, not connected to landfill gas collection piping.

Terminal 5 / RA-3 Landfill Gas Monitoring
Parameter: OXYGEN
(LMS-40 or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
12/13/23	**12.6**	**16.5**	**13.0**	**13.8**	**0.0**	**0.0**	**10.7**	**0.0**	**0.2**	**15.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**NA**	**0.0**	**0.3**
11/16/23	**13.1**	**16.1**	**13.5**	**17.4**	**0.1**	**0.0**	**12.4**	**0.0**	**0.5**	**1.3**	**1.3**	**0.0**	**0.0**	**0.0**	**0.2**	**0.1**	**0.0**	**0.0**	**NA**	**0.3**	**0.6**
10/20/23	**15.4**	**15.3**	**15.6**	**16.6**	**0.0**	**0.0**	**13.7**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**
09/14/23	**18.0**	**16.5**	**19.0**	**17.6**	**0.0**	**0.0**	**16.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
08/10/23	**17.4**	**16.6**	**19.7**	**17.7**	**0.1**	**0.1**	**16.4**	**0.2**	**0.1**	**0.0**	**0.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.2**	**0.0**	**0.0**	**0.8**	**0.3**	**0.2**
07/11/23	**18.4**	**16.2**	**18.1**	**18.0**	**0.0**	**0.0**	**15.3**	**0.0**	**0.0**	**1.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
06/19/23	**18.1**	**16.8**	**16.9**	**17.5**	**0.5**	**0.2**	**14.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.5**	**NA**	**NA**
05/18/23	**18.0**	**17.2**	**16.3**	**18.4**	**0.1**	**0.1**	**13.3**	**0.2**	**0.0**	**1.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**10.0**	**0.1**	**0.0**
04/05/23	**16.5**	**18.6**	**15.9**	**16.4**	**3.1**	**0.1**	**13.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**2.2**	**0.4**
03/23/23	**14.9**	**18.2**	**17.2**	**16.7**	**1.6**	**0.0**	**11.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.5**	**0.0**	**0.0**	**0.0**	**1.4**	**0.0**
03/09/23	**16.5**	**17.9**	**15.4**	**14.5**	**3.0**	**0.2**	**11.5**	**0.1**	**8.3**	**0.0**	**1.9**	**0.0**	**0.6**	**1.8**	**0.0**	**0.2**	**0.2**	**0.0**	**2.8**	**0.3**	**0.7**
02/23/23	**17.3**	**18.1**	**15.6**	**16.1**	**2.6**	**0.0**	**11.6**	**0.0**	**2.0**	**18.6**	**0.4**	**0.0**	**0.0**	**0.0**	**0.1**	**1.1**	**0.0**	**0.0**	**0.0**	**0.8**	**0.2**
02/10/23	**15.2**	**17.7**	**16.8**	**15.8**	**1.9**	**1.3**	**12.0**	**0.2**	**0.4**	**13.6**	**0.0**	**0.1**	**0.0**	**0.0**	**0.1**	**0.2**	**0.1**	**0.1**	**0.2**	**0.4**	**0.3**
01/27/23	**14.7**	**17.8**	**17.1**	**15.6**	**0.0**	**0.0**	**11.5**	**0.1**	**0.3**	**7.9**	**0.2**	**0.0**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.3**	**0.0**
01/10/23	**15.8**	**17.6**	**16.9**	**15.4**	**0.4**	**0.3**	**10.9**	**0.2**	**0.0**	**4.1**	**1.3**	**2.3**	**2.8**	**0.1**	**0.7**	**0.0**	**0.1**	**0.0**	**0.0**	**0.1**	**1.1**
12/28/22	17.5	18.0	21.5	16.2	8.1	3.6	0.1	N/A	0.9	10.3	0.2	0.3	0.3	0.2	4.2	1.0	0.1	1.8	N/A	8.6	0.6
12/14/22	19.4	17.6	21.0	20.1	5.6	0.3	8.1	0.1	20.1	6.1	0.2	0.3	0.4	0.3	0.5	0.2	0.3	0.1	0.6	0.5	0.2
11/17/22	17.8	15.6	18.4	19.5	5.3	0.3	6.5	0.2	19.8	4.9	0.3	0.5	0.2	0.2	0.5	0.6	0.1	0.4	0.7	0.4	0.2
10/19/22	17.0	14.7	18.6	18.4	7.8	0.4	10.8	0.2	19.4	5.4	0.2	0.4	0.2	0.3	0.2	0.7	0.2	0.2	0.8	0.5	0.3
10/06/22	19.0	18.4	18.3	18.7	5.6	0.3	6.9	0.1	19.8	5.6	0.3	0.6	0.2	0.2	0.2	0.6	0.1	0.3	0.7	0.2	0.2
09/22/22	18.6	18.3	18.7	19.6	5.4	0.2	7.5	0.1	20.2	5.7	0.2	0.4	0.3	0.2	0.5	0.5	0.2	0.3	0.8	0.5	0.3
09/08/22	18.3	15.8	18.0	19.3	6.5	0.3	12.5	0.1	20.1	5.7	0.4	0.3	0.4	0.2	0.3	0.7	0.3	0.2	0.8	0.4	0.4
08/26/22	18.4	18.1	17.5	20.1	5.8	0.1	7.3	0.2	20.0	6.3	0.5	0.4	0.5	0.3	0.4	0.6	0.3	0.2	0.7	0.2	0.5
08/11/02	15.0	17.3	18.1	19.7	4.7	0.2	6.3	0.2	19.7	6.7	0.3	0.3	1.3	0.2	0.3	0.5	0.2	0.1	0.8	0.3	0.1
07/28/22	16.8	16.9	16.3	19.4	7.3	0.2	11.2	0.1	19.3	7.8	0.3	0.4	0.7	0.5	0.6	0.4	0.2	0.1	0.4	0.3	0.2
07/13/22	17.3	16.8	17.5	20.3	7.5	0.5	5.9	0.1	20.4	10.2	0.2	0.8	0.6	0.2	0.5	0.3	0.0	0.1	0.5	0.1	0.3
06/22/22	17.4	14.5	17.8	18.5	6.4	--	--	0.2	20.0	5.9	0.4	0.5	0.5	0.2	0.3	0.3	0.5	0.2	0.9	0.2	0.3
06/10/22	18.9	20.8	21.0	18.6	6.8	--	--	0.1	20.2	6.3	0.5	0.5	0.4	0.3	0.3	0.2	0.4	0.1	0.7	0.1	0.3
05/27/22	16.2	15.4	18.5	20.1	7.0	--	--	0.3	20.1	6.0	0.2	0.3	0.2	0.3	0.3	0.1	0.5	0.3	0.8	0.2	0.2
05/12/22	16.8	19.1	18.3	20.0	7.9	--	--	0.1	18.9	5.7	0.2	0.2	0.3	0.3	0.2	0.1	0.2	0.3	0.5	0.4	0.2
04/29/22	17.4	18.3	15.9	19.0	7.4	--	--	0.1	18.7	5.8	0.2	0.4	0.5	0.4	0.2	0.2	0.3	0.2	0.6	0.3	0.2
04/06/22	17.3	16.6	16.8	19.5	7.5	--	--	0.1	18.4	6.2	0.2	0.2	0.4	0.3	0.3	0.5	0.3	0.1	0.6	0.1	0.5
03/18/22	17.6	15.7	16.7	18.8	7.6	--	--	0.1	19.0	6.5	0.3	0.1	0.5	0.7	0.4	0.4	0.4	0.0	0.9	0.1	0.3
03/03/22	18.5	17.5	17.4	18.3	6.9	--	--	0.2	20.4	8.4	0.6	0.2	0.7	0.3	0.0	0.2	0.5	0.2	0.8	0.2	0.2
02/18/22	18.1	15.5	17.6	18.2	6.9	--	--	0.2	20.3	8.7	0.5	0.3	0.6	0.2	0.3	0.3	0.2	0.2	0.7	--	--
02/03/22	16.5	14.7	18.7	20.1	6.8	--	--	0.2	18.8	8.8	0.3	0.2	1.4	0.2	0.2	0.4	0.3	0.3	0.7	--	--
01/21/22	17.0	17.6	17.8	18.3	5.4	--	--	0.1	20.7	8.3	0.3	0.1	1.3	0.1	0.2	0.3	0.4	0.2	0.9	--	--
01/06/22	18.2	18.1	18.3	17.9	5.5	--	--	0.1	18.8	8.5	0.4	0.4	1.1	0.2	0.0	0.2	0.4	0.4	0.7	--	--

Definitions and Notes:

* VP-2 is the only on-site soil gas probe within the limits of the landfill. VP-1, VP-3, and VP-4 are located beyond the landfill limits.

-- Data was not provided for this period. Monitoring was conducted by others, prior to AECOM.

Bold Values in bold were collected by AECOM (Jan 2023 to date).

NA Not accessible.

Green shading indicates monitoring point connected to landfill gas collection piping.

Blue shading indicates perimeter monitoring point, not connected to landfill gas collection piping.

Terminal 5 / RA-3 Landfill Gas Monitoring
Parameter: PRESSURE
(Gauge - inches of water.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
12/13/23	**0.00**	**0.00**	**0.21**	**0.00**	**(0.01)**	**0.01**	**0.00**	**0.01**	**0.01**	**0.03**	**0.02**	**0.03**	**0.00**	**0.08**	**0.07**	**(0.16)**	**0.09**	**0.23**	**(2.80)**	**0.09**	**0.00**
11/16/23	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**(0.01)**	**(0.01)**	**0.02**	**0.01**	**0.06**	**0.06**	**(1.98)**	**0.02**	**0.03**	**NA**	**(0.06)**	**(0.04)**
10/20/23	**(0.17)**	**(1.60)**	**0.00**	**0.00**	**0.01**	**0.02**	**0.01**	**0.01**	**0.02**	**0.02**	**0.04**	**0.09**	**0.07**	**0.07**	**0.06**	**0.04**	**0.11**	**0.15**	**0.06**	**0.04**	**0.00**
09/14/23	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.03**	**0.00**	**0.02**	**0.03**	**0.00**	**0.05**	**0.07**	**0.05**	**0.06**	**0.07**	**0.03**	**0.11**	**0.00**	**0.01**	**0.08**	**0.00**
08/10/23	**0.01**	**0.00**	**0.00**	**0.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**(0.01)**	**0.03**	**0.03**	**0.00**	**0.06**	**0.18**	**0.00**	**0.00**	**0.00**
07/11/23	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.03**	**0.03**	**0.02**	**0.05**	**0.03**	**0.06**	**0.03**	**0.01**	**0.07**	**0.05**	**0.09**	**0.09**	**0.00**
06/19/23	**0.00**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**	**0.01**	**0.00**	**0.01**	**0.02**	**0.00**	**0.01**	**0.02**	**0.02**	**0.03**	**0.01**	**0.08**	**0.30**	**0.00**	**NA**	**NA**
05/18/23	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.01**	**0.01**	**0.01**	**(0.02)**	**(0.01)**	**0.00**	**(0.01)**	**0.05**	**0.06**	**0.00**	**0.52**	**0.00**
04/05/23	**0.01**	**0.00**	**0.00**	**0.01**	**0.00**	**(0.02)**	**0.00**	**0.01**	**0.01**	**0.03**	**0.03**	**0.04**	**0.03**	**0.05**	**0.00**	**0.03**	**0.09**	**0.10**	**0.00**	**(0.04)**	**0.01**
03/23/23	**0.00**	**(0.01)**	**0.00**	**0.00**	**0.01**	**(0.22)**	**0.07**	**0.01**	**0.02**	**0.04**	**0.04**	**0.08**	**0.08**	**0.08**	**0.05**	**0.01**	**0.07**	**0.08**	**0.00**	**0.00**	**0.03**
03/09/23	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.01**	**0.01**	**0.00**	**0.00**	**0.02**	**0.02**	**0.05**	**0.03**	**0.07**	**0.06**	**0.06**	**0.15**	**0.07**	**0.36**	**0.17**	**0.00**
02/23/23	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**(0.01)**	**0.00**	**0.00**	**0.03**	**0.00**	**0.03**	**(0.02)**	**0.01**	**(0.03)**	**0.01**	**(0.03)**	**0.04**	**0.04**	**0.00**	**(0.04)**	**0.00**
02/10/23	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.02**	**0.03**	**0.04**	**0.08**	**0.02**	**0.06**	**0.05**	**(0.03)**	**0.05**	**0.07**	**0.01**	**0.18**	**0.02**
01/27/23	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
01/10/23	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
12/28/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	0.00	0.00
12/14/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/19/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/06/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09/22/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09/08/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08/26/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08/11/02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07/28/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07/13/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06/22/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06/10/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05/27/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05/12/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04/29/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04/06/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03/18/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03/03/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02/18/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--
02/03/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--
01/21/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--
01/06/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--

Definitions and Notes:

* VP-2 is the only on-site soil gas probe within the limits of the landfill. VP-1, VP-3, and VP-4 are located beyond the landfill limits.

-- Data was not provided for this period. Monitoring was conducted by others, prior to AECOM.

Bold Values in bold were collected by AECOM (Jan 2023 to date).

(Value) Values in parentheses represent a negative pressure relative to atmospheric pressure.

NA Not accessible.

Green shading indicates monitoring point connected to landfill gas collection piping.

Blue shading indicates perimeter monitoring point, not connected to landfill gas collection piping.

Terminal 5 / RA-3 Landfill Gas Monitoring
Parameter: CARBON DIOXIDE
(LMS-40 or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
12/13/23	**2.7**	**3,6**	**1.6**	**2.4**	**9.3**	**3.8**	**0.0**	**2.6**	**5.1**	**3.4**	**3.4**	**0.3**	**3.7**	**4.1**	**1.5**	**9.6**	**5.6**	**4.6**	**NA**	**7.5**	**5.3**
11/16/23	**5.0**	**4.2**	**4.7**	**2.1**	**9.9**	**4.5**	**0.1**	**3.0**	**7.4**	**7.8**	**3.6**	**3.9**	**3.6**	**4.8**	**4.3**	**11.9**	**6.8**	**7.0**	**NA**	**9.5**	**5.5**
10/20/23	**4.0**	**4.3**	**3.7**	**2.3**	**11.2**	**5.9**	**0.0**	**3.0**	**3.0**	**17.3**	**4.1**	**0.1**	**4.8**	**5.1**	**2.3**	**10.1**	**4.5**	**3.8**	**9.1**	**10.7**	**6.0**
09/14/23	**2.6**	**3.8**	**1.8**	**1.9**	**13.9**	**6.6**	**0.0**	**3.3**	**4.9**	**19.6**	**3.0**	**0.1**	**3.7**	**3.7**	**2.2**	**3.5**	**3.9**	**3.4**	**10.5**	**14.2**	**5.8**
08/10/23	**2.8**	**3.8**	**0.8**	**2.0**	**13.9**	**6.1**	**0.0**	**3.3**	**7.7**	**18.8**	**3.5**	**3.7**	**4.2**	**4.4**	**2.8**	**14.9**	**4.5**	**4.0**	**11.3**	**13.3**	**5.5**
07/11/23	**2.2**	**3.3**	**1.3**	**1.8**	**13.3**	**4.9**	**0.0**	**2.2**	**6.8**	**16.1**	**3.6**	**0.1**	**4.3**	**4.4**	**2.4**	**13.6**	**4.5**	**4.2**	**10.8**	**11.7**	**5.1**
06/19/23	**2.4**	**3.1**	**3.0**	**1.9**	**12.4**	**4.3**	**0.0**	**3.5**	**6.5**	**17.4**	**3.3**	**1.2**	**3.6**	**4.0**	**1.2**	**12.7**	**4.7**	**4.2**	**10.5**	**NA**	**NA**
05/18/23	**2.0**	**2.6**	**2.9**	**1.7**	**12.0**	**2.7**	**0.0**	**2.6**	**6.3**	**4.8**	**3.7**	**1.1**	**4.1**	**4.7**	**3.1**	**9.5**	**4.7**	**4.6**	**4.8**	**9.3**	**4.7**
04/05/23	**2.6**	**0.2**	**2.4**	**2.0**	**8.8**	**2.7**	**0.0**	**3.5**	**2.6**	**16.4**	**3.0**	**0.1**	**3.4**	**3.6**	**1.0**	**8.9**	**4.8**	**4.3**	**8.4**	**8.7**	**5.0**
03/23/23	**2.3**	**2.4**	**2.2**	**1.9**	**9.1**	**2.7**	**0.1**	**3.1**	**3.4**	**14.9**	**3.2**	**0.1**	**4.1**	**4.3**	**1.3**	**6.8**	**5.1**	**4.5**	**7.7**	**7.7**	**4.8**
03/09/23	**2.6**	**2.6**	**2.2**	**2.2**	**8.6**	**2.5**	**0.0**	**3.5**	**4.2**	**15.2**	**3.8**	**0.2**	**3.8**	**4.2**	**1.1**	**6.9**	**4.8**	**4.0**	**8.4**	**8.0**	**4.9**
02/23/23	**2.3**	**2.7**	**2.2**	**2.2**	**8.2**	**2.4**	**0.0**	**3.2**	**6.6**	**1.7**	**3.9**	**3.2**	**3.0**	**4.1**	**3.7**	**8.1**	**7.1**	**5.9**	**9.0**	**7.6**	**5.0**
02/10/23	**1.8**	**2.6**	**2.1**	**1.9**	**8.2**	**2.1**	**0.0**	**2.8**	**4.1**	**3.1**	**3.6**	**0.1**	**4.3**	**4.4**	**1.4**	**8.8**	**5.4**	**4.7**	**8.2**	**7.4**	**4.7**
01/27/23	**1.5**	**2.6**	**2.1**	**2.1**	**8.6**	**2.6**	**0.0**	**2.5**	**5.0**	**5.2**	**3.6**	**0.2**	**4.4**	**4.3**	**1.5**	**8.5**	**5.4**	**4.7**	**8.6**	**7.9**	**4.5**
01/10/23	**1.2**	**3.4**	**2.3**	**1.8**	**8.3**	**3.3**	**0.0**	**2.5**	**5.6**	**4.6**	**4.3**	**3.8**	**3.6**	**3.7**	**3.4**	**9.0**	**5.9**	**4.8**	**8.2**	**7.5**	**4.5**
12/28/22	0.6	3.1	0.4	2.1	8.1	3.6	0.1	N/A	5.9	3.6	4.6	1.5	4.9	5.4	2.1	8.6	7.5	6.0	N/A	4.3	4.9
12/14/22	2.3	2.0	2.9	2.6	3.2	3.0	0.0	3.2	0.1	3.8	4.2	2.1	2.3	3.2	1.2	10.2	6.5	4.0	3.2	9.9	7.4
11/17/22	1.8	1.9	3.4	2.2	3.1	2.6	0.0	2.8	0.2	4.5	4.3	2.3	4.4	3.6	0.8	6.3	6.3	5.3	7.9	10.4	7.2
10/19/22	2.2	1.6	3.3	2.1	3.3	2.1	0.0	2.4	0.0	4.0	5.1	2.4	4.3	3.5	0.9	5.8	10.4	4.2	0.0	10.1	4.8
10/06/22	2.4	2.1	3.3	2.8	3.2	2.1	0.0	2.8	0.0	4.2	4.7	2.3	4.0	4.6	1.1	6.4	6.3	4.5	3.7	9.9	5.5
09/22/22	2.2	2.0	3.8	2.1	3.1	3.0	0.0	3.7	0.0	4.0	4.4	2.4	2.6	3.3	0.8	5.9	4.5	3.8	0.0	9.8	4.8
09/08/22	2.1	2.0	2.4	3.2	3.0	2.4	0.0	3.2	0.1	3.6	4.1	2.3	3.2	3.5	0.8	6.3	3.6	4.2	7.0	8.9	5.0
08/26/22	2.0	1.5	3.4	2.9	4.5	0.8	0.0	3.4	0.2	4.0	4.1	2.1	4.4	5.9	2.6	0.0	3.7	6.0	0.0	9.9	6.0
08/11/02	2.0	2.9	3.5	2.7	4.3	4.2	0.0	2.4	0.2	4.6	4.5	1.9	3.4	3.4	0.8	6.0	8.9	4.8	8.1	8.9	5.7
07/28/22	1.7	2.3	3.5	2.4	3.6	2.8	0.0	3.8	0.4	4.3	5.1	2.1	3.4	3.4	0.8	6.0	10.8	4.5	4.6	6.0	5.4
07/13/22	1.6	2.0	3.6	2.5	3.2	3.1	0.0	3.9	0.0	3.9	4.1	1.8	4.7	4.9	1.2	11.3	4.2	5.8	9.1	5.8	6.7
06/22/22	1.7	0.6	2.0	2.7	4.2	--	--	2.7	2.6	2.3	4.8	4.5	4.7	5.7	1.3	6.4	3.6	8.3	9.3	9.3	5.3
06/10/22	1.3	2.1	3.8	2.8	3.1	--	--	2.6	3.5	4.3	3.8	4.2	3.3	3.6	0.9	3.8	3.8	8.4	8.7	7.0	5.8
05/27/22	1.1	3.4	2.1	2.9	2.8	--	--	3.2	4.0	3.7	7.7	9.3	2.6	3.8	3.5	6.5	4.8	7.9	7.8	8.5	6.0
05/12/22	0.6	3.0	1.8	2.4	2.7	--	--	3.3	3.9	3.8	4.2	4.7	2.3	4.0	6.4	6.3	6.3	7.3	9.2	8.6	6.3
04/29/22	2.0	3.8	0.8	2.5	2.1	--	--	2.5	3.8	4.1	4.0	4.4	2.1	4.3	5.4	0.5	5.1	4.7	11.0	10.0	7.2
04/06/22	2.4	4.0	2.1	2.6	2.8	--	--	3.0	3.0	0.1	3.6	4.1	2.5	4.2	5.7	8.9	5.2	8.9	9.8	11.0	5.5
03/18/22	2.2	4.1	2.4	3.2	1.7	--	--	2.8	3.5	0.2	4.0	4.1	2.6	4.1	6.1	6.7	3.8	8.6	9.7	12.0	5.4
03/03/22	2.1	0.3	3.4	0.4	1.6	--	--	2.7	4.0	0.2	4.6	4.5	2.2	3.6	2.3	12.3	4.5	9.3	10.3	--	--
02/18/22	0.1	3.2	3.5	2.5	1.5	--	--	2.1	3.4	4.4	3.9	4.1	2.2	3.2	4.3	11.2	7.6	9.6	8.4	--	--
02/03/22	1.4	3.4	3.6	2.4	0.0	--	--	2.2	0.0	2.6	2.3	4.8	2.1	3.8	5.8	7.9	4.2	10.2	8.3	--	--
01/21/22	1.7	3.0	2.0	2.5	2.8	--	--	2.8	4.5	0.7	5.5	6.1	2.5	3.6	4.5	7.8	4.3	11.3	4.5	--	--
01/06/22	1.3	3.8	1.9	2.5	2.4	--	--	27.0	3.2	5.4	3.6	3.9	2.7	3.4	6.0	10.8	3.9	8.2	10.2	--	--

Definitions and Notes:

* VP-2 is the only on-site soil gas probe within the limits of the landfill. VP-1, VP-3, and VP-4 are located beyond the landfill limits.
-- Data was not provided for this period. Monitoring was conducted by others, prior to AECOM.
Bold Values in bold were collected by AECOM (Jan 2023 to date).
NA Not accessible.
Green shading indicates monitoring point connected to landfill gas collection piping.
Blue shading indicates perimeter monitoring point, not connected to landfill gas collection piping.

Terminal 5 / RA-3 Landfill Gas Monitoring
Parameter: TEMPERATURE
(IR thermometer, degrees Fahrenheit)

Date	Landfill Gas Collection System Monitoring Points												
	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
12/13/23	**49.0**	**51.6**	**47.4**	**53.6**	**48.9**	**51.8**	**51.4**	**57.0**	**47.4**	**49.6**	**48.3**	**50.0**	**49.6**
11/16/23	**51.8**	**54.3**	**52.3**	**54.7**	**49.1**	**52.9**	**51.0**	**NA**	**50.0**	**51.1**	**NA**	**47.4**	**47.8**
10/20/23	**63.4**	**67.2**	**67.8**	**67.4**	**65.4**	**66.7**	**64.5**	**65.6**	**65.6**	**64.9**	**64.1**	**61.2**	**62.1**
09/14/23	**82.7**	**87.8**	**78.2**	**73.2**	**71.2**	**79.1**	**73.7**	**81.3**	**79.1**	**74.8**	**78.0**	**68.3**	**69.8**
08/10/23	**80.2**	**87.2**	**81.8**	**73.7**	**79.5**	**73.9**	**72.5**	**66.0**	**82.7**	**84.2**	**83.1**	**74.1**	**75.2**
07/11/23	**72.5**	**82.4**	**77.7**	**69.8**	**69.0**	**66.3**	**68.3**	**68.9**	**78.4**	**76.2**	**78.2**	**67.1**	**71.0**
06/19/23	**66.2**	**75.2**	**71.7**	**65.1**	**62.7**	**63.5**	**64.4**	**61.3**	**73.1**	**70.5**	**76.8**	**NA**	**NA**
05/18/23	**73.4**	**78.9**	**70.3**	**67.4**	**64.7**	**72.6**	**64.7**	**63.1**	**79.8**	**78.9**	**73.7**	**66.7**	**67.8**
04/05/23	**49.6**	**53.4**	**51.8**	**54.8**	**50.4**	**52.7**	**50.6**	**53.4**	**55.4**	**56.1**	**53.0**	**48.9**	**49.6**
03/23/23	**52.6**	**56.3**	**54.8**	**54.6**	**52.8**	**52.8**	**53.4**	**53.6**	**57.3**	**56.3**	**58.1**	**50.3**	**51.4**
03/09/23	**46.2**	**48.9**	**48.0**	**50.1**	**48.9**	**48.9**	**47.8**	**52.8**	**46.2**	**47.8**	**48.9**	**44.4**	**44.9**
02/23/23	**44.9**	**48.7**	**45.9**	**50.2**	**44.4**	**47.1**	**44.7**	**50.2**	**48.6**	**48.6**	**45.9**	**43.8**	**44.7**
02/10/23	**53.6**	**52.9**	**52.4**	**53.6**	**56.4**	**51.5**	**52.9**	**53.8**	**58.8**	**54.8**	**54.1**	**52.1**	**51.6**
01/27/23	**50.8**	**52.1**	**51.3**	**53.4**	**53.2**	**52.7**	**52.5**	**54.0**	**54.5**	**53.9**	**58.1**	**52.1**	**53.2**
01/10/23	**48.7**	**49.1**	**50.3**	**52.8**	**50.9**	**51.0**	**50.8**	**54.3**	**50.1**	**52.6**	**50.6**	**50.2**	**46.7**
12/28/22	52.1	55.6	52.9	54.9	54.5	52.9	53.5	--	50.4	50.8	49.6	48.3	49.4
12/14/22	65.6	54.2	63.4	61.0	60.2	59.1	62.5	63.6	69.3	67.8	68.3	69.1	69.0
11/17/22	68.3	56.4	63.2	62.4	60.3	60.2	63.5	64.1	63.7	68.1	69.8	70.0	68.9
10/19/22	69.7	70.0	68.0	68.4	63.8	67.9	66.8	68.1	68.9	73.8	72.3	68.7	69.7
10/06/22	64.3	68.5	67.5	63.4	67.0	64.2	71.4	74.3	75.4	70.2	72.0	73.0	72.9
09/22/22	66.7	66.7	67.2	62.1	66.5	65.2	72.0	72.5	71.6	70.0	73.4	73.0	76.5
09/08/22	65.4	65.1	65.0	63.7	65.4	63.0	72.4	73.0	70.6	69.1	73.6	73.2	74.6
08/26/22	65.0	63.0	65.0	62.0	66.0	63.0	79.0	74.0	73.0	68.0	72.0	73.0	75.3
08/11/02	72.0	69.0	68.0	64.0	61.0	65.0	75.3	75.6	69.8	78.2	71.6	65.0	68.0
07/28/22	71.0	73.0	73.0	70.0	73.0	69.0	73.7	72.3	66.0	66.0	65.6	70.5	71.0
07/13/22	74.1	73.0	71.8	78.8	79.8	78.0	79.1	77.4	79.2	78.2	78.1	70.3	70.0
06/22/22	73.0	76.0	78.8	79.0	86.0	78.0	75.5	73.4	78.2	73.0	75.3	73.4	74.0
06/10/22	81.3	85.3	65.6	64.9	66.2	60.9	70.0	77.0	76.0	65.0	68.0	52.8	48.7
05/27/22	73.7	72.3	62.6	60.7	73.9	67.0	66.2	71.3	71.8	70.5	71.0	51.3	50.7
05/12/22	70.3	68.7	66.0	65.6	64.9	52.0	53.0	51.0	52.0	56.0	56.0	44.3	48.0
04/29/22	69.0	69.0	63.1	62.6	60.7	58.0	59.0	59.0	60.0	59.0	60.0	48.2	51.4
04/06/22	59.0	61.0	58.0	58.0	51.0	55.0	56.0	51.0	58.0	51.0	58.0	54.1	50.7
03/18/22	58.0	53.0	53.0	53.0	54.0	55.0	55.0	52.0	59.0	54.0	51.0	50.0	51.0
03/03/22	58.0	54.0	54.0	55.0	51.0	51.0	50.0	52.0	53.0	53.0	53.0	51.0	58.0
02/18/22	48.0	50.0	50.0	50.0	49.0	46.0	54.0	49.0	51.0	49.0	48.0	54.0	54.0
02/03/22	54.0	57.0	52.0	50.0	47.0	48.0	61.0	53.0	63.0	60.0	60.0	51.0	55.0
01/21/22	61.0	51.0	56.0	58.0	53.0	58.0	48.0	51.0	58.0	61.0	60.0	49.0	49.0
01/06/22	--	--	--	--	--	--	--	--	--	--	--	47.0	48.0

Definitions and Notes:

-- Data was not provided for this period. Monitoring was conducted by others, prior to AECOM.
Bold Values in bold were collected by AECOM (Jan 2023 to date).
NA Not accessible.
Green shading indicates monitoring point connected to landfill gas collection piping.

ATTACHMENT 3

Landfill Gas Emission and Monitoring Optimization Recommendations Memo

AECOM
1111 Third Avenue
Suite 1600
Seattle, WA 98101
aecom.com

Project name:
Terminal 5, CEM Landfill Site, RA-3

Project ref:
60693871

From:
Scott Larsen and Cary Brown
AECOM Technical Services, Inc.

Date:

January 5, 2024

To:
Brick Spangler
Senior Environmental Program Manager
Port of Seattle
2711 Alaskan Way
Seattle, WA 98121

CC:
Jalyn Buckley, Port of Seattle
Jamalyn Green, AECOM
Paul Kalina, AECOM

Memo

Subject: Landfill Gas Emission and Monitoring Optimization Recommendations

This memorandum summarizes the review of, and proposed modifications to, ongoing landfill gas monitoring and the gas extraction and control system at the Port of Seattle (Port) Terminal 5 (T-5) CEM Landfill Site (Site) in Seattle, Washington (Figure 1). Descriptions of the landfill history and current Site status presented in this memo are based upon details provided by the Port, field observations, and the ongoing monitoring of landfill gas from locations throughout the landfill (Figure 2). Based upon these reviews, recommendations are provided to enhance landfill gas extraction and the ongoing monitoring program.

History and Background

The Site is an approximate 9-acre property located within the boundary of the former West Seattle Landfill and the Port T-5 facility on the west shore of the West Duwamish Waterway. The former West Seattle Landfill operated from 1939 to 1966, accepting both municipal and industrial wastes. Following the landfill's closure in 1966, Seattle Steel Incorporated acquired the property and covered the area with steel slag, construction debris, steel mill debris, and a non-engineered soil cover. The former West Seattle Landfill property was later acquired by the Port in the 1990s to facilitate expansion of T-5.

Landfill refuse reportedly varies in composition across the Site and contains high percentages of solid organic matter. The consolidated landfill varies in thickness from 20 to 40 feet, adjacent to a wall (Figure 3) that was placed in the 1990s, during the completion of remedial actions and construction activities related to the T-5 expansion (Hart Crowser, 1995 and Woodward Clyde 1995a). The consolidated landfill was constructed by consolidating refuse and installing a geomembrane cover system. The consolidated landfill is assumed to be in the later stages of gas development with landfill gas production primarily composed of methane.

The Port entered into a Consent Decree (Ecology, 1995) with the Washington State Department of Ecology (Ecology) to address environmental issues and conduct cleanup activities at the landfill. Remedial actions were conducted at the Site in compliance with the Consent Decree and included the excavation and consolidation of a portion of the eastern side of the former landfill onto the western portion of the Site and installing the geomembrane cover over much of the Site (i.e., both the consolidated fill and excavated portions of the landfill were covered) (Figure 3). A surface water drainage system consisting of perforated drain piping and stormwater conveyance lines was installed above the membrane to control stormwater runoff (Woodward-Clyde Consultants, 1995b). A network of landfill gas extraction piping was also installed beneath the membrane to collect and route landfill gas to a central landfill gas extraction and treatment system. The system was shutdown in December 2016, but most of the equipment remains in place. The landfill gas extraction system used vacuum

blowers to actively recover landfill gas, which flowed through a moisture separator drum to remove water vapor and the landfill gas was treated using activated carbon to remove non-methane volatile organic compounds (VOCs), prior to discharge to atmosphere.

Landfill Gas Extraction System

Landfill Gas Extraction System Description

Landfill gas extraction system designs and construction details are provided in historical documents, including as-built drawings (Woodward Clyde, 1995b). While many of the as-built drawings were evaluated as part of this optimization review, several referenced drawings that may provide additional details related to system design and construction could not be located. These unavailable drawings include those related to landfill gas valving and piping details (Drawing No: 5-9507-PAV-C55), methane pipe details for the former Heckett Yard (Sheets GDR-C55 thru GDR-C61), and methane pipe details for the railyard (UTL-C4 thru UTL-C5). Based upon the review of available materials, the landfill gas extraction system consists of three underground horizontal piping networks that collect landfill gas from the subsurface and vent through discharge piping at a central system compound. The underground piping network consist of perforated high-density polyethylene (HDPE) pipe to collect landfill gas and solid HDPE pipe to convey gas to the system compound through the following three piping networks:

- R-1 - Collects landfill gas from the northern and western portions of the consolidated landfill through a perforated collection pipe installed in a perimeter collection trench, which is connected through a series of branched conveyance pipes installed beneath the low-permeable geomembrane cover. Monitoring locations for this network include in-line sampling ports SP-2, SP-8, and SP-11 (Figure 2).
- R-2 - Collects landfill gas from the interior and northern portions of the consolidated landfill. Monitoring locations for this network include in-line sampling ports SP-3, SP-4, SP-5, SP-6, SP-7, SP-8, SP-9, SP-10, and SP-11 (Figure 2), which are connected to the perforated collection pipes. The R-2 piping network connects to the R-1 perimeter collection trench in two places (at/near SP-8 and SP-11).
- R-3 - Collects landfill gas from the subsurface in the railyard east of the consolidated landfill and from the former Heckett Yard to the south. Monitoring locations for this piping network include in-line sampling port SP-1 and sampling probes SP-12 and SP-13 in the railyard (Figure 2).

As-built drawings indicate that the R-1 and R-2 piping networks are connected to one another at two points, which can be effectively joined by opening or closing control valves in the piping network. These two control valves are located directly adjacent to sample ports SP-8 and SP-11 in shared vaults (Figure 2).

The three subsurface piping networks (R-1, R-2, and R-3) daylight at the southeast corner of the consolidated landfill with riser pipes located within a fenced system compound (Figure 2). Sample ports SP-1, SP-2, and SP-3 are located inside vaults directly upstream of where the three discharge piping networks (R-3, R-1, and R-2, respectively) daylight. The individual riser pipes are manifolded to the landfill gas extraction and treatment system equipment that includes a moisture separator drum, two parallel vacuum blowers, two vapor-phase granular activated carbon vessels, associate valving, instrumentation, and a single discharge exhaust stack. The powered system was shut down in December 2016 to transition from active gas extraction to passive venting. Transitioning to passive venting was conducted by shutting off the blowers and replumbing the manifold discharge piping to bypass the blowers and passively vent out the single discharge exhaust stack.

Landfill Gas Extraction System Evaluation

The efficiency of passive venting of landfill gas is maximized when unrestricted flow conditions exist through collection, conveyance, and discharge piping networks. A review of the landfill gas extraction system's current configuration identified inefficiencies that limit passive flow of landfill gas (primarily composed of methane) to the environment, including the following:

1. Low elevation of discharge piping relative to the geomembrane-covered landfill: Methane has a vapor density less than ambient air and will preferentially rise to the highest points within a confined or geomembrane-covered landfill. It is estimated that the center of the consolidated landfill is at an elevation of 41 feet and the elevation of the system compound (where passive discharge currently occurs) is at an elevation of 30 feet (note that listed elevations are to the P.O.S vertical datum. Subtract 2.637 feet to convert listed elevations to NAVD88 datum). The lack of passive discharge vents at higher elevations within the consolidated landfill hinders passive venting of landfill gas. Passive venting is currently limited by the presence of only one passive discharge point, located at a lower elevation than much of the landfill, near the southeast corner of the landfill.
2. Distance of landfill gas collection piping from the single passive venting discharge point: The single passive discharge point at the southeast corner of the landfill is located a substantial distance from many portions of the landfill gas collection piping. For example, the discharge point is over 1,900 feet away from perforated collection piping at the northern boundary of the landfill, by monitoring point SP-11 (Figure 2). Without an active mechanical driver to induce flow, landfill gas movement through conveyance piping is primarily driven by difference in density, temperature, and pressure between ambient air and landfill gas. These mechanisms that drive passive venting are unlikely to generate the necessary forces required to induce any significant landfill gas flow, from collection piping to the discharge point, over these distances.
3. Piping restrictions and mergers: Piping diameter for the three HDPE riser pipes for R-1, R-2, and R-3 is reduced from 6-inches to 2-inches within the system compound. The riser pipes are then manifolded into one line that then passes through nine elbows, four control valves, a moisture separator drum and corrugated flexible hose prior to connecting to the discharge exhaust stack. These reductions in conveyance piping diameter and changes in flow direction at the system compound impede flow of landfill gas out of the discharge exhaust stack. Additionally, this combined flow from R-1, R-2, and R-3 into a single smaller discharge line impedes flow from the HDPE riser pipes with the least favorable conditions. The piping leg with the most favorable conditions for passive discharge to ambient air (e.g., differences in density, pressure, and temperature) will have a preferential pathway for flow from the landfill.
4. Ensuring subsurface flow control valves remain open: Control valves positioning was checked during the October 2023 monitoring event, as valve closure would prevent the migration of landfill gas from upstream sections of gas collection piping to the discharge point. All 11 in-line subsurface control valves are located in vaults directly adjacent to sampling points SP-1, SP-2, SP-3, SP-4, SP-5, SP-6, SP-7, SP-8, SP-9, SP-10, and SP-11 (Figure 2). All control valves were found and confirmed to be operational. While 8 of the 11 control valves were determined to be fully open during the evaluation, 3 valves were determined to be partially closed, including valves located adjacent to sampling ports SP-9, SP-10, and SP-11. These three valves were also fully opened during the October 2023 monitoring event.

Landfill Gas Monitoring Description

AECOM currently conducts monthly landfill gas monitoring at the Site to evaluate: 1) changes in gas concentrations within the landfill over time, 2) the performance of passive landfill gas collection and discharge systems, and 3) to evaluate if methane gas concentrations remain below the lower explosive limit (LEL) of 5 percent by volume (vol%) at the monitoring points located outside of the landfill geomembrane limits. Monitoring is conducted at in-line sampling ports that are connected to the three collection piping networks (R-1, R-2, and R-3) and eight sampling probes located near the perimeter of the landfill, which are not connected to the collection piping. Seven of the eight perimeter sampling points (SG-302, SG-303, SG-304, SG-329, VP-1, VP-3, and VP-4) are located outside of the former landfill limits and the geomembrane. Sampling point VP-2 is located outside of the geomembrane but is within the former landfill limits (Figure 2).

Landfill gas monitoring consists of measuring gas pressure, temperature, and concentrations of methane, carbon dioxide, and oxygen expressed as a vol% (Tables 1-5 and Figures 4-11). Concentrations of methane, carbon dioxide, and oxygen are measured with a portable, calibrated, landfill gas analyzer. A Landtec GEM 5000 landfill gas analyzer has been utilized for collecting gas measurements since AECOM assumed monitoring in December 2022. Temperature readings are collected using an infrared thermometer. Gas pressures were historically measured using a Magnehelic® differential pressure gauge. AECOM noted that the Magnehelic® located at

the Site and in use prior to 2023 lacked the sensitivity needed to record low level pressure differences. A manometer with higher sensitivity has been utilized in 2023, which accounts for the increased number of pressure readings recorded at a value exceeding zero inches of water in 2023 (Table 1).

In-line sample ports connected to the three collection piping networks (R-1, R-2, and R-3) are monitored to evaluate conditions within the landfill and the performance of the passive landfill collection and extraction system. These in-line sampling ports include SP-1 through SP-13, previously discussed above, which are located within the former landfill limits and beneath the geomembrane cover. The monitoring points SP-1, SP-2, and SP-3 are in-line monitoring ports located near the riser pipes of their piping networks (R-3, R-1, and R-2, respectively). The methane gas concentrations measured at the remaining 10 in-line sampling ports, SP-4 through SP-13, are representative of conditions in the nearby subsurface (surrounding the sampling ports and connected collection piping) upstream of the riser pipes.

The perimeter monitoring probes, which are not connected to landfill gas collection piping, monitor subsurface conditions for potential off-site methane migration. The perimeter monitoring probes (Figure 2) include SG-302, SG-303, SG-304, and SG-329 (located west of the consolidated landfill), VP-1 (located north of the consolidated landfill), VP-2 (located in the T-5 railyard within the eastern limits of the excavated portion of the landfill), VP-3 (located in the T-5 railyard southeast of and beyond the edge of the excavated portion of the landfill), and VP-4 (located beyond the former Heckett Yard to the south). Perimeter monitoring probes SG-302, SG-303, SG-304, and SG-329 have been monitored since 2000. Perimeter monitoring probes VP-1, VP-2, VP-3, and VP-4 have been monitoring since November 2018, following installation.

Landfill Gas Monitoring Evaluation

A review of landfill gas monitoring results shows the following:

- Methane concentrations have risen throughout the consolidated landfill since shutting the landfill gas extraction and treatment system down in December 2016. Increases in average annual methane concentrations in the collection piping networks located within the consolidated landfill (R-1 and R-2) are highlighted on Figures 4 through 6. Concentrations have increased at all in-line sampling ports, SP-2 through SP-11 (Figure 2), following the conversion from active to passive landfill gas collection at the end of 2016 (Table 3). A comparison of average methane concentrations recorded in 2016 (the year prior to system shutdown) to data collected in 2023, show an average increase in methane concentration over 200% across these 10 sampling ports. The lowest average methane concentration in the year preceding system shutdown was 3.1 vol% at SP-08. The average methane concentration at SP-08 to date in 2023 is 27.6 vol%. The highest average methane concentration in the year preceding system shutdown was 27.7 vol% at SP-06. The average methane concentration at SP-06 to date in 2023 is 72.5 vol%. These data indicate methane concentrations have increased over time following the discontinuation of active gas extraction and that inefficiencies exist in the piping's ability to passively vent gas to the atmosphere.
- Methane concentrations in perimeter monitoring probes SG-302, SG-303, SG-304, and SG-329 (located outside the western berm of the consolidated landfill) and VP-1 (located outside the northern berm of the consolidated landfill) have not exceeded the 5 vol% LEL in 2023 (Table 3 and Figure 8). Probes VP-1, SG-302, SG-303, and SG-304 have not exceeded the LEL in any monitoring event dating back to 2000. At SG-329, there have been 2 recorded exceedances of the LEL in the 337 monitoring events performed since 2000 which is only 0.6% of readings taken. These exceedances occurred in late 2018 and early 2019 and are considered outliers, as no similar readings have been recorded prior to or following these exceedance events. These data indicate that while concentrations of methane have increased within the adjacent consolidated landfill, methane concentrations beyond the northern and western limits of the consolidated landfill remain below the 5 vol% LEL.
- Monitoring of methane concentrations in the railyard east of the consolidated landfill and from the former Heckett Yard to the south include in-line sampling port SP-1 and two sampling probes SP-12 and SP-13 in the railyard. Methane concentrations measured from these three sampling ports have all increased following conversion from active to passive landfill gas collection at the end of 2016 (Table 3 and Figure 7). A comparison of average methane concentrations recorded in 2016 (the year prior to active system

shutdown) to data collected in 2023, show an average increase in methane concentration over 300% across these three sampling ports. The lowest average methane concentration in the year preceding system shutdown was 1.5 vol% at SP-13. The average methane concentration at SP-13 to date in 2023 is 17.4 vol%. The average methane concentration at SP-12 was 3.7 vol% in 2016 and is 5.4 vol% to date in 2023. The highest average methane concentration in the year preceding system shutdown was 6.1 vol% at SP-1. The average methane concentration at SP-1 to date in 2023 is 30.2 vol%. These data indicate inefficiencies exist in the piping's ability to passively vent gas to the atmosphere. Additionally, lower methane concentrations at SP-12 and SP-13 compared to SP-1, indicate higher concentrations of residual methane may be generated 1) in the areas between SP-12/SP-13 and the system compound area, or 2) from the area to the south, by the former Heckett Yard area.

- Oxygen data for three of the four sample ports located closest to the geomembrane perimeter (SP-8, SP-12, and SP-13) and SP-1 (R3 piping network) indicate higher oxygen concentrations were present during active landfill gas extraction performed through 2016 (Table 5). Once the active system was turned off the oxygen concentrations at these locations dropped from greater than 10% to generally lower than 2%. This indicates that the gas extraction system was effective at pulling in ambient air from surrounding areas. Oxygen data for sample port SP-11, which is also located close to the geomembrane perimeter, did not see noticeable changes in concentration. Sample port SP-11 is the furthest sample port from the landfill gas extraction system location. This indicates that the active system was likely not effective in removing landfill gas from that portion of the landfill when it was operational prior to 2016. There were no noticeable changes in oxygen concentration at sample port SP-2, which is connected to the R1 piping network, so the active system may not have had a significant influence along the western perimeter of the site.
- Methane concentrations in perimeter monitoring probes to the south and east of the landfill (VP-2 thru VP-4) have exceeded the 5 vol% LEL in 2023 at two of the three monitoring probes (VP-2 and VP-4). VP-2 is located in the T-5 railyard in the eastern portion of formerly excavated landfill. VP-3 is located in the T-5 railyard, beyond the excavated landfill to the southeast. VP-4 is located south of the excavated and consolidated portions of the landfill and beyond the former Heckett Yard. Methane at VP-2 has exceeded the 5 vol% LEL in 4 of the 13 monitoring events and averaged 4.2 vol% in 2023 (Table 3 and Figure 8). The highest three readings in 2023 of 5.3, 6.0, and 6.4 vol% occurred in the last three monitoring events (September through October 2023). Methane at VP-3 has not exceeded the LEL (5.0 vol%) or been above 0.5 vol% since 2020, when methane measurements were recorded between 0.0 and 36.5 vol%, with six separate measurements between 36.5 and 36.0 vol%. VP-4 has exceeded the LEL in 2 of the 13 monitoring events in 2023, with concentrations as high as 6.1 vol% in May and an average 2023 methane concentration of 3.6 vol% to date in 2023. The recent exceedances of the LEL in monitoring probes VP-2 and VP-4 indicate that increases in methane in adjacent areas within the consolidated landfill, as measured at SP-1, SP-12, and SP-13, may be migrating beyond the landfill boundary to the east and south above the LEL. LEL exceedances at VP-2 do not appear to represent a risk to the public, as this monitoring probe is located within the secured T-5 railyard and within the limits of the formerly excavated landfill. LEL exceedances at VP-4 also may not represent a risk to the public, as the monitoring probe is located in an asphalt drive lane, over 50 feet north from the closest occupied structure, a self-storage facility (Figure 1).

Proposed Modifications and Performance Monitoring

Proposed Modifications to Landfill Gas Extraction

Based upon a review of the current state of the gas collection system and the ongoing landfill monitoring, the following modifications and enhancements to the landfill gas extraction system are proposed:

1. **Enhance Landfill Gas Passive Extraction** - The three riser pipes for R-1, R-2, and R-3 will be disconnected at the flange connection where they daylight from the existing piping network at the extraction system compound. Each riser pipe will then be connected to its own individual passive discharge stack. Each of the three discharge stacks will be topped with a wind-powered turbine to induce a slight vacuum, which will draw landfill gas from the piping network for discharge to atmosphere. A schematic of the proposed piping and passive venting conceptual design is attached (Figure 12). Each passive discharge

stack will be fitted with a sampling port to monitor landfill gas concentrations and a port to insert instrumentation to measure discharge velocity to calculate flow. The velocity and concentrations of landfill gas exiting the three stacks will be evaluated along with any changes in concentration of landfill gas in the upstream sample ports (SP-1, SP-2, and SP-3).

2. **Expansion of Passive Extraction Points** - If the conversion of these three riser pipes is successful in reducing methane concentrations in some upstream areas, the number of passive discharge stacks located within the landfill could be expanded. Additional discharge stacks could be installed at the Site with minimal cost and disturbance by removing the control valves located adjacent to sampling ports SP-1 through SP-11 and replacing with similarly designed discharge stacks. Ideally these additional discharge stacks would be located near the high points in the landfill or other areas to improve venting (i.e., in areas where higher methane concentrations exist that are located further from existing discharge stacks).

3. **Potential Contingency Options** - If the above proposed enhanced passive venting modifications do not effectively reduce methane concentrations at VP-2 and sample ports SP-1, SP-12, and SP-13, which was previously achieved during periods of active system operation, then additional modifications of the landfill gas venting system can be evaluated. An upgraded system may not need carbon treatment if monitoring detailed below indicates non-methane VOC concentrations are low. Future consideration could be given to installing another monitoring point in the vicinity of VP-4 if elevated concentrations of methane in VP-4 become more frequent. It is unlikely that enhanced venting (active or passive) will reduce concentrations in VP-4 due to the lack of system piping in that area.

Post-Modification Performance Monitoring

The following performance monitoring actions will be performed following the completion of the proposed modifications detailed in the previous section. Performance monitoring will focus on evaluating changes in landfill gas concentrations within the landfill following the completion of proposed modifications, monitoring the performance of the modified passive landfill gas collection and discharge system, and for compliance with permissible discharge limits. Proposed performance monitoring actions included the following:

- Monitoring data will be collected and evaluated following the installation of separate passive venting discharge stacks at R-1, R-2, and R-3 and a subsequent performance review will be conducted. Monthly monitoring of landfill gas pressure, temperature, and concentrations of methane, carbon dioxide, and oxygen will be conducted on the existing monitoring network, as detailed in the Landfill Gas Monitoring Description section above. The monitoring network includes the 13 sampling ports (in-line ports SP-1 through SP-11 plus SP-12 and SP-13 in the railyard) associated with the three in-line subsurface collection piping networks (R-1, R-2, and R-3) and the eight sampling probes located near the perimeter of the landfill, which are not connected to the collection piping (SG-302, SG-303, SG-304, SG-329, VP-1, VP-2, VP-3, and VP-4). Following one year of monthly monitoring, collected data will be evaluated for spatial and temporal changes in landfill gas concentrations and composition as part of a performance review. Evaluations conducted as part of this performance review will also include comparisons of historic data to post-modification data and the findings of these evaluation will be conveyed to Ecology in the subsequent yearly progress report. The performance review submittal to Ecology will also include recommendations for additional system modifications, as warranted.
- Following the installation of separate passive venting discharge stacks at R-1, R-2 and R-3, landfill gas vapor will be sampled from each of the three stacks for concentrations of non-methane VOCs using a photoionization detector (PID). Air velocity measurements will also be collected from each of the three stacks using an appropriately sized and calibrated field instrument, such as a hot wire anemometer or equivalent. Vapor and air velocity measurements will be collected during ongoing monthly sampling events. Vapor monitoring data will be utilized in conjunction with velocity measurements and flow calculations to confirm that discharged volumes of non-methane VOC gas remain below the Puget Sound Clean Air Agency (PSCAA) threshold of 1,000 pounds per year that would require a permit.
- Barometric pressure readings will be added to the monitoring forms and recorded during monthly monitoring events to evaluate for correlations between elevated methane concentrations in perimeter monitoring probes and lower atmospheric pressures (i.e., determine if methane is being preferentially discharged

during periods of low atmospheric pressure). These data will provide enhanced evaluations, as similar evaluations have recently shown correlations of elevated methane concentrations to higher landfill temperatures (AECOM, 2023). Barometric pressure is a standard parameter on most landfill gas analyzers, including the Landtec GEM 5000 landfill gas analyzer currently used at the Site.

- If an exceedance of the LEL for methane is detected in a perimeter monitoring probe, the frequency of monitoring will be temporarily increased to weekly monitoring for that probe location only. The increased monitoring frequency will occur until the methane concentration drops below 5 vol% or until the next regular scheduled monthly event to determine if the exceedance is persistent or represents a temporary condition. Current exceedances appear to be sporadic based upon historical monthly and bi-monthly collection. Determining the persistence of LEL exceedances can be better evaluated with this proposed increase in monitoring frequency.

The proposed changes outlined in this document can be implemented following approval by the Port. Any changes to or challenges with the implementation of these actions will be promptly communicated to the Port and Ecology.

Tables

Table 1 – Pressure

Table 2 – Temperature

Table 3 – Methane

Table 4 – Carbon Dioxide

Table 5 – Oxygen

Figures

Figure 1 – Vicinity Map Showing Nearby Structures

Figure 2 – Site Plan

Figure 3 –Schematic Cross Section

Figure 4 – Piping Networks Average Annual Methane Concentration

Figure 5 – R-1 Piping Network and Sample Ports Average Annual Methane Concentration

Figure 6 – R-2 Piping Network and Sample Ports Average Annual Methane Concentration

Figure 7 – R-3 Piping Network and Sample Ports Average Annual Methane Concentration

Figure 8 – Soil Gas Probes Average and Maximum Annual Methane Concentration

Figure 9 – Piping Networks Average Annual Carbon Dioxide Concentration

Figure 10 – Piping Networks Average Annual Oxygen Concentration

Figure 11 – Piping Networks Average Annual Temperature

Figure 12 – Passive Venting Stack Conceptual Design

References

AECOM, 2023. T-5 Landfill Monitoring Exceedance Notification Write-up email. From Jamalyn Green to Brick Spangler. August 21, 2023.

Hart Crowser, 1995, Geotechnical Engineering Design Study – Upland Facilities, Terminal 5 Expansion, prepared for the Port of Seattle, August 31, 1995.

Hart Crowser, 2011, Port of Seattle Task 3 – CEM Landfill Monitoring, Review and Recommendations for Landfill Gas Extraction and Monitoring System, April 12, 2011.

Washington Department of Ecology, 1995. Consent Decree – Former SSI Property, March 1, 1995.

Woodward-Clyde Consultants, 1995a. Final Remedial Investigation, Remediation Area Number 3, Southwest Harbor Cleanup and Redevelopment Project, Volume I, Report, prepared for the Port of Seattle, February 1995.

Woodward-Clyde Consultants, 1995b. As-Built Conditions Drawings, Marine Facilities, Southwest Harbor Project, Terminal 5 Expansion, Sitework, Rail, & Buildings, Construction Packages (CP-6), Paving, Landfill Cover, Grading Plan. Port of Seattle No. 5-9507-PAV-C41 through C-54. August 15, 1995.

Tables

Table 1. Pressure
Terminal 5 / RA-3 Landfill Gas Monitoring
(Magnehelic gauge or digital manometer - inches of water relative to atmospheric pressure.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
Average 2023	**(0.01)**	**(0.12)**	**0.00**	**0.02**	**0.00**	**(0.01)**	**0.01**	**0.00**	**0.01**	**0.01**	**0.02**	**0.04**	**0.02**	**0.04**	**0.03**	**0.01**	**0.07**	**0.08**	**0.04**	**0.08**	**0.01**
Average 2020-2022	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.08	0.01	0.00
Average 2017-2019	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.05	0.00	0.00
Average 2016 (pre-system shutdown)	0.00	0.00	0.00	0.00	--	--	--	--	0.20	0.16	0.17	0.10	0.11	0.09	0.09	0.06	0.02	0.03	0.00	0.00	0.19
Average 2008-2016	0.00	0.00	0.00	0.00	--	--	--	--	0.36	0.36	0.34	0.16	0.15	0.13	0.12	0.10	0.03	0.05	0.01	0.00	0.24
Average 1998-2007	(0.01)	(0.01)	0.01	0.01	--	--	--	--	(0.02)	0.03	0.00	0.01	0.01	0.02	(0.01)	0.03	(0.19)	(0.01)	0.02	0.00	0.00
10/20/23	**(0.17)**	**(1.60)**	**0.00**	**0.00**	**0.01**	**0.02**	**0.01**	**0.01**	**0.02**	**0.02**	**0.04**	**0.09**	**0.07**	**0.07**	**0.06**	**0.04**	**0.11**	**0.15**	**0.06**	**0.04**	**0.00**
09/14/23	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.03**	**0.00**	**0.02**	**0.03**	**0.00**	**0.05**	**0.07**	**0.05**	**0.06**	**0.07**	**0.03**	**0.11**	**0.00**	**0.01**	**0.08**	**0.00**
08/10/23	**0.01**	**0.00**	**0.00**	**0.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**(0.01)**	**0.03**	**0.03**	**0.00**	**0.06**	**0.18**	**0.00**	**0.00**	**0.00**
07/11/23	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.03**	**0.03**	**0.02**	**0.05**	**0.03**	**0.06**	**0.03**	**0.01**	**0.07**	**0.05**	**0.09**	**0.09**	**0.00**
06/19/23	**0.00**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**	**0.01**	**0.00**	**0.01**	**0.02**	**0.00**	**0.01**	**0.02**	**0.02**	**0.03**	**0.01**	**0.08**	**0.30**	**0.00**	**NA**	**NA**
05/18/23	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.01**	**0.01**	**0.01**	**(0.02)**	**(0.01)**	**0.00**	**(0.01)**	**0.05**	**0.06**	**0.00**	**0.52**	**0.00**
04/05/23	**0.01**	**0.00**	**0.00**	**0.01**	**0.00**	**(0.02)**	**0.00**	**0.01**	**0.01**	**0.03**	**0.03**	**0.04**	**0.03**	**0.05**	**0.00**	**0.03**	**0.09**	**0.10**	**0.00**	**(0.04)**	**0.01**
03/23/23	**0.00**	**(0.01)**	**0.00**	**0.00**	**0.01**	**(0.22)**	**0.07**	**0.01**	**0.02**	**0.04**	**0.04**	**0.08**	**0.08**	**0.08**	**0.05**	**0.01**	**0.07**	**0.08**	**0.00**	**0.00**	**0.03**
03/09/23	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.01**	**0.01**	**0.00**	**0.00**	**0.02**	**0.02**	**0.05**	**0.03**	**0.07**	**0.06**	**0.06**	**0.15**	**0.07**	**0.36**	**0.17**	**0.00**
02/23/23	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**(0.01)**	**0.00**	**0.00**	**0.03**	**0.00**	**0.03**	**(0.02)**	**0.01**	**0.03**	**0.01**	**(0.03)**	**0.04**	**0.04**	**0.00**	**(0.04)**	**0.00**
02/10/23	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.02**	**0.03**	**0.04**	**0.08**	**0.02**	**0.06**	**0.05**	**(0.03)**	**0.05**	**0.07**	**0.01**	**0.18**	**0.02**
01/27/23	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
01/10/23	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
12/28/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	0.00	0.00
12/14/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/19/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/06/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09/22/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09/08/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08/26/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08/11/02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07/28/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07/13/22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06/22/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06/10/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05/27/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05/12/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04/29/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04/06/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03/18/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03/03/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02/18/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--
02/03/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--
01/21/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--
01/06/22	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--
12/22/21	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--
12/06/21	--	--	--	--	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--
12/02/21	0.00	0.00	0.00	0.00	0.00	--	--	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--
11/11/21	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--
10/28/21	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--
09/30/21	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09/17/21	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08/27/21	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08/05/21	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07/22/21	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1. Pressure
Terminal 5 / RA-3 Landfill Gas Monitoring
(Magnahelic gauge or digital manometer - inches of water relative to atmospheric pressure.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
06/30/21	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06/10/21	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05/27/21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05/12/21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04/30/21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04/15/21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04/01/21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03/19/21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03/03/21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02/19/21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
01/29/21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
01/07/21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/23/20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/11/20 & 12/14/20	0.00	0.00	--	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.08	0.00	0.06	0.00	0.00
11/25/20	0.00	0.00	0.00	0.00	0.00	0.10	0.00	--	0.08	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.18	0.02	0.00
11/11/20	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.04	0.00
10/14/20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	0.10	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.10	0.00	2.02	0.02	0.00
09/29/20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09/11/20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.02	0.06	0.00	0.00
08/28/20	0.00	0.00	0.00	0.06	0.00	0.00	0.00	--	0.10	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.14	0.10	0.08	0.00
08/14/20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07/28/20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07/17/20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06/29/20	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06/19/20	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00
06/03/20	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05/22/20	0.00	0.03	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.10	0.00
05/07/20	0.00	0.01	0.04	0.00	0.10	0.06	0.18	0.00	0.04	0.00	0.00	0.10	0.00	0.00	0.00	0.38	0.00	0.00	0.12	0.08	0.00
04/24/20	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.10	0.00	0.00
04/13/20	0.10	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.00	0.08	0.10	0.00
03/25/20	0.00	0.06	0.02	0.00	0.08	0.00	0.00	0.00	0.10	0.00	0..04	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.08	0.00	0.02
03/12/20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02/28/20	0.10	0.04	0.00	0.04	0.00	0.00	0.00	0.04	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.02	0.00	0.10	0.10	0.00
02/12/20	0.00	0.00	0.00	0.00	0.00	0.00	0.10	--	0.10	0.00	0.00	0.00	0.00	0.02	0.00	0.04	0.12	0.04	1.00	0.00	0.00
01/29/20	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	--	0.00	0.02
01/17/20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.06	0.00	1.00	0.10	0.02
01/03/20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.20	0.00	0.00
12/18/19	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.08	0.00	0.08	0.00	0.04
12/04/19	0.00	0.00	0.02	0.02	0.00	0.00	0.00	--	0.10	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	--	0.00	0.00
11/06/19	0.00	0.00	0.00	0.00	--	0.00	0.00	0.00	0.10	0.00	0.00	0.08	0.00	0.00	0.02	0.04	0.00	0.00	0.08	0.00	0.00
10/22/19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00
10/08/19	0.00	0.00	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00
09/23/19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09/12/19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.02	0.00	0.00	0.06	0.00	0.00	0.10	0.00	0.00	0.00
08/29/19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00
08/14/19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
07/26/19	--	0.00	0.12	0.13	--	0.00	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00
07/11/19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00
06/19/19	0.00	0.00	--	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--
06/05/19	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
05/23/19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.00
05/07/19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.80	0.00	0.00

Table 1. Pressure
Terminal 5 / RA-3 Landfill Gas Monitoring
(Magnahelic gauge or digital manometer - inches of water relative to atmospheric pressure.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
04/23/19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	0.00	0.06	0.00	0.00
04/10/19	0.00	0.00	0.02	0.00	--	0.00	0.00	0.00	--	--	--	--	--	--	--	0.00	--	--	--	0.02	0.00
03/26/19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03/18/19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--
03/01/19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02/15/19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	>1	0.00	0.00
01/31/19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
01/11/19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.10	0.00	0.60	0.00	0.00
12/26/18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00
12/11/18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.10	0.00	0.00
11/30/18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.52	0.00	0.00
11/20/18	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
11/02/18	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/08/18	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09/21/18	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09/07/18	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07/30/18	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07/13/18	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06/29/18	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00
06/15/18	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
06/01/18	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05/11/18	0.00	0.00	0.00	0.00	--	--	--	--	0.00	1.41	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04/26/18	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04/06/18	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	0.00	0.00	0.00
03/07/18	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02/21/18	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02/05/18	0.00	0.00	1.00	0.00	--	--	--	--	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
01/24/18	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
01/09/18	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/27/17	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/12/17	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/27/17	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/17	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/28/17	0.00	0.00	0.00	0.00	--	--	--	--	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	0.00	0.00	0.00
10/13/17	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09/27/17	0.00	0.00	0.00	0.00	--	--	--	--	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.02	0.04	0.00
09/16/17	0.00	0.00	0.00	0.00	--	--	--	--	0.02	0.01	0.00	0.00	0.00	0.02	0.02	0.00	0.02	0.01	0.01	0.00	0.00
08/30/17	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08/17/17	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07/24/17	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07/10/17	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06/08/17	0.00	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	0.00
05/09/17	0.00	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	0.00
04/11/17	0.00	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	0.00
03/08/17	0.00	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	0.00
02/21/17	0.00	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	0.00
02/07/17	0.00	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	0.00
01/23/17	0.00	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	0.00
01/05/17	0.00	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	0.00
12/16/16	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/16	0.00	0.00	0.00	0.00	--	--	--	--	0.25	0.00	0.19	0.05	0.10	0.06	0.02	0.10	0.00	0.02	0.00	0.00	0.25
10/16/16	0.00	0.00	0.00	0.00	--	--	--	--	0.18	0.20	0.20	0.10	0.10	0.06	0.06	0.02	0.00	0.00	0.00	0.00	0.15

Table 1. Pressure
Terminal 5 / RA-3 Landfill Gas Monitoring
(Magnahelic gauge or digital manometer - inches of water relative to atmospheric pressure.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
09/16/16	0.00	0.00	0.00	0.00	--	--	--	--	0.14	0.20	0.18	0.05	0.10	0.10	0.06	0.03	0.00	0.00	0.00	0.00	0.15
08/16/16	0.00	0.00	0.00	0.00	--	--	--	--	0.24	0.18	0.20	0.15	0.12	0.10	0.12	0.04	0.00	0.02	0.00	0.00	0.20
07/16/16	0.00	0.00	0.00	0.00	--	--	--	--	0.20	0.19	0.20	0.15	0.15	0.17	0.14	0.00	0.00	0.03	0.00	0.00	0.20
06/01/16	0.00	0.00	0.00	0.00	--	--	--	--	0.25	0.26	0.21	0.15	0.16	0.16	0.11	0.12	0.00	0.11	0.00	0.00	0.20
05/01/16	0.00	0.00	0.00	0.00	--	--	--	--	0.20	0.21	0.18	0.06	0.10	0.06	0.12	0.10	0.10	0.00	0.00	0.00	0.20
04/01/16	0.00	0.00	0.00	0.00	--	--	--	--	0.21	0.22	0.18	0.08	0.10	0.14	0.10	0.10	0.02	0.01	0.00	0.00	0.22
03/08/16	0.00	0.00	0.00	0.00	--	--	--	--	0.25	0.28	0.26	0.22	0.26	0.24	0.25	0.15	0.15	0.12	0.00	0.00	0.30
02/09/16	0.00	0.00	0.00	0.00	--	--	--	--	0.20	0.14	0.14	0.08	0.10	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.20
01/12/16	0.00	0.00	0.00	0.00	--	--	--	--	0.22	0.05	0.11	0.10	0.06	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.20
12/09/15	0.00	0.00	0.00	0.00	--	--	--	--	0.23	0.22	0.25	0.17	0.18	0.19	0.09	0.10	0.00	0.04	0.00	0.00	0.20
11/10/15	0.00	0.00	0.00	0.00	--	--	--	--	0.11	0.18	0.14	0.08	0.10	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.10
10/14/15	0.00	0.00	0.00	0.00	--	--	--	--	0.15	0.20	0.18	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
09/15/15	0.00	0.00	0.00	0.00	--	--	--	--	0.15	0.14	0.16	0.10	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.08
08/15/15	0.00	0.00	0.00	0.00	--	--	--	--	0.22	0.25	0.14	0.08	0.06	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.10
07/15/15	0.00	0.00	0.00	0.00	--	--	--	--	0.21	0.22	0.20	0.10	0.10	0.08	0.08	0.00	0.00	0.02	0.00	0.00	0.20
06/15/15	0.00	0.00	0.00	0.00	--	--	--	--	0.18	0.15	0.17	0.10	0.10	0.10	0.08	0.00	0.00	0.00	0.00	0.00	0.20
05/15/15	0.00	0.00	0.00	0.00	--	--	--	--	0.20	0.22	0.20	0.12	0.10	0.10	0.08	0.08	0.00	0.01	0.00	0.00	2.00
04/15/15	0.00	0.00	0.00	0.00	--	--	--	--	0.23	0.25	0.20	0.14	0.10	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.20
03/15/15	0.00	0.00	0.00	0.00	--	--	--	--	0.25	0.15	0.15	0.05	0.01	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.21
02/15/15	0.00	0.00	0.00	0.00	--	--	--	--	0.29	0.25	0.22	0.05	0.05	0.17	0.03	0.00	0.00	0.02	0.00	0.00	0.21
01/15/15	0.00	0.00	0.00	0.00	--	--	--	--	0.25	0.20	0.18	0.10	0.14	0.05	0.06	0.00	0.00	0.01	0.00	0.00	0.18
Dec-14	0.00	0.00	0.00	0.00	--	--	--	--	0.22	0.25	0.26	0.15	0.10	0.06	0.10	0.16	0.00	0.09	0.00	0.00	0.25
Nov-14	0.00	0.00	0.00	0.00	--	--	--	--	0.22	0.18	0.16	0.01	0.10	0.10	0.04	0.00	0.00	0.00	0.00	0.00	0.18
Oct-14	0.00	0.00	0.00	0.00	--	--	--	--	0.16	0.18	0.19	0.08	0.06	0.04	0.04	0.00	0.01	0.01	0.00	0.00	0.08
Sep-14	0.00	0.00	0.00	0.00	--	--	--	--	0.20	0.17	0.15	0.10	0.10	0.10	0.02	0.00	0.00	0.00	0.00	0.00	0.12
Aug-14	0.00	0.00	0.00	0.00	--	--	--	--	0.41	0.42	0.35	0.24	0.20	0.15	0.20	0.16	0.06	0.08	0.00	0.00	0.25
Jul-14	0.00	0.00	0.00	0.00	--	--	--	--	0.22	0.24	0.20	0.10	0.10	0.08	0.10	0.08	0.00	0.00	0.00	0.00	0.20
Jun-14	0.00	0.00	0.00	0.00	--	--	--	--	0.25	0.22	0.22	0.06	0.10	0.10	0.15	0.00	0.06	0.01	0.00	0.00	0.15
May-14	0.00	0.00	0.00	0.00	--	--	--	--	0.22	0.20	0.22	0.12	0.08	0.10	0.10	0.00	0.06	0.01	0.00	0.00	0.20
Apr-14	0.00	0.00	0.00	0.00	--	--	--	--	0.22	0.21	0.22	0.02	0.10	0.02	0.05	0.10	0.04	0.01	0.00	0.00	0.20
03/13/14	0.00	0.00	0.00	0.00	--	--	--	--	0.22	0.24	0.23	0.15	0.10	0.12	0.10	0.08	0.01	0.01	0.00	0.00	0.20
02/13/14	0.00	0.00	0.00	0.00	--	--	--	--	0.24	0.22	0.22	0.14	0.11	0.15	0.10	0.00	0.00	0.00	0.00	0.00	0.15
01/13/14	0.00	0.00	0.00	0.00	--	--	--	--	0.33	0.48	0.42	0.24	0.21	0.12	0.12	0.16	0.00	0.04	0.00	0.00	0.16
12/13/13	0.00	0.00	0.00	0.00	--	--	--	--	0.39	0.46	0.41	0.20	0.18	0.18	0.16	0.00	0.00	0.00	0.00	0.00	0.20
11/13/13	0.00	0.00	0.00	0.00	--	--	--	--	0.34	0.42	0.37	0.14	0.12	0.11	0.07	0.12	0.03	0.05	0.09	0.00	0.16
10/13/13	0.00	0.00	0.00	0.00	--	--	--	--	0.38	0.41	0.42	0.18	0.20	0.12	0.14	0.15	0.00	0.03	0.00	0.00	0.22
09/13/13	0.00	0.00	0.00	0.00	--	--	--	--	0.42	0.41	0.39	0.18	0.15	0.17	0.20	0.00	0.10	0.09	0.00	0.00	0.20
08/13/13	0.00	0.00	0.00	0.00	--	--	--	--	0.41	0.40	0.35	0.20	0.14	0.15	0.15	0.16	0.10	0.00	0.00	0.00	0.30
07/13/13	0.00	0.00	0.00	0.00	--	--	--	--	0.41	0.42	0.35	0.20	0.15	0.15	0.10	0.15	0.00	0.05	0.00	0.00	0.30
06/13/13	0.00	0.00	0.00	0.00	--	--	--	--	0.50	0.41	0.42	0.21	0.18	0.21	0.20	0.20	0.10	0.00	0.00	0.00	0.30
05/13/13	0.00	0.00	0.00	0.00	--	--	--	--	0.43	0.41	0.39	0.20	0.20	0.15	0.11	0.00	0.08	0.00	0.00	0.00	0.25
04/13/13	0.00	0.00	0.00	0.00	--	--	--	--	0.50	0.51	0.47	0.20	0.17	0.20	0.11	0.00	0.01	0.20	0.00	0.00	0.30
03/13/13	0.00	0.00	0.00	0.00	--	--	--	--	0.45	0.45	0.44	0.21	0.20	0.20	0.21	0.00	0.05	0.10	0.00	0.00	0.30
02/13/13	0.00	0.00	0.00	0.00	--	--	--	--	0.50	0.47	0.41	0.20	0.18	0.12	0.05	0.18	0.00	0.10	0.00	0.00	0.30
01/13/13	0.00	0.00	0.00	0.00	--	--	--	--	0.50	0.45	0.40	0.20	0.15	0.20	0.15	0.00	0.05	0.10	0.00	0.00	0.30
12/12/12	0.00	0.00	0.00	0.00	--	--	--	--	0.55	0.50	0.48	0.21	0.20	0.22	0.20	0.00	0.08	0.10	0.00	0.00	0.20
11/12/12	0.00	0.00	0.00	0.00	--	--	--	--	0.32	0.45	0.46	0.14	0.11	0.18	0.18	0.10	0.08	0.10	0.06	0.00	0.17
10/12/12	0.00	0.00	0.00	0.00	--	--	--	--	0.38	0.42	0.35	0.21	0.13	0.10	0.10	0.20	0.03	0.00	0.00	0.00	0.20
09/01/12	0.00	0.00	0.00	0.00	--	--	--	--	0.50	0.41	0.40	0.10	0.15	0.15	0.17	0.11	0.10	0.10	0.20	0.00	0.30
08/01/12	0.00	0.00	0.00	0.00	--	--	--	--	0.42	0.42	0.40	0.25	0.30	0.18	0.11	0.10	0.04	0.04	0.00	0.00	0.28
07/01/12	0.00	0.00	0.00	0.00	--	--	--	--	0.53	0.52	0.45	0.21	0.20	0.20	0.20	0.18	0.00	0.02	0.00	0.00	0.35
06/01/12	0.00	0.00	0.00	0.00	--	--	--	--	0.53	0.50	0.40	0.35	0.30	0.30	0.23	0.20	0.00	0.20	0.00	0.00	0.35

Table 1. Pressure
Terminal 5 / RA-3 Landfill Gas Monitoring
(Magnahelic gauge or digital manometer - inches of water relative to atmospheric pressure.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
05/01/12	0.00	0.00	0.00	0.00	--	--	--	--	0.52	0.48	0.40	0.20	0.18	0.22	0.12	0.00	0.00	0.10	0.00	0.00	0.28
04/01/12	0.00	0.00	0.00	0.00	--	--	--	--	0.51	0.50	0.38	0.20	0.20	0.20	0.18	0.00	0.00	0.10	0.00	0.00	0.30
03/01/12	0.00	0.00	0.00	0.00	--	--	--	--	0.51	0.46	0.38	0.22	0.05	0.25	0.05	0.20	0.00	0.15	0.00	0.00	0.30
02/01/12	0.00	0.00	0.00	0.00	--	--	--	--	0.51	0.53	0.39	0.19	0.22	0.20	0.15	0.20	0.00	0.10	--	0.00	0.30
01/01/12	0.00	0.00	0.00	0.00	--	--	--	--	0.52	0.50	0.38	0.20	0.27	0.20	0.21	0.00	0.00	0.10	--	0.00	0.28
12/01/11	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.45	0.38	0.20	0.15	0.20	0.10	0.00	0.04	0.10	0.00	0.00	0.20
11/01/11	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.50	0.38	0.20	0.20	0.20	0.08	0.20	0.02	0.10	0.00	0.00	0.20
10/01/11	0.00	0.00	0.00	0.00	--	--	--	--	0.36	0.41	0.30	0.18	0.10	0.18	0.10	0.15	0.05	0.00	0.00	0.00	0.15
09/01/11	0.00	0.00	0.00	0.00	--	--	--	--	0.45	0.45	0.43	0.21	0.20	0.15	0.15	0.15	0.08	0.10	0.00	0.00	0.20
08/01/11	0.00	0.00	0.00	0.00	--	--	--	--	0.43	0.42	0.40	0.20	0.20	0.12	0.12	0.00	0.08	0.06	0.00	0.00	0.21
07/01/11	0.00	0.00	0.00	0.00	--	--	--	--	0.45	0.41	0.42	0.28	0.20	0.20	0.21	0.18	0.12	0.12	0.00	0.00	0.30
06/01/11	0.00	0.00	0.00	0.00	--	--	--	--	0.46	0.48	0.40	0.25	0.20	0.20	0.21	0.20	0.10	0.15	0.00	0.00	0.25
05/01/11	0.00	0.00	0.00	0.00	--	--	--	--	0.52	0.60	0.52	0.30	0.21	0.21	0.30	0.30	0.00	0.20	0.00	0.00	0.25
04/01/11	0.00	0.00	0.00	0.00	--	--	--	--	0.52	0.60	0.52	0.30	0.21	0.21	0.30	0.25	0.00	0.20	0.00	0.00	0.25
03/01/11	0.00	0.00	0.00	0.00	--	--	--	--	0.45	0.43	0.37	0.18	0.20	0.18	0.20	0.20	0.08	0.05	0.00	0.00	0.25
02/01/11	0.00	0.00	0.00	0.00	--	--	--	--	0.50	0.45	0.43	0.20	0.21	0.15	0.20	0.20	0.00	0.08	0.00	0.00	0.25
01/01/11	0.00	0.00	0.00	0.00	--	--	--	--	0.42	0.50	0.42	0.21	0.22	0.14	0.08	0.20	0.00	0.20	0.00	0.00	0.25
12/01/10	0.00	0.00	0.00	0.00	--	--	--	--	0.44	0.42	0.43	0.20	0.21	0.14	0.12	0.00	0.08	0.06	0.00	0.00	0.28
11/01/10	0.00	0.00	0.00	0.00	--	--	--	--	0.48	0.45	0.48	0.22	0.26	0.18	0.20	0.18	0.00	0.02	0.00	0.00	0.24
10/01/10	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.38	0.40	0.18	0.12	0.04	0.10	0.10	0.00	0.00	0.00	0.00	0.22
09/01/10	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.42	0.42	0.20	0.16	0.14	0.00	0.20	0.02	0.03	0.00	0.00	0.25
08/01/10	0.00	0.00	0.00	0.00	--	--	--	--	0.39	0.37	0.50	0.16	0.19	0.15	0.10	0.00	0.02	0.03	0.00	0.00	0.25
07/01/10	0.00	0.00	0.00	0.00	--	--	--	--	0.45	0.41	0.45	0.12	0.10	0.15	0.11	0.15	0.00	0.01	0.00	0.00	0.25
06/08/10	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.38	0.42	0.10	0.12	0.10	0.08	0.00	0.01	0.01	0.00	0.00	0.23
05/11/10	0.00	0.00	0.00	0.00	--	--	--	--	0.49	0.43	0.50	0.18	0.18	0.12	0.15	0.11	0.08	0.10	0.00	0.00	0.21
12/08/09	0.00	0.00	0.00	0.00	--	--	--	--	0.42	0.40	0.40	0.10	0.10	0.10	0.10	0.15	0.01	0.10	0.00	0.00	0.25
11/06/09	0.00	0.00	0.00	0.00	--	--	--	--	0.42	0.41	0.35	0.25	0.20	0.21	0.01	0.20	0.00	0.00	0.00	0.00	0.25
10/03/09	0.00	--	0.00	0.00	--	--	--	--	0.35	0.40	0.40	0.20	0.18	0.12	0.11	0.00	0.00	0.01	0.01	0.00	0.20
09/08/09	0.00	0.00	0.00	0.00	--	--	--	--	0.23	0.31	0.38	0.10	0.10	0.12	0.12	0.20	0.00	0.01	0.02	0.00	0.20
08/04/09	0.00	0.00	0.00	0.00	--	--	--	--	0.50	0.50	0.50	0.15	0.20	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.20
07/02/09	0.00	0.00	0.00	0.00	--	--	--	--	0.42	0.41	0.42	0.20	0.14	0.15	0.15	0.13	0.00	0.08	0.00	0.00	0.25
06/05/09	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.43	0.43	0.18	0.20	0.15	0.10	0.20	0.00	0.05	0.01	0.00	0.25
05/08/09	0.00	0.00	0.00	0.00	--	--	--	--	0.42	0.43	0.41	0.15	0.10	0.10	0.10	0.10	0.10	0.05	0.04	0.00	0.30
04/03/09	0.00	0.00	0.00	0.00	--	--	--	--	0.45	0.47	0.45	0.20	0.20	0.12	0.15	0.20	0.10	0.05	0.00	0.00	0.30
03/03/09	0.00	0.00	0.00	0.00	--	--	--	--	0.42	0.50	0.47	0.10	0.20	0.10	0.10	0.20	0.10	0.10	0.00	0.00	0.20
02/03/09	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.45	0.42	0.20	0.10	0.11	0.11	0.20	0.00	0.05	0.08	0.00	0.30
01/09/09	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.38	0.35	0.06	0.10	0.05	0.06	0.20	0.00	0.10	0.00	0.00	0.25
12/02/08	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.50	0.50	0.21	0.20	0.10	0.10	0.20	0.00	0.00	0.00	0.00	0.20
11/05/08	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.50	0.45	0.20	0.20	0.20	0.12	0.18	0.03	0.02	0.00	0.00	0.20
10/03/08	0.00	0.00	0.00	0.00	--	--	--	--	0.38	0.40	0.40	0.20	0.20	0.11	0.12	0.10	0.03	0.01	0.00	0.00	0.20
09/11/08	0.00	0.00	0.00	0.00	--	--	--	--	0.45	0.42	0.45	0.20	0.20	0.10	0.12	0.12	0.15	0.00	0.00	0.00	0.25
08/18/08	0.00	0.00	0.00	0.00	--	--	--	--	0.31	0.40	0.40	0.20	0.20	0.12	0.12	0.10	0.11	0.12	0.00	0.00	0.20
07/28/08	0.00	0.00	0.00	0.00	--	--	--	--	0.35	0.40	0.40	0.20	0.20	0.18	0.15	0.15	0.05	0.10	0.00	0.00	0.20
06/04/08	0.00	0.00	0.00	0.00	--	--	--	--	0.41	0.40	0.40	0.20	0.22	0.24	0.20	0.20	0.00	0.10	0.00	0.00	0.20
05/02/08	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.43	0.40	0.22	0.23	0.20	0.18	0.18	0.08	0.10	0.10	0.00	0.20
04/04/08	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.44	0.40	0.21	0.20	0.18	0.10	0.20	0.03	0.03	0.00	0.00	0.20
03/04/08	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.42	0.40	0.20	0.21	0.20	0.20	0.10	0.00	0.05	0.00	0.00	0.20
02/01/08	0.00	0.00	0.00	0.00	--	--	--	--	0.42	0.45	0.50	0.30	0.20	0.20	0.20	0.20	0.00	0.10	0.10	0.00	0.20
01/08/08	0.00	0.00	0.00	0.00	--	--	--	--	0.38	0.42	0.40	0.20	0.20	0.10	0.15	0.20	0.00	0.10	0.10	0.00	0.30
12/07/07	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.50	0.40	0.28	0.20	0.20	0.20	0.20	0.11	0.10	0.10	0.00	0.30
11/01/07	0.00	0.00	0.00	0.00	--	--	--	--	0.32	0.40	0.40	0.20	0.22	0.20	0.20	0.10	0.10	0.08	0.10	0.00	0.15
10/02/07	0.00	0.00	0.00	0.00	--	--	--	--	0.30	0.40	0.38	0.20	0.18	0.10	0.18	0.15	0.00	0.10	0.08	0.00	0.20

Table 1. Pressure
Terminal 5 / RA-3 Landfill Gas Monitoring
(Magnahelic gauge or digital manometer - inches of water relative to atmospheric pressure.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
09/05/07	0.00	0.00	0.00	0.00	--	--	--	--	0.35	0.43	0.40	0.20	0.20	0.11	0.15	0.05	0.00	0.10	0.05	0.00	0.15
08/02/07	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.45	0.40	0.22	0.21	0.12	0.15	0.15	0.10	0.10	0.10	0.00	0.20
07/09/07	0.00	0.00	0.00	0.00	--	--	--	--	0.37	0.42	0.40	0.20	0.20	0.15	0.18	0.10	0.10	0.05	0.10	0.00	0.20
06/08/07	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.40	0.42	0.20	0.20	0.18	0.17	0.10	0.10	0.10	0.10	0.00	0.20
05/10/07	0.00	0.00	0.00	0.00	--	--	--	--	0.41	0.42	0.40	0.18	0.20	0.17	0.20	0.18	0.10	0.07	0.10	0.00	0.20
04/17/07	0.00	0.00	0.00	0.00	--	--	--	--	0.35	0.42	0.10	0.20	0.15	0.20	0.20	0.20	0.15	0.10	0.05	0.00	0.20
03/23/07	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.42	0.40	0.25	0.20	0.20	0.25	0.05	0.00	0.10	0.09	0.00	0.20
02/28/07	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.50	0.40	0.25	0.25	0.20	0.20	0.18	0.10	0.10	--	0.00	0.00
01/30/07	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.45	0.39	0.20	0.20	0.20	0.15	0.00	0.10	0.10	--	0.00	0.00
12/27/06	0.00	0.00	0.00	0.00	--	--	--	--	0.50	0.70	0.60	0.31	0.31	0.30	0.30	0.20	0.20	0.20	--	0.00	0.00
11/30/06	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.50	0.40	0.21	0.20	0.18	0.19	0.00	0.00	0.00	--	0.00	0.00
10/27/06	0.00	0.00	0.00	0.00	--	--	--	--	0.30	0.40	0.35	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.07	0.00	0.00
09/27/06	0.00	0.00	0.00	0.00	--	--	--	--	0.25	0.40	0.30	0.20	0.18	0.15	0.15	0.10	0.10	0.10	0.07	0.00	0.00
08/31/06	0.00	0.00	0.00	0.00	--	--	--	--	0.28	0.35	0.25	0.20	0.20	0.18	0.17	0.15	0.10	0.10	0.06	--	0.00
07/25/06	0.00	0.00	0.00	0.00	--	--	--	--	0.30	0.38	0.34	0.20	0.20	0.10	0.10	0.10	0.18	0.15	0.10	0.00	0.00
06/23/06	0.00	0.00	0.00	0.00	--	--	--	--	0.30	0.30	0.25	0.20	0.80	0.15	0.17	0.15	0.10	0.10	0.10	0.00	0.00
05/25/06	0.00	0.00	0.00	0.00	--	--	--	--	0.30	0.40	0.44	0.18	0.18	0.16	0.14	0.10	0.10	0.10	0.10	0.00	0.00
04/27/06	0.00	0.00	0.00	0.00	--	--	--	--	0.31	0.40	0.38	0.20	0.17	0.15	0.20	0.15	0.10	0.10	0.20	0.00	0.00
03/24/06	0.00	0.00	0.00	0.00	--	--	--	--	0.30	0.50	0.40	0.30	0.30	0.22	0.20	0.20	0.10	0.11	--	0.00	0.00
02/27/06	0.00	0.00	0.00	0.00	--	--	--	--	0.38	0.50	0.40	0.30	0.30	0.22	0.20	0.22	0.11	0.14	0.10	0.00	0.00
01/27/06	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.50	0.38	0.30	0.33	0.23	0.21	0.22	0.22	0.20	0.22	0.00	0.00
12/28/05	0.00	0.00	0.00	0.00	--	--	--	--	0.40	0.45	0.50	0.30	0.25	0.30	0.25	0.10	0.20	0.20	0.00	0.00	0.00
11/28/05	0.00	0.00	0.00	0.00	--	--	--	--	0.20	0.36	0.30	0.15	0.15	0.06	0.06	0.10	0.00	0.00	0.10	0.00	0.00
10/31/05	0.00	0.00	0.00	0.00	--	--	--	--	0.23	0.40	0.30	0.22	0.20	0.18	0.20	0.11	0.08	0.00	0.08	0.00	0.00
06/24/05	0.00	0.00	0.00	0.00	--	--	--	--	0.38	0.40	0.38	0.20	0.20	0.15	0.15	--	0.10	0.04	0.04	0.00	0.00
05/31/05	0.00	0.00	0.00	0.00	--	--	--	--	0.31	0.42	0.38	0.20	0.21	0.15	0.15	0.00	0.10	0.02	0.10	0.00	0.00
04/26/05	0.00	0.00	0.00	0.00	--	--	--	--	0.12	0.20	0.16	0.14	0.06	0.08	0.04	0.00	0.00	0.00	0.40	0.00	0.00
03/25/05	0.00	0.00	0.00	0.00	--	--	--	--	0.06	0.08	0.10	0.08	0.04	0.06	0.05	0.00	0.00	0.00	0.01	0.00	0.00
02/28/05	0.00	0.00	0.00	0.00	--	--	--	--	(0.06)	(0.10)	(0.10)	(0.04)	(0.06)	(0.04)	(0.04)	0.00	0.00	(0.01)	(0.01)	0.00	0.00
01/25/05	0.00	0.00	0.00	0.00	--	--	--	--	(0.08)	(0.08)	(0.06)	0.00	(0.04)	0.00	0.00	0.00	(0.03)	0.00	0.00	0.00	0.00
12/23/04	0.00	0.00	0.00	0.00	--	--	--	--	0.07	0.10	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/29/04	0.00	0.00	0.00	0.00	--	--	--	--	(0.06)	(0.08)	(0.10)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/29/04	0.00	0.00	0.00	0.00	--	--	--	--	(0.05)	(0.10)	(0.10)	(0.04)	(0.04)	(0.04)	(0.04)	0.00	0.00	0.00	0.00	0.00	0.00
09/29/04	0.00	0.00	0.00	0.00	--	--	--	--	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08/27/04	0.00	0.00	0.00	0.00	--	--	--	--	(0.10)	(0.10)	(0.10)	(0.10)	0.00	(0.10)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07/30/04	0.00	0.00	0.00	0.00	--	--	--	--	(0.10)	(0.08)	(0.08)	(0.05)	(0.07)	(0.08)	(0.05)	--	0.00	0.00	0.00	0.00	0.00
06/30/04	0.00	0.00	0.00	0.00	--	--	--	--	(0.10)	(0.10)	(0.10)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05/25/04	--	--	--	--	--	--	--	--	(0.10)	(0.20)	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)	--	0.00	0.00	0.00	0.00	0.00
04/27/04	0.00	0.00	0.00	0.00	--	--	--	--	0.00	(0.10)	0.00	0.00	(0.10)	0.00	(0.10)	0.00	0.00	0.00	0.00	0.00	0.00
03/31/04	0.00	0.00	0.00	0.00	--	--	--	--	(0.10)	0.00	(0.20)	0.00	(0.05)	0.00	0.00	0.00	--	--	0.00	0.00	0.00
02/26/04	0.00	0.00	0.00	0.00	--	--	--	--	0.00	--	0.00	(0.10)	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00
01/27/04	0.00	0.00	0.00	0.00	--	--	--	--	(0.10)	(0.10)	(0.20)	0.00	0.00	(0.17)	(0.10)	0.00	0.00	0.00	0.00	0.00	0.00
12/30/03	0.00	0.00	0.00	0.00	--	--	--	--	(0.10)	--	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/25/03	0.00	0.00	0.00	0.00	--	--	--	--	0.00	--	(0.10)	0.00	0.00	(0.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/30/03	0.00	0.00	0.00	0.00	--	--	--	--	(0.10)	(0.10)	0.00	0.00	(0.10)	(0.10)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09/29/03	0.00	0.00	0.00	0.00	--	--	--	--	(0.10)	(0.13)	(0.10)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08/29/03	0.00	0.00	0.00	0.00	--	--	--	--	(0.15)	(0.25)	(0.15)	(0.05)	(0.01)	(0.10)	(0.10)	0.00	0.00	0.00	0.00	0.00	0.00
07/31/03	0.00	0.00	0.00	0.00	--	--	--	--	(0.13)	(0.20)	(0.10)	(0.10)	(0.10)	(0.13)	(0.05)	0.00	(0.05)	0.00	0.00	--	--
06/20/03	0.00	0.00	0.00	0.00	--	--	--	--	(0.15)	(0.20)	(0.10)	(0.10)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05/28/03	0.00	0.00	0.00	0.00	--	--	--	--	(0.31)	(0.35)	(0.22)	(0.10)	0.00	(0.05)	(0.10)	(0.05)	(0.05)	(0.05)	0.00	0.00	0.00
04/28/03	0.00	0.00	0.00	0.00	--	--	--	--	(0.10)	(0.10)	(0.10)	0.00	0.00	(0.10)	(0.10)	0.00	(0.10)	0.00	0.00	0.10	0.10
03/01/03	0.00	0.10	0.10	0.00	--	--	--	--	0.00	0.00	(0.20)	0.00	0.00	0.00	(0.10)	0.00	0.00	(0.10)	0.00	0.00	0.00

Table 1. Pressure
Terminal 5 / RA-3 Landfill Gas Monitoring
(Magnahelic gauge or digital manometer - inches of water relative to atmospheric pressure.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
02/01/03	0.00	0.00	0.00	0.00	--	--	--	--	(0.20)	(0.10)	0.00	0.00	(0.10)	(0.20)	(0.40)	(0.10)	0.00	0.00	0.10	0.00	(0.10)
01/01/03	0.00	0.00	0.00	0.00	--	--	--	--	(0.10)	--	(0.20)	0.00	(0.30)	(0.10)	(0.20)	--	(0.10)	0.00	0.00	0.00	(0.10)
12/23/02	0.00	0.00	0.00	0.00	--	--	--	--	(0.20)	--	(0.20)	--	0.00	0.00	0.00	(0.10)	0.10	0.00	0.00	0.00	0.00
11/15/02	(0.10)	0.00	0.00	0.00	--	--	--	--	(0.20)	--	(0.20)	0.00	0.00	0.00	0.00	0.00	0.10	(0.10)	0.00	0.00	0.10
10/15/02	0.00	0.10	0.10	0.10	--	--	--	--	0.00	0.00	(0.20)	0.00	0.00	0.00	0.10	0.00	0.00	0.10	0.00	0.00	0.00
09/15/02	0.00	0.00	0.00	0.00	--	--	--	--	0.00	0.00	0.30	0.00	0.00	0.20	0.00	0.00	0.20	0.00	0.00	0.00	0.00
08/15/02	0.00	0.00	0.00	0.00	--	--	--	--	(0.10)	(0.20)	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	0.00
07/15/02	0.00	0.00	0.00	0.00	--	--	--	--	(0.10)	(0.10)	0.00	0.00	0.00	0.10	0.00	0.20	0.00	0.00	0.00	0.00	0.10
06/15/02	0.00	0.00	0.00	0.00*	--	--	--	--	(0.10)	(0.20)	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	(0.20)	0.00	0.00
05/15/02	0.00	0.00	0.00	0.00	--	--	--	--	(0.10)	(0.20)	(0.10)	0.00	(0.10)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04/15/02	0.30	0.00	0.00	0.00	--	--	--	--	0.00	--	(0.20)	(0.10)	(0.10)	0.00	(0.10)	0.00	0.00	0.00	0.00	0.00	0.00
03/15/02	0.00	0.10	0.00	0.00	--	--	--	--	(0.20)	--	(0.20)	(0.10)	(0.20)	(0.10)	(0.20)	0.00	0.00	0.00	0.00	0.00	0.00
02/15/02	0.10	0.00	0.00	0.00	--	--	--	--	(0.20)	--	(0.20)	(0.10)	0.00	0.00	0.00	0.00	(0.20)	0.00	0.00	0.00	0.00
01/15/02	0.00	0.00	0.00	0.00	--	--	--	--	(0.10)	(0.20)	(0.10)	(0.20)	0.00	(0.20)	(0.20)	0.00	(0.20)	0.00	(0.20)	0.00	0.00
12/15/01	0.00	0.00	(0.10)	0.00	--	--	--	--	(0.10)	--	(0.30)	(0.20)	(0.30)	(0.20)	(0.30)	(0.10)	(0.20)	0.00	(0.30)	0.00	(0.10)
11/15/01	0.00	0.00	0.00	0.00	--	--	--	--	(0.20)	--	(0.10)	0.00	(0.10)	0.00	(0.70)	(0.30)	(0.40)	0.00	0.00	0.00	0.00
10/15/01	0.00	0.00	0.00	0.00	--	--	--	--	(0.10)	(0.20)	(0.10)	(0.20)	0.00	(0.20)	(0.20)	0.00	(0.20)	(0.30)	0.00	(0.20)	(0.10)
09/15/01	0.00	0.00	0.00	0.00	--	--	--	--	(0.10)	(0.20)	(0.10)	0.00	0.00	0.00	0.00	0.00	(0.50)	0.00	0.00	(0.10)	0.00
08/01/01	0.50	0.30	0.00	0.00	--	--	--	--	(0.10)	(0.20)	0.00	0.00	0.00	0.10	(0.10)	0.00	(0.50)	0.00	0.00	0.00	0.00
07/01/01	0.00	0.00	0.00	(0.20)	--	--	--	--	0.00	(0.20)	0.00	0.00	0.00	0.00	0.00	0.00	(0.20)	0.00	0.00	0.00	0.00
06/01/01	0.00	0.00	0.00	0.00	--	--	--	--	(0.30)	(0.50)	(0.20)	(0.10)	0.00	0.00	(0.10)	0.00	(0.20)	0.00	(0.20)	0.00	(0.10)
05/01/01	(0.10)	(0.10)	0.20	0.40	--	--	--	--	0.00	(0.10)	0.00	0.00	0.00	0.00	(0.60)	0.00	(1.90)	(0.40)	(0.40)	0.00	(0.20)
04/01/01	(0.80)	(1.30)	(0.10)	(0.30)	--	--	--	--	(0.10)	--	(0.10)	0.00	0.00	(0.10)	(0.10)	(0.30)	(3.10)	(0.90)	(0.40)	0.00	(0.20)
03/10/01	0.10	(0.30)	0.60	-	--	--	--	--	0.00	--	0.40	(0.10)	0.20	0.10	0.00	--	(2.80)	0.80	0.00	0.40	0.10
02/01/01	(0.70)	0.00	(0.10)	1.20	--	--	--	--	(0.02)	(0.10)	0.00	(0.10)	(0.60)	0.00	(0.40)	--	(8.90)	(0.40)	(0.10)	(0.10)	0.10
01/01/01	--	--	--	--	--	--	--	--	(0.22)	--	(0.26)	(0.18)	(0.17)	0.12	(0.13)	0.10	0.00	0.00	0.10	0.00	0.06
12/01/00	0.00	0.00	0.00	0.00	--	--	--	--	(0.18)	--	(0.22)	(0.12)	0.13	0.08	0.06	0.08	0.02	0.01	0.01	0.08	0.05
11/01/00	0.00	0.00	0.00	0.00	--	--	--	--	(0.24)	(0.38)	(0.34)	(0.23)	(0.22)	(0.18)	(0.18)	(0.17)	0.04	0.07	(0.14)	0.00	0.10
10/01/00	0.00	0.00	0.00	0.00	--	--	--	--	(0.24)	(0.34)	(0.27)	(0.20)	(0.19)	(0.15)	(0.13)	(0.13)	--	0.06	0.04	0.02	0.08
09/15/00	0.00	0.00	0.02	0.00	--	--	--	--	(0.28)	(0.36)	(0.28)	0.00	(0.20)	0.14	0.12	0.11	0.05	0.05	0.08	0.10	0.14
08/01/00	0.00	0.00	0.00	0.00	--	--	--	--	(0.31)	(0.35)	(0.30)	(0.18)	(0.22)	(0.14)	(0.10)	0.11	0.06	0.08	0.11	0.06	0.12
07/01/00	0.00	0.00	0.00	0.00	--	--	--	--	(0.28)	(0.34)	(0.28)	(0.14)	(0.18)	(0.15)	0.12	0.10	0.06	0.05	0.08	0.06	(0.16)
06/01/00	0.00	0.00	0.03	0.02	--	--	--	--	(0.26)	(0.32)	(0.26)	(0.20)	(0.20)	0.11	0.02	0.10		(0.25)	0.04	0.10	(0.14)
05/01/00	--	0.00	0.00	0.00	--	--	--	--	(0.28)	--	(0.31)	(0.22)	0.20	(0.13)	(0.15)	0.15	0.02	0.02	0.08	0.11	(0.18)
04/01/00	0.00	0.00	--		--	--	--	--	(0.31)	--	(0.30)	(0.17)	0.15	0.12	(0.14)	(0.16)	--	0.06	0.10	0.10	0.10
03/01/00	0.06	0.00	--	(0.20)	--	--	--	--	(0.35)	--	(0.38)		(0.27)	(0.25)	(0.20)	0.12	--	--	0.12	(0.09)	(0.13)
02/01/00	0.00	0.00	--		--	--	--	--	(0.33)	--	(0.34)	(0.25)	(0.24)	(0.20)	(0.18)	(0.19)	--	--	--	(0.11)	(0.18)
01/01/00	--	--	--	--	--	--	--	--	(0.34)	--	(0.38)	(0.27)	(0.27)	0.23	(0.23)	0.22	--	--	0.05	0.00	(0.16)
12/01/99	--	--	--	--	--	--	--	--	(0.30)	--	(0.35)	(0.23)	--	0.20	(0.21)	0.10	--	--	0.07	(0.11)	(0.20)
11/01/99	--	--	--	--	--	--	--	--	(0.25)	(0.40)	(0.30)	(0.21)	(0.18)	(0.16)	(0.20)	(0.15)	--	(0.80)	--	0.03	0.08
10/01/99	--	--	--	--	--	--	--	--	(0.23)	(0.39)	(0.25)	--	--	(0.13)	0.12	0.06	0.06	0.06	0.06	0.01	0.10
09/01/99	--	--	--	--	--	--	--	--	(0.30)	(0.40)	(0.29)	--	--	(0.11)	(0.12)	0.08	0.06	(0.70)	0.05	0.11	(0.13)
08/01/99	--	--	--	--	--	--	--	--	(0.28)	(0.36)	(0.29)	--	--	(0.14)	0.14	0.08	0.04	0.05	0.06	0.10	0.14
07/01/99	--	--	--	--	--	--	--	--	(0.33)	(0.40)	(0.31)	(0.22)	(0.21)	(0.16)	(0.16)	0.00	0.11	0.11	0.11	(0.12)	(0.18)
06/01/99	--	--	--	--	--	--	--	--	(0.31)	(0.41)	(0.30)	(0.17)	(0.16)	0.14	(0.12)	0.09	0.08	0.07	0.10	0.11	(0.17)
05/01/99	--	--	--	--	--	--	--	--	(0.32)	(0.36)	(0.30)	(0.22)	(0.21)	(0.18)	(0.16)	0.07	0.06	(0.73)	0.12	(0.14)	(0.18)
04/01/99	--	--	--	--	--	--	--	--	(0.30)	--	(0.30)	(0.20)	(0.22)	(0.22)	(0.22)	0.10	(0.90)	0.00	0.10	(0.13)	(0.15)
03/01/99	--	--	--	--	--	--	--	--	(0.35)	--	(0.34)	(0.23)	(0.22)	(0.22)	(0.19)	(0.22)	(0.90)	(1.00)	(0.30)	0.00	(0.14)
02/01/99	--	--	--	--	--	--	--	--	0.14	--	0.08	0.07	0.10	0.00	0.01	(0.17)	--	--	0.37	0.06	0.07
01/01/99	--	--	--	--	--	--	--	--	(0.36)	--	(0.42)	(0.35)	(0.34)	(0.26)	(0.24)	(0.45)	--	--	--	(0.11)	(0.21)
12/01/98	--	--	--	--	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	0.00	0.00
11/01/98	--	--	--	--	--	--	--	--	(0.16)	(0.18)	(0.20)	(0.16)	(0.12)	(0.14)	0.00	(0.10)	--	0.04	0.11	0.08	0.06

Table 1. Pressure
Terminal 5 / RA-3 Landfill Gas Monitoring
(Magnahelic gauge or digital manometer - inches of water relative to atmospheric pressure.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
10/01/98	--	--	--	--	--	--	--	--	(0.26)	(0.30)	0.75	0.02	0.12	0.15	0.10	0.16	(0.06)	0.19	0.00	--	--

Definitions and Notes:

* VP-2 is the only on-site soil gas probe within the limits of the landfill. VP-1, VP-3, and VP-4 are located beyond the landfill limits.
-- Data was not provided for this period. Monitoring was conducted by others, prior to AECOM.
Bold Values in bold were collected by AECOM (Jan 2023 to date).
(Value) Values in parentheses represent a negative pressure relative to atmospheric pressure.
NA Not accessible.
Green shading indicates monitoring point connected to landfill gas collection piping.
Blue shading indicates perimeter monitoring point, not connected to landfill gas collection piping.

Table 2. Temperature
Terminal 5 / RA-3 Landfill Gas Monitoring
(IR thermometer - degrees Fahrenheit)

Date	Landfill Gas Collection System Monitoring Points												
	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
Average 2023	**60.4**	**64.6**	**61.7**	**60.5**	**59.2**	**59.9**	**58.5**	**59.9**	**63.8**	**63.0**	**63.3**	**56.6**	**57.3**
Average 2020-2022	61.4	62.4	61.0	62.1	60.0	60.7	61.1	62.6	62.1	63.4	63.0	59.6	60.1
Average 2017-2019	63.1	67.0	65.2	64.2	63.1	64.0	63.0	62.8	65.7	65.9	65.8	62.1	62.8
Average 2016 (pre-system shutdown)	71.2	72.5	70.9	71.1	71.5	72.7	73.8	68.8	70.1	71.3	70.4	71.3	70.0
Average 2008-2016	67.3	69.4	68.1	65.0	66.5	66.4	66.7	65.5	68.4	68.8	68.0	67.1	67.0
Average 1998-2007	57.5	60.5	57.7	57.9	56.9	57.9	58.1	58.1	58.3	58.1	58.6	57.1	57.5
10/20/23	**63.4**	**67.2**	**67.8**	**67.4**	**65.4**	**66.7**	**64.5**	**65.6**	**65.6**	**64.9**	**64.1**	**61.2**	**62.1**
09/14/23	**82.7**	**87.8**	**78.2**	**73.2**	**71.2**	**79.1**	**73.7**	**81.3**	**79.1**	**74.8**	**78.0**	**68.3**	**69.8**
08/10/23	**80.2**	**87.2**	**81.8**	**73.7**	**79.5**	**73.9**	**72.5**	**66.0**	**82.7**	**84.2**	**83.1**	**74.1**	**75.2**
07/11/23	**72.5**	**82.4**	**77.7**	**69.8**	**69.0**	**66.3**	**68.3**	**68.9**	**78.4**	**76.2**	**78.2**	**67.1**	**71.0**
06/19/23	**66.2**	**75.2**	**71.7**	**65.1**	**62.7**	**63.5**	**64.4**	**61.3**	**73.1**	**70.5**	**76.8**	**NA**	**NA**
05/18/23	**73.4**	**78.9**	**70.3**	**67.4**	**64.7**	**72.6**	**64.7**	**63.1**	**79.8**	**78.9**	**73.7**	**66.7**	**67.8**
04/05/23	**49.6**	**53.4**	**51.8**	**54.8**	**50.4**	**52.7**	**50.6**	**53.4**	**55.4**	**56.1**	**53.0**	**48.9**	**49.6**
03/23/23	**52.6**	**56.3**	**54.8**	**54.6**	**52.8**	**52.8**	**53.4**	**53.6**	**57.3**	**56.3**	**58.1**	**50.3**	**51.4**
03/09/23	**46.2**	**48.9**	**48.0**	**50.1**	**48.9**	**48.9**	**47.8**	**52.8**	**46.2**	**47.8**	**48.9**	**44.4**	**44.9**
02/23/23	**44.9**	**48.7**	**45.9**	**50.2**	**44.4**	**47.1**	**44.7**	**50.2**	**48.6**	**48.6**	**45.9**	**43.8**	**44.7**
02/10/23	**53.6**	**52.9**	**52.4**	**53.6**	**56.4**	**51.5**	**52.9**	**53.8**	**58.8**	**54.8**	**54.1**	**52.1**	**51.6**
01/27/23	**50.8**	**52.1**	**51.3**	**53.4**	**53.2**	**52.7**	**52.5**	**54.0**	**54.5**	**53.9**	**58.1**	**52.1**	**53.2**
01/10/23	**48.7**	**49.1**	**50.3**	**52.8**	**50.9**	**51.0**	**50.8**	**54.3**	**50.1**	**52.6**	**50.6**	**50.2**	**46.7**
12/28/22	52.1	55.6	52.9	54.9	54.5	52.9	53.5	--	50.4	50.8	49.6	48.3	49.4
12/14/22	65.6	54.2	63.4	61.0	60.2	59.1	62.5	63.6	69.3	67.8	68.3	69.1	69.0
11/17/22	68.3	56.4	63.2	62.4	60.3	60.2	63.5	64.1	63.7	68.1	69.8	70.0	68.9
10/19/22	69.7	70.0	68.0	68.4	63.8	67.9	66.8	68.1	68.9	73.8	72.3	68.7	69.7
10/06/22	64.3	68.5	67.5	63.4	67.0	64.2	71.4	74.3	75.4	70.2	72.0	73.0	72.9
09/22/22	66.7	66.7	67.2	62.1	66.5	65.2	72.0	72.5	71.6	70.0	73.4	73.0	76.5
09/08/22	65.4	65.1	65.0	63.7	65.4	63.0	72.4	73.0	70.6	69.1	73.6	73.2	74.6
08/26/22	65.0	63.0	65.0	62.0	66.0	63.0	79.0	74.0	73.0	68.0	72.0	73.0	75.3
08/11/02	72.0	69.0	68.0	64.0	61.0	65.0	75.3	75.6	69.8	78.2	71.6	65.0	68.0
07/28/22	71.0	73.0	73.0	70.0	73.0	69.0	73.7	72.3	66.0	66.0	65.6	70.5	71.0
07/13/22	74.1	73.0	71.8	78.8	79.8	78.0	79.1	77.4	79.2	78.2	78.1	70.3	70.0
06/22/22	73.0	76.0	78.8	79.0	86.0	78.0	75.5	73.4	78.2	73.0	75.3	73.4	74.0
06/10/22	81.3	85.3	65.6	64.9	66.2	60.9	70.0	77.0	76.0	65.0	68.0	52.8	48.7
05/27/22	73.7	72.3	62.6	60.7	73.9	67.0	66.2	71.3	71.8	70.5	71.0	51.3	50.7
05/12/22	70.3	68.7	66.0	65.6	64.9	52.0	53.0	51.0	52.0	56.0	56.0	44.3	48.0
04/29/22	69.0	69.0	63.1	62.6	60.7	58.0	59.0	59.0	60.0	59.0	60.0	48.2	51.4

Table 2. Temperature
Terminal 5 / RA-3 Landfill Gas Monitoring
(IR thermometer - degrees Fahrenheit)

Date	Landfill Gas Collection System Monitoring Points												
	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
04/06/22	59.0	61.0	58.0	58.0	51.0	55.0	56.0	51.0	58.0	51.0	58.0	54.1	50.7
03/18/22	58.0	53.0	53.0	53.0	54.0	55.0	55.0	52.0	59.0	54.0	51.0	50.0	51.0
03/03/22	58.0	54.0	54.0	55.0	51.0	51.0	50.0	52.0	53.0	53.0	53.0	51.0	58.0
02/18/22	48.0	50.0	50.0	50.0	49.0	46.0	54.0	49.0	51.0	49.0	48.0	54.0	54.0
02/03/22	54.0	57.0	52.0	50.0	47.0	48.0	61.0	53.0	63.0	60.0	60.0	51.0	55.0
01/21/22	61.0	51.0	56.0	58.0	53.0	58.0	48.0	51.0	58.0	61.0	60.0	49.0	49.0
01/06/22	--	--	--	--	--	--	--	--	--	--	--	47.0	48.0
12/22/21	62.1	54.0	60.2	58.2	56.7	60.0	60.2	61.0	60.1	62.1	61.4	--	--
12/06/21	--	--	--	--	--	--	--	--	62.1	63.5	60.2	--	--
11/11/21	65.7	54.4	63.2	61.4	60.2	59.2	62.8	63.6	--	--	--	--	--
10/28/21	68.4	56.2	63.4	62.0	60.3	60.1	63.5	64.1	63.7	68.1	69.8	--	--
09/30/21	67.9	70.1	70.8	68.1	63.8	67.9	66.5	70.1	68.9	73.8	72.3	68.7	69.7
09/17/21	72.2	77.0	69.8	70.2	67.9	71.5	71.3	66.7	70.9	76.5	72.0	68.4	70.1
08/27/21	74.2	80.0	71.2	72.3	68.8	76.4	67.8	65.1	68.2	78.7	71.7	66.9	71.8
08/05/21	68.0	70.2	68.7	69.8	65.2	68.8	66.5	68.9	63.9	71.5	71.2	69.9	70.2
07/22/21	73.2	76.6	73.5	69.8	68.7	75.6	65.4	74.3	79.6	75.8	72.8	71.2	75.5
06/30/21	70.9	75.6	71.2	70.1	69.3	68.5	67.9	74.1	70.6	75.6	78.6	72.3	71.3
06/10/21	66.5	61.1	62.4	69.8	71.1	62.3	65.0	70.2	62.5	69.8	65.4	68.3	67.2
05/27/21	63.1	64.2	63.1	60.8	67.0	66.5	68.1	63.5	61.9	60.4	60.2	63.2	64.1
05/12/21	63.1	63.4	64.3	68.9	62.1	64.5	65.4	66.7	63.4	71.0	70.2	60.4	64.5
04/30/21	61.2	63.8	64.6	65.4	65.3	66.8	62.9	60.1	59.8	66.8	66.2	63.2	61.5
04/15/21	54.2	58.6	53.2	59.1	52.7	55.0	56.1	62.3	60.1	59.3	54.1	53.6	53.2
04/01/21	54.1	55.6	55.7	58.2	55.1	55.2	54.1	56.7	58.9	60.1	61.6	52.1	53.0
03/19/21	50.3	53.8	53.7	54.1	55.6	54.3	57.2	51.9	58.1	61.5	57.6	53.2	52.9
03/03/21	--	--	--	--	--	--	--	--	61.1	55.2	58.8	53.1	51.1
02/19/21	46.3	47.2	48.1	50.6	43.2	50.8	49.1	48.7	50.1	52.6	48.3	51.1	50.1
01/07/21	39.0	41.3	41.0	48.1	42.2	45.5	49.2	53.6	49.1	51.3	47.6	51.3	49.4
12/23/20	49.2	50.0	49.8	54.0	46.2	50.6	50.2	53.8	54.1	49.2	46.3	47.1	46.9
12/11/20 & 12/14/20	50.1	50.4	49.5	59.3	47.7	51.4	50.2	54.8	47.6	50.9	46.5	48.6	46.7
11/25/20	50.5	52.8	52.9	55.2	51.8	55.3	53.3	57.7	49.8	51.1	50.1	51.1	49.5
11/11/20	50.7	55,5	52.6	57.7	50.4	55.9	53.5	58.9	49.0	56.1	53.5	49.0	48.9
10/14/20	59.4	64.0	67.2	64.2	59.6	62.5	60.1	62.5	59.2	66.9	60.9	59.8	60.0
09/29/20	65.9	72.1	70.6	70.8	64.9	67.7	65.3	69.7	69.8	72.9	72.5	68.7	68.3
09/11/20	70.2	79.6	71.6	71.2	68.5	70.6	70.3	65.4	73.6	76.2	72.5	--	72.3
08/28/20	73.8	83.9	73.4	73.3	67.8	75.8	68.7	65.0	73.9	78.8	76.1	89.1	73.8

Table 2. Temperature
Terminal 5 / RA-3 Landfill Gas Monitoring
(IR thermometer - degrees Fahrenheit)

Date	Landfill Gas Collection System Monitoring Points												
	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
08/14/20	65.0	72.2	70.7	70.9	64.1	67.8	65.4	69.0	69.3	72.6	72.1	68.5	68.2
07/28/20	75.2	78.4	75.3	70.7	69.3	76.8	64.5	78.9	76.9	75.8	79.2	72.3	76.6
07/17/20	72.9	77.4	73.6	71.3	69.2	68.6	69.5	72.6	73.8	76.5	76.8	72.1	73.7
06/29/20	68.2	63.1	64.6	70.6	71.0	63.6	66.8	65.9	63.1	68.9	64.5	68.3	68.1
06/19/20	68.5	69.5	66.3	73.4	70.1	63.2	62.1	58.8	59.8	61.8	61.7	53.2	51.2
06/03/20	62.1	63.4	60.1	63.8	67.5	66.0	68.6	63.1	61.0	60.9	63.2	64.5	66.7
05/22/20	63.2	68.1	64.3	68.9	62.1	65.4	66.6	63.4	71.0	70.4	64.6	63.1	68.2
05/07/20	62.1	68.4	63.6	63.3	65.3	62.9	59.9	60.1	70.0	67.0	66.3	60.7	60.0
04/24/20	54.5	57.5	56.3	56.7	53.4	55.0	53.2	62.1	60.8	59.8	54.5	53.2	53.1
04/13/20	54.1	57.5	55.3	57.7	54.3	55.1	52.3	55.2	62.1	60.7	59.5	54.3	54.0
03/25/20	49.6	54.2	48.4	52.3	50.0	51.7	50.7	--	50.4	54.3	52.7	50.1	50.9
03/12/20	50.1	48.3	53.6	50.0	49.2	51.7	50.3	52.6	50.9	48.2	52.7	51.0	51.0
02/28/20	46.4	49.0	47.3	51.5	47.2	50.3	49.1	52.5	49.5	51.8	50.8	48.2	48.2
02/12/20	47.2	49.1	48.1	51.7	48.3	50.0	49.9	53.8	47.1	51.3	--	50.0	47.7
01/29/20	49.2	49.5	51.3	62.8	49.6	50.9	50.9	55.0	50.1	50.4	--	50.5	50.5
01/17/20	39.0	42.0	40.6	51.0	41.8	45.4	44.8	52.9	38.9	45.1	--	44.1	41.5
01/03/20	48.5	50.3	49.9	54.1	50.1	51.6	51.0	54.6	49.1	51.0	48.3	50.2	49.5
12/18/19	46.2	48.2	46.7	50.6	48.7	51.9	50.9	54.6	47.3	51.1	43.0	--	--
12/04/19	51.6	52.5	52.1	56.0	51.4	53.5	52.2	50.9	51.5	52.7	--	51.6	50.6
11/06/19	53.4	56.2	54.3	57.8	52.1	55.1	53.5	59.8	52.9	57.3	52.7	53.6	53.0
10/22/19	63.2	78.1	76.3	68.9	72.1	65.4	66.6	73.4	80.1	70.6	71.6	73.1	78.2
10/08/19	60.3	73.2	70.9	65.3	63.6	78.2	70.9	64.6	78.2	76.6	75.3	72.1	75.5
09/23/19	65.3	72.1	70.5	70.3	64.8	67.7	65.0	69.3	69.9	72.1	72.5	68.5	68.6
09/12/19	65.9	72.1	70.6	69.8	65.9	69.7	66.0	68.7	70.8	73.9	72.5	67.5	68.4
08/29/19	71.9	78.4	73.2	71.6	68.3	72.6	69.2	69.5	73.8	76.6	78.6	72.3	73.2
08/14/19	74.9	80.5	75.9	71.6	69.1	72.1	68.6	67.4	78.0	83.2	81.0	81.1	77.5
07/26/19	75.2	82.4	76.2	70.7	69.5	84.8	74.5	64.8	82.0	80.4	-	72.3	76.6
07/11/19	72.0	74.2	70.7	68.8	68.0	69.0	68.0	64.7	73.0	75.1	75.9	69.4	69.4
06/19/19	72.0	74.2	70.7	68.8	68.0	69.0	68.1	64.7	73.0	75.1	75.9	69.4	69.4
06/05/19	73.9	77.7	70.9	65.6	66.9	64.6	65.0	60.0	71.7	73.1	76.4	67.2	72.2
05/23/19	66.2	70.5	66.3	63.4	63.5	62.3	63.5	58.4	68.2	68.9	68.8	64.4	65.7
05/07/19	64.0	71.6	65.4	62.0	61.1	60.8	59.8	54.9	66.7	68.0	71.0	61.3	62.0
04/23/19	56.8	60.8	58.0	57.5	56.4	57.3	56.5	--	58.2	60.3	60.5	57.5	58.3
04/10/19	--	--	--	--	--	--	--	54.0	--	--	--	52.0	52.0
03/26/19	50.0	55.0	51.0	53.0	50.0	52.0	51.0	51.0	52.0	56.0	55.0	51.0	50.0

Table 2. Temperature
Terminal 5 / RA-3 Landfill Gas Monitoring
(IR thermometer - degrees Fahrenheit)

Date	Landfill Gas Collection System Monitoring Points												
	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
03/18/19	47.0	52.0	50.0	51.0	50.0	50.0	51.0	51.0	51.0	53.0	52.0	--	--
03/01/19	42.6	51.8	48.9	52.0	65.0	46.0	48.9	51.0	54.0	48.0	43.5	51.0	50.0
02/15/19	43.0	43.0	44.0	46.2	50.0	44.0	46.1	50.0	47.0	44.0	46.3	43.1	43.6
01/31/19	50.0	52.1	49.9	52.3	56.3	51.6	50.3	53.0	54.1	50.3	52.8	48.7	50.9
01/11/19	49.6	51.6	50.0	54.1	51.6	51.8	51.6	--	50.1	50.9	51.3	50.7	48.7
12/26/18	47.1	50.7	--	51.6	47.8	50.0	50.0	50.9	48.3	49.7	44.3	48.0	44.4
12/11/18	48.2	50.7	48.4	53.0	47.1	51.8	51.4	55.0	46.5	51.8	48.2	51.4	50.1
11/30/18	51.8	54.9	54.1	55.9	52.6	54.3	53.6	57.0	51.4	55.7	54.1	50.7	52.1
11/20/18	48.7	52.3	47.1	55.5	52.0	52.7	51.4	58.0	49.9	55.4	54.3	51.6	50.7
11/02/18	62	65	63	65	62	66	63	61	63	66	62	60	62
10/08/18	68	72	69	68	64	61	65	65	65	66	66	63	55
09/21/18	74	71	73	73	70	73	69	70	71	75	76	70	71
09/07/18	84	89	82	71	81	81	80	74	92	89	81	81	78
07/30/18	84	94	91	79	80	81	79	75	88	87	90	78	81
07/13/18	83	86	89	79	86	78	76	70	91	81	82	73	75
06/29/18	73	79	74	83	68	72	70	65	82	77	76	65	68
06/15/18	75	81	85	70	81	72	72	74	89	71	72	71	71
06/01/18	68	74	72	66	66	66	65	66	61	70	65	70	70
05/11/18	66	70	69	63	63	63	61	74	67	66	69	64	66
04/26/18	60	69	69	64	65	71	78	74	82	80	78	72	78
04/06/18	64	65	63	63	58	60	59	63	--	73	69	65	63
03/07/18	53	55	54	59	59	51	55	56	51	51	58	51	59
02/21/18	52	53	51	52	56	56	49	50	49	51	50	50	51
02/05/18	58	59	59	60	59	60	59	59	61	58	58	51	58
01/24/18	55	56	51	58	51	58	56	58	53	53	53	54	54
01/09/18	55	55	52	59	54	51	56	58	54	54	55	51	55
12/27/17	51	50	52	53	53	53	53	48	50	50	50	49	49
12/12/17	46	54	49	51	49	48	53	54	57	52	50	47	48
11/27/17	48	61	53	63	60	60	60	61	51	56	58	53	51
11/11/17	58	48	51	58	61	60	59	61	54	56	58	58	58
10/28/17	65	61	61	67	69	70	55	58	--	62	72	66	63
10/13/17	69	71	67	69	61	62	62	68	59	63	61	63	60
09/27/17	75	82	75	75	72	73	71	74	72	73	75	73	73
09/16/17	78	88	80	78	71	80	78	78	82	82	86	78	82
08/30/17	82	86	85	81	80	80	86	73	83	80	81	82	81

Table 2. Temperature
Terminal 5 / RA-3 Landfill Gas Monitoring
(IR thermometer - degrees Fahrenheit)

Date	Landfill Gas Collection System Monitoring Points												
	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
08/17/17	80	83	88	84	80	83	83	71	84	89	80	81	81
07/24/17	85	82	85	80	80	86	80	83	88	85	85	79	79
07/10/17	86	89	89	71	78	81	80	75	81	80	85	86	81
06/01/17	--	--	--	--	--	--	--	--	--	--	--	71	82
05/09/17	--	--	--	--	--	--	--	--	--	--	--	81	80
04/11/17	--	--	--	--	--	--	--	--	--	--	--	54	55
03/08/17	--	--	--	--	--	--	--	--	--	--	--	51	50
02/21/17	--	--	--	--	--	--	--	--	--	--	--	60	56
02/07/17	--	--	--	--	--	--	--	--	--	--	--	45	46
01/23/17	--	--	--	--	--	--	--	--	--	--	--	51	57
01/05/17	--	--	--	--	--	--	--	--	--	--	--	45	44
12/16/16	51	51	56	58	51	60	61	52	51	49	50	51	51
11/16/16	65	71	68	66	73	69	61	68	62	71	71	68	74
10/16/16	71	71	69	82	71	70	74	71	78	74	68	71	70
09/16/16	87	85	82	83	81	83	91	81	81	83	83	85	76
08/16/16	71	81	81	94	82	84	93	81	71	70	88	86	85
07/16/16	84	84	81	71	83	82	76	77	79	88	80	81	84
06/01/16	86	88	80	74	80	80	85	74	84	84	80	81	78
05/01/16	88	85	88	81	88	87	88	73	88	81	81	82	78
04/01/16	66	73	76	67	64	72	74	72	71	71	70	68	70
03/08/16	60	61	61	59	64	60	59	58	60	51	60	61	55
02/09/16	59	62	49	61	56	71	68	51	61	68	58	55	54
01/12/16	53	51	54	56	55	53	55	58	55	56	55	59	58
12/09/15	64	58	62	59	61	61	62	62	51	58	51	59	58
11/10/15	61	60	65	60	66	66	64	68	59	62	62	65	60
10/14/15	66	70	69	71	63	71	69	71	72	70	76	74	72
09/15/15	73	80	71	73	75	80	71	73	82	82	71	80	83
08/15/15	81	86	88	83	84	95	95	81	92	93	95	86	82
07/15/15	86	82	81	79	85	102	92	104	88	89	85	88	101
06/15/15	81	86	91	88	83	83	83	88	91	88	95	85	88
05/15/15	74	75	75	71	71	73	72	71	75	72	75	72	72
04/15/15	71	73	72	61	69	69	68	62	82	82	66	73	74
03/15/15	68	76	61	66	60	64	78	71	70	79	76	81	64
02/15/15	61	70	69	68	70	70	69	68	61	61	61	69	66
01/15/15	64	64	64	60	64	64	65	64	61	63	58	61	61

Table 2. Temperature
Terminal 5 / RA-3 Landfill Gas Monitoring
(IR thermometer - degrees Fahrenheit)

Date	Landfill Gas Collection System Monitoring Points												
	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
Dec-14	50	51	41	50	50	51	68	61	55	63	55	68	61
Nov-14	50	53	52	51	48	41	40	46	45	50	49	50	48
Oct-14	68	68	65	65	61	78	68	71	79	71	63	72	83
09/14/14	80	81	91	81	83	83	75	73	81	82	80	88	83
08/14/14	83	88	88	73	84	76	75	75	85	84	84	82	88
07/14/14	85	84	82	72	82	105	79	75	95	111	94	86	84
Jun-14	83	75	76	71	69	71	71	75	83	85	73	81	87
May-14	76	78	80	71	73	70	70	80	87	87	81	70	72
Apr-14	65	66	66	59	61	72	69	65	78	77	72	64	67
03/13/14	61	58	64	64	63	58	57	57	63	57	66	63	60
02/13/14	50	55	51	51	52	51	51	54	53	52	52	52	52
01/13/14	54	54	56	54	54	53	52	50	51	51	52	52	50
12/13/13	48	46	50	54	45	47	43	52	48	49	41	51	51
11/13/13	62	62	63	61	58	60	59	64	63	62	--	59	58
10/13/13	64	63	66	63	62	63	63	61	59	55	59	60	58
09/13/13	78	77	77	71	73	71	71	72	74	79	75	72	72
08/13/13	86	86	89	84	97	81	76	84	86	88	95	93	80
07/13/13	86	98	93	103	87	78	73	96	87	95	93	94	92
06/13/13	81	90	80	70	80	73	70	70	84	89	87	84	85
05/13/13	89	91	92	77	71	67	81	68	91	90	82	68	69
04/13/13	80	99	69	59	87	61	72	64	90	85	92	73	72
03/13/13	57	58	59	56	60	56	57	55	65	64	66	61	61
02/13/13	54	54	57	56	53	53	52	53	54	53	51	52	52
01/13/13	55	60	57	56	57	54	54	51	52	57	51	52	56
12/12/12	53	54	57	54	54	55	55	50	48	57	--	52	52
11/12/12	67	68	70	68	66	62	62	69	62	63	58	69	68
10/12/12	76	81	78	72	86	72	76	78	76	75	76	72	72
09/01/12	84	89	86	72	109	82	76	78	84	76	107	92	90
08/01/12	86	112	86	81	84	92	87	104	95	103	102	95	92
07/01/12	77	78	101	72	67	74	85	72	77	82	75	76	76
06/01/12	88	76	76	70	71	70	76	81	78	77	78	80	81
05/01/12	93	88	73	67	78	67	70	75	85	84	84	82	82
04/01/12	68	65	61	61	80	64	68	66	67	65	65	64	64
03/01/12	56	58	58	59	56	59	61	58	59	60	60	61	61

Table 2. Temperature
Terminal 5 / RA-3 Landfill Gas Monitoring
(IR thermometer - degrees Fahrenheit)

Date	Landfill Gas Collection System Monitoring Points												
	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
02/01/12	51	51	58	54	52	49	49	51	52	51	52	51	51
01/01/12	50	60	55	50	50	51	53	52	51	54	--	43	45
12/01/11	59	59	61	58	59	58	59	58	52	53	53	52	52
11/01/11	55	55	58	54	55	55	56	56	56	56	55	56	56
10/01/11	69	69	67	67	66	65	65	65	66	66	66	65	65
09/01/11	83	92	83	74	73	75	77	82	84	82	82	77	78
08/01/11	82	88	84	72	74	76	73	77	88	86	91	86	84
07/01/11	82	83	82	80	71	78	79	80	82	84	82	77	76
06/01/11	78	98	80	78	75	80	87	85	86	83	92	86	91
05/01/11	69	69	71	72	72	66	60	66	84	74	76	86	84
04/01/11	63	63	68	62	62	65	64	62	60	63	63	60	62
03/01/11	52	53	54	54	53	55	55	55	54	56	45	46	46
02/01/11	53	53	45	50	50	54	58	49	57	55	43	44	49
01/01/11	48	52	53	54	51	44	50	48	52	52	39	46	46
12/01/10	55	57	61	61	57	58	58	64	56	58	53	57	56
11/01/10	66	72	68	65	75	68	75	68	72	79	69	65	66
10/01/10	75	77	75	71	70	71	70	76	76	76	74	74	75
09/01/10	108	112	86	92	87	77	81	78	90	85	89	80	79
08/01/10	84	85	83	71	75	82	76	75	89	87	87	79	79
07/01/10	83	83	81	69	84	78	86	82	88	87	85	81	82
06/08/10	74	77	75	67	69	70	69	82	80	77	84	76	72
05/11/10	71	73	78	62	68	67	67	75	81	79	82	69	71
11/06/09	59	63	69	66	63	64	64	61	65	65	65	63	62
10/03/09	69	71	72	70	68	71	68	70	73	72	74	72	72
09/08/09	81	82	84	75	78	78	77	81	87	82	84	78	79
08/04/09	92	97	94	78	93	100	92	78	98	93	94	93	92
07/02/09	84	87	82	75	78	81	107	72	94	93	90	78	79
06/05/09	81	82	82	75	75	76	76	77	84	82	85	76	76
05/08/09	55	58	60	57	57	68	65	60	60	60	60	62	67
04/03/09	51	54	52	53	55	55	56	49	55	55	49	48	53
03/03/09	49	52	51	51	55	52	54	49	54	55	49	47	54
02/03/09	49	51	51	52	51	50	51	51	52	52	54	51	48
01/09/09	45	45	47	45	46	46	47	48	48	48	47	47	46
12/02/08	56	57	59	54	56	57	55	56	55	55	50	55	55
11/05/08	55	55	55	55	55	55	55	50	50	50	50	50	50

Table 2. Temperature
Terminal 5 / RA-3 Landfill Gas Monitoring
(IR thermometer - degrees Fahrenheit)

Date	Landfill Gas Collection System Monitoring Points												
	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
10/03/08	60	60	60	60	60	60	60	55	55	55	55	60	60
09/11/08	65	60	60	60	60	60	60	55	55	55	55	60	60
08/18/08	70	70	70	70	70	70	70	65	65	65	65	70	70
07/28/08	70	70	70	70	70	70	70	65	65	65	65	70	70
06/04/08	50	50	50	50	50	50	50	45	45	45	45	50	50
05/02/08	45	45	45	45	45	45	45	40	40	40	40	45	45
04/04/08	45	45	45	45	45	45	45	40	40	40	40	45	45
03/04/08	50	50	50	50	50	50	50	45	45	45	45	50	50
02/01/08	40	40	40	40	40	40	40	35	35	35	35	40	40
01/08/08	40	40	40	40	40	40	40	35	35	35	35	40	40
12/07/07	40	40	40	40	40	40	40	35	35	35	35	40	40
11/01/07	50	50	50	50	50	50	50	45	45	45	45	50	50
10/02/07	50	50	50	50	50	50	50	45	45	45	45	50	50
09/05/07	70	70	70	70	70	70	70	65	65	65	65	--	70
08/02/07	75	75	76	76	75	75	76	70	70	70	70	75	75
07/09/07	70	70	70	70	70	70	70	65	65	65	65	70	70
06/08/07	65	65	65	65	65	65	65	63	63	63	63	63	63
05/10/07	62	62	62	62	62	62	62	60	60	60	60	60	60
04/17/07	54	54	54	54	54	54	54	52	52	52	52	52	52
03/23/07	51	51	51	51	51	51	51	45	45	45	45	51	51
02/28/07	49	49	49	49	49	49	49	45	49	49	49	49	49
01/30/07	45	45	45	45	45	45	45	45	45	45	45	45	46
12/27/06	42	42	42	42	42	42	42	40	40	40	--	42	42
11/30/06	45	45	45	45	45	45	45	40	40	40	--	45	45
10/27/06	62	62	62	60	60	60	60	55	55	55	55	60	60
09/27/06	70	70	70	68	68	68	68	65	60	61	61	61	61
08/31/06	67	68	68	66	66	66	68	61	61	61	61	--	65
07/25/06	68	66	66	66	68	61	61	61	61	60	60	60	60
06/23/06	65	65	65	66	66	66	68	61	61	61	61	65	65
05/25/06	55	55	55	56	56	56	58	51	51	51	51	55	55
04/27/06	57	57	57	55	55	54	54	55	55	55	53	51	51
03/24/06	51	48	48	50	49	48	48	46	46	46	--	48	48
02/27/06	46	45	48	47	45	47	48	44	44	44	42	45	45
01/27/06	43	44	45	43	44	45	45	42	42	42	42	45	45
12/28/05	45	45	46	44	45	43	45	37	37	37	37	39	39

Table 2. Temperature
Terminal 5 / RA-3 Landfill Gas Monitoring
(IR thermometer - degrees Fahrenheit)

Date	Landfill Gas Collection System Monitoring Points												
	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
11/28/05	38	38	39	39	37	37	37	40	40	40	40	45	45
10/31/05	54	56	55	53	52	53	53	50	50	50	50	55	55
06/24/05	73	73	73	74	74	73	74	74	74	73	73	73	74
05/31/05	70	70	70	71	71	70	71	71	71	70	70	70	71
04/26/05	70	68	75	72	67	70	63	70	70	70	70	70	70
03/25/05	55	55	55	53	54	53	53	54	55	55	55	56	56
02/28/05	50	49	50	48	50	51	49	50	49	50	51	48	50
01/25/05	46	45	45	44	45	45	44	45	45	44	44	46	46
12/23/04	49	49	49	49	49	49	51	49	50	50	50	46	46
11/29/04	45	44	44	43	45	45	44	43	46	44	47	43	43
10/29/04	53	53	54	54	51	51	56	56	55	55	53	53	52
09/29/04	78	77	76	79	75	78	74	79	77	76	75	76	77
08/27/04	76	75	73	78	77	79	77	76	77	78	75	79	79
07/30/04	72	71	73	72	74	75	73	72	74	74	71	72	73
06/30/04	81	82	81	83	79	81	80	82	81	83	82	80	81
05/25/04	67	66	68	67	66	65	66	67	65	68	66	67	68
04/27/04	60	60	61	62	61	63	62	64	63	65	61	60	61
03/31/04	56	55	58	60	59	61	62	63	--	--	61	63	62
02/26/04	50	--	51	52	55	--	56	53	52	51	52	51	52
01/27/04	45	47	48	50	49	48	50	48	49	49	51	50	51
12/30/03	41	--	42	40	43	42	41	45	41	43	42	41	41
11/25/03	50	--	53	51	52	50	51	53	49	51	50	48	52
10/30/03	53	52	54	52	51	52	56	52	55	54	53	54	52
09/29/03	70	73	74	71	70	73	70	73	71	74	72	73	71
08/29/03	80	81	82	85	80	86	87	81	86	84	86	85	82
07/31/03	76	75	76	77	74	75	74	73	74	73	74	--	--
06/20/03	63	62	64	62	61	62	61	63	60	60	61	61	61
05/28/03	81	83	82	78	78	81	82	73	72	73	72	82	82
04/28/03	67	66	73	62	77	68	69	73	68	70	72	70	71
03/01/03	61	62	63	65	67	64	64	65	65	65	63	63	63
02/01/03	50	52	55	53	54	58	58	57	53	53	53	51	56
01/01/03	41	43	40	44	41	41	43	40	40	42	41	40	42
12/23/02	44	--	43	--	40	51	40	46	42	41	41	42	42
11/15/02	51	--	50	52	53	51	51	44	49	52	53	49	52
10/15/02	64	60	58	58	57	58	57	56	57	58	58	58	56

Table 2. Temperature
Terminal 5 / RA-3 Landfill Gas Monitoring
(IR thermometer - degrees Fahrenheit)

Date	Landfill Gas Collection System Monitoring Points												
	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
09/15/02	70	76	74	73	77	77	71	77	79	76	79	78	80
08/15/02	91	92	94	83	95	95	88	95	89	82	89	92	89
07/15/02	84	88	91	88	98	91	89	97	81	96	89	93	98
06/15/02	63	63	64	62	60	60	63	62	64	64	62	63	62
05/15/02	64	63	64	60	60	65	62	65	57	66	65	63	62
04/15/02	47	--	47	50	47	49	46	55	56	54	57	55	57
03/15/02	52	--	50	50	49	50	50	51	49	47	52	50	49
02/15/02	42	--	44	49	46	52	46	48	46	48	46	45	44
01/15/02	42	44	40	44	41	41	43	45	41	40	40	42	41
12/15/01	38	--	35	42	34	34	42	49	39	37	40	--	--
11/15/01	46	--	47	47	46	45	46	47	44	46	48	47	47
10/15/01	57	56	56	56	56	56	55	57	54	54	55	55	55
09/15/01	62	63	62	60	60	60	65	74	63	62	67	67	64
08/01/01	69	69	65	76	66	71	71	75	70	70	68	68	65
07/01/01	73	79	85	74	77	77	77	82	87	88	82	89	85
06/01/01	75	76	71	69	70	77	77	82	79	71	80	70	79
05/01/01	58	58	58	57	56	59	57	57	57	60	58	56	56
04/01/01	52	--	54	52	54	56	56	58	56	57	62	58	56
03/10/01	55	--	55	53	57	50	55	--	--	--	--	52	--
02/01/01	46	--	49	51	52	49	53	--	51	52	56	47	48
01/01/01	40	--	40	41	36	40	47	46	40	40	40	39	39
12/01/00	37	39	34	38	33	39	39	42	38	35	38	37	37
11/01/00	40	42	39	42	37	40	40	47	40	39	40	39	38
10/01/00	55	57	55	56	50	55	55	56	59	60	59	55	55
09/15/00	69	69	68	67	66	68	72	72	74	74	72	69	69
08/01/00	68	68	65	65	63	65	68	65	70	70	70	65	65
07/01/00	71	71	67	67	64	67	70	67	75	76	73	65	67
06/01/00	67	67	64	66	69	67	67	64	69	69	68	64	61
05/01/00	63	--	62	63	59	61	61	59	65	65	65	59	60
04/01/00	54	--	53	54	52	54	54	53	58	58	57	53	53
03/01/00	50	--	51	56	58	55	55	56	--	52	51	51	50
02/01/00	39	--	39	40	37	40	41	46	--	46	46	39	39

Table 2. Temperature
Terminal 5 / RA-3 Landfill Gas Monitoring
(IR thermometer - degrees Fahrenheit)

Date	Landfill Gas Collection System Monitoring Points												
	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
01/01/00	43	--	40	42	37	40	42	46	--	--	44	42	46
12/01/99	51	--	50	51	50	51	53	50	--	--	50	49	49
11/01/99	45	46	45	49	39	45	48	49	--	49	--	46	44
10/01/99	53	54	49	--	--	51	52	55	58	56	54	50	50
09/01/99	64	68	67	--	--	64	67	66	70	70	68	64	62
08/01/99	68	69	68	--	--	70	70	68	71	70	71	66	67
07/01/99	68	69	68	68	65	67	67	67	72	72	72	67	67
06/01/99	61	61	59	61	57	61	60	60	64	64	64	59	58
05/01/99	58	59	61	60	56	58	60	60	60	62	62	57	56
04/01/99	58	--	53	56	53	58	56	55	60	61	62	52	52
03/01/99	47	--	47	48	44	46	47	47	51	51	48	46	46
01/01/99	46	--	47	49	45	46	47	46	--	--	--	46	46
12/01/98	49	49	49	51	47	49	49	53	--	49	--	49	49
11/01/98	53	53	53	54	53	52	54	53	--	53	55	52	53
10/01/98	56	59	52	59	50	57	55	60	62	61	62	--	--

Definitions and Notes:

-- Data was not provided for this period. Monitoring was conducted by others, prior to AECOM.
Bold Values in bold were collected by AECOM (Jan 2023 to date).
NA Not accessible.
Green shading indicates monitoring point connected to landfill gas collection piping.

Table 3. Methane
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-1	SP-2	SP-3	SP-4	SP-5	SP-6	SP-7	SP-8	SP-9	SP-10	SP-11	SP-12	SP-13
Maximum 2017-2023	**0.5**	**0.4**	**0.5**	**11.0**	**3.6**	**7.1**	**36.5**	**8.2**	**60.0**	**55.0**	**82.0**	**81.9**	**82.6**	**82.8**	**74.6**	**59.2**	**73.6**	**75.8**	**57.0**	**44.0**	**37.5**
Average 2017-2023	**0.0**	**0.0**	**0.0**	**0.2**	**0.1**	**3.0**	**2.7**	**2.5**	**14.0**	**27.3**	**51.7**	**56.7**	**62.1**	**62.2**	**55.6**	**21.9**	**59.6**	**63.5**	**32.2**	**7.5**	**17.9**
Minimum 2017-2023	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Maximum 2023	**0.5**	**0.4**	**0.5**	**0.6**	**3.6**	**6.4**	**0.5**	**6.1**	**50.6**	**51.9**	**82.0**	**81.9**	**82.6**	**82.8**	**74.6**	**41.2**	**73.6**	**75.8**	**39.5**	**13.9**	**20.0**
Average 2023	**0.1**	**0.1**	**0.1**	**0.1**	**0.8**	**4.2**	**0.1**	**3.6**	**30.1**	**31.6**	**67.5**	**69.3**	**69.0**	**72.5**	**64.3**	**27.6**	**67.2**	**72.7**	**32.9**	**5.4**	**17.4**
Average 2020-2022	0.0	0.0	0.0	0.0	0.0	2.4	4.2	2.5	0.8	18.7	45.8	52.8	61.8	57.9	53.1	20.5	59.1	62.0	30.7	3.9	16.1
Average 2017-2019	0.0	0.0	0.0	0.3	0.1	3.3	1.5	2.1	26.4	36.8	55.3	58.6	60.9	65.1	56.7	22.3	58.3	63.1	33.9	11.7	19.8
Average 2016 (pre-system shutdown)	0.0	0.0	0.0	0.0	--	--	--	--	6.1	13.3	17.7	23.1	24.0	27.7	5.4	3.1	17.2	17.5	15.8	3.7	1.5
Average 2008-2016	0.0	0.0	0.0	0.0	--	--	--	--	3.2	10.3	9.7	11.2	14.3	17.2	2.1	2.2	12.5	11.0	13.5	0.5	0.3
Average 1998-2007	0.0	0.1	0.0	0.0	--	--	--	--	5.3	16.0	19.9	26.2	25.1	28.3	16.8	6.9	25.0	28.1	25.6	0.5	2.0
10/20/23	**0.0**	**0.0**	**0.0**	**0.0**	**3.6**	**5.3**	**0.0**	**3.7**	**50.6**	**40.8**	**72.6**	**73.6**	**73.6**	**74.3**	**68.3**	**37.9**	**67.2**	**70.1**	**39.5**	**2.6**	**16.9**
09/14/23	**0.1**	**0.0**	**0.0**	**0.1**	**0.3**	**6.0**	**0.0**	**3.9**	**40.6**	**51.9**	**82.0**	**81.9**	**82.6**	**82.8**	**74.6**	**41.2**	**73.6**	**75.8**	**37.9**	**6.2**	**19.4**
08/10/23	**0.0**	**0.0**	**0.0**	**0.2**	**1.1**	**6.4**	**0.0**	**4.7**	**27.6**	**40.8**	**65.9**	**75.0**	**75.3**	**76.3**	**67.2**	**19.5**	**67.8**	**71.1**	**29.8**	**3.4**	**20.0**
07/11/23	**0.0**	**0.0**	**0.0**	**0.0**	**2.0**	**4.9**	**0.0**	**3.7**	**26.8**	**35.6**	**70.5**	**74.1**	**74.7**	**76.0**	**63.3**	**21.8**	**70.9**	**72.3**	**30.4**	**2.3**	**20.0**
06/19/23	**0.5**	**0.4**	**0.5**	**0.6**	**1.0**	**4.8**	**0.5**	**5.6**	**27.9**	**47.7**	**69.8**	**75.9**	**75.8**	**76.8**	**65.6**	**27.0**	**68.7**	**74.0**	**33.4**	**NA**	**NA**
05/18/23	**0.3**	**0.3**	**0.3**	**0.4**	**1.0**	**5.4**	**0.3**	**6.1**	**24.9**	**30.5**	**61.6**	**65.7**	**67.6**	**69.9**	**62.7**	**30.1**	**68.2**	**71.7**	**16.7**	**4.6**	**18.3**
04/05/23	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**2.2**	**0.0**	**0.8**	**36.0**	**43.5**	**69.5**	**72.8**	**71.3**	**72.2**	**61.4**	**22.9**	**69.3**	**73.0**	**33.4**	**0.2**	**14.4**
03/23/23	**0.1**	**0.1**	**0.0**	**0.1**	**0.1**	**3.3**	**0.0**	**3.1**	**35.0**	**35.9**	**71.7**	**74.6**	**72.4**	**72.9**	**62.9**	**24.9**	**64.6**	**74.6**	**34.7**	**0.6**	**17.6**
03/09/23	**0.0**	**0.1**	**0.1**	**0.2**	**0.0**	**2.6**	**0.0**	**2.8**	**22.5**	**36.4**	**69.1**	**72.8**	**70.3**	**70.8**	**61.4**	**34.5**	**71.0**	**73.6**	**35.3**	**13.9**	**15.5**
02/23/23	**0.2**	**0.2**	**0.1**	**0.2**	**0.2**	**4.7**	**0.2**	**3.3**	**15.3**	**2.0**	**58.9**	**49.2**	**47.6**	**63.6**	**64.1**	**18.7**	**57.7**	**72.7**	**31.4**	**1.1**	**17.5**
02/10/23	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**3.8**	**0.0**	**2.5**	**27.1**	**3.8**	**67.1**	**69.3**	**67.6**	**68.4**	**59.7**	**22.7**	**62.9**	**71.2**	**34.4**	**3.0**	**15.0**
01/27/23	**0.0**	**0.0**	**0.0**	**0.0**	**0.2**	**3.0**	**0.0**	**2.3**	**26.7**	**15.5**	**73.0**	**73.4**	**72.9**	**73.4**	**65.8**	**28.4**	**65.8**	**74.3**	**37.7**	**13.9**	**17.5**
01/10/23	**0.0**	**0.0**	**0.0**	**0.0**	**1.0**	**2.4**	**0.0**	**4.4**	**29.8**	**26.8**	**45.5**	**43.1**	**45.5**	**65.0**	**58.3**	**29.4**	**66.4**	**71.1**	**33.6**	**13.4**	**16.6**
12/28/22	0.0	0.0	0.0	0.0	0.8	0.8	0.0	--	30.1	9.7	58.4	64.9	57.6	58.0	43.4	25.2	51.1	54.1	--	14.4	16.8
12/14/22	0.0	0.0	0.0	0.0	0.0	2.1	0.0	2.2	0.4	18.7	49.6	53.4	70.8	63.2	59.2	16.2	60.9	63.4	30.5	0.7	9.8
11/17/22	0.0	0.0	0.0	0.0	0.0	0.3	0.0	2.2	1.1	15.6	50.3	51.0	68.9	61.7	54.6	15.3	64.3	65.5	32.1	2.2	15.2
10/19/22	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.7	10.4	48.2	48.2	68.3	60.8	53.2	17.1	64.3	62.6	30.8	0.9	17.3
10/06/22	0.0	0.0	0.0	0.0	0.0	2.1	0.0	2.1	0.8	20.2	8.3	54.6	70.6	56.7	60.1	18.2	63.8	65.5	30.7	0.8	19.3
09/22/22	0.0	0.0	0.0	0.0	0.0	2.3	0.0	2.1	0.7	18.7	50.4	55.1	72.4	60.1	58.9	16.5	63.4	63.5	32.1	0.8	17.8
09/08/22	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.3	0.8	15.3	51.6	54.1	70.3	62.3	59.2	17.3	60.6	65.4	32.1	3.1	16.4
08/11/02	0.0	0.0	0.0	0.0	0.0	0.9	0.2	3.1	0.9	15.4	51.3	52.9	69.8	58.9	56.7	16.3	61.2	60.8	32.6	2.0	19.4
07/28/22	0.0	0.0	0.0	0.0	0.0	0.7	0.0	3.0	0.8	16.4	49.7	55.8	69.3	59.7	57.8	15.0	59.7	62.3	33.0	1.8	22.3
07/13/22	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.8	0.7	20.6	48.4	54.8	70.2	60.2	55.1	15.2	60.8	65.6	31.2	1.6	18.9
06/22/22	0.0	0.0	0.0	0.0	0.0	--	--	2.7	0.6	21.3	47.6	55.3	71.5	63.4	56.3	16.2	63.8	64.8	31.5	0.7	16.4
06/10/22	0.0	0.0	0.0	0.0	0.0	--	--	2.3	0.6	17.3	50.4	56.4	71.4	65.4	56.4	16.9	63.8	65.4	30.8	0.9	15.4
05/27/22	0.0	0.0	0.0	0.0	0.0	--	--	2.4	0.5	16.8	46.3	57.8	70.9	66.2	57.8	18.1	65.4	65.5	33.2	2.6	17.8
05/12/22	0.0	0.0	0.0	0.0	0.0	--	--	2.5	0.8	14.8	47.8	51.6	70.6	63.4	57.6	17.3	64.4	64.3	32.4	2.5	20.9
04/29/22	0.0	0.0	0.0	0.0	0.0	--	--	2.6	0.7	15.4	51.3	50.8	71.5	65.6	58.9	15.4	67.3	66.2	32.5	0.8	18.7
04/06/22	0.0	0.0	0.0	0.0	0.0	--	--	2.7	0.8	15.7	51.4	51.2	72.3	63.5	56.7	15.8	66.5	65.4	32.2	0.7	17.6
03/18/22	0.0	0.0	0.0	0.0	0.0	--	--	2.5	0.6	16.3	49.7	54.6	69.8	59.8	59.6	15.8	64.3	63.7	32.4	0.8	15.0
03/03/22	0.0	0.0	0.0	0.0	0.0	--	--	2.6	0.6	17.4	48.3	54.3	68.9	58.9	58.6	14.3	60.5	63.8	31.8	0.6	20.9
02/18/22	0.0	0.0	0.0	0.0	0.0	--	--	2.3	0.7	15.6	46.7	55.7	70.3	62.5	60.1	17.3	61.2	60.9	30.9	3.1	21.6
02/03/22	0.0	0.0	0.0	0.0	0.0	--	--	2.5	0.3	20.1	50.2	55.8	70.2	63.2	57.8	18.2	59.8	65.2	33.2	0.6	22.0
01/21/22	0.0	0.0	0.0	0.0	0.0	--	--	2.7	0.4	17.3	51.4	55.3	70.5	60.1	57.6	16.4	59.7	64.8	32.8	0.5	15.8
01/06/22	0.0	0.0	0.0	0.0	0.0	--	--	2.8	0.7	17.2	49.8	55.4	71.6	63.7	59.8	16.2	60.3	63.7	33.1	2.5	16.4
12/22/21	0.0	0.0	0.0	0.0	0.0	--	--	2.0	0.1	20.2	49.5	54.1	72.2	65.0	59.1	17.4	59.3	65.5	28.6	--	--
12/06/21	--	--	--	--	--	--	--	--	0.7	13.7	50.3	56.8	70.3	63.2	54.2	16.5	60.1	66.2	30.9	--	--
12/02/21	0.0	0.0	0.0	0.0	0.0	--	--	2.6	--	--	--	--	--	--	--	--	--	--	--	--	--
11/11/21	0.0	0.0	0.0	0.0	0.0	--	--	2.3	0.5	17.3	51.9	55.3	71.4	56.2	61.2	18.7	64.8	64.1	33.4	--	--
10/28/21	0.0	0.0	0.0	0.0	0.0	--	--	2.8	0.2	12.6	48.2	24.5	69.2	57.8	58.6	20.4	63.2	63.8	32.2	--	--
09/30/21	0.0	0.0	0.0	0.0	0.0	--	--	3.1	0.8	25.0	51.6	54.8	70.1	65.4	59.0	15.3	68.6	66.0	32.3	2.1	19.6
09/17/21	0.0	0.0	0.0	0.0	0.0	--	--	2.4	0.1	22.2	50.9	54.3	68.2	59.8	62.1	18.7	59.8	65.2	4.6	3.8	16.5
08/27/21	0.0	0.0	0.0	0.0	0.0	--	--	2.3	0.7	17.5	52.6	55.6	72.3	73.8	65.9	21.3	66.6	63.3	33.6	5.3	22.7

Table 3. Methane
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-1	SP-2	SP-3	SP-4	SP-5	SP-6	SP-7	SP-8	SP-9	SP-10	SP-11	SP-12	SP-13
08/05/21	0.0	0.0	0.0	0.0	0.0	--	--	2.7	0.7	12.4	52.3	28.7	73.8	67.1	63.4	22.0	64.0	63.2	32.0	0.2	19.0
07/22/21	0.0	0.0	0.0	0.0	0.0	--	--	0.5	0.2	12.3	40.8	54.3	76.5	57.4	59.7	19.1	63.9	67.1	29.8	5.3	22.9
06/30/21	0.0	0.0	0.0	0.0	0.0	--	--	4.1	0.1	15.4	58.3	61.4	69.7	69.3	49.7	22.8	47.8	63.0	21.2	10.2	26.5
06/10/21	0.0	0.0	0.0	0.0	0.0	--	--	3.2	0.0	21.6	46.5	54.1	68.1	59.3	58.0	14.9	65.6	69.1	31.0	3.5	15.8
05/27/21	0.0	0.0	0.0	0.0	0.0	5.9	0.2	4.6	0.2	15.4	51.7	54.0	65.1	66.0	58.6	15.5	65.3	65.2	32.0	11.7	15.3
05/12/21	0.0	0.0	0.0	0.0	0.0	6.0	0.1	4.1	0.1	13.2	50.6	53.8	67.3	68.2	56.3	15.9	50.2	63.1	33.2	10.7	16.8
04/30/21	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.7	0.8	43.2	50.1	54.3	55.1	54.2	49.1	45.6	60.2	64.8	46.7	3.4	16.9
04/15/21	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.8	1.7	45.7	52.3	55.9	56.0	53.6	48.1	30.2	63.8	64.7	44.5	2.6	15.8
04/01/21	0.0	0.0	0.0	0.0	0.1	2.2	0.0	2.0	0.3	13.6	14.2	29.3	26.1	33.2	33.4	27.9	43.5	51.6	27.7	2.2	12.5
03/19/21	--	--	--	--	--	--	--	--	0.1	11.8	9.6	23.2	26.5	28.1	33.9	27.1	46.7	55.1	28.2	3.6	16.5
03/03/21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
02/19/21	0.0	0.0	0.0	0.0	0.1	3.1	0.0	2.1	0.1	12.2	10.2	24.3	28.4	34.1	36.5	28.0	43.5	54.3	28.1	3.5	16.5
01/29/21	0.0	0.0	0.0	0.0	0.0	2.2	0.2	2.2	0.0	12.1	53.9	68.2	63.7	60.1	66.5	10.3	60.5	55.1	30.8	0.8	11.6
01/07/21	0.0	0.0	0.0	0.0	0.0	2.1	0.0	2.0	0.0	13.8	32.3	26.1	28.3	33.4	4.3	15.7	62.3	60.0	34.5	0.7	12.9
12/23/20	0.0	0.0	0.0	0.0	0.0	2.3	0.0	2.2	0.0	0.2	10.2	21.6	8.3	32.9	30.4	22.0	43.5	54.7	24.3	0.5	13.5
12/14/20	0.1	0.1	--	0.1	0.1	3.1	0.1	2.9	0.2	2.1	3.6	8.6	4.6	30.9	30.4	19.4	45.8	60.0	24.6	0.6	13.8
11/25/20	0.0	0.0	0.0	0.0	0.0	2.1	0.0	--	0.0	0.3	8.9	24.5	27.7	33.8	33.1	28.0	42.4	56.8	25.9	1.3	12.2
11/11/2020	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.9	0.0	41.6	55.3	63.2	65.4	67.1	65.2	16.9	54.1	66.6	28.3	0.4	13.1
10/14/20	0.0	0.0	0.0	0.0	0.0	5.2	0.0	--	0.2	16.0	11.7	22.1	28.4	35.8	36.2	21.6	40.7	43.6	26.0	0.8	1.4
09/29/20	0.0	0.0	0.0	0.0	0.0	2.3	0.0	2.1	0.0	16.8	65.3	71.2	72.0	76.3	5.3	2.8	65.6	67.3	33.5	5.4	22.3
08/28/20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.0	46.0	63.0	72.0	72.0	73.0	65.0	0.0	65.0	67.1	37.5	0.0	0.0
08/14/20	0.0	0.0	0.0	0.0	0.0	2.3	0.0	2.1	0.0	16.3	65.4	71.2	72.1	76.7	65.9	15.4	65.6	67.0	33.5	5.4	22.8
07/28/20	0.0	0.0	0.0	0.0	0.0	1.2	0.0	2.1	0.0	12.8	54.3	69.2	68.3	72.8	65.0	23.6	65.0	63.2	33.3	0.3	20.1
07/17/20	0.0	0.0	0.0	0.0	0.0	6.9	0.0	2.1	0.3	15.7	68.9	69.6	75.5	77.1	68.7	20.0	65.9	68.3	32.1	6.3	21.8
06/29/20	0.0	0.0	0.0	0.0	0.0	5.8	0.0	3.6	0.0	11.9	32.4	69.2	67.9	57.3	27.0	21.8	47.3	63.1	2.1	11.2	27.3
06/19/20	0.0	0.0	0.0	0.0	0.0	2.6	0.0	3.8	0.0	12.9	50.6	68.2	68.1	59.3	68.0	14.9	65.6	70.1	32.1	2.5	16.8
06/03/20	0.0	0.0	0.0	0.0	0.0	3.1	0.0	2.3	0.8	16.9	69.8	71.6	77.1	77.2	66.3	19.9	66.0	68.3	30.9	5.8	20.1
05/22/20	0.0	0.0	0.0	0.0	0.0	6.1	0.0	3.2	0.0	12.8	53.4	69.0	68.0	58.2	37.3	18.9	50.1	63.2	1.0	11.2	28.3
05/07/20	0.0	0.0	0.0	0.0	0.0	3.2	36.0	3.4	0.0	45.5	68.0	71.0	69.0	71.0	60.0	49.0	67.0	70.0	43.0	19.0	14.0
04/24/20	0.0	0.0	0.0	0.0	0.0	2.3	3.5	3.1	0.0	13.0	51.5	68.1	68.0	60.0	68.0	15.3	68.0	70.1	33.2	2.6	16.8
04/13/20	0.0	0.0	0.0	0.0	0.0	2.5	35.5	3.1	0.0	13.5	51.0	69.0	69.0	71.0	60.0	10.5	67.0	71.0	34.0	0.0	14.0
03/25/20	0.0	0.0	0.0	0.0	0.0	1.5	0.0	3.1	0.0	47.0	41.5	55.0	59.0	59.0	59.0	31.2	62.0	68.0	38.0	0.6	0.0
03/12/20	0.0	0.0	0.0	0.0	0.0	2.9	0.0	2.6	0.0	41.2	56.0	61.0	59.0	57.8	60.3	59.2	64.1	69.7	44.0	1.2	0.0
02/28/20	0.0	0.0	0.0	0.0	0.0	3.3	0.0	2.9	0.0	46.0	69.0	70.0	69.0	69.0	63.0	51.0	68.0	71.0	48.5	39.0	12.5
02/12/20	0.0	0.0	0.0	0.0	0.0	1.9	36.0	0.0	0.0	32.0	64.0	69.0	69.0	68.0	62.0	29.5	60.0	72.0	-	4.2	13.0
01/29/20	0.0	0.0	0.0	0.0	0.0	3.0	0.0	8.2	0.0	28.0	68.0	69.0	68.0	69.0	62.0	37.5	51.0	0.0	-	11.0	10.5
01/17/20	0.0	0.0	0.0	0.0	0.0	1.2	36.0	2.1	0.0	5.6	13.0	26.0	28.0	35.0	34.0	18.5	52.0	61.0	-	0.2	12.0
01/03/20	0.0	0.0	0.0	0.0	0.0	3.2	35.5	1.7	0.0	23.0	35.5	64.0	60.0	0.0	66.0	36.0	67.0	70.0	38.0	2.2	12.5
12/18/19	0.0	0.0	0.0	0.0	0.0	2.1	36.5	1.6	0.0	5.6	18.0	28.5	29.5	45.0	43.0	45.0	60.0	69.0	43.5	17.5	13.0
12/04/19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.7	52.0	66.0	71.0	70.0	72.0	66.0	0.0	63.0	71.0	--	0.1	0.1
11/06/19	0.0	0.0	0.0	0.0	--	3.1	0.0	0.7	0.0	49.0	18.5	49.5	45.5	65.0	69.0	22.5	66.0	71.0	41.0	2.7	22.5
10/22/19	0.0	0.0	0.0	0.0	0.0	5.3	0.0	3.4	0.2	26.5	70.3	72.1	75.2	77.8	66.7	12.9	63.6	65.4	0.8	10.5	28.3
10/08/19	0.0	0.0	0.0	0.0	0.0	4.9	0.0	2.8	0.3	30.5	65.0	72.8	61.0	73.9	66.4	32.3	63.2	63.8	0.9	9.9	12.2
09/23/19	0.0	0.0	0.0	0.0	0.0	4.9	0.0	1.8	0.0	31.7	28.9	70.1	69.3	71.8	65.7	18.0	63.0	66.6	32.3	7.2	20.1
09/12/19	0.0	0.0	0.0	0.0	0.0	6.7	0.0	3.0	0.0	40.6	26.7	67.8	68.2	71.4	66.7	18.8	61.0	65.6	36.9	6.4	19.2
08/29/19	0.0	0.0	0.0	0.0	0.0	7.1	0.0	1.9	0.4	16.7	70.9	71.6	75.1	77.1	66.7	19.0	66.9	68.3	31.0	5.2	20.7
08/14/19	0.0	0.0	0.0	0.0	0.0	5.8	0.0	3.4	0.2	8.8	70.2	73.6	75.2	77.9	65.9	11.4	66.3	69.2	32.6	4.8	18.7
07/26/19	-	0.0	0.0	0.0	-	5.9	0.0	-	0.9	33.5	66.0	72.0	62.0	71.9	60.4	34.1	63.8	64.7	0.0	10.8	12.2
07/11/19	0.0	0.0	0.0	0.0	0.0	5.5	0.0	4.4	0.8	49.0	58.0	72.0	72.0	75.0	65.0	12.5	67.0	67.0	41.0	0.6	13.5
06/19/19	0.0	0.0	0.0	0.0	0.0	4.0	0.0	4.2	8.4	51.0	66.0	1.8	74.0	76.0	65.0	15.5	66.0	68.0	39.5	--	--
06/05/19	0.0	0.0	0.0	0.0	0.0	--	--	2.9	51.0	55.0	65.6	67.3	68.5	67.1	59.3	30.7	60.5	63.1	36.3	9.0	9.0
05/23/19	0.0	0.0	0.0	0.0	0.0	4.0	0.0	2.4	49.0	48.0	67.0	70.0	71.0	73.0	62.0	24.0	67.0	68.0	57.0	2.0	13.0
05/07/19	0.0	0.0	0.0	0.0	0.0	2.9	0.0	1.1	0.4	13.5	23.5	38.5	44.5	56.0	54.0	4.9	64.0	67.0	4.4	1.5	10.5

Table 3. Methane
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-1	SP-2	SP-3	SP-4	SP-5	SP-6	SP-7	SP-8	SP-9	SP-10	SP-11	SP-12	SP-13
04/23/19	0.0	0.0	0.0	0.0	0.0	1.6	0.0	2.9	22.0	51.0	45.0	58.0	50.0	69.0	68.0	--	64.0	67.0	33.5	4.6	9.7
04/10/19	0.0	0.0	0.0	0.0	--	2.6	0.4	0.5	--	--	--	--	--	--	--	33.5	--	--	--	0.0	10.0
03/26/19	0.0	0.0	0.0	0.0	0.0	2.2	0.0	2.5	11.0	11.5	47.0	65.0	67.0	70.0	60.0	6.9	64.0	69.0	56.0	7.5	9.5
03/18/19	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.4	32.0	49.0	69.0	72.0	70.0	71.0	61.0	20.0	59.0	70.0	4.3	--	--
03/01/19	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	26.5	38.0	66.0	71.0	68.0	70.0	60.0	17.5	64.0	69.0	42.0	0.7	9.6
02/15/19	0.0	0.0	0.0	0.0	0.0	0.1	0.0	3.2	10.7	12.1	27.1	36.0	38.7	57.9	53.3	0.0	63.6	51.5	0.0	0.0	10.2
01/31/19	0.1	0.0	0.0	0.0	0.0	1.7	0.0	1.1	42.6	43.4	74.2	73.4	74.9	74.4	64.5	42.3	64.7	73.9	45.7	18.8	9.8
01/11/19	--	--	--	11.0	2.3	2.3	0.0	2.6	43.0	18.5	64.0	66.0	64.0	65.0	59.0	--	66.0	67.0	39.0	15.5	14.5
12/26/18	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	22.5	40.0	57.0	64.0	65.0	65.0	59.0	0.0	5.7	67.0	35.0	9.7	12.5
12/11/18	0.0	0.3	0.0	0.0	0.0	3.0	0.0	0.7	60.0	49.0	68.0	69.0	60.0	68.0	59.0	52.0	65.0	65.0	57.0	37.0	18.0
11/30/18	0.0	0.0	0.0	0.0	0.0	2.9	0.0	2.1	33.0	48.0	66.0	68.0	66.0	66.0	57.0	33.0	50.0	65.0	45.0	44.0	20.0
11/20/18	0.0	0.0	0.0	11.0	--	--	--	--	43.0	52.0	68.0	69.0	69.0	69.0	59.0	46.0	66.0	68.0	53.0	15.0	20.0
11/02/18	0.0	0.0	0.0	0.0	--	--	--	--	10.5	24.5	48.0	47.0	57.0	58.0	46.5	21.5	47.0	58.0	35.5	3.8	11.0
10/08/18	0.0	0.0	0.0	0.0	--	--	--	--	32.5	49.0	66.0	66.0	66.0	67.0	59.0	40.0	63.0	63.0	46.0	16.0	22.0
09/21/18	0.0	0.0	0.0	0.0	--	--	--	--	37.0	51.0	67.0	67.0	68.0	69.0	61.0	42.0	63.0	63.0	46.0	17.5	19.5
09/07/18	0.0	0.0	0.0	0.0	--	--	--	--	40.0	51.0	66.0	67.0	68.0	69.0	61.0	33.0	61.0	63.0	44.5	10.5	17.5
07/30/18	0.0	0.0	0.0	0.0	--	--	--	--	41.0	51.0	65.0	66.0	68.0	70.0	57.0	28.5	59.0	60.0	43.0	5.2	19.0
07/13/18	0.0	0.0	0.0	0.0	--	--	--	--	40.0	48.0	64.0	65.0	66.0	68.0	56.0	20.5	55.0	59.0	0.0	12.5	29.5
06/29/18	0.0	0.0	0.0	0.0	--	--	--	--	41.0	44.5	60.0	64.0	65.0	69.0	56.0	8.0	55.0	59.0	9.4	8.5	27.5
06/15/18	0.0	0.0	0.0	0.0	--	--	--	--	38.0	50.0	64.0	63.0	65.0	66.0	54.0	27.5	59.0	60.0	15.0	10.5	28.0
06/01/18	0.0	0.0	0.0	0.0	--	--	--	--	20.0	3.9	0.0	27.5	25.0	57.0	52.0	0.7	57.0	58.0	30.0	4.0	28.0
05/11/18	0.0	0.0	0.0	0.0	--	--	--	--	24.0	4.7	59.0	60.0	66.0	68.0	50.0	6.6	57.0	60.0	39.0	2.5	25.5
04/26/18	0.0	0.0	0.0	0.0	--	--	--	--	34.0	50.0	62.0	61.0	63.0	65.0	52.0	0.0	59.0	60.0	43.5	38.0	21.0
04/06/18	0.0	0.0	0.0	0.0	--	--	--	--	36.0	53.0	62.0	62.0	63.0	64.0	51.0	45.5	--	59.0	44.0	41.0	22.0
03/07/18	0.0	0.0	0.0	0.0	--	--	--	--	30.5	48.0	60.0	59.0	61.0	62.0	50.0	43.5	49.0	58.0	36.0	31.0	19.0
02/21/18	0.0	0.0	0.0	0.0	--	--	--	--	21.0	43.5	58.0	65.0	59.0	60.0	52.0	23.0	59.0	64.0	31.0	10.0	22.0
02/05/18	0.0	0.0	0.0	0.0	--	--	--	--	25.0	45.0	46.0	60.0	60.0	61.0	54.0	17.5	50.0	60.0	37.5	5.7	24.5
01/24/18	0.0	0.0	0.0	0.0	--	--	--	--	36.0	46.0	59.0	60.0	60.0	61.0	54.0	34.5	59.0	60.0	40.5	31.5	23.0
01/09/18	0.0	0.0	0.0	0.0	--	--	--	--	40.5	2.7	54.0	56.0	59.0	60.0	51.0	17.0	52.0	60.0	37.0	14.5	25.5
12/27/17	0.0	0.0	0.0	0.0	--	--	--	--	28.0	40.0	64.0	62.0	61.0	62.0	52.0	25.5	63.0	64.0	41.0	5.4	24.5
12/12/17	0.0	0.0	0.0	0.0	--	--	--	--	31.0	31.0	66.0	62.0	62.0	64.0	51.0	27.0	64.0	65.0	43.0	22.0	25.5
11/27/17	0.0	0.0	0.0	0.0	--	--	--	--	13.5	9.0	51.0	18.0	45.0	50.0	43.5	4.8	45.0	59.0	26.0	3.0	33.0
11/11/17	0.0	0.0	0.0	0.0	--	--	--	--	41.0	43.0	60.0	60.0	60.0	61.0	50.0	17.0	57.0	62.0	44.0	7.1	32.0
10/28/17	0.0	0.0	0.0	0.0	--	--	--	--	44.0	47.0	59.0	58.0	61.0	61.0	49.0	40.5	--	60.0	42.0	17.0	26.0
10/13/17	0.0	0.0	0.0	0.0	--	--	--	--	25.0	0.5	10.5	6.7	16.5	33.0	27.0	0.9	38.0	52.0	23.5	6.2	35.0
09/27/17	0.0	0.0	0.0	0.0	--	--	--	--	52.0	46.5	60.0	60.0	59.0	64.0	56.0	16.0	60.0	65.0	43.5	12.5	37.5
09/16/17	0.0	0.0	0.0	0.0	--	--	--	--	50.0	48.5	61.0	57.0	60.0	61.0	55.0	40.0	56.0	59.0	39.0	30.0	35.0
08/30/17	0.0	0.0	0.0	0.0	--	--	--	--	39.0	43.0	58.0	56.0	61.0	59.0	55.0	14.5	55.0	56.0	33.0	9.9	37.0
08/17/17	0.0	0.0	0.0	0.0	--	--	--	--	36.0	36.5	54.0	54.0	60.0	61.0	56.0	6.4	55.0	57.0	34.0	6.5	36.0
07/24/17	0.0	0.0	0.0	0.0	--	--	--	--	45.0	49.0	55.0	53.0	57.0	58.0	52.0	31.0	51.0	53.0	39.0	13.5	28.0
07/10/17	0.0	0.0	0.0	0.0	--	--	--	--	43.0	42.5	53.0	51.0	56.0	58.0	53.0	20.5	51.0	53.0	38.0	12.5	26.5
06/08/17	0.0	0.0	0.0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.4	21.0
04/09/17	0.0	0.0	0.0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15.5	19.0
04/11/17	0.0	0.0	0.0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	32.0	17.5
03/08/17	0.0	0.0	0.0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13.0	0.0
02/21/17	0.0	0.0	0.0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.6	17.0
02/07/17	0.0	0.0	0.0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.3	14.5
01/23/17	0.0	0.0	0.0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.8	14.0
01/05/17	0.0	0.0	0.0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.7	8.2
12/16/16	0.0	0.0	0.0	0.0	--	--	--	--	4.9	8.5	22.5	25.5	34.5	41.5	14.5	17.5	25.0	25.5	22.5	38.5	5.7
11/16/16	0.0	0.0	0.0	0.0	--	--	--	--	17.0	--	29.0	28.0	37.0	38.0	12.0	6.0	25.0	20.5	26.0	6.0	5.2
10/16/16	0.0	0.0	0.0	0.0	--	--	--	--	4.3	14.0	14.5	27.0	21.0	24.0	2.6	0.9	22.0	17.5	21.0	0.0	0.0
09/16/16	0.0	0.0	0.0	0.0	--	--	--	--	5.8	15.0	18.5	27.0	25.0	28.0	4.8	3.4	24.5	16.0	27.5	0.0	0.0

Table 3. Methane
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-1	SP-2	SP-3	SP-4	SP-5	SP-6	SP-7	SP-8	SP-9	SP-10	SP-11	SP-12	SP-13
08/16/16	0.0	0.0	0.0	0.0	--	--	--	--	5.4	13.0	12.5	24.5	19.0	23.0	1.2	0.0	13.5	17.0	0.0	0.0	0.2
07/16/16	0.0	0.0	0.0	0.0	--	--	--	--	4.6	12.0	11.5	22.0	18.0	23.0	1.6	2.0	14.0	17.5	12.0	0.0	0.0
06/01/16	0.0	0.0	0.0	0.0	--	--	--	--	4.4	12.0	9.7	9.7	17.0	23.0	2.2	0.5	11.5	19.5	7.7	0.0	0.0
05/01/16	0.0	0.0	0.0	0.0	--	--	--	--	5.2	17.5	21.0	32.0	29.0	34.0	8.0	4.4	18.0	18.0	18.5	0.0	0.0
04/01/16	0.0	0.0	0.0	0.0	--	--	--	--	7.4	14.0	28.5	26.5	33.0	35.5	12.5	2.3	23.0	24.0	24.0	0.0	7.4
03/08/16	0.0	0.0	0.0	0.0	--	--	--	--	3.5	12.5	10.0	4.5	11.0	13.0	0.2	0.0	7.7	12.0	6.6	0.0	0.0
02/09/16	0.0	0.0	0.0	0.0	--	--	--	--	4.5	13.5	17.0	24.5	21.0	24.5	1.8	0.0	10.5	10.5	11.0	0.0	0.0
01/12/16	0.0	0.0	0.0	0.0	--	--	--	--	5.6	14.5	18.0	25.5	22.0	25.0	3.1	0.3	11.5	11.5	12.5	0.0	0.0
12/09/15	0.0	0.0	0.0	0.0	--	--	--	--	5.0	11.0	12.5	3.8	18.0	21.0	0.9	0.0	13.0	16.5	7.9	0.0	1.7
11/10/15	0.0	0.0	0.0	0.0	--	--	--	--	5.0	15.0	15.5	26.5	21.0	24.0	3.3	0.0	20.0	18.5	22.5	0.0	0.0
10/14/15	0.0	0.0	0.0	0.0	--	--	--	--	5.3	15.5	17.5	27.0	23.5	27.0	3.7	4.7	24.5	17.0	28.3	0.0	0.0
09/15/15	0.0	0.0	0.0	0.0	--	--	--	--	5.2	14.5	17.0	25.5	23.5	27.0	4.6	3.0	26.5	19.5	27.0	0.0	0.0
08/15/15	0.0	0.0	0.0	0.0	--	--	--	--	8.4	15.0	10.5	11.5	28.5	31.5	6.9	0.9	17.5	19.0	16.5	2.1	3.6
07/15/15	0.0	0.0	0.0	0.0	--	--	--	--	6.6	15.5	15.0	23.5	21.0	26.0	3.1	3.3	15.5	16.0	18.5	0.0	0.0
06/15/15	0.0	0.0	0.0	0.0	--	--	--	--	5.4	14.5	13.5	25.0	19.0	23.0	1.4	1.4	11.5	14.5	7.5	0.0	0.0
05/15/15	0.0	0.0	0.0	0.0	--	--	--	--	4.4	13.0	9.9	9.0	17.0	21.0	1.3	2.1	12.5	14.0	11.5	0.0	0.0
04/15/15	0.0	0.0	0.0	0.0	--	--	--	--	4.0	4.9	15.5	22.0	18.0	20.0	0.0	0.0	11.5	14.5	8.6	0.0	0.0
03/15/15	0.0	0.0	0.0	0.0	--	--	--	--	4.8	15.0	16.5	21.5	22.0	25.0	5.0	4.8	12.5	11.5	17.0	0.0	0.0
02/15/15	0.0	0.0	0.0	0.0	--	--	--	--	4.2	13.0	8.2	4.4	16.0	20.0	0.4	0.0	9.9	12.5	9.5	0.0	0.0
01/15/15	0.0	0.0	0.0	0.0	--	--	--	--	4.4	13.5	11.5	18.5	17.5	21.5	0.8	0.0	9.9	12.0	10.5	0.0	0.0
Dec-14	0.0	0.0	0.0	0.0	--	--	--	--	4.6	12.5	7.6	3.2	14.5	16.0	1.8	0.0	12.0	14.5	11.0	0.0	0.0
Nov-14	0.0	0.0	0.0	0.0	--	--	--	--	4.7	11.5	12.0	15.0	16.5	19.5	2.2	0.0	16.0	17.0	13.5	0.0	0.0
Oct-14	0.0	0.0	0.0	0.0	--	--	--	--	6.2	15.5	17.0	24.0	20.0	23.5	4.4	2.1	21.5	16.5	21.0	0.0	0.0
09/14/14	0.0	0.0	0.0	0.0	--	--	--	--	4.6	13.0	12.5	23.5	20.0	23.0	4.5	1.4	19.0	15.0	20.5	0.0	0.0
08/14/14	0.0	0.0	0.0	0.0	--	--	--	--	4.4	10.3	10.0	19.5	16.5	19.5	2.8	0.0	15.5	14.5	16.5	0.0	0.0
07/14/14	0.0	0.0	0.0	0.0	--	--	--	--	10.0	24.0	25.0	26.5	35.5	33.0	14.0	17.3	22.0	20.0	16.5	2.4	4.6
Jun-14	0.0	0.0	0.0	0.0	--	--	--	--	4.8	18.5	13.5	12.5	21.5	25.0	7.3	1.5	19.5	16.0	23.5	0.0	0.0
May-14	0.0	0.0	0.0	0.0	--	--	--	--	3.6	14.0	12.5	15.0	17.5	20.5	1.9	6.5	15.5	11.0	20.5	0.0	0.0
Apr-14	0.0	0.0	0.0	0.0	--	--	--	--	3.4	14.0	12.0	13.0	17.5	20.0	2.8	4.5	18.5	12.5	22.5	2.5	0.0
03/13/14	0.0	0.0	0.0	0.0	--	--	--	--	3.5	9.6	13.0	5.7	17.0	20.0	3.6	0.0	13.0	14.0	12.0	0.0	1.2
02/13/14	0.0	0.0	0.0	0.0	--	--	--	--	2.7	11.0	7.0	0.0	11.5	13.5	0.0	0.0	12.5	10.5	14.5	0.0	0.0
01/13/14	0.0	0.0	0.0	0.0	--	--	--	--	0.9	7.6	5.5	3.0	9.7	12.0	0.0	0.0	9.8	8.3	10.5	0.0	0.0
12/13/13	0.0	0.0	0.0	0.0	--	--	--	--	1.6	8.3	6.9	8.3	12.5	14.0	0.5	1.7	9.4	7.7	13.0	0.0	0.0
11/13/13	0.0	0.0	0.0	0.0	--	--	--	--	1.3	7.8	6.6	8.2	12.5	14.5	0.7	0.9	13.0	7.3	14.0	0.0	0.0
10/13/13	0.0	0.0	0.0	0.0	--	--	--	--	2.6	8.2	6.4	7.4	11.0	13.5	0.7	0.3	11.0	7.7	16.0	0.0	0.0
09/13/13	0.0	0.0	0.0	0.0	--	--	--	--	1.9	8.2	6.0	6.6	10.5	13.0	0.4	0.5	11.5	8.9	12.5	0.0	0.0
08/13/13	0.0	0.0	0.0	0.0	--	--	--	--	2.9	8.3	7.4	9.8	11.5	14.0	1.0	1.2	11.5	7.2	13.5	0.0	0.0
07/13/13	0.0	0.0	0.0	0.0	--	--	--	--	2.5	8.8	7.9	10.5	12.5	14.5	0.9	6.2	10.5	6.4	13.0	0.0	0.0
06/13/13	0.0	0.0	0.0	0.0	--	--	--	--	1.7	7.4	5.2	4.4	9.6	11.5	0.2	0.6	9.5	6.7	9.9	0.0	0.0
05/13/13	0.0	0.0	0.0	0.0	--	--	--	--	1.5	7.9	6.5	7.5	10.5	13.0	0.3	0.5	9.8	5.5	11.0	0.0	0.0
04/13/13	0.0	0.0	0.0	0.0	--	--	--	--	1.1	8.0	6.9	6.9	10.0	13.0	0.5	9.4	8.8	5.4	11.0	0.0	0.0
03/13/13	0.0	0.0	0.0	0.0	--	--	--	--	1.3	7.5	5.2	0.1	9.2	11.0	0.2	0.0	8.6	5.4	10.0	0.0	0.0
02/13/13	0.0	0.0	0.0	0.0	--	--	--	--	1.3	8.0	5.3	3.9	9.3	11.5	0.0	0.6	0.8	5.5	11.0	0.0	0.0
01/13/13	0.0	0.0	0.0	0.0	--	--	--	--	1.4	7.8	5.7	4.4	9.1	10.5	0.0	2.4	5.1	5.9	8.0	0.0	0.0
12/12/12	0.0	0.0	0.0	0.0	--	--	--	--	1.9	7.2	4.6	4.5	9.3	11.0	0.0	0.0	4.7	6.5	--	0.0	0.0
11/12/12	0.0	0.0	0.0	0.0	--	--	--	--	2.0	8.9	6.0	8.5	11.5	23.5	0.6	0.0	13.5	12.5	--	0.0	0.0
10/12/12	0.0	0.0	0.0	0.0	--	--	--	--	1.7	9.6	8.2	12.5	12.5	15.0	0.6	0.2	13.5	9.5	15.0	0.0	2.8
09/01/12	0.0	0.0	0.0	0.0	--	--	--	--	3.5	8.7	7.1	12.5	13.0	14.5	1.1	0.9	13.0	9.1	15.0	0.0	0.0
08/01/12	0.0	0.0	0.0	0.0	--	--	--	--	2.6	8.8	6.9	10.0	8.8	13.5	0.4	0.4	12.0	8.5	14.0	0.0	0.0
07/01/12	0.0	0.0	0.0	0.0	--	--	--	--	1.9	8.4	5.1	4.9	9.8	12.5	0.1	0.6	10.5	7.7	11.5	0.0	0.0
06/01/12	0.0	0.0	0.0	0.0	--	--	--	--	1.9	8.8	4.8	2.2	8.4	11.0	0.4	0.5	8.9	8.8	9.4	0.0	0.0
05/01/12	0.0	0.0	0.0	0.0	--	--	--	--	1.8	9.0	6.6	5.8	10.2	11.5	0.1	0.0	9.4	6.0	10.5	0.0	0.0
04/01/12	0.0	0.0	0.0	0.0	--	--	--	--	1.4	7.8	5.7	4.9	10.0	11.0	0.0	0.0	8.5	6.2	8.8	0.0	0.0

Table 3. Methane
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-1	SP-2	SP-3	SP-4	SP-5	SP-6	SP-7	SP-8	SP-9	SP-10	SP-11	SP-12	SP-13
03/01/12	0.0	0.0	0.0	0.0	--	--	--	--	1.3	7.7	5.1	1.9	7.8	8.5	0.0	0.0	7.3	5.3	9.0	0.0	0.0
02/01/12	0.0	0.0	0.0	0.0	--	--	--	--	1.8	7.8	6.6	4.2	9.5	12.0	0.0	0.0	7.6	8.1	--	0.0	0.0
01/01/12	0.0	0.0	0.0	0.0	--	--	--	--	1.5	6.5	4.1	2.9	7.6	11.0	0.0	0.0	8.8	8.5	--	0.0	0.0
12/01/11	0.0	0.0	0.0	0.0	--	--	--	--	1.9	8.2	7.0	7.0	10.0	13.0	0.1	0.0	9.1	8.1	9.0	0.0	0.0
11/01/11	0.0	0.0	0.0	0.0	--	--	--	--	1.4	7.5	5.2	2.1	8.5	11.2	0.0	0.3	11.5	9.6	13.0	0.0	0.0
10/01/11	0.0	0.0	0.0	0.0	--	--	--	--	3.1	10.0	11.0	13.0	17.0	19.0	2.6	4.6	14.0	9.0	17.0	0.0	0.0
09/01/11	0.0	0.0	0.0	0.0	--	--	--	--	2.0	7.1	7.1	8.6	11.0	13.5	0.2	0.5	12.5	9.0	12.5	0.0	0.0
08/01/11	0.0	0.0	0.0	0.0	--	--	--	--	2.7	8.4	7.2	10.0	11.5	14.5	0.4	0.1	13.5	9.2	13.0	0.0	0.0
07/01/11	0.0	0.0	0.0	0.0	--	--	--	--	1.1	7.1	4.4	1.0	9.0	10.0	0.0	0.1	9.6	7.3	12.5	0.0	0.0
06/01/11	0.0	0.0	0.0	0.0	--	--	--	--	0.8	7.2	4.7	7.5	8.5	11.0	0.0	0.0	5.5	6.4	5.9	0.0	0.0
05/01/11	0.0	0.0	0.0	0.0	--	--	--	--	0.6	6.7	3.7	3.9	8.2	11.0	0.0	0.0	4.5	5.6	5.0	0.0	0.0
04/01/11	0.0	0.0	0.0	0.0	--	--	--	--	0.6	6.7	3.7	3.9	8.2	11.0	0.0	0.0	4.5	5.6	5.0	0.0	0.0
03/01/11	0.0	0.0	0.0	0.0	--	--	--	--	1.5	9.2	6.5	5.2	8.5	12.5	0.0	0.8	4.4	5.0	5.3	0.0	0.0
02/01/11	0.0	0.0	0.0	0.0	--	--	--	--	0.8	5.9	4.6	5.2	7.7	11.5	0.0	0.0	5.0	6.3	6.0	0.0	0.0
01/01/11	0.0	0.0	0.0	0.0	--	--	--	--	2.1	8.3	7.0	5.4	8.9	11.0	0.0	0.0	4.6	5.8	4.8	0.0	0.0
12/01/10	0.0	0.0	0.0	0.0	--	--	--	--	2.6	10.5	7.8	6.9	12.5	14.5	2.9	0.0	13.5	11.5	13.5	0.0	0.0
11/01/10	0.0	0.0	0.0	0.0	--	--	--	--	2.7	8.6	9.0	8.8	8.3	18.0	2.0	15.0	10.5	11.0	11.5	0.0	0.0
10/01/10	0.0	0.0	0.0	0.0	--	--	--	--	3.7	10.0	11.0	12.0	15.0	18.5	3.0	13.0	14.5	10.5	17.0	0.0	0.0
09/01/10	0.0	0.0	0.0	0.0	--	--	--	--	3.7	12.0	9.5	15.0	2.2	19.0	3.3	1.2	18.0	14.5	18.5	0.0	0.0
08/01/10	0.0	0.0	0.0	0.0	--	--	--	--	1.9	7.4	5.9	8.1	11.0	13.5	0.8	0.7	11.5	8.5	13.5	0.0	0.0
07/01/10	0.0	0.0	0.0	0.0	--	--	--	--	1.8	8.1	7.2	8.1	11.5	14.0	1.2	9.9	10.5	6.9	14.0	0.0	0.0
06/08/10	0.0	0.0	0.0	0.0	--	--	--	--	2.3	9.8	8.8	7.2	12.5	14.0	0.9	20.5	9.6	6.7	13.0	0.0	0.0
05/11/10	0.0	0.0	0.0	0.0	--	--	--	--	1.0	6.9	3.9	3.5	8.3	9.0	0.0	0.0	8.2	6.7	8.7	0.0	0.0
12/08/09	0.0	0.0	0.0	0.0	--	--	--	--	2.6	8.7	7.1	10.0	13.0	12.5	0.9	0.0	11.0	8.8	12.5	0.0	0.0
11/06/09	0.0	0.0	0.0	0.0	--	--	--	--	4.3	10.0	4.8	2.9	5.4	12.5	2.0	0.0	7.0	8.3	8.4	0.0	0.0
10/03/09	0.0	--	0.0	0.0	--	--	--	--	3.3	10.5	10.0	8.9	9.2	17.0	3.5	1.7	15.0	11.5	15.0	0.0	0.0
09/08/09	0.0	0.0	0.0	0.0	--	--	--	--	3.7	12.0	11.0	15.0	17.0	21.0	4.3	10.5	17.5	12.0	20.5	0.0	0.0
08/04/09	0.0	0.0	0.0	0.0	--	--	--	--	2.8	9.0	8.4	10.5	14.0	16.5	3.0	0.9	15.0	11.0	15.0	0.0	0.0
07/02/09	0.0	0.0	0.0	0.0	--	--	--	--	2.4	9.3	9.0	9.9	12.5	14.5	2.7	0.9	11.5	8.5	12.0	0.0	0.0
06/05/09	0.0	0.0	0.0	0.0	--	--	--	--	2.0	9.2	7.6	8.2	12.0	14.0	2.1	0.3	8.2	11.5	14.0	0.0	0.0
05/08/09	0.0	0.0	0.0	0.0	--	--	--	--	1.8	9.1	6.9	6.9	11.0	12.0	0.0	4.4	9.9	7.7	12.0	0.0	0.0
04/03/09	0.0	0.0	0.0	0.0	--	--	--	--	1.6	8.9	5.7	4.4	10.0	12.0	0.3	0.0	8.8	8.9	10.5	0.0	0.0
03/03/09	0.0	0.0	0.0	0.0	--	--	--	--	2.0	9.1	6.4	5.4	11.5	12.0	1.3	0.0	9.5	8.3	11.5	0.0	0.0
02/03/09	0.0	0.0	0.0	0.0	--	--	--	--	2.4	9.1	9.0	9.4	12.5	15.0	3.6	0.7	12.0	9.2	12.5	0.0	0.0
01/09/09	0.0	0.0	0.0	0.0	--	--	--	--	2.1	9.3	8.2	4.2	11.0	11.5	0.0	0.0	10.5	11.5	9.5	0.0	0.0
12/02/08	0.0	0.0	0.0	0.0	--	--	--	--	2.4	8.7	7.8	9.1	12.5	15.5	1.3	0.0	13.0	12.5	15.0	0.0	0.0
11/05/08	0.0	0.0	0.0	0.0	--	--	--	--	3.1	9.4	8.6	9.0	11.5	14.5	0.9	0.0	11.5	12.0	13.5	0.0	0.0
10/03/08	0.0	0.0	0.0	0.0	--	--	--	--	4.3	12.0	13.0	14.5	17.5	19.5	6.2	13.0	17.5	13.0	19.0	0.0	0.0
09/11/08	0.0	0.0	0.0	0.0	--	--	--	--	5.3	15.0	12.5	14.5	19.0	22.5	5.4	10.0	21.0	17.0	21.5	0.0	0.0
08/18/08	0.0	0.0	0.0	0.0	--	--	--	--	3.6	10.5	9.7	11.5	14.0	16.5	4.1	0.0	14.5	10.5	15.0	0.0	0.0
07/28/08	0.0	0.0	0.0	0.0	--	--	--	--	2.7	9.6	10.0	14.5	15.5	16.0	2.8	4.4	12.5	10.0	14.5	0.0	0.0
06/04/08	0.0	0.0	0.0	0.0	--	--	--	--	1.6	7.6	6.9	6.7	11.5	13.5	1.7	0.0	11.0	7.0	14.0	0.0	0.0
05/02/08	0.0	0.0	0.0	0.0	--	--	--	--	1.8	8.4	7.5	7.9	10.1	12.0	1.3	0.0	10.5	8.0	12.0	0.0	0.0
04/04/08	0.0	0.0	0.0	0.0	--	--	--	--	2.0	9.0	8.3	8.7	10.5	13.0	2.7	0.0	11.0	7.9	12.5	0.0	0.0
03/04/08	0.0	0.0	0.0	0.0	--	--	--	--	1.6	8.5	6.3	4.3	8.6	10.0	0.6	0.0	9.1	8.4	10.0	0.0	0.0
02/01/08	0.0	0.0	0.0	0.0	--	--	--	--	2.1	9.4	6.1	6.5	9.2	10.0	0.5	0.0	9.1	8.3	9.4	0.0	0.0
01/08/08	0.0	0.0	0.0	0.0	--	--	--	--	2.3	10.0	8.8	8.3	11.5	14.0	2.2	0.5	12.0	9.6	12.5	0.0	0.0
12/07/07	0.0	0.0	0.0	0.0	--	--	--	--	2.9	7.9	8.6	8.1	11.5	14.5	2.1	0.0	12.5	9.4	14.0	0.0	0.0
11/01/07	0.0	0.0	0.0	0.0	--	--	--	--	4.0	9.7	9.2	14.0	13.5	15.0	2.3	0.0	14.5	13.5	15.0	0.0	0.0
10/02/07	0.0	0.0	0.0	0.0	--	--	--	--	4.5	13.0	13.5	16.5	16.5	19.5	5.3	0.0	10.5	15.0	19.0	0.0	0.0
09/05/07	0.0	0.0	0.0	0.0	--	--	--	--	3.5	10.0	10.5	15.5	16.0	20.0	4.9	5.0	10.5	14.5	19.0	NA	0.0
08/02/07	0.0	0.0	0.0	0.0	--	--	--	--	3.2	10.0	10.0	15.5	17.0	19.5	6.2	0.0	11.1	17.0	19.0	0.0	0.0
07/09/07	0.0	0.0	0.0	0.0	--	--	--	--	2.9	10.0	10.0	16.0	16.5	19.5	5.8	4.1	17.0	13.0	17.5	0.0	0.0

Table 3. Methane
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-1	SP-2	SP-3	SP-4	SP-5	SP-6	SP-7	SP-8	SP-9	SP-10	SP-11	SP-12	SP-13
06/08/07	0.0	0.0	0.0	0.0	--	--	--	--	2.5	10.0	10.0	13.6	14.5	17.5	3.3	0.0	14.5	11.0	17.5	0.0	0.0
05/10/07	0.0	0.0	0.0	0.0	--	--	--	--	2.0	9.7	9.2	13.0	13.5	16.0	3.4	0.0	14.0	10.5	16.0	0.0	0.0
04/17/07	0.0	0.0	0.0	0.0	--	--	--	--	2.0	9.7	9.2	12.0	13.0	16.0	3.2	0.1	14.0	10.5	15.0	0.0	0.0
03/23/07	0.0	0.0	0.0	0.1	--	--	--	--	2.1	10.5	9.6	12.5	13.5	16.5	3.1	13.0	13.5	10.0	14.5	0.0	0.0
02/28/07	0.0	0.0	0.0	0.0	--	--	--	--	2.3	11.0	9.5	1.3	11.0	14.0	1.9	0.0	6.1	11.8	--	0.0	0.0
01/30/07	0.0	0.0	0.0	0.0	--	--	--	--	--	9.2	9.4	10.5	13.5	16.5	3.4	0.0	12.5	11.5	--	0.0	0.0
12/27/06	0.0	0.0	0.0	0.0	--	--	--	--	2.2	9.8	4.2	2.0	7.5	9.5	2.6	0.0	6.3	11.0	--	0.0	0.0
11/30/06	0.0	0.0	0.0	0.0	--	--	--	--	2.2	7.7	6.6	3.7	9.7	12.0	1.3	0.0	11.5	13.5	--	0.1	0.1
10/27/06	0.0	0.0	0.0	0.0	--	--	--	--	4.0	11.0	13.0	21.0	17.0	18.5	4.2	0.0	17.0	15.0	17.5	0.0	0.0
09/27/06	0.0	0.0	0.0	0.0	--	--	--	--	4.0	13.0	13.0	20.0	16.5	19.5	6.2	0.0	17.5	14.5	18.0	0.0	0.0
08/31/06	0.0	0.0	0.0	0.0	--	--	--	--	3.5	10.0	12.0	21.0	16.0	18.5	4.6	0.1	19.0	16.0	19.5	--	0.0
07/25/06	0.0	0.0	0.0	0.0	--	--	--	--	3.0	9.6	10.0	16.0	14.5	17.5	6.4	0.1	16.5	13.0	18.5	0.0	0.0
06/23/06	0.0	0.0	0.0	0.0	--	--	--	--	2.2	9.4	10.0	15.0	14.0	17.0	4.0	0.0	14.5	11.5	15.5	0.0	0.0
05/25/06	0.0	0.0	0.0	0.0	--	--	--	--	2.5	9.6	13.0	18.0	15.5	19.0	4.1	2.3	18.0	12.0	17.5	0.0	0.0
04/27/06	0.0	0.0	0.0	0.0	--	--	--	--	2.3	11.0	9.3	15.1	13.5	16.5	3.0	0.0	16.0	13.0	4.2	0.0	0.0
03/24/06	0.0	0.0	0.0	0.0	--	--	--	--	2.4	11.0	8.4	9.8	11.0	14.0	3.4	0.0	13.0	11.0	--	0.0	0.0
02/27/06	0.0	0.0	0.0	0.0	--	--	--	--	2.7	14.0	11.5	7.3	16.5	18.5	8.0	0.0	15.0	12.0	17.0	0.0	0.0
01/27/06	0.0	0.0	0.0	0.0	--	--	--	--	2.0	9.4	7.4	12.5	10.0	12.5	3.1	0.0	8.4	10.5	9.2	0.0	0.0
12/28/05	0.0	0.0	0.0	0.0	--	--	--	--	2.4	11.0	7.2	19.7	11.0	12.5	4.9	0.0	13.5	11.0	13.5	0.0	0.0
11/28/05	0.0	0.0	0.0	0.0	--	--	--	--	12.5	13.5	24.0	26.0	27.5	30.0	13.5	13.5	18.0	14.5	21.0	5.2	1.7
10/31/05	0.0	0.4	0.0	0.0	--	--	--	--	2.8	10.0	11.5	18.5	15.0	17.5	7.5	0.0	18.0	17.0	19.0	0.0	0.0
06/24/05	0.0	0.0	0.0	0.0	--	--	--	--	4.0	11.5	14.5	27.0	20.0	23.5	11.5	0.0	19.0	19.0	19.0	0.0	0.0
05/31/05	0.0	0.0	0.0	0.0	--	--	--	--	3.8	12.0	15.0	34.0	21.0	24.0	11.0	0.0	20.0	24.0	20.5	0.0	0.0
04/26/05	0.0	1.3	0.1	0.0	--	--	--	--	6.9	23.5	29.0	51.0	35.0	40.0	26.5	1.6	38.0	41.0	38.5	0.2	5.3
03/25/05	0.0	0.0	0.0	0.0	--	--	--	--	7.1	26.5	31.0	51.0	39.0	42.0	26.5	2.1	38.0	42.0	39.0	0.0	6.8
02/28/05	0.0	0.0	0.0	0.0	--	--	--	--	8.2	28.0	35.0	49.5	44.0	46.0	27.0	0.6	40.0	39.0	40.0	2.5	9.4
01/25/05	0.0	0.0	0.0	0.0	--	--	--	--	11.0	28.0	43.0	55.0	43.0	44.0	31.0	15.0	39.5	40.0	40.0	0.0	5.2
12/23/04	0.0	0.0	0.0	0.0	--	--	--	--	11.0	23.0	36.0	58.0	41.0	41.0	35.0	6.0	42.0	44.0	37.0	0.0	6.2
11/29/04	2.0	1.0	1.0	1.1	--	--	--	--	13.0	30.0	45.0	64.0	52.0	55.0	38.0	17.0	51.0	64.0	51.0	1.7	8.0
10/29/04	1.8	4.5	1.1	2.7	--	--	--	--	7.3	27.5	64.0	61.0	44.0	48.0	36.5	12.0	50.0	53.0	48.0	5.6	12.0
09/29/04	0.0	0.0	0.0	0.0	--	--	--	--	12.0	28.5	38.0	55.0	44.0	45.0	31.0	2.1	42.5	45.0	42.0	0.1	7.7
08/27/04	0.0	0.0	0.0	0.0	--	--	--	--	9.8	28.0	34.0	55.0	41.0	44.0	27.5	3.2	41.0	44.5	41.5	0.0	7.2
07/30/04	0.0	0.0	0.0	0.0	--	--	--	--	10.0	26.5	32.0	45.0	39.0	44.0	27.5	2.9	41.0	40.0	42.0	0.1	7.6
06/30/04	0.0	0.0	0.0	0.0	--	--	--	--	10.5	28.0	35.0	48.5	44.0	43.0	32.0	9.4	38.5	36.0	40.0	0.1	7.0
05/25/04	--	--	--	--	--	--	--	--	9.2	20.5	30.5	45.0	33.0	37.0	21.0	--	31.0	30.0	33.0	--	--
04/27/04	0.0	0.0	0.0	0.0	--	--	--	--	9.6	21.5	32.0	45.0	36.0	37.0	22.0	12.0	33.0	31.5	35.0	0.2	3.0
03/31/04	0.0	0.0	0.0	0.0	--	--	--	--	7.3	0.1	28.0	40.5	34.5	38.0	27.5	6.7	--	--	24.0	0.0	4.8
02/26/04	0.0	0.0	0.0	0.0	--	--	--	--	5.8	-	20.5	28.0	24.5	--	19.5	0.1	27.0	28.5	28.5	0.0	4.1
01/27/04	0.0	0.0	0.0	0.0	--	--	--	--	7.9	21.0	24.5	44.0	28.0	31.0	19.0	0.0	27.5	30.5	27.5	0.0	2.8
12/30/03	0.0	0.0	0.0	0.0	--	--	--	--	7.2	-	29.5	45.0	31.0	34.0	20.0	9.6	30.0	32.0	32.0	0.1	2.0
11/25/03	0.0	0.0	0.0	0.0	--	--	--	--	5.6	-	11.0	17.0	30.5	33.5	14.5	0.0	32.0	32.0	36.5	0.0	7.5
10/30/03	0.0	0.0	0.0	0.0	--	--	--	--	3.7	19.5	20.5	24.5	27.0	31.0	17.0	0.0	29.0	36.0	29.5	0.0	5.8
09/29/03	0.0	0.0	0.0	0.0	--	--	--	--	7.4	19.5	26.0	40.5	32.0	36.0	23.5	1.5	33.5	35.0	34.0	0.0	4.8
08/29/03	0.0	0.0	0.0	0.0	--	--	--	--	7.1	17.5	24.0	35.0	29.0	34.0	19.5	2.0	32.0	32.0	32.5	0.0	3.3
07/31/03	0.0	0.0	0.0	0.0	--	--	--	--	6.9	19.0	22.0	33.5	29.0	33.5	23.5	2.9	31.0	29.5	31.5	--	--
06/20/03	0.0	0.0	0.0	0.0	--	--	--	--	5.5	17.5	20.5	37.0	27.5	31.5	18.0	2.2	29.0	27.0	30.5	0.0	0.8
05/28/03	0.0	0.0	0.0	0.0	--	--	--	--	3.9	16.5	15.0	2.7	23.0	27.5	9.6	1.1	28.5	29.5	29.0	0.0	0.0
04/28/03	0.0	0.0	0.0	0.0	--	--	--	--	10.5	24.5	29.0	0.2	35.0	37.0	22.5	7.7	27.5	24.5	29.5	2.0	3.5
03/01/03	0.0	0.0	0.0	0.0	--	--	--	--	4.1	0.0	16.5	0.0	23.5	27.5	15.5	0.0	24.5	25.0	26.5	0.0	0.0
02/01/03	0.0	0.0	0.0	0.0	--	--	--	--	2.8	--	13.5	0.0	19.1	23.4	11.5	0.0	23.5	26.0	23.5	0.0	0.0
01/01/03	0.0	0.0	0.0	0.0	--	--	--	--	5.4	--	20.5	0.0	23.5	24.0	18.5	--	22.5	26.5	21.5	0.0	0.4
12/23/02	0.0	0.0	0.0	0.0	--	--	--	--	4.7	--	22.0	--	27.7	31.6	16.7	0.0	25.6	35.8	25.6	0.0	2.0
11/15/02	0.0	0.0	0.0	0.0	--	--	--	--	4.4	--	26.3	53.2	34.3	38.7	25.2	0.0	39.1	51.3	37.6	0.0	1.6

Table 3. Methane
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-1	SP-2	SP-3	SP-4	SP-5	SP-6	SP-7	SP-8	SP-9	SP-10	SP-11	SP-12	SP-13
10/15/02	0.0	0.0	0.0	0.0	--	--	--	--	15.5	36.3	39.6	37.5	45.0	46.7	40.8	31.9	43.9	47.5	44.3	6.2	16.5
09/15/02	0.0	0.0	0.0	0.0	--	--	--	--	4.8	15.5	20.2	33.1	24.8	29.1	18.2	1.8	26.8	29.0	28.8	0.0	3.0
08/15/02	0.0	0.0	0.0	0.0	--	--	--	--	5.7	16.3	22.2	31.5	26.9	29.0	16.3	1.9	25.5	25.7	26.9	0.0	0.0
07/15/02	0.0	0.0	0.0	0.0	--	--	--	--	4.7	14.5	16.7	23.3	20.0	24.5	14.6	0.0	23.5	23.1	24.2	0.0	0.0
06/15/02	0.0	0.0	0.0*	0.0	--	--	--	--	4.4	15.6	19.4	30.8	26.0	28.7	17.5	0.8	26.7	24.1	28.6	0.0	0.0
05/15/02	0.0	0.0	0.0	0.0	--	--	--	--	3.0	14.9	16.2	24.4	21.2	24.9	13.1	0.3	24.5	21.6	25.5	0.0	0.0
04/15/02	0.0	0.0	0.0	0.0	--	--	--	--	0.8	--	15.1	23.7	19.5	23.0	8.9	0.0	22.5	21.1	24.0	0.0	0.0
03/15/02	0.0	0.0	0.0	0.0	--	--	--	--	2.5	--	15.0	13.7	17.9	21.4	7.3	0.0	22.8	21.9	24.1	0.0	0.0
02/15/02	0.0	0.0	0.0	0.0	--	--	--	--	2.1	--	15.9	25.1	19.3	23.7	10.4	1.1	13.8	21.5	11.7	0.0	0.0
01/15/02	0.0	0.0	0.0	0.0	--	--	--	--	4.2	14.4	15.6	3.5	22.0	26.9	11.6	0.0	27.5	28.7	28.7	0.0	0.0
12/15/01	0.0	0.0	0.0	0.0	--	--	--	--	2.8	--	11.1	0.6	15.6	17.0	11.3	0.0	17.5	24.2	17.6	0.0	0.0
11/15/01	0.0	0.0	0.0	0.0	--	--	--	--	1.0	--	12.2	0.0	18.4	21.2	10.0	0.0	24.7	25.5	25.0	0.0	0.0
10/15/01	0.0	0.0	0.0	0.0	--	--	--	--	4.9	16.3	21.6	35.0	28.1	29.2	17.1	0.2	28.2	31.2	28.9	0.0	1.2
09/15/01	0.0	0.0	0.0	0.0	--	--	--	--	4.1	16.0	17.7	26.5	24.7	28.5	14.5	0.0	28.5	33.8	29.0	0.0	0.7
08/01/01	0.0	0.0	0.0	0.0	--	--	--	--	4.0	15.3	17.1	24.8	23.0	26.7	15.3	0.0	26.8	28.7	27.0	0.0	0.7
07/01/01	0.0	0.0	0.0	0.0	--	--	--	--	3.4	14.9	18.5	33.1	24.1	27.7	17.5	3.8	27.4	28.7	28.1	0.0	0.0
06/01/01	0.0	0.0	0.0	0.0	--	--	--	--	3.1	12.8	16.7	28.6	21.1	23.1	15.1	1.6	21.9	23.5	21.3	0.0	0.0
05/01/01	0.0	0.0	0.0	0.0	--	--	--	--	2.6	14.7	19.7	32.4	24.6	27.1	15.0	4.6	25.2	28.3	25.5	0.0	0.0
04/01/01	0.0	0.0	0.0	0.0	--	--	--	--	2.8	--	17.3	24.3	22.9	26.5	17.0	1.3	26.5	28.7	26.9	0.0	0.0
03/10/01	0.3	0.3	0.4	--	--	--	--	--	3.4	--	18.7	27.4	22.6	25.7	12.9	--	25.2	28.6	25.7	0.3	0.3
02/01/01	0.0	0.2	0.2	0.2	--	--	--	--	3.6	0.0	18.8	33.9	25.1	27.9	19.2	--	26.6	30.8	27.2	0.3	0.4
01/01/01	0.0	0.0	0.0	0.0	--	--	--	--	2.5	0.0	17.1	27.0	22.1	25.4	13.0	2.6	24.1	32.1	24.7	0.0	0.0
12/01/00	0.0	0.0	0.0	0.0	--	--	--	--	7.0	0.0	33.0	48.5	39.0	42.3	35.7	3.6	37.7	48.6	36.5	0.3	1.2
11/01/00	0.0	0.0	0.0	0.0	--	--	--	--	2.2	13.5	15.3	10.0	21.5	24.5	10.5	0.0	24.8	41.0	24.5	0.0	0.5
10/01/00	0.0	0.0	0.0	0.0	--	--	--	--	4.4	18.0	21.6	32.0	29.4	33.8	24.7	3.2	31.5	47.9	32.5	0.0	0.5
09/15/00	0.0	0.0	0.0	0.0	--	--	--	--	6.1	20.2	22.6	20.2	29.0	33.9	24.5	10.5	32.5	45.7	33.6	0.0	0.1
08/01/00	0.0	0.0	0.0	0.0	--	--	--	--	4.5	18.0	18.0	25.0	26.8	28.0	17.2	12.5	23.6	35.8	22.0	0.0	0.2
07/01/00	0.0	0.0	0.0	0.0	--	--	--	--	4.7	14.6	20.0	31.0	25.3	29.1	19.8	7.6	27.0	43.0	20.8	0.0	0.0
06/01/00	0.0	0.0	0.0	0.0	--	--	--	--	7.0	29.1	33.0	37.0	42.0	47.5	41.8	52.0	46.3	54.9	47.5	0.4	3.0
05/01/00	--	0.0	0.0	0.0	--	--	--	--	16.5	--	39.5	42.5	47.7	51.0	38.8	39.9	50.7	50.1	52.5	13.0	11.5
04/01/00	0.0	0.0	0.0	0.0	--	--	--	--	12.2	--	34.0	42.0	41.5	45.0	33.4	37.4	40.5	34.4	43.1	3.9	4.4
03/01/00	0.0	0.0	0.0	0.0	--	--	--	--	6.7	--	19.5	15.3	23.5	28.0	13.3	12.0	--	19.2	19.8	0.0	1.2
02/01/00	0.0	0.0	0.0	0.0	--	--	--	--	2.0	--	10.5	8.2	15.1	18.8	7.0	0.0	--	28.5	10.6	0.0	1.0
01/01/00	--	--	--	--	--	--	--	--	1.9	--	12.3	13.5	18.5	22.9	12.5	6.0	--	--	7.8	0.0	0.7
12/01/99	--	--	--	--	--	--	--	--	3.3	--	16.5	29.0	23.0	26.3	18.7	0.0	--	--	13.5	0.0	1.0
11/01/99	--	--	--	--	--	--	--	--	3.7	17.5	19.0	38.6	25.4	29.0	20.8	0.0	--	36.0	--	0.0	1.8
10/01/99	--	--	--	--	--	--	--	--	3.5	15.5	16.9	--	--	26.5	19.8	8.4	23.8	37.0	25.2	0.0	2.9
09/01/99	--	--	--	--	--	--	--	--	4.6	16.4	17.1	--	--	27.3	19.5	10.5	25.0	36.0	26.2	0.0	0.5
08/01/99	--	--	--	--	--	--	--	--	4.4	17.9	16.6	--	--	27.1	16.2	19.1	28.6	30.8	30.2	0.0	1.3
07/01/99	--	--	--	--	--	--	--	--	3.0	16.5	14.3	21.1	19.8	23.7	13.1	18.9	18.9	30.9	20.4	0.0	0.4
06/01/99	--	--	--	--	--	--	--	--	3.0	16.3	14.7	24.0	21.0	24.6	14.9	20.2	20.7	29.6	23.6	0.0	0.4
05/01/99	--	--	--	--	--	--	--	--	2.5	17.1	11.3	21.3	16.1	19.8	10.1	22.3	9.5	27.7	5.1	0.0	1.0
04/01/99	--	--	--	--	--	--	--	--	2.3	--	14.0	30.0	19.2	22.6	11.6	21.2	13.8	28.6	6.0	0.0	1.0
03/01/99	--	--	--	--	--	--	--	--	2.1	--	13.7	24.5	20.5	25.5	11.9	29.0	22.9	43.3	11.1	0.0	3.1
02/01/99	--	--	--	--	--	--	--	--	8.2	--	36.2	40.7	44.9	47.9	43.7	54.4	--	--	34.3	0.0	5.1
01/01/99	--	--	--	--	--	--	--	--	2.5	--	10.6	0.0	20.0	20.9	20.1	35.0	--	--	--	0.0	2.4
12/01/98	--	--	--	--	--	--	--	--	33.5	50.0	60.7	59.3	58.9	66.1	63.7	47.0	--	51.3	--	4.8	15.5
11/01/98	--	--	--	--	--	--	--	--	6.4	26.9	28.8	30.7	30.0	37.5	45.3	27.7	--	42.3	17.0	3.0	0.0
10/01/98	--	--	--	--	--	--	--	--	5.3	18.6	18.2	21.0	25.0	28.0	26.0	15.0	13.6	4.5	2.7	--	--

Table 3. Methane
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-1	SP-2	SP-3	SP-4	SP-5	SP-6	SP-7	SP-8	SP-9	SP-10	SP-11	SP-12	SP-13

Definitions and Notes:

*	VP-2 is the only on-site soil gas probe within the limits of the landfill. VP-1, VP-3, and VP-4 are located beyond the landfill limits.
--	Data was not provided for this period. Monitoring was conducted by others, prior to AECOM.
Bold	Values in bold were collected by AECOM (Jan 2023 to date).
Value	Underlined value denotes a methane concentration in a on/off-site soil gas probe (not connected to landfill gas collection piping) that exceeded the methane LEL of 5%
NA	Not accessible.
	Green shading indicates monitoring point connected to landfill gas collection piping.
	Blue shading indicates perimeter monitoring point, not connected to landfill gas collection piping.

Table 4. Carbon Dioxide
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
Average 2023	**2.3**	**2.9**	**2.2**	**2.0**	**10.5**	**3.8**	**0.0**	**3.0**	**5.2**	**11.9**	**3.6**	**1.1**	**3.9**	**4.2**	**2.1**	**9.3**	**5.0**	**4.4**	**8.9**	**9.5**	**5.0**
Average 2020-2022	1.9	2.8	2.2	2.1	3.9	3.1	0.1	3.0	0.8	6.6	4.8	3.0	3.4	4.1	3.2	7.8	5.9	6.5	7.8	8.7	5.3
Average 2017-2019	1.7	2.9	2.4	1.6	4.4	1.8	0.0	1.8	5.1	12.8	4.1	1.1	4.4	4.8	1.7	7.9	5.5	4.6	7.9	8.2	5.0
Average 2016 (pre-system shutdown)	1.5	3.2	2.0	1.6	--	--	--	--	4.9	11.5	5.6	0.8	7.8	9.2	2.4	4.3	10.8	5.7	13.8	6.3	3.1
Average 2008-2016	1.5	3.5	2.1	1.6	--	--	--	--	4.6	12.2	6.1	1.2	9.3	11.4	2.6	3.8	13.3	5.5	15.5	3.6	2.2
Average 1998-2007	1.9	4.5	2.0	1.8	--	--	--	--	5.6	15.8	8.6	1.0	11.6	13.4	1.7	6.7	17.2	6.6	18.6	3.7	4.3
10/20/23	**4.0**	**4.3**	**3.7**	**2.3**	**11.2**	**5.9**	**0.0**	**3.0**	**3.0**	**17.3**	**4.1**	**0.1**	**4.8**	**5.1**	**2.3**	**10.1**	**4.5**	**3.8**	**9.1**	**10.7**	**6.0**
09/14/23	**2.6**	**3.8**	**1.8**	**1.9**	**13.9**	**6.6**	**0.0**	**3.3**	**4.9**	**19.6**	**3.0**	**0.1**	**3.7**	**3.7**	**2.2**	**3.5**	**3.9**	**3.4**	**10.5**	**14.2**	**5.8**
08/10/23	**2.8**	**3.8**	**0.8**	**2.0**	**13.9**	**6.1**	**0.0**	**3.3**	**7.7**	**18.8**	**3.5**	**3.7**	**4.2**	**4.4**	**2.8**	**14.9**	**4.5**	**4.0**	**11.3**	**13.3**	**5.5**
07/11/23	**2.2**	**3.3**	**1.3**	**1.8**	**13.3**	**4.9**	**0.0**	**2.2**	**6.8**	**16.1**	**3.6**	**0.1**	**4.3**	**4.4**	**2.4**	**13.6**	**4.5**	**4.2**	**10.8**	**11.7**	**5.1**
06/19/23	**2.4**	**3.1**	**3.0**	**1.9**	**12.4**	**4.3**	**0.0**	**3.5**	**6.5**	**17.4**	**3.3**	**1.2**	**3.6**	**4.0**	**1.2**	**12.7**	**4.7**	**4.2**	**10.5**	**NA**	**NA**
05/18/23	**2.0**	**2.6**	**2.9**	**1.7**	**12.0**	**2.7**	**0.0**	**2.6**	**6.3**	**4.8**	**3.7**	**1.1**	**4.1**	**4.7**	**3.1**	**9.5**	**4.7**	**4.6**	**4.8**	**9.3**	**4.7**
04/05/23	**2.6**	**0.2**	**2.4**	**2.0**	**8.8**	**2.7**	**0.0**	**3.5**	**2.6**	**16.4**	**3.0**	**0.1**	**3.4**	**3.6**	**1.0**	**8.9**	**4.8**	**4.3**	**8.4**	**8.7**	**5.0**
03/23/23	**2.3**	**2.4**	**2.2**	**1.9**	**9.1**	**2.7**	**0.1**	**3.1**	**3.4**	**14.9**	**3.2**	**0.1**	**4.1**	**4.3**	**1.3**	**6.8**	**5.1**	**4.5**	**7.7**	**7.7**	**4.8**
03/09/23	**2.6**	**2.6**	**2.2**	**2.2**	**8.6**	**2.5**	**0.0**	**3.5**	**4.2**	**15.2**	**3.8**	**0.2**	**3.8**	**4.2**	**1.1**	**6.9**	**4.8**	**4.0**	**8.4**	**8.0**	**4.9**
02/23/23	**2.3**	**2.7**	**2.2**	**2.2**	**8.2**	**2.4**	**0.0**	**3.2**	**6.6**	**1.7**	**3.9**	**3.2**	**3.0**	**4.1**	**3.7**	**8.1**	**7.1**	**5.9**	**9.0**	**7.6**	**5.0**
02/10/23	**1.8**	**2.6**	**2.1**	**1.9**	**8.2**	**2.1**	**0.0**	**2.8**	**4.1**	**3.1**	**3.6**	**0.1**	**4.3**	**4.4**	**1.4**	**8.8**	**5.4**	**4.7**	**8.2**	**7.4**	**4.7**
01/27/23	**1.5**	**2.6**	**2.1**	**2.1**	**8.6**	**2.6**	**0.0**	**2.5**	**5.0**	**5.2**	**3.6**	**0.2**	**4.4**	**4.3**	**1.5**	**8.5**	**5.4**	**4.7**	**8.6**	**7.9**	**4.5**
01/10/23	**1.2**	**3.4**	**2.3**	**1.8**	**8.3**	**3.3**	**0.0**	**2.5**	**5.6**	**4.6**	**4.3**	**3.8**	**3.6**	**3.7**	**3.4**	**9.0**	**5.9**	**4.8**	**8.2**	**7.5**	**4.5**
12/28/22	0.6	3.1	0.4	2.1	8.1	3.6	0.1	N/A	5.9	3.6	4.6	1.5	4.9	5.4	2.1	8.6	7.5	6.0	N/A	4.3	4.9
12/14/22	2.3	2.0	2.9	2.6	3.2	3.0	0.0	3.2	0.1	3.8	4.2	2.1	2.3	3.2	1.2	10.2	6.5	4.0	3.2	9.9	7.4
11/17/22	1.8	1.9	3.4	2.2	3.1	2.6	0.0	2.8	0.2	4.5	4.3	2.3	4.4	3.6	0.8	6.3	6.3	5.3	7.9	10.4	7.2
10/19/22	2.2	1.6	3.3	2.1	3.3	2.1	0.0	2.4	0.0	4.0	5.1	2.4	4.3	3.5	0.9	5.8	10.4	4.2	0.0	10.1	4.8
10/06/22	2.4	2.1	3.3	2.8	3.2	2.1	0.0	2.8	0.0	4.2	4.7	2.3	4.0	4.6	1.1	6.4	6.3	4.5	3.7	9.9	5.5
09/22/22	2.2	2.0	3.8	2.1	3.1	3.0	0.0	3.7	0.0	4.0	4.4	2.4	2.6	3.3	0.8	5.9	4.5	3.8	0.0	9.8	4.8
09/08/22	2.1	2.0	2.4	3.2	3.0	2.4	0.0	3.2	0.1	3.6	4.1	2.3	3.2	3.5	0.8	6.3	3.6	4.2	7.0	8.9	5.0
08/26/22	2.0	1.5	3.4	2.9	4.5	0.8	0.0	3.4	0.2	4.0	4.1	2.1	4.4	5.9	2.6	0.0	3.7	6.0	0.0	9.9	6.0
08/11/02	2.0	2.9	3.5	2.7	4.3	4.2	0.0	2.4	0.2	4.6	4.5	1.9	3.4	3.4	0.8	6.0	8.9	4.8	8.1	8.9	5.7
07/28/22	1.7	2.3	3.5	2.4	3.6	2.8	0.0	3.8	0.4	4.3	5.1	2.1	3.4	3.4	0.8	6.0	10.8	4.5	4.6	6.0	5.4
07/13/22	1.6	2.0	3.6	2.5	3.2	3.1	0.0	3.9	0.0	3.9	4.1	1.8	4.7	4.9	1.2	11.3	4.2	5.8	9.1	5.8	6.7
06/22/22	1.7	0.6	2.0	2.7	4.2	--	--	2.7	2.6	2.3	4.8	4.5	4.7	5.7	1.3	6.4	3.6	8.3	9.3	9.3	5.3
06/10/22	1.3	2.1	3.8	2.8	3.1	--	--	2.6	3.5	4.3	3.8	4.2	3.3	3.6	0.9	3.8	3.8	8.4	8.7	7.0	5.8
05/27/22	1.1	3.4	2.1	2.9	2.8	--	--	3.2	4.0	3.7	7.7	9.3	2.6	3.8	3.5	6.5	4.8	7.9	7.8	8.5	6.0
05/12/22	0.6	3.0	1.8	2.4	2.7	--	--	3.3	3.9	3.8	4.2	4.7	2.3	4.0	6.4	6.3	6.3	7.3	9.2	8.6	6.3
04/29/22	2.0	3.8	0.8	2.5	2.1	--	--	2.5	3.8	4.1	4.0	4.4	2.1	4.3	5.4	0.5	5.1	4.7	11.0	10.0	7.2
04/06/22	2.4	4.0	2.1	2.6	2.8	--	--	3.0	3.0	0.1	3.6	4.1	2.5	4.2	5.7	8.9	5.2	8.9	9.8	11.0	5.5
03/18/22	2.2	4.1	2.4	3.2	1.7	--	--	2.8	3.5	0.2	4.0	4.1	2.6	4.1	6.1	6.7	3.8	8.6	9.7	12.0	5.4
03/03/22	2.1	0.3	3.4	0.4	1.6	--	--	2.7	4.0	0.2	4.6	4.5	2.2	3.6	2.3	12.3	4.5	9.3	10.3	--	--
02/18/22	0.1	3.2	3.5	2.5	1.5	--	--	2.1	3.4	4.4	3.9	4.1	2.2	3.2	4.3	11.2	7.6	9.6	8.4	--	--
02/03/22	1.4	3.4	3.6	2.4	0.0	--	--	2.2	0.0	2.6	2.3	4.8	2.1	3.8	5.8	7.9	4.2	10.2	8.3	--	--
01/21/22	1.7	3.0	2.0	2.5	2.8	--	--	2.8	4.5	0.7	5.5	6.1	2.5	3.6	4.5	7.8	4.3	11.3	4.5	--	--
01/06/22	1.3	3.8	1.9	2.5	2.4	--	--	27.0	3.2	5.4	3.6	3.9	2.7	3.4	6.0	10.8	3.9	8.2	10.2	--	--
12/22/21	2.2	4.0	2.4	2.2	0.0	--	--	3.1	0.0	6.2	4.5	4.3	2.8	3.8	5.7	11.1	3.8	11.0	10.2	--	--
12/06/21	--	--	--	--	--	--	--	--	0.0	4.6	3.2	4.2	2.1	3.8	6.0	10.9	4.1	8.7	11.0	--	--
12/02/21	3.1	5.0	3.0	3.1	3.0	--	--	2.8	--	--	--	--	--	--	--	--	--	--	--	--	--
11/11/21	1.4	4.3	2.1	2.5	3.1	--	--	3.2	0.0	7.9	5.8	0.9	3.6	3.5	4.2	12.5	3.2	9.1	8.6	--	--
10/28/21	1.0	4.5	1.6	2.4	0.3	--	--	2.7	0.0	8.1	2.4	3.2	2.6	3.6	2.3	8.6	3.7	8.9	9.4	--	--
09/30/21	2.0	4.4	2.2	2.5	0.0	--	--	2.3	0.0	4.4	5.6	4.7	2.3	3.6	5.2	11.4	3.7	7.0	10.6	10.8	5.2
09/17/21	3.3	5.4	2.4	3.2	5.6	--	--	3.1	0.0	8.1	7.1	0.3	3.2	3.8	4.1	6.8	4.8	5.1	10.0	11.7	5.6

Table 4. Carbon Dioxide
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
08/27/21	1.0	3.6	3.1	2.6	3.2	--	--	2.6	0.2	12.2	2.3	0.5	3.5	3.9	3.3	0.0	5.3	4.9	11.0	10.5	6.1
08/05/21	1.2	6.5	2.8	3.2	1.8	--	--	3.1	0.1	7.3	3.9	4.2	2.9	4.9	6.3	4.5	11.6	4.4	8.0	10.6	6.2
07/22/21	2.3	4.7	2.2	2.4	4.2	--	--	2.8	0.1	10.5	8.1	2.6	4.1	6.0	2.7	11.6	4.2	8.9	6.2	10.2	6.3
06/30/21	3.8	3.0	3.5	2.1	0.0	--	--	2.9	0.5	6.1	5.2	3.4	2.5	4.7	4.8	12.3	7.1	11.6	5.3	11.1	5.6
06/10/21	2.1	4.5	2.2	2.1	6.8	--	--	3.2	0.2	5.2	6.4	2.1	3.9	4.2	2.4	11.3	3.6	5.9	8.9	6.0	4.1
05/27/21	1.9	1.8	1.3	1.2	3.2	2.5	0.0	2.7	0.5	4.0	4.3	4.2	2.9	3.6	3.9	6.7	4.5	7.1	8.1	5.6	4.6
05/12/21	2.3	2.0	3.3	1.8	7.4	4.6	0.0	2.3	0.2	5.8	6.7	2.1	5.6	5.1	2.9	12.7	3.5	14.1	4.2	4.1	10.3
04/30/21	0.0	0.0	0.0	0.0	0.2	6.6	0.0	3.5	0.5	13.6	4.2	4.2	5.1	4.7	5.0	5.2	4.6	3.2	10.1	11.9	4.8
04/15/21	0.0	1.9	1.5	1.6	0.0	4.6	0.0	3.2	0.1	14.2	3.6	1.2	4.8	4.9	3.2	5.4	4.3	4.6	10.3	10.1	4.8
04/01/21	1.9	1.7	0.8	1.3	6.4	3.2	0.2	1.7	0.1	5.6	4.3	2.0	4.3	2.5	3.2	11.6	9.3	7.4	10.6	10.2	5.7
03/19/21	--	--	--	--	--	--	--	--	0.0	14.2	3.6	2.1	3.6	2.9	1.2	11.2	8.3	8.4	9.6	10.2	5.9
03/03/21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
02/19/21	3.2	3.6	2.5	2.4	6.5	3.8	0.0	2.9	0.0	14.5	4.5	3.6	3.2	4.5	3.9	11.4	9.6	7.4	10.3	10.0	5.7
01/29/21	1.8	2.3	2.1	2.0	6.6	2.3	2.9	1.7	0.0	12.3	3.3	2.2	4.1	3.7	1.0	6.5	5.4	5.6	5.3	8.7	4.9
01/07/21	4.2	3.4	2.6	2.5	4.2	3.6	0.0	0.0	0.0	0.8	5.3	4.1	4.2	3.6	1.9	6.8	7.3	4.8	10.8	10.9	5.3
12/23/20	3.6	3.2	2.5	2.5	7.3	4.0	0.0	0.1	0.1	10.9	4.7	4.3	3.2	4.5	5.3	11.4	8.5	8.4	9.6	10.0	5.6
12/11/20 & 12/14/20	3.8	3.1	--	2.5	7.0	3.5	0.0	1.0	0.1	0.7	0.2	0.6	0.3	3.9	3.8	9.6	8.8	7.8	9.4	8.2	5.3
11/25/20	4.3	3.9	0.3	2.6	8.3	4.0	0.0	--	0.1	0.6	7.4	5.5	5.4	4.9	4.8	11.3	9.5	8.1	9.7	10.0	6.0
11/11/20	4.1	3.4	3.0	2.6	8.0	4.7	0.0	3.1	0.1	18.4	3.7	4.1	4.8	4.7	4.0	11.9	7.8	6.4	10.3	10.1	5.8
10/14/20	3.5	3.4	2.4	2.6	9.2	5.5	0.0	--	0.1	4.9	5.9	4.7	4.7	4.5	4.5	10.5	9.7	9.0	9.4	10.9	2.0
09/29/20	2.3	4.5	2.2	2.6	0.0	4.1	0.0	3.0	0.2	7.2	5.7	4.0	2.9	4.9	5.3	2.8	12.8	4.3	7.0	11.7	6.1
08/28/20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.0	17.0	3.5	0.1	4.5	4.9	2.3	0.0	4.3	3.8	11.0	0.0	0.0
08/14/20	2.3	4.5	2.2	2.6	0.0	4.1	0.0	3.0	0.2	7.2	5.7	4.0	2.9	4.9	5.3	2.8	12.8	4.3	7.0	11.7	6.1
07/28/20	1.2	6.7	2.8	2.4	4.2	3.2	0.0	2.6	0.2	13.3	2.8	2.7	3.1	5.0	1.7	12.6	3.8	7.3	5.3	9.2	8.6
07/17/20	2.8	4.0	2.6	2.1	0.0	4.5	0.0	3.0	0.2	7.1	5.6	4.1	2.6	14.7	5.8	4.3	11.1	12.7	6.2	6.1	6.3
06/29/20	3.1	3.5	3.2	0.6	6.8	4.1	0.0	3.0	0.2	5.2	6.7	2.0	4.9	5.2	2.4	13.1	3.4	4.8	9.3	11.1	5.1
06/19/20	1.9	1.8	1.3	1.2	3.2	2.5	0.0	2.7	0.5	4.0	4.3	4.2	2.9	3.6	3.9	6.7	4.5	7.1	8.1	5.6	4.6
06/03/20	1.3	0.0	2.0	2.0	6.5	1.6	0.0	1.8	0.2	7.8	5.7	1.1	5.6	4.1	2.6	14.7	4.3	5.8	11.1	12.7	6.3
05/22/20	2.1	2.5	3.2	0.5	7.6	4.1	0.0	2.1	0.1	5.3	6.5	2.1	5.3	5.3	2.5	12.6	3.2	4.8	10.3	11.1	4.9
05/07/20	2.2	2.3	1.6	1.9	7.8	2.6	0.0	3.1	0.0	15.0	3.5	0.0	3.9	4.2	1.3	7.7	4.0	3.5	7.2	8.3	5.5
04/24/20	1.8	1.9	1.2	1.3	5.3	2.5	0.0	2.7	0.3	4.0	4.3	3.2	2.1	4.2	4.9	6.8	4.6	7.0	8.1	4.1	4.6
04/13/20	1.7	1.9	0.9	1.4	6.1	2.2	0.0	2.7	0.0	4.6	3.4	4.0	4.0	4.2	2.1	9.7	4.9	4.6	8.0	8.4	4.1
03/25/20	0.0	2.1	1.4	1.8	6.5	2.6	0.0	2.5	0.0	16.0	2.2	2.7	2.6	2.3	2.4	2.9	5.8	4.7	8.3	8.4	0.0
03/12/20	1.2	2.3	2.1	1.8	6.6	2.0	0.0	2.1	0.0	15.5	2.9	2.7	3.2	2.6	2.5	3.8	5.2	4.7	3.6	4.8	5.1
02/28/20	0.9	2.0	1.2	1.7	6.2	1.8	0.0	2.1	0.0	15.0	2.9	0.0	3.3	3.3	0.7	4.2	3.7	3.2	5.3	5.3	4.2
02/12/20	0.5	1.6	0.5	1.9	6.7	2.1	0.1	--	0.0	11.0	3.6	3.0	4.2	3.9	1.1	7.9	5.3	4.8	--	8.5	4.5
01/29/20	1.1	2.3	0.8	2.1	6.4	2.3	0.0	1.9	0.0	11.0	35.0	0.6	4.0	4.0	1.2	6.4	5.4	0.0	--	8.6	4.6
01/17/20	1.9	2.1	2.1	2.0	6.1	2.8	0.1	2.2	0.0	2.0	3.4	3.4	3.4	3.3	3.2	8.6	8.1	7.7	--	8.6	4.5
01/03/20	2.1	0.9	2.0	2.3	5.2	2.8	0.2	2.2	0.0	4.3	3.6	2.2	3.5	0.0	2.1	8.8	6,1	5.0	8.2	8.5	4.4
12/18/19	2.6	2.3	2.7	1.3	4.2	3.1	0.1	2.2	0.0	2.0	6.3	4.1	4.2	3.6	3.0	6.9	7.5	6.5	7.9	8.4	4.3
12/04/19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.1	18.0	3.4	0.7	4.1	4.6	1.1	0.0	5.9	4.5	--	0.0	0.0
11/06/19	2.7	16.2	20.2	2.3	--	4.0	0.0	2.5	20.5	16.0	7.2	2.7	3.6	3.5	3.9	11.0	6.7	4.9	9.0	9.4	4.9
10/22/19	2.1	3.2	2.5	1.5	7.5	4.1	0.0	2.8	0.2	6.5	4.2	1.8	5.2	5.3	2.5	11.4	4.8	3.2	10.2	11.6	4.9
10/08/19	3.8	2.9	3.1	2.0	7.6	4.2	0.3	3.3	0.1	6.2	3.4	0.2	2.4	3.8	0.8	13.6	3.8	3.2	8.0	10.9	6.7
09/23/19	2.3	3.8	2.4	2.0	6.9	5.1	0.0	2.3	0.0	10.8	5.4	0.5	4.2	4.2	2.5	11.7	4.3	5.0	10.8	8.4	5.9
09/12/19	2.0	3.3	2.2	2.1	7.1	4.6	0.0	2.5	0.0	15.3	7.1	0.4	3.6	4.4	3.1	10.0	4.7	4.1	11.3	10.5	5.9
08/29/19	2.7	4.5	2.0	2.0	0.0	4.8	0.0	3.0	0.1	7.2	5.1	1.7	5.1	4.6	2.7	14.6	5.3	4.8	11.7	12.1	6.2
08/14/19	2.2	3.9	2.5	1.9	7.5	4.0	0.0	2.6	0.1	3.6	3.7	0.8	4.4	5.0	2.5	12.9	5.1	4.5	11.7	11.6	5.8
07/26/19	--	4.3	2.7	2.0	--	3.5	0.0	-	0.2	4.2	2.4	0.3	2.4	4.3	1.3	11.9	3.7	3.2	7.1	11.8	6.3
07/11/19	1.6	2.7	1.8	1.4	4.8	2.3	0.0	2.0	0.1	15.0	2.8	2.2	3.4	3.9	0.9	8.9	3.8	3.2	8.6	1.6	4.6
06/19/19	1.6	1.9	1.6	1.1	4.8	1.7	0.0	1.9	0.4	16.0	2.6	0.1	3.5	3.3	0.9	8.4	3.8	3.3	8.7	--	--
06/05/19	2.3	2.7	2.1	1.4	5.9	--	--	2.3	15.0	17.0	3.2	0.1	3.7	3.4	1.2	10.5	4.1	3.4	10.1	8.9	5.0
05/23/19	2.2	2.1	1.7	1.0	4.5	0.9	0.0	2.0	4.8	15.0	3.2	0.1	3.2	3.7	1.6	5.8	3.8	3.3	3.1	8.6	4.5

Table 4. Carbon Dioxide
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
05/07/19	2.0	2.1	1.5	1.1	4.5	0.7	0.0	1.9	0.2	5.8	3.5	2.9	2.8	2.2	2.4	9.0	4.9	4.4	1.9	8.2	4.1
04/23/19	1.8	2.1	0.4	1.1	3.8	0.5	0.0	1.5	1.9	15.0	3.8	2.8	3.1	2.9	2.2	--	4.2	4.0	2.1	7.3	4.1
04/10/19	1.6	2.1	1.4	0.9	--	0.4	0.0	1.5	--	--	--	--	--	--	--	7.2	--	--	--	7.4	4.2
03/26/19	1.1	2.0	1.0	0.8	3.4	0.2	0.0	1.2	6.1	2.4	2.8	2.4	4.0	4.6	1.1	6.4	5.0	4.5	3.7	6.3	3.8
03/18/19	1.1	2.2	1.1	0.6	3.1	0.1	0.0	1.3	4.5	15.0	2.6	0.0	2.6	3.3	0.8	5.9	4.5	3.8	0.0	--	--
03/01/19	0.5	2.6	1.9	0.8	0.8	0.0	0.0	1.3	4.0	12.0	2.7	0.0	3.2	3.5	0.8	6.3	4.6	4.2	7.0	0.1	3.8
02/15/19	1.0	0.0	2.1	1.1	1.8	0.0	0.0	1.7	7.3	6.3	4.6	4.3	4.4	5.9	2.6	0.0	8.2	6.0	0.0	0.0	4.6
01/31/19	2.3	4.3	2.2	1.6	4.0	0.2	0.0	0.9	4.1	15.1	3.5	0.0	3.4	3.4	0.8	6.0	5.7	4.8	8.1	8.6	4.8
01/11/19	--	--	--	1.4	2.7	0.0	0.0	0.6	2.8	6.6	4.3	0.0	4.7	4.9	1.2	--	5.8	4.5	4.6	1.9	1.7
12/26/18	2.6	4.5	2.9	1.9	8.0	0.0	0.0	0.0	7.1	14.0	4.0	4.7	4.7	5.7	1.3	6.4	7.7	5.8	9.1	9.3	4.6
12/11/18	2.6	0.3	3.3	2.2	3.9	0.0	0.0	0.6	3.3	15.0	2.9	0.0	3.3	3.6	0.9	3.8	3.0	2.4	5.1	7.0	5.5
11/30/18	2.0	3.2	3.8	2.6	4.0	0.0	0.0	0.3	5.1	18.0	3.9	0.0	3.8	4.0	1.7	9.5	7.8	5.2	10.0	8.5	4.8
11/20/18	2.4	3.4	2.4	3.5	--	--	--	--	5.2	18.0	3.5	0.0	3.8	4.2	0.9	8.5	4.5	3.8	10.0	8.6	5.0
11/02/18	2.2	3.0	3.4	0.0	--	--	--	--	9.2	6.7	4.0	3.7	7.7	9.3	3.8	13.5	10.0	8.8	10.5	10.0	6.0
10/08/18	2.1	3.8	3.5	2.1	--	--	--	--	7.2	19.0	3.9	0.0	4.2	4.7	2.3	10.0	4.4	4.0	10.0	11.0	5.7
09/21/18	2.0	4.0	3.6	2.1	--	--	--	--	6.6	18.0	3.8	0.0	4.0	4.4	2.4	10.0	4.4	3.9	9.3	12.0	5.7
09/07/18	1.7	4.1	2.0	2.0	--	--	--	--	6.6	19.0	3.0	0.1	3.6	4.1	2.3	13.0	4.2	3.7	9.5	13.0	6.2
07/30/18	1.6	1.9	3.8	1.8	--	--	--	--	6.6	20.0	3.5	0.2	4.0	4.1	2.1	14.0	4.4	4.0	11.0	12.0	5.4
07/13/18	2.1	3.2	2.1	1.5	--	--	--	--	7.1	20.0	4.0	0.2	4.6	4.5	1.9	2.0	4.4	4.1	0.0	9.9	5.6
06/29/18	2.4	2.9	2.1	1.5	--	--	--	--	6.6	18.0	4.1	0.4	4.3	5.1	2.1	8.7	5.6	4.5	3.4	9.8	5.7
06/15/18	2.4	2.3	2.1	1.5	--	--	--	--	6.4	21.0	3.4	0.0	3.9	4.1	1.8	5.8	4.4	3.8	4.2	8.9	4.9
06/01/18	2.4	2.0	1.9	0.3	--	--	--	--	8.1	0.7	0.0	2.6	2.3	4.8	4.5	2.2	6.3	5.9	9.5	9.9	5.5
05/11/18	0.1	0.6	1.8	0.7	--	--	--	--	7.1	0.7	4.5	0.7	5.5	6.1	1.1	6.4	5.6	5.0	11.0	8.9	5.1
04/26/18	1.4	2.1	0.8	1.0	--	--	--	--	4.7	21.0	3.2	0.0	3.6	3.9	0.7	2.0	4.1	3.6	6.4	6.0	4.8
04/06/18	1.7	2.0	2.1	1.6	--	--	--	--	4.5	19.0	3.4	0.0	3.5	4.1	0.7	4.6	--	3.3	6.6	5.8	4.5
03/07/18	1.3	2.0	1.9	1.2	--	--	--	--	4.3	17.0	3.9	0.0	4.4	4.1	0.7	3.8	5.5	3.9	4.0	5.4	4.8
02/21/18	1.1	1.5	2.0	1.5	--	--	--	--	5.8	16.0	5.8	0.0	5.5	6.0	0.8	5.0	5.9	4.7	6.7	7.5	4.8
02/05/18	0.6	0.0	0.4	1.8	--	--	--	--	5.6	16.0	3.7	4.6	4.6	4.8	1.0	6.8	7.1	5.3	8.5	7.1	4.6
01/24/18	0.5	2.2	2.9	1.8	--	--	--	--	4.3	16.0	4.3	0.3	4.2	4.9	0.8	2.1	4.9	4.7	7.0	6.0	4.6
01/09/18	1.2	3.1	2.5	1.8	--	--	--	--	5.1	1.3	4.2	4.4	6.6	6.5	0.9	7.3	7.5	6.1	8.1	6.4	4.5
12/27/17	1.5	3.1	3.4	1.8	--	--	--	--	5.7	15.0	4.6	0.0	5.2	5.9	1.0	7.5	6.0	5.3	8.1	7.2	4.9
12/12/17	2.4	3.4	3.2	1.5	--	--	--	--	5.7	12.0	4.0	0.1	4.9	4.9	0.0	6.2	6.0	4.8	8.1	6.5	5.3
11/27/17	2.1	3.6	3.7	1.9	--	--	--	--	8.1	1.1	8.4	2.9	6.6	9.9	2.6	6.9	9.5	8.5	9.6	7.3	5.7
11/11/17	2.0	3.7	3.4	2.3	--	--	--	--	6.0	16.0	5.4	1.0	6.1	6.7	1.6	6.6	6.9	5.3	10.0	8.3	5.4
10/28/17	2.0	4.0	3.6	1.9	--	--	--	--	5.0	17.0	4.7	0.0	5.8	5.6	1.1	5.0	--	4.7	12.0	9.4	6.1
10/13/17	1.7	2.9	3.5	2.1	--	--	--	--	8.1	0.1	1.0	0.9	2.1	3.8	2.6	7.3	9.8	8.7	9.9	12.0	6.1
09/27/17	1.4	3.5	3.1	1.7	--	--	--	--	6.8	17.0	5.2	0.0	5.5	6.1	2.2	12.0	5.4	4.5	10.0	9.8	5.3
09/16/17	1.6	4.1	1.9	2.0	--	--	--	--	6.8	16.0	5.0	0.0	5.6	5.5	2.0	10.0	4.7	4.1	9.3	11.0	6.1
08/30/17	1.6	3.9	2.0	1.9	--	--	--	--	8.1	17.0	5.6	3.9	6.4	6.4	2.1	13.0	6.1	5.2	11.5	12.0	6.6
08/17/17	1.7	4.0	1.9	1.8	--	--	--	--	7.6	14.0	5.8	1.2	6.9	7.2	2.1	12.0	6.1	5.2	12.0	12.0	6.5
07/24/17	1.5	3.2	2.9	1.6	--	--	--	--	7.0	17.0	5.6	0.1	6.1	6.4	1.6	8.4	5.2	4.5	13.0	9.7	5.3
07/10/17	2.0	3.2	1.9	1.6	--	--	--	--	6.6	15.0	5.8	1.1	6.9	7.0	1.5	8.7	5.7	4.8		9.3	5.5
06/08/17	2.3	2.6	1.4	2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.0	4.7
05/09/17	1.8	2.3	0.9	1.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.6	4.6
04/11/17	1.0	1.7	0.1	1.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.4	4.6
03/08/17	0.7	1.2	0.3	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.8	7.8
02/21/17	0.3	1.3	0.1	1.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.2	4.3
02/07/17	0.1	2.0	0.6	1.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.0	4.3
01/23/17	0.3	1.4	0.5	1.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.7	4.8
01/05/17	0.8	3.8	1.6	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.0	4.6
12/16/16	0.9	4.0	1.0	1.2	--	--	--	--	6.2	5.6	4.4	1.1	4.5	4.8	3.2	4.8	8.4	8.6	11.0	5.9	5.0
11/16/16	2.0	2.8	1.8	2.1	--	--	--	--	6.3	--	4.4	0.4	4.5	5.5	2.4	5.8	14.0	4.7	17.0	8.1	6.4
10/16/16	1.8	3.4	3.7	1.9	--	--	--	--	5.1	14.0	7.6	0.6	12.0	13.0	2.1	3.6	18.0	4.8	16.0	13.0	4.0

Table 4. Carbon Dioxide
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
09/16/16	1.3	4.5	4.0	1.9	--	--	--	--	5.6	14.0	7.3	0.6	11.0	12.0	2.4	7.0	17.0	4.4	18.0	14.0	3.9
08/16/16	1.2	4.2	4.1	2.0	--	--	--	--	5.9	12.0	6.1	0.6	9.7	12.0	2.4	0.0	12.0	6.0	15.0	9.6	3.2
07/16/16	1.6	4.0	2.2	1.8	--	--	--	--	5.3	12.0	5.8	0.7	8.9	12.0	2.3	5.8	11.0	5.9	14.0	6.5	2.3
06/01/16	1.7	2.7	1.9	1.1	--	--	--	--	4.6	12.0	5.4	1.7	8.9	12.0	2.1	3.7	11.0	7.0	12.0	4.5	2.3
05/01/16	1.5	2.9	1.8	1.9	--	--	--	--	4.5	13.0	5.4	0.3	7.3	8.8	1.8	5.7	4.6	9.0	15.0	3.2	2.2
04/01/16	1.3	2.1	1.0	1.7	--	--	--	--	5.7	9.0	4.0	0.9	6.3	7.3	2.6	7.3	8.3	4.4	13.0	6.8	4.9
03/08/16	0.9	2.4	0.4	1.3	--	--	--	--	2.8	11.0	5.5	2.8	7.0	8.4	2.0	0.8	11.0	5.9	9.9	1.1	0.1
02/09/16	1.7	2.4	1.2	0.8	--	--	--	--	3.2	12.0	5.5	0.3	7.0	7.6	2.6	2.9	7.1	3.8	13.0	1.0	1.5
01/12/16	2.6	3.1	1.1	1.4	--	--	--	--	3.5	12.0	5.2	0.1	6.7	7.4	2.4	3.7	7.3	3.8	12.0	1.4	1.0
12/09/15	1.8	2.7	2.0	2.3	--	--	--	--	3.9	12.0	7.2	2.2	9.4	11.0	2.4	1.0	9.3	5.5	10.0	2.2	2.2
11/10/15	2.6	3.7	2.7	2.2	--	--	--	--	3.9	14.0	6.9	0.5	9.8	12.0	1.9	2.0	14.0	4.4	17.0	5.1	4.1
10/14/15	2.4	5.3	4.1	2.3	--	--	--	--	4.5	14.0	6.9	0.3	9.6	11.0	2.2	8.6	16.0	3.9	19.0	10.0	4.3
09/15/15	2.3	4.4	3.9	2.0	--	--	--	--	4.8	13.0	7.5	0.4	11.0	12.0	2.1	7.1	15.0	4.8	17.0	11.0	4.4
08/15/15	1.1	4.5	2.0	2.2	--	--	--	--	7.6	13.0	3.6	3.3	6.1	8.5	3.3	9.3	10.0	5.3	15.0	14.0	7.1
07/15/15	2.1	4.5	1.9	1.3	--	--	--	--	6.6	13.0	5.4	0.5	7.7	9.9	2.6	9.0	11.0	5.2	15.0	8.4	2.9
06/15/15	1.8	2.8	1.9	1.9	--	--	--	--	5.1	13.0	5.6	0.4	8.3	10.0	2.4	6.5	10.0	5.4	14.0	6.0	2.1
05/15/15	1.8	2.4	1.6	2.6	--	--	--	--	4.5	12.0	9.2	0.7	8.8	10.0	2.3	14.8	9.9	5.0	13.0	3.6	1.2
04/15/15	1.8	1.1	2.3	1.2	--	--	--	--	5.9	12.0	4.2	0.6	6.0	7.0	3.1	1.9	9.5	5.1	13.0	2.8	2.2
03/15/15	0.9	3.0	0.9	1.5	--	--	--	--	3.7	12.0	4.8	0.3	7.3	8.1	2.4	4.6	8.1	3.7	14.0	2.1	0.9
02/15/15	0.4	1.9	0.3	1.2	--	--	--	--	3.3	11.0	4.2	0.9	8.0	11.0	2.1	0.6	9.2	4.5	12.0	2.4	0.9
01/15/15	0.9	3.0	1.6	1.3	--	--	--	--	3.5	12.0	4.6	0.6	7.3	9.2	2.3	0.9	8.9	4.1	14.0	2.3	1.1
Dec-14	1.6	2.8	1.6	1.9	--	--	--	--	3.9	12.0	5.4	3.4	10.0	11.0	2.1	2.7	13.0	5.5	13.0	3.2	1.5
Nov-14	2.4	4.0	2.0	2.3	--	--	--	--	4.5	12.0	7.4	0.9	10.0	12.0	2.2	0.7	14.0	4.9	13.0	3.5	2.7
Oct-14	2.2	4.6	3.4	2.4	--	--	--	--	5.5	14.0	8.0	0.4	10.0	12.0	2.1	4.4	14.0	4.0	16.0	9.2	4.2
09/14/14	1.7	4.5	3.2	2.2	--	--	--	--	6.4	13.0	6.9	0.5	11.0	13.0	2.1	6.8	15.0	4.3	17.0	11.0	3.9
08/14/14	1.6	4.3	3.6	2.2	--	--	--	--	5.2	12.0	6.3	0.7	10.0	12.0	2.4	0.8	15.0	4.7	16.0	4.3	2.6
07/14/14	2.4	5.3	2.8	2.1	--	--	--	--	8.3	16.0	5.3	0.5	5.3	6.8	2.2	5.2	5.4	5.0	7.3	11.0	6.8
Jun-14	2.3	4.0	1.4	1.6	--	--	--	--	5.4	13.0	6.5	1.5	10.0	13.5	1.7	7.0	14.0	4.7	17.0	6.6	2.4
May-14	1.6	3.0	1.3	2.0	--	--	--	--	4.1	13.0	6.2	0.6	10.0	12.0	2.8	4.4	14.0	4.0	17.0	2.5	1.4
Apr-14	0.8	2.0	0.9	0.9	--	--	--	--	4.1	13.0	7.0	0.8	9.5	11.0	2.1	3.1	14.0	4.0	17.0	4.6	1.2
03/13/14	0.5	1.9	0.0	1.8	--	--	--	--	4.8	10.0	5.0	2.2	7.0	8.5	2.7	1.4	9.1	4.9	11.0	6.3	3.9
02/13/14	0.5	1.9	0.8	1.7	--	--	--	--	3.5	12.0	6.5	0.5	9.7	11.0	2.2	1.2	13.0	6.5	14.0	2.7	1.5
01/13/14	1.5	3.1	2.2	2.0	--	--	--	--	2.6	11.0	5.6	1.1	9.2	11.0	2.3	0.8	13.0	4.8	13.0	2.1	1.7
12/13/13	1.8	3.8	3.3	2.2	--	--	--	--	3.1	11.0	5.0	0.6	8.7	10.0	2.3	5.0	12.0	3.8	16.0	3.1	1.6
11/13/13	2.0	4.1	1.9	1.6	--	--	--	--	3.8	12.0	5.7	0.9	7.9	9.5	2.4	4.7	13.0	3.7	14.0	2.8	1.7
10/13/13	2.1	5.2	2.4	2.2	--	--	--	--	4.1	11.0	5.4	0.8	9.1	11.0	2.6	4.6	14.0	4.2	13.0	3.5	2.7
09/13/13	1.7	4.7	1.8	2.1	--	--	--	--	4.8	12.0	6.1	2.1	11.0	13.0	2.6	4.7	14.0	5.2	15.0	5.3	3.4
08/13/13	1.9	2.0	5.2	1.4	--	--	--	--	5.2	11.0	5.9	0.6	9.1	11.0	2.9	6.0	15.0	4.7	17.0	4.8	2.5
07/13/13	1.5	4.2	3.0	1.5	--	--	--	--	4.7	11.0	5.6	0.6	8.8	10.0	3.0	6.1	14.0	4.4	17.0	3.2	1.9
06/13/13	1.8	3.4	1.6	1.6	--	--	--	--	4.1	9.7	5.2	1.3	9.2	11.0	2.6	4.2	14.0	6.8	14.0	2.4	1.5
05/13/13	1.4	3.0	2.0	1.2	--	--	--	--	3.7	10.0	5.3	0.9	8.4	11.0	2.8	4.0	14.0	4.6	15.0	1.9	1.1
04/13/13	0.9	2.8	1.8	0.9	--	--	--	--	3.2	11.0	5.5	0.9	9.3	11.0	2.7	4.3	12.0	3.6	16.8	1.5	0.9
03/13/13	0.7	2.3	1.0	0.8	--	--	--	--	2.9	9.9	5.3	0.8	8.2	9.9	2.2	1.9	13.0	4.7	13.0	1.7	0.9
02/13/13	0.5	1.9	0.9	0.9	--	--	--	--	2.8	9.6	5.2	0.9	8.6	10.0	2.3	2.9	13.0	4.5	12.0	1.9	0.7
01/13/13	0.7	0.9	2.0	0.4	--	--	--	--	2.9	11.0	5.7	1.0	8.7	9.8	2.4	3.3	8.7	4.4	15.0	1.9	0.6
12/12/12	0.3	2.0	0.8	0.8	--	--	--	--	3.3	11.0	4.7	1.7	8.2	9.5	2.4	1.7	9.5	4.5	--	2.2	2.1
11/12/12	1.4	5.1	3.4	1.8	--	--	--	--	3.9	13.0	5.9	0.9	9.4	6.8	4.3	3.5	14.0	6.9	--	3.9	3.8
10/12/12	1.1	5.3	1.7	1.8	--	--	--	--	5.0	14.0	6.3	0.7	9.4	12.0	3.3	5.9	15.0	5.0	17.0	7.7	7.3
09/01/12	1.7	4.7	1.8	1.9	--	--	--	--	5.9	12.0	6.5	0.7	11.0	13.0	3.0	5.2	16.0	4.7	16.0	1.8	2.5
08/01/12	1.4	4.8	1.8	1.7	--	--	--	--	4.8	11.0	6.2	1.3	9.5	13.0	3.0	5.0	14.0	4.9	15.5	1.6	3.0
07/01/12	1.6	2.3	2.6	1.8	--	--	--	--	4.1	11.0	5.2	1.6	9.5	12.0	2.6	3.8	14.0	5.3	15.0	1.9	1.7
06/01/12	1.1	2.7	0.9	0.5	--	--	--	--	3.8	11.0	4.7	2.3	8.9	11.0	2.0	3.6	14.0	12.0	14.0	2.0	1.8
05/01/12	1.0	2.4	1.1	0.3	--	--	--	--	3.2	10.0	5.5	2.3	9.2	11.0	2.4	1.2	14.0	4.9	15.0	1.5	1.5

Table 4. Carbon Dioxide
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
04/01/12	0.6	2.1	0.6	0.8	--	--	--	--	2.8	10.0	5.3	1.9	8.6	12.0	2.2	0.8	14.0	4.8	12.5	1.3	0.8
03/01/12	0.7	3.0	0.7	0.8	--	--	--	--	3.0	11.0	5.4	1.6	9.2	12.0	2.1	0.6	14.0	5.8	14.1	1.4	1.7
02/01/12	1.6	3.7	0.8	1.1	--	--	--	--	3.2	11.0	5.9	1.6	10.0	11.0	2.4	0.4	11.5	5.2	--	1.7	1.0
01/01/12	1.9	3.2	1.7	1.4	--	--	--	--	3.9	13.0	6.6	1.9	10.0	11.5	2.1	0.8	12.0	5.7	--	1.9	1.8
12/01/11	2.1	3.8	1.8	1.6	--	--	--	--	3.1	11.0	5.9	0.9	10.0	11.0	2.4	2.1	15.0	5.0	12.0	2.2	2.5
11/01/11	1.7	3.5	1.6	1.3	--	--	--	--	3.9	13.0	6.3	1.4	12.0	13.0	2.4	3.9	14.0	5.7	14.0	2.1	1.7
10/01/11	1.6	6.2	3.4	2.1	--	--	--	--	4.5	12.0	6.3	0.4	8.7	10.0	2.9	8.6	14.5	3.8	17.0	3.9	3.5
09/01/11	2.8	5.1	1.9	1.4	--	--	--	--	6.0	13.0	6.4	0.8	5.8	11.5	2.5	5.9	13.0	8.0	16.0	2.8	2.1
08/01/11	3.1	5.7	2.1	1.9	--	--	--	--	4.8	11.0	6.2	0.7	3.7	11.0	2.7	4.8	13.0	4.8	18.0	3.2	2.4
07/01/11	2.8	4.4	3.0	2.1	--	--	--	--	4.6	12.0	5.8	0.9	9.5	14.0	2.5	3.5	14.0	7.3	16.0	2.4	2.4
06/01/11	1.5	3.2	1.6	1.7	--	--	--	--	3.9	13.0	5.3	0.8	9.8	11.0	2.5	0.9	11.0	5.4	15.0	1.5	1.5
05/01/11	1.7	2.1	1.1	2.7	--	--	--	--	2.7	12.0	4.8	1.6	8.0	9.4	2.0	0.8	10.0	6.0	11.0	1.0	0.4
04/01/11	1.7	2.1	1.1	1.1	--	--	--	--	2.7	4.9	4.8	1.6	8.0	9.4	2.0	0.8	10.0	6.0	11.0	1.0	0.4
03/01/11	1.6	1.9	1.2	0.9	--	--	--	--	3.1	12.0	5.2	0.7	6.6	8.9	2.2	3.4	10.0	4.4	14.0	1.4	0.6
02/01/11	1.8	1.9	0.9	1.1	--	--	--	--	3.5	13.0	5.5	1.0	9.0	9.4	2.5	1.6	10.0	5.0	13.0	1.6	1.4
01/01/11	0.6	2.6	1.5	1.4	--	--	--	--	3.5	12.0	5.5	0.9	8.8	10.0	2.4	0.9	12.0	5.4	14.0	2.0	0.7
12/01/10	1.6	4.5	3.3	2.0	--	--	--	--	4.6	14.0	7.2	0.9	12.0	13.0	2.4	2.1	15.0	4.9	19.0	3.5	1.9
11/01/10	2.2	9.7	4.2	2.2	--	--	--	--	4.8	15.0	8.0	0.9	12.0	12.0	3.5	5.2	15.0	7.7	18.0	2.3	2.3
10/01/10	2.2	7.5	4.3	2.4	--	--	--	--	5.9	14.0	7.0	0.7	11.0	13.0	3.3	5.8	15.0	4.8	20.0	3.5	2.3
09/01/10	1.8	7.1	2.1	2.2	--	--	--	--	6.5	13.0	7.5	13.0	2.4	15.0	2.0	7.0	17.0	7.3	20.0	6.8	3.3
08/01/10	1.9	9.1	2.2	2.1	--	--	--	--	6.1	13.0	7.4	1.0	13.0	15.0	3.2	4.9	17.0	6.4	18.0	4.0	2.2
07/01/10	1.8	6.5	3.9	2.0	--	--	--	--	5.0	14.0	6.9	0.9	11.0	14.0	3.5	5.1	18.0	4.8	18.0	2.2	2.0
06/08/10	1.9	4.1	2.9	1.4	--	--	--	--	4.4	13.0	6.3	1.1	10.0	13.0	3.7	4.0	16.0	4.4	19.0	1.5	1.4
05/11/10	1.4	3.4	1.3	0.8	--	--	--	--	4.0	13.0	6.6	2.2	11.0	14.0	3.3	1.2	16.0	7.0	10.0	1.7	0.8
12/08/09	0.6	5.0	1.7	1.4	--	--	--	--	4.1	12.0	5.7	0.8	9.8	12.0	3.5	0.7	14.0	4.7	16.0	2.0	0.7
11/06/09	1.0	5.0	2.7	1.7	--	--	--	--	5.1	14.0	4.7	1.1	5.1	15.0	2.5	2.9	12.0	6.6	12.0	2.2	2.2
10/03/09	2.1	NA	1.4	1.8	--	--	--	--	4.9	14.0	7.0	0.4	7.8	14.0	2.5	4.7	17.0	4.9	17.0	2.8	2.7
09/08/09	1.9	1.5	2.3	2.2	--	--	--	--	6.6	15.0	7.2	0.6	12.0	13.0	2.3	6.0	18.0	4.7	19.0	4.5	3.1
08/04/09	1.7	1.8	2.1	1.9	--	--	--	--	6.7	13.0	7.3	2.0	12.0	15.0	3.1	7.4	17.0	5.7	17.0	1.9	2.8
07/02/09	1.6	2.0	2.3	1.6	--	--	--	--	5.4	12.0	6.8	0.9	12.0	14.0	3.2	4.8	17.0	5.1	19.0	2.4	2.6
06/05/09	1.3	1.8	3.5	1.4	--	--	--	--	4.6	12.0	6.3	1.4	11.0	13.6	3.4	2.4	4.8	15.0	17.0	1.2	1.5
05/08/09	1.0	1.7	3.3	1.4	--	--	--	--	4.1	12.0	6.8	1.3	11.0	14.0	3.4	6.4	16.0	5.9	19.0	1.3	1.8
04/03/09	0.8	1.5	2.4	1.3	--	--	--	--	3.8	12.0	6.3	2.4	11.0	12.0	2.7	0.8	15.0	6.8	16.0	1.1	0.7
03/02/09	0.7	1.8	1.7	1.2	--	--	--	--	3.7	11.0	5.9	2.1	10.0	13.0	3.1	0.8	14.0	6.6	17.0	1.4	0.8
02/03/09	0.5	0.2	1.6	1.2	--	--	--	--	4.1	12.0	6.1	0.5	9.7	11.0	2.6	1.1	14.0	4.3	17.0	1.6	0.7
01/09/09	0.6	0.7	1.5	1.2	--	--	--	--	3.7	12.0	7.7	1.4	10.0	13.0	2.6	1.3	14.5	6.5	14.0	1.8	0.8
12/02/08	1.4	0.5	3.1	1.8	--	--	--	--	4.7	12.0	6.7	0.9	9.9	12.0	3.1	1.6	15.0	5.7	16.0	2.0	1.4
11/05/08	1.8	0.5	3.2	1.9	--	--	--	--	5.8	13.0	7.4	0.9	12.0	15.0	3.0	0.2	16.0	6.9	20.0	2.3	2.1
10/03/08	1.8	4.2	3.7	2.0	--	--	--	--	6.3	13.0	6.8	0.7	11.0	14.0	2.4	4.9	18.2	4.9	21.0	4.2	3.8
09/11/08	2.2	4.8	4.3	2.1	--	--	--	--	7.0	14.0	7.4	0.9	12.0	16.0	1.9	6.6	17.0	5.2	22.0	4.6	4.2
08/18/08	1.6	4.0	1.9	1.8	--	--	--	--	6.1	13.0	7.2	1.0	11.0	13.0	2.4	10.5	18.0	6.6	20.0	3.5	2.6
07/28/08	1.6	3.9	2.0	1.0	--	--	--	--	6.0	13.0	7.1	0.6	11.0	15.0	3.1	9.6	14.0	4.9	20.0	1.4	1.3
06/04/08	0.7	3.8	1.8	1.9	--	--	--	--	6.0	15.0	8.3	2.0	12.0	14.0	3.5	1.1	16.0	7.0	17.5	1.6	1.7
05/02/08	1.0	4.9	1.8	1.6	--	--	--	--	4.7	14.0	7.7	1.1	13.0	15.0	3.9	0.9	18.0	7.0	19.0	1.8	0.6
04/04/08	0.8	4.2	1.3	1.1	--	--	--	--	4.3	14.0	7.3	0.9	12.0	14.0	3.5	1.2	18.0	6.3	20.0	1.5	0.9
03/04/08	0.7	4.6	1.3	1.2	--	--	--	--	4.6	13.0	7.1	2.5	12.0	14.0	2.9	0.5	17.0	8.4	18.0	1.5	0.8
02/01/08	0.7	4.0	1.8	1.1	--	--	--	--	4.3	14.0	6.6	0.9	9.6	13.0	2.5	0.8	17.0	7.4	17.0	1.5	0.8
01/08/08	0.7	1.1	2.0	1.0	--	--	--	--	4.5	13.0	7.0	1.1	9.9	12.0	3.2	2.7	16.0	5.7	17.0	2.0	0.8
12/07/07	0.7	3.7	1.1	1.7	--	--	--	--	4.9	12.0	7.4	1.9	11.0	12.0	3.0	0.7	15.0	5.0	13.0	2.2	1.9
11/01/07	0.8	3.4	2.7	1.9	--	--	--	--	5.3	15.0	7.7	0.8	12.0	14.0	2.8	1.1	20.0	8.0	20.0	2.6	2.2
10/02/07	0.9	3.9	3.7	1.5	--	--	--	--	6.3	14.0	7.6	0.5	12.0	14.0	2.5	1.9	17.0	5.5	21.0	3.9	3.3
09/05/07	0.1	3.8	0.8	2.1	--	--	--	--	7.6	17.0	8.6	0.8	13.0	14.0	2.8	7.5	18.0	5.9	20.0	--	2.8
08/02/07	2.1	4.1	2.4	1.8	--	--	--	--	7.3	15.0	8.1	0.7	12.0	14.0	2.6	2.1	18.5	5.9	18.0	2.8	3.7

Table 4. Carbon Dioxide
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
07/09/07	1.1	4.2	1.6	1.5	--	--	--	--	7.1	15.0	8.0	0.6	12.0	13.5	2.9	7.4	17.5	5.6	18.0	1.7	2.2
06/08/07	1.4	4.6	2.1	1.4	--	--	--	--	6.0	15.0	7.6	0.8	12.0	14.0	3.3	1.7	19.0	6.6	19.0	1.5	2.8
05/10/07	0.9	4.1	1.2	1.2	--	--	--	--	5.0	15.0	7.9	0.7	12.6	14.0	3.2	0.9	18.0	6.5	21.0	1.2	2.1
04/17/07	1.4	3.1	0.6	1.1	--	--	--	--	4.8	15.0	7.9	0.7	12.0	14.0	2.9	0.5	19.0	6.3	20.0	1.2	1.6
03/23/07	0.6	2.5	0.5	0.9	--	--	--	--	4.6	15.0	7.5	0.6	10.0	13.0	2.4	6.1	18.0	6.1	19.0	1.1	1.6
02/28/07	0.5	2.3	0.3	0.8	--	--	--	--	4.0	13.0	6.7	0.7	11.0	13.0	2.3	0.5	13.7	6.8	--	1.9	4.1
01/30/07	0.4	2.3	0.4	0.8	--	--	--	--	4.4	14.1	7.1	0.7	10.0	12.0	2.4	0.6	16.0	14.0	--	1.1	1.3
12/27/06	1.0	1.0	4.4	1.4	--	--	--	--	4.3	17.0	6.3	2.9	10.0	12.0	3.1	1.0	14.0	7.6	--	1.7	2.1
11/30/06	1.7	3.5	2.2	1.0	--	--	--	--	5.1	17.1	8.6	2.4	13.0	14.0	2.4	2.1	15.0	7.1	--	1.5	1.8
10/27/06	2.0	4.1	2.9	2.1	--	--	--	--	6.3	16.0	9.0	0.6	12.0	15.0	2.4	2.0	21.0	6.1	21.0	3.8	4.2
09/27/06	2.1	4.4	3.6	2.3	--	--	--	--	6.3	15.0	9.0	0.6	13.0	15.4	2.2	2.6	21.0	6.6	22.0	1.7	4.6
08/31/06	2.7	4.0	1.6	2.2	--	--	--	--	7.5	16.0	9.5	0.5	13.0	15.0	2.2	4.4	19.0	6.5	20.0	--	4.1
07/25/06	1.0	4.0	2.2	1.7	--	--	--	--	7.7	16.0	9.0	1.0	13.0	15.0	2.5	4.1	20.0	7.0	18.0	3.2	5.2
06/23/06	1.9	4.7	1.8	1.4	--	--	--	--	5.7	16.0	8.1	0.7	11.0	14.0	3.0	1.1	17.0	5.6	18.0	1.1	3.5
05/25/06	1.2	3.1	1.4	1.5	--	--	--	--	5.5	16.0	8.0	0.5	12.0	13.0	3.0	7.3	16.0	4.9	19.0	1.4	3.2
04/27/06	1.1	0.8	0.5	2.2	--	--	--	--	4.6	15.0	8.8	0.6	12.0	14.0	3.0	0.8	17.0	6.3	1.9	1.8	2.4
03/24/06	1.5	2.8	2.6	1.8	--	--	--	--	3.9	14.0	7.7	0.9	9.8	13.0	2.2	1.1	16.0	7.4	--	1.4	2.1
02/27/06	0.4	2.3	0.7	1.5	--	--	--	--	3.5	14.0	6.7	4.5	10.0	12.0	2.2	4.7	14.0	4.9	17.0	1.2	1.9
01/27/06	1.1	3.4	2.2	1.5	--	--	--	--	3.9	15.0	6.9	0.9	9.4	12.0	2.5	0.9	13.0	5.7	14.0	1.4	2.4
12/28/05	0.8	4.7	2.5	1.6	--	--	--	--	3.8	15.0	6.9	0.7	11.0	13.0	2.1	1.3	16.0	12.0	15.0	1.4	1.9
11/28/05	1.9	5.1	3.3	1.9	--	--	--	--	6.9	18.0	6.5	0.3	8.0	9.4	2.3	6.1	15.0	4.1	19.0	4.5	6.3
10/31/05	2.2	4.4	3.6	2.3	--	--	--	--	6.4	18.0	11.0	6.3	14.0	16.0	2.3	3.3	19.0	7.4	20.0	3.8	4.4
06/24/05	2.2	6.5	4.1	2.0	--	--	--	--	5.9	17.0	9.0	0.8	13.0	14.0	2.5	2.2	19.0	5.7	23.0	2.5	3.6
05/31/05	1.8	6.1	2.3	1.2	--	--	--	--	4.9	16.0	8.6	0.8	12.0	14.0	2.3	1.2	20.0	6.1	21.0	1.8	3.8
04/26/05	1.3	4.0	1.8	1.6	--	--	--	--	5.8	20.0	11.0	0.7	13.0	15.0	0.7	3.2	19.0	5.3	22.0	3.4	7.4
03/25/05	1.3	4.1	2.3	1.5	--	--	--	--	6.3	19.0	12.0	0.3	14.0	14.0	0.9	7.1	20.0	7.1	22.0	4.3	8.3
02/28/05	1.1	4.1	1.6	0.6	--	--	--	--	7.8	20.0	8.0	0.7	10.0	11.0	2.4	4.1	21.0	18.0	20.0	5.2	6.7
01/25/05	1.0	4.3	1.6	1.8	--	--	--	--	5.0	19.0	10.0	0.0	11.0	12.0	0.6	5.2	15.0	4.3	19.0	3.0	7.3
12/23/04	2.3	6.0	2.2	2.1	--	--	--	--	6.6	19.0	12.0	0.2	13.0	15.0	0.7	6.7	19.0	5.3	22.0	4.8	8.2
11/29/04	4.5	1.0	1.0	3.9	--	--	--	--	6.4	19.0	11.0	1.4	13.0	15.0	2.1	8.0	19.0	6.3	23.0	8.5	11.0
10/29/04	4.5	7.7	4.9	4.0	--	--	--	--	7.0	19.0	12.0	1.9	16.0	18.0	2.4	8.2	20.0	7.2	25.0	9.7	10.0
09/29/04	3.3	5.8	3.7	2.3	--	--	--	--	8.1	19.0	10.0	0.3	13.0	14.0	0.7	7.4	20.0	4.8	23.0	7.3	9.1
08/27/04	3.5	4.3	1.9	2.1	--	--	--	--	8.8	20.0	12.0	0.3	14.0	15.0	0.8	9.6	19.0	5.8	22.0	9.0	9.9
07/30/04	2.2	17.0	17.2	19.2	--	--	--	--	8.6	17.0	10.0	0.7	13.0	15.0	0.9	11.0	19.0	5.2	23.0	0.1	9.4
06/30/04	2.1	5.6	1.6	1.9	--	--	--	--	8.5	17.0	9.9	0.4	14.0	14.0	0.9	9.5	18.0	4.6	22.0	8.0	8.5
05/25/04	-	-	-	-	--	--	--	--	9.2	20.5	30.5	0.2	11.0	13.0	1.2	--	17.0	4.4	22.0	--	--
04/27/04	0.9	4.7	1.8	1.4	--	--	--	--	5.3	17.0	9.4	0.3	12.0	12.0	1.0	7.2	16.0	4.4	21.0	3.3	7.3
03/31/04	0.8	4.1	1.3	1.3	--	--	--	--	5.3	0.0	9.6	0.4	13.0	15.0	0.9	7.1	--	--	36.0	3.9	6.9
02/26/04	0.6	3.4	0.6	0.4	--	--	--	--	4.0	--	8.8	1.0	11.0	--	1.2	3.1	17.0	5.0	19.0	2.5	6.2
01/27/04	0.6	3.3	1.3	1.3	--	--	--	--	4.2	18.0	8.9	0.4	12.0	14.5	1.2	2.0	17.0	4.8	19.0	2.2	6.1
12/30/03	0.9	4.6	1.4	1.6	--	--	--	--	4.7	--	9.0	0.5	11.0	13.0	1.0	6.6	17.0	4.6	22.0	2.9	4.6
11/25/03	1.4	5.2	1.5	1.9	--	--	--	--	4.6	--	5.8	2.4	13.0	13.0	0.9	3.6	20.0	19.0	7.5	6.0	8.5
10/30/03	0.0	5.4	3.0	2.1	--	--	--	--	5.7	19.0	11.0	2.9	14.0	16.5	0.9	4.5	19.0	6.6	20.0	5.6	9.2
09/29/03	2.7	4.0	1.3	2.0	--	--	--	--	6.7	16.0	9.6	0.6	13.0	15.0	0.9	8.2	18.0	4.9	21.0	7.0	9.1
08/29/03	2.2	4.6	1.4	2.1	--	--	--	--	8.3	18.0	10.0	0.8	14.0	16.0	1.2	9.6	19.0	5.5	23.0	8.4	9.9
07/31/03	2.3	0.9	1.6	2.4	--	--	--	--	7.9	16.0	9.3	1.3	13.0	15.0	1.2	12.0	21.0	5.5	24.0	--	--
06/20/03	1.9	6.3	1.5	1.9	--	--	--	--	6.8	17.0	9.9	0.6	14.5	16.0	1.4	8.2	20.0	6.0	23.0	5.6	7.0
05/28/03	1.6	6.1	2.2	1.1	--	--	--	--	5.3	14.0	7.9	2.2	12.0	15.0	1.0	6.1	18.0	6.3	21.0	4.5	0.6
04/28/03	1.1	4.6	1.0	1.3	--	--	--	--	6.8	17.0	6.3	0.0	8.2	9.4	1.5	6.9	17.0	4.6	22.0	4.8	5.2
03/15/03	1.0	4.2	0.9	1.4	--	--	--	--	4.5	0.0	7.6	0.0	12.0	13.5	2.0	1.7	17.0	5.0	20.0	2.8	2.6
02/15/03	0.9	4.0	0.5	0.6	--	--	--	--	4.4	--	8.8	0.0	12.0	14.0	1.8	3.3	18.0	5.8	19.0	2.4	2.4
01/01/03	0.8	3.8	0.4	0.8	--	--	--	--	3.9	--	7.8	0.0	9.8	9.5	1.5	--	14.0	4.0	16.5	2.3	3.3
12/23/02	1.0	5.2	2.2	2.1	--	--	--	--	4.6	--	9.3	--	12.1	14.2	1.0	3.6	18.4	6.1	20.3	6.5	8.6

Table 4. Carbon Dioxide
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
11/15/02	3.1	4.9	1.2	2.2	--	--	--	--	5.8	--	11.9	0.6	15.3	18.0	0.8	3.8	25.3	7.4	25.3	9.8	9.7
10/15/02	3.2	3.9	1.3	2.3	--	--	--	--	8.7	16.5	7.2	2.1	9.6	11.1	1.2	13.3	16.2	5.3	17.8	15.2	2.8
09/15/02	3.4	4.0	1.2	2.0	--	--	--	--	7.0	16.2	10.1	0.5	12.6	15.2	1.1	8.5	17.2	5.4	20.9	7.4	9.1
08/15/02	3.4	3.8	1.1	1.7	--	--	--	--	7.8	15.5	10.0	0.5	12.0	13.3	1.1	7.1	17.5	5.3	20.2	6.7	7.1
07/15/02	3.0	4.1	1.0	1.2	--	--	--	--	7.0	15.1	9.2	0.7	11.7	14.2	1.2	2.3	17.2	5.4	18.7	5.3	3.2
06/15/02	2.6	4.8*	1.2	1.3	--	--	--	--	6.4	16.2	9.5	0.3	13.0	14.5	1.6	7.3	18.1	5.2	21.3	5.2	0.0
05/15/02	1.6	5.4	0.5	1.0	--	--	--	--	5.1	16.1	9.2	0.5	12.3	14.6	1.6	4.3	19.3	5.5	20.3	3.8	2.3
04/15/02	1.2	4.2	0.7	0.9	--	--	--	--	2.5	--	8.8	0.5	11.4	13.7	1.6	3.3	16.7	5.7	19.2	4.3	2.3
03/15/02	0.9	3.7	0.5	0.9	--	--	--	--	4.4	--	8.3	0.8	10.4	13.6	1.6	1.9	17.7	5.8	18.8	2.8	0.8
02/15/02	1.1	3.2	1.5	1.4	--	--	--	--	4.0	--	7.5	0.6	9.3	11.5	2.7	5.0	10.9	4.9	13.5	2.9	0.7
01/15/02	1.1	4.2	1.3	1.2	--	--	--	--	4.7	13.0	7.9	0.4	11.1	14.4	1.6	2.7	19.3	7.3	19.9	3.5	1.7
12/15/01	1.1	5.6	4.2	1.4	--	--	--	--	5.3	--	9.5	2.0	12.7	14.3	3.0	3.8	16.2	9.4	17.0	3.6	2.3
11/15/01	2.2	6.8	4.4	1.9	--	--	--	--	4.8	--	9.9	0.8	13.4	15.3	2.4	4.2	18.2	17.3	19.0	6.0	3.8
10/15/01	4.0	6.4	4.5	2.5	--	--	--	--	7.1	19.6	10.6	0.3	14.4	16.0	1.1	8.4	20.8	5.9	23.6	7.4	7.5
09/15/01	4.1	7.1	2.0	2.4	--	--	--	--	7.1	18.5	10.4	1.0	14.4	17.0	1.0	6.2	21.5	6.2	22.7	5.4	7.9
08/01/01	3.8	6.7	4.1	2.4	--	--	--	--	6.5	16.7	9.3	1.0	12.7	14.7	1.0	2.9	17.6	10.8	19.7	4.8	7.4
07/01/01	3.7	7.3	4.1	2.2	--	--	--	--	6.4	16.8	9.6	0.3	12.6	15.1	1.1	10.4	18.5	5.6	21.0	4.2	4.2
06/01/01	3.7	0.6	2.0	2.1	--	--	--	--	6.5	17.2	10.5	0.5	13.7	16.4	1.4	12.2	20.5	6.5	23.5	4.4	3.2
05/01/01	2.0	6.7	1.3	1.2	--	--	--	--	5.2	16.0	9.8	0.2	12.6	13.8	1.3	9.1	17.9	5.7	19.1	3.1	1.6
04/01/01	2.0	5.5	2.8	1.6	--	--	--	--	5.1	--	8.9	1.0	11.9	14.4	1.6	6.4	17.0	5.3	18.7	3.3	1.8
03/10/01	1.3	5.5	1.4	-	--	--	--	--	4.5	--	8.3	0.8	10.7	13.0	1.7	--	17.9	5.3	18.8	2.9	2.0
02/01/01	0.0	5.5	2.8	1.7	--	--	--	--	4.4	0.0	9.2	0.7	12.5	14.2	2.0	--	17.5	7.8	19.3	3.3	2.5
01/01/01	0.0	0.0	0.0	0.0	--	--	--	--	3.8	0.0	9.1	0.7	12.2	14.2	1.4	7.4	18.0	5.5	19.0	3.4	2.0
12/01/00	5.0	4.8	1.0	1.1	--	--	--	--	5.0	--	8.9	0.7	12.0	14.1	1.4	7.7	18.0	5.1	21.1	5.4	5.0
11/01/00	4.2	5.0	1.8	6.0	--	--	--	--	4.7	17.0	9.5	1.7	13.0	15.4	0.8	2.4	17.7	6.5	20.0	5.5	4.1
10/01/00	4.5	5.0	1.5	1.2	--	--	--	--	5.9	17.8	9.4	0.8	12.5	15.0	0.8	8.6	18.2	5.4	20.3	4.9	1.2
09/15/00	3.8	4.4	2.8	1.4	--	--	--	--	7.3	16.7	9.5	1.0	22.3	14.9	0.9	11.2	17.8	5.4	20.0	5.5	1.2
08/01/00	4.2	5.0	1.0	1.6	--	--	--	--	6.0	17.2	6.5	1.2	10.0	13.4	1.0	16.2	14.4	15.0	14.5	2.5	3.0
07/01/00	5.0	4.8	1.2	1.4	--	--	--	--	6.4	15.8	9.1	0.8	11.9	14.2	0.8	11.0	17.8	4.8	20.3	3.9	3.5
06/01/00	5.1	6.0	1.2	1.3	--	--	--	--	5.1	18.0	8.9	1.9	12.0	14.4	0.9	8.0	18.3	5.3	21.1	3.9	4.9
05/01/00	--	4.8	1.0	1.1	--	--	--	--	7.1	--	6.8	6.1	8.6	10.2	2.2	10.6	17.6	16.9	18.4	8.0	1.1
04/01/00	0.5	4.2	0.0	0.8	--	--	--	--	5.9	--	5.2	0.5	7.3	8.4	1.4	7.4	17.8	4.5	20.0	6.1	2.9
03/01/00	1.0	4.0	0.0	0.3	--	--	--	--	5.8	--	4.1	2.0	6.4	8.4	2.4	14.6	--	9.6	11.7	0.0	3.0
02/01/00	1.0	4.4	0.3	1.0	--	--	--	--	3.6	--	6.1	1.2	8.8	11.1	1.9	3.7	--	7.3	11.0	2.1	2.7
01/01/00	--	--	--	--	--	--	--	--	3.6	--	6.6	1.0	9.4	11.9	2.1	10.8	--	--	8.0	2.2	3.1
12/01/99	--	--	--	--	--	--	--	--	4.0	--	7.0	0.5	10.1	12.1	2.4	0.0	--	--	10.7	1.8	3.4
11/01/99	--	--	--	--	--	--	--	--	4.0	17.0	7.5	0.6	10.1	11.9	1.4	3.3	--	7.5	--	2.4	5.4
10/01/99	--	--	--	--	--	--	--	--	5.3	16.4	8.0	--	--	13.0	1.0	10.9	15.5	5.6	17.3	3.4	6.0
09/01/99	--	--	--	--	--	--	--	--	7.0	17.4	8.4	--	--	13.6	1.0	12.7	16.7	5.9	18.7	3.2	4.3
08/01/99	--	--	--	--	--	--	--	--	5.9	16.8	6.8	--	--	11.8	0.9	14.1	15.8	5.0	17.7	2.4	3.7
07/01/99	--	--	--	--	--	--	--	--	5.4	16.4	6.5	0.9	9.0	11.2	0.9	13.9	10.9	5.2	14.3	1.8	2.8
06/01/99	--	--	--	--	--	--	--	--	5.3	15.7	6.3	0.6	9.2	10.9	1.0	14.9	10.8	4.8	14.9	1.7	2.4
05/01/99	--	--	--	--	--	--	--	--	4.1	16.3	6.0	0.4	8.8	11.0	1.1	18.8	7.8	4.8	7.1	1.5	2.6
04/01/99	--	--	--	--	--	--	--	--	3.5	--	5.8	0.4	8.4	10.2	1.4	18.4	7.8	4.7	8.4	1.5	2.4
03/01/99	--	--	--	--	--	--	--	--	2.5	--	5.2	0.5	8.0	10.1	1.2	19.6	8.2	6.9	8.2	0.9	2.0
02/01/99	--	--	--	--	--	--	--	--	3.5	--	6.4	0.2	8.2	9.5	0.8	7.2	--	--	5.5	2.2	1.2
01/01/99	--	--	--	--	--	--	--	--	3.0	--	6.0	0.1	8.9	11.0	1.5	11.0	--	--	--	1.5	1.4
12/01/98	--	--	--	--	--	--	--	--	4.1	14.7	5.0	4.1	5.0	4.7	3.6	18.3	--	4.2	--	0.0	7.4
11/01/98	--	--	--	--	--	--	--	--	5.2	17.5	6.8	0.4	8.2	11.1	0.9	22.2	--	5.6	12.3	1.4	6.8
10/01/98	--	--	--	--	--	--	--	--	5.1	16.9	6.0	0.6	9.8	10.4	1.2	17.1	5.2	4.8	2.7	--	--

Table 4. Carbon Dioxide
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13

Definitions and Notes:

* VP-2 is the only on-site soil gas probe within the limits of the landfill. VP-1, VP-3, and VP-4 are located beyond the landfill limits.
-- Data was not provided for this period. Monitoring was conducted by others, prior to AECOM.
Bold Values in bold were collected by AECOM (Jan 2023 to date).
NA Not accessible.
Green shading indicates monitoring point connected to landfill gas collection piping.
Blue shading indicates perimeter monitoring point, not connected to landfill gas collection piping.

Table 5. Oxygen
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
Average 2023	**16.6**	**17.3**	**17.0**	**16.6**	**1.0**	**0.2**	**13.2**	**0.1**	**0.9**	**3.6**	**0.3**	**0.2**	**0.3**	**0.1**	**0.1**	**0.2**	**0.0**	**0.0**	**1.1**	**0.5**	**0.2**
Average 2020-2022	17.4	17.2	17.7	18.1	7.0	1.3	11.1	0.7	20.0	8.5	1.5	2.1	2.0	1.4	1.2	2.2	1.0	0.9	1.1	1.6	1.6
Average 2017-2019	16.2	16.6	16.2	17.5	9.9	1.1	11.2	1.3	5.0	3.7	1.1	1.3	0.8	0.3	0.5	4.0	0.2	0.4	3.1	1.9	1.1
Average 2016 (pre-system shutdown)	18.1	15.7	17.5	18.0	--	--	--	--	9.7	5.4	6.0	3.8	2.2	1.1	2.9	11.1	0.5	0.1	0.8	10.5	13.3
Average 2008-2016	17.6	15.3	17.1	18.2	--	--	--	--	11.8	6.1	8.5	4.9	3.5	1.7	4.7	13.1	1.3	0.2	1.8	15.6	15.4
Average 1998-2007	14.5	15.0	15.1	16.9	--	--	--	--	9.2	4.0	6.5	5.4	3.0	1.3	4.5	10.2	0.7	0.3	1.5	14.9	9.1
10/20/23	**15.4**	**15.3**	**15.6**	**16.6**	**0.0**	**0.0**	**13.7**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**
09/14/23	**18.0**	**16.5**	**19.0**	**17.6**	**0.0**	**0.0**	**16.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
08/10/23	**17.4**	**16.6**	**19.7**	**17.7**	**0.1**	**0.1**	**16.4**	**0.2**	**0.1**	**0.0**	**0.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.2**	**0.0**	**0.0**	**0.8**	**0.3**	**0.2**
07/11/23	**18.4**	**16.2**	**18.1**	**18.0**	**0.0**	**0.0**	**15.3**	**0.0**	**0.0**	**1.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
06/19/23	**18.1**	**16.8**	**16.9**	**17.5**	**0.5**	**0.2**	**14.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.5**	**NA**	**NA**
05/18/23	**18.0**	**17.2**	**16.3**	**18.4**	**0.1**	**0.1**	**13.3**	**0.2**	**0.0**	**1.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**10.0**	**0.1**	**0.0**
04/05/23	**16.5**	**18.6**	**15.9**	**16.4**	**3.1**	**0.1**	**13.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**2.2**	**0.4**
03/23/23	**14.9**	**18.2**	**17.2**	**16.7**	**1.6**	**0.0**	**11.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.5**	**0.0**	**0.0**	**0.0**	**1.4**	**0.0**
03/09/23	**16.5**	**17.9**	**15.4**	**14.5**	**3.0**	**0.2**	**11.5**	**0.1**	**8.3**	**0.0**	**1.9**	**0.0**	**0.6**	**1.8**	**0.0**	**0.2**	**0.2**	**0.0**	**2.8**	**0.3**	**0.7**
02/23/23	**17.3**	**18.1**	**15.6**	**16.1**	**2.6**	**0.0**	**11.6**	**0.0**	**2.0**	**18.6**	**0.4**	**0.0**	**0.0**	**0.0**	**0.1**	**1.1**	**0.0**	**0.0**	**0.0**	**0.8**	**0.2**
02/10/23	**15.2**	**17.7**	**16.8**	**15.8**	**1.9**	**1.3**	**12.0**	**0.2**	**0.4**	**13.6**	**0.0**	**0.1**	**0.0**	**0.0**	**0.1**	**0.2**	**0.1**	**0.1**	**0.2**	**0.4**	**0.3**
01/27/23	**14.7**	**17.8**	**17.1**	**15.6**	**0.0**	**0.0**	**11.5**	**0.1**	**0.3**	**7.9**	**0.2**	**0.0**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.3**	**0.0**
01/10/23	**15.8**	**17.6**	**16.9**	**15.4**	**0.4**	**0.3**	**10.9**	**0.2**	**0.0**	**4.1**	**1.3**	**2.3**	**2.8**	**0.1**	**0.7**	**0.0**	**0.1**	**0.0**	**0.0**	**0.1**	**1.1**
12/28/22	17.5	18.0	21.5	16.2	8.1	3.6	0.1	N/A	0.9	10.3	0.2	0.3	0.3	0.2	4.2	1.0	0.1	1.8	N/A	8.6	0.6
12/14/22	19.4	17.6	21.0	20.1	5.6	0.3	8.1	0.1	20.1	6.1	0.2	0.3	0.4	0.3	0.5	0.2	0.3	0.1	0.6	0.5	0.2
11/17/22	17.8	15.6	18.4	19.5	5.3	0.3	6.5	0.2	19.8	4.9	0.3	0.5	0.2	0.2	0.5	0.6	0.1	0.4	0.7	0.4	0.2
10/19/22	17.0	14.7	18.6	18.4	7.8	0.4	10.8	0.2	19.4	5.4	0.2	0.4	0.2	0.3	0.2	0.7	0.2	0.2	0.8	0.5	0.3
10/06/22	19.0	18.4	18.3	18.7	5.6	0.3	6.9	0.1	19.8	5.6	0.3	0.6	0.2	0.2	0.2	0.6	0.1	0.3	0.7	0.2	0.2
09/22/22	18.6	18.3	18.7	19.6	5.4	0.2	7.5	0.1	20.2	5.7	0.2	0.4	0.3	0.2	0.5	0.5	0.2	0.3	0.8	0.5	0.3
09/08/22	18.3	15.8	18.0	19.3	6.5	0.3	12.5	0.1	20.1	5.7	0.4	0.3	0.4	0.2	0.3	0.7	0.3	0.2	0.8	0.4	0.4
08/26/22	18.4	18.1	17.5	20.1	5.8	0.1	7.3	0.2	20.0	6.3	0.5	0.4	0.5	0.3	0.4	0.6	0.3	0.2	0.7	0.2	0.5
08/11/02	15.0	17.3	18.1	19.7	4.7	0.2	6.3	0.2	19.7	6.7	0.3	0.3	1.3	0.2	0.3	0.5	0.2	0.1	0.8	0.3	0.1
07/28/22	16.8	16.9	16.3	19.4	7.3	0.2	11.2	0.1	19.3	7.8	0.3	0.4	0.7	0.5	0.6	0.4	0.2	0.1	0.4	0.3	0.2
07/13/22	17.3	16.8	17.5	20.3	7.5	0.5	5.9	0.1	20.4	10.2	0.2	0.8	0.6	0.2	0.5	0.3	0.0	0.1	0.5	0.1	0.3
06/22/22	17.4	14.5	17.8	18.5	6.4	--	--	0.2	20.0	5.9	0.4	0.5	0.5	0.2	0.3	0.3	0.5	0.2	0.9	0.2	0.3
06/10/22	18.9	20.8	21.0	18.6	6.8	--	--	0.1	20.2	6.3	0.5	0.5	0.4	0.3	0.3	0.2	0.4	0.1	0.7	0.1	0.3
05/27/22	16.2	15.4	18.5	20.1	7.0	--	--	0.3	20.1	6.0	0.2	0.3	0.2	0.3	0.3	0.1	0.5	0.3	0.8	0.2	0.2
05/12/22	16.8	19.1	18.3	20.0	7.9	--	--	0.1	18.9	5.7	0.2	0.2	0.3	0.3	0.2	0.1	0.2	0.3	0.5	0.4	0.2
04/29/22	17.4	18.3	15.9	19.0	7.4	--	--	0.1	18.7	5.8	0.2	0.4	0.5	0.4	0.2	0.2	0.3	0.2	0.6	0.3	0.2
04/06/22	17.3	16.6	16.8	19.5	7.5	--	--	0.1	18.4	6.2	0.2	0.2	0.4	0.3	0.3	0.5	0.3	0.1	0.6	0.1	0.5
03/18/22	17.6	15.7	16.7	18.8	7.6	--	--	0.1	19.0	6.5	0.3	0.1	0.5	0.7	0.4	0.4	0.4	0.0	0.9	0.1	0.3
03/03/22	18.5	17.5	17.4	18.3	6.9	--	--	0.2	20.4	8.4	0.6	0.2	0.7	0.3	0.0	0.2	0.5	0.2	0.8	0.2	0.2
02/18/22	18.1	15.5	17.6	18.2	6.9	--	--	0.2	20.3	8.7	0.5	0.3	0.6	0.2	0.3	0.3	0.2	0.2	0.7	--	--
02/03/22	16.5	14.7	18.7	20.1	6.8	--	--	0.2	18.8	8.8	0.3	0.2	1.4	0.2	0.2	0.4	0.3	0.3	0.7	--	--
01/21/22	17.0	17.6	17.8	18.3	5.4	--	--	0.1	20.7	8.3	0.3	0.1	1.3	0.1	0.2	0.3	0.4	0.2	0.9	--	--
01/06/22	18.2	18.1	18.3	17.9	5.5	--	--	0.1	18.8	8.5	0.4	0.4	1.1	0.2	0.0	0.2	0.4	0.4	0.7	--	--
12/22/21	18.3	15.7	18.2	18.3	7.9	--	--	0.2	18.9	5.6	0.3	0.3	0.8	0.2	0.2	0.1	0.5	0.2	0.6	--	--
12/06/21	--	--	--	--	--	--	--	N/A	18.7	8.6	0.6	0.4	1.0	0.3	0.2	0.2	0.5	0.2	0.5	--	--
12/02/21	15.7	19.2	19.5	20.1	3.2	--	--	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--
11/11/21	17.6	18.1	14.5	20.5	6.7	--	--	0.1	20.8	5.7	0.5	0.3	1.1	0.3	0.3	0.6	0.4	0.4	0.6	--	--
10/28/21	19.3	20.4	15.4	19.8	5.3	--	--	0.1	20.7	7.3	0.2	0.1	0.4	0.2	0.4	0.7	0.5	0.2	0.7	--	--
09/30/21	19.1	18.7	18.7	20.0	6.8	--	--	0.2	18.7	20.6	0.3	0.3	0.3	0.3	0.4	0.8	0.5	0.2	0.7	11.2	0.2
09/17/21	17.8	18.1	18.2	20.6	5.9	--	--	0.1	18.8	6.1	0.4	0.4	1.0	0.2	0.6	0.6	0.4	0.4	0.6	0.4	0.5
08/27/21	18.6	14.6	17.5	18.3	5.4	--	--	0.1	18.1	5.8	0.6	0.6	0.3	0.3	0.5	0.4	0.2	0.2	0.9	0.4	0.1
08/05/21	18.6	17.4	20.1	18.6	11.5	--	--	0.1	20.4	8.3	0.1	0.1	1.1	0.1	1.0	0.0	0.3	0.1	0.7	0.2	0.2
07/22/21	17.1	15.7	14.5	19.3	5.4	--	--	2.3	20.3	8.4	0.7	0.8	0.8	2.1	0.2	0.7	0.2	0.3	3.7	0.1	0.3
06/30/21	18.2	16.3	15.1	18.4	7.4	--	--	1.2	18.4	5.2	0.4	0.1	0.9	0.4	0.2	0.2	0.4	0.2	0.1	0.1	0.9

Table 5. Oxygen
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
06/10/21	17.6	21.9	15.8	19.4	4.1	--	--	0.3	18.5	8.6	0.2	0.1	0.1	0.6	0.5	0.2	0.3	0.1	0.2	0.6	0.3
05/27/21	15.6	19.2	19.1	8.2	7.4	0.1	18.5	1.3	21.6	12.3	0.2	0.1	0.3	1.0	0.2	0.1	26.4	0.1	0.2	0.4	0.1
05/12/21	19.6	15.2	19.4	7.1	7.1	0.2	18.3	1.3	22.5	12.6	0.3	0.3	1.1	0.3	0.3	28.6	0.2	0.1	0.4	0.1	0.2
04/30/21	21.0	16.0	18.1	19.2	17.2	0.4	6.9	0.8	21.3	12.7	0.5	0.3	0.4	0.9	0.8	0.1	0.2	0.4	0.5	0.3	0.3
04/15/21	19.6	15.2	16.2	19.4	16.8	0.8	5.4	0.2	22.7	12.6	0.3	0.4	0.8	0.4	0.1	0.3	0.2	0.1	0.2	0.5	0.4
04/01/21	16.1	16.8	15.9	17.5	6.3	0.5	13.7	0.5	21.3	20.6	5.4	6.3	4.8	3.9	3.6	0.4	0.5	0.7	0.5	7.4	0.2
03/19/21	--	--	--	--	--	--	--	--	20.3	21.6	0.7	5.4	3.7	6.4	0.4	0.8	1.2	1.1	0.5	2.7	0.5
03/03/21	20.8	20.8	20.3	--	20.3	20.8	20.6	20.7	20.3	20.6	20.6	20.5	20.6	20.5	20.8	20.6	20.6	20.6	20.1	20.6	21.0
02/19/21	20.1	16.3	19.2	17.3	6.9	0.5	19.5	1.2	21.0	20.7	0.4	16.5	19.5	4.1	3.2	0.4	0.6	0.7	0.3	0.6	0.1
01/29/21	20.2	15.6	15.3	15.1	2.8	0.3	11.4	0.3	20.3	14.7	0.8	5.6	5.7	3.8	5.9	0.3	0.7	1.0	1.6	2.0	0.5
01/07/21	14.8	17.2	19.1	17.2	3.3	0.2	13.2	0.5	20.8	21.6	0.4	18.7	7.8	2.9	4.3	0.1	0.5	0.2	0.5	0.6	0.4
12/23/20	15.3	17.4	18.2	16.5	6.8	0.2	10.3	0.3	21.2	20.3	7.4	16.7	10.6	3.3	4.2	0.2	0.5	0.7	0.5	1.6	0.1
12/11/20 & 12/14/20	15.5	17.4	--	16.4	5.6	0.1	12.0	0.3	21.2	20.4	20.4	19.3	20.5	4.3	4.5	0.3	0.4	0.0	0.1	1.4	0.1
11/25/20	14.6	16.4	21.2	16.6	3.6	0.2	11.6	--	21.1	20.1	5.3	4.1	2.9	3.1	3.1	0.1	0.1	0.3	0.3	0.6	0.4
11/11/20	16.0	17.8	17.4	17.7	7.2	0.4	13.1	0.5	21.2	0.4	0.3	0.4	0.4	0.3	0.3	0.6	1.5	0.4	0.5	2.3	1.4
10/14/20	16.5	17.3	18.3	17.3	4.9	0.3	14.8	--	20.8	9.2	8.1	5.7	3.5	3.3	3.2	1.1	0.2	0.7	0.9	1.0	16.5
09/29/20	18.5	19.3	19.7	20.6	5.8	0.5	9.6	0.2	20.7	4.1	0.5	0.3	1.2	0.1	0.2	0.4	0.3	0.2	0.1	0.2	0.2
08/28/20	20.6	19.8	19.9	20.0	20.6	20.7	20.8	--	20.7	1.6	0.4	0.2	0.4	0.2	0.4	20.4	0.3	0.4	0.7	20.8	20.7
08/14/20	18.9	19.2	19.3	20.6	5.9	0.5	8.6	0.2	20.8	4.1	0.5	0.3	1.2	0.1	0.2	0.4	0.3	0.2	0.2	0.2	0.2
07/28/20	17.5	15.7	18.6	18.3	5.4	0.4	7.3	0.1	20.1	4.3	0.7	0.5	0.4	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.2
07/17/20	17.5	16.3	19.2	18.6	22.1	0.3	12.6	0.0	21.4	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4	0.4	0.2
06/29/20	18.2	14.6	15.7	19.3	6.5	0.5	12.3	2.1	22.3	12.1	0.8	0.7	1.9	0.1	0.1	27.5	0.2	0.2	6.3	0.2	0.2
06/19/20	19.3	15.2	16.1	18.4	6.3	0.4	12.0	1.3	20.2	6.0	0.5	0.1	0.2	0.2	0.1	0.2	0.5	0.1	0.1	0.2	0.8
06/03/20	18.6	22.0	16.9	19.4	5.1	0.2	12.1	0.3	18.5	8.6	0.0	0.1	0.1	0.2	0.4	0.2	0.2	0.2	0.1	0.5	0.2
05/22/20	19.8	15.3	16.2	19.3	7.6	0.5	18.3	1.2	22.1	12.2	0.4	0.4	1.0	0.2	0.2	28.6	0.1	0.1	6.5	0.1	0.1
05/07/20	15.4	17.2	17.7	18.2	6.0	0.8	10.1	0.2	20.7	0.4	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4
04/24/20	19.8	15.3	16.2	18.3	6.6	0.5	10.9	1.3	20.1	5.9	0.3	0.1	0.2	0.2	0.1	0.4	0.5	0.2	0.2	0.1	0.9
04/13/20	14.9	17.8	17.9	18.2	6.5	0.2	9.1	0.2	21.0	4.6	0.1	0.3	0.3	0.3	0.4	2.5	0.2	0.1	0.2	1.1	0.9
03/25/20	4.3	17.0	17.0	17.1	6.0	0.3	13.1	0.3	20.8	0.7	0.8	0.4	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	20.2
03/12/20	15.3	14.0	17.0	16.9	5.1	0.3	12.8	0.4	19.8	0.5	0.2	0.3	0.1	0.3	0.2	0.4	0.1	0.2	0.4	0.4	0.3
02/28/20	14.0	16.9	17.0	16.1	4.8	0.5	11.0	0.4	20.8	0.1	0.2	0.3	0.1	0.1	0.2	0.4	0.2	0.3	0.2	0.4	0.9
02/12/20	13.3	17.5	19.8	13.9	1.3	0.2	9.4	--	20.8	0.4	0.2	0.0	0.1	0.0	0.2	0.1	0.1	0.3	--	0.0	1.0
01/29/20	18.1	16.6	14.2	14.2	1.6	0.0	8.1	0.1	20.7	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	20.8	--	0.0	0.0
01/17/20	16.6	17.7	14.1	15.3	2.8	0.3	9.1	0.1	20.8	15.2	9.9	5.8	5.1	4.5	4.6	0.4	0.1	0.0	--	2.0	0.4
01/03/20	16.3	19.1	14.2	13.3	2.6	0.0	8.2	0.1	20.8	4.5	3.9	0.1	0.2	20.6	0.1	0.0	0.0	0.1	0.1	0.4	0.4
12/18/19	15.8	17.2	14.6	17.1	5.8	0.2	7.4	0.4	20.7	15.0	2.5	4.0	3.7	2.9	3.0	0.4	0.0	0.2	0.3	0.1	1.2
12/04/19	19.5	19.4	19.4	--	20.0	19.5	19.5	--	20.7	0.0	0.1	0.0	0.2	0.0	0.1	19.4	0.0	0.0	--	19.6	19.7
11/06/19	15.3	3.6	0.4	16.0	--	0.0	10.1	10.2	0.0	0.2	1.3	0.0	0.1	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.1
10/22/19	19.3	15.8	16.3	19.2	7.2	0.8	15.9	1.6	22.1	12.1	0.5	0.4	1.2	0.1	0.2	32.1	0.1	0.2	6.6	0.6	0.1
10/08/19	16.1	18.0	17.4	20.6	7.3	1.0	12.8	2.1	20.1	9.7	1.2	0.8	4.2	0.1	0.2	0.1	0.2	0.1	7.2	0.1	0.2
09/23/19	18.8	17.3	16.6	18.5	7.1	0.5	13.8	0.6	20.1	3.2	2.6	2.0	1.6	1.5	1.2	3.8	1.4	1.2	1.9	2.0	2.3
09/12/19	18.2	16.5	16.6	17.5	7.3	0.5	13.7	1.4	20.9	2.5	1.6	1.9	1.9	1.4	1.3	4.3	1.4	1.4	1.1	2.0	1.2
08/29/19	17.1	16.4	19.5	18.4	21.7	0.0	14.5	0.0	21.4	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.3
08/14/19	18.9	16.6	16.6	18.5	7.3	0.5	14.4	0.6	21.2	13.1	0.7	0.4	0.4	0.2	0.2	31.3	0.2	0.4	0.5	0.6	0.8
07/26/19	--	15.4	18.0	18.2	--	0.2	13.4	--	20.1	8.1	0.6	0.7	3.3	0.2	0.1	0.2	0.1	0.1	7.3	0.2	0.2
07/11/19	17.2	16.7	18.4	18.2	8.2	0.5	13.0	0.5	20.0	1.7	0.6	0.5	0.7	0.7	0.5	3.8	0.5	0.9	0.7	16.8	0.8
06/19/19	17.5	17.5	18.4	18.7	8.6	0.7	12.6	0.6	18.2	0.9	0.5	19.8	0.5	0.0	0.5	2.2	0.5	0.5	0.8	--	--
06/05/19	17.7	17.6	18.5	19.6	9.5	--	--	1.9	2.2	0.5	1.1	0.5	0.5	1.3	0.7	1.6	0.4	0.6	0.4	2.2	1.5
05/23/19	16.6	17.6	18.0	18.9	9.0	0.0	10.4	0.6	3.0	1.0	0.5	0.5	0.0	0.6	0.5	6.0	0.0	0.5	3.2	0.5	0.7
05/07/19	15.5	17.7	17.7	18.4	9.6	0.0	9.3	0.5	19.6	3.4	3.4	1.7	1.4	0.5	0.8	5.6	0.5	0.0	11.5	0.5	0.6
04/23/19	15.1	17.4	19.6	17.7	9.7	0.5	9.4	0.5	11.5	0.5	1.6	0.7	1.3	0.5	0.6	--	0.5	0.5	10.8	0.6	1.2
04/10/19	15.9	18.0	17.4	18.8	--	0.5	9.7	0.5	--	--	--	--	--	--	--	0.9	--	--	--	2.5	0.6
03/26/19	15.9	18.1	7.7	18.7	0.1	0.5	11.0	0.5	1.8	12.0	0.5	0.0	0.5	0.0	0.5	5.6	0.5	0.5	4.0	1.1	1.0
03/18/19	15.6	17.7	17.2	19.1	10.4	0.5	9.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.6	0.6	0.5	0.5	19.6	--	--
03/01/19	17.9	16.7	15.0	18.0	17.0	0.6	8.9	0.6	2.1	0.6	0.5	0.0	0.0	0.5	5.0	1.0	0.5	0.5	0.5	19.6	0.8
02/15/19	19.3	21.8	18.2	20.0	19.5	0.0	8.0	0.0	4.2	4.9	4.3	2.5	2.5	0.0	1.6	21.9	0.0	4.8	21.8	21.4	2.9
01/31/19	14.4	15.0	0.0	16.8	11.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 5. Oxygen
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
01/11/19	--	--	--	15.0	9.9	0.0	8.6	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	--	0.0	0.0	2.6	13.1	13.6
12/26/18	13.8	14.2	13.7	13.7	4.0	0.0	8.2	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12/11/18	14.6	8.6	14.3	14.1	9.4	0.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
11/30/18	15.5	14.7	15.4	13.7	8.8	0.2	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11/20/18	15.8	16.4	16.6	8.0	--	--	--	--	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11/02/18	16.1	17.0	16.0	20.6	--	--	--	--	0.8	1.5	0.3	0.0	0.1	0.0	0.5	2.3	0.0	0.1	0.4	0.0	4.9
10/08/18	16.0	16.4	17.1	16.4	--	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
09/21/18	16.7	16.1	16.8	17.4	--	--	--	--	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0
09/07/18	17.8	16.2	18.7	17.6	--	--	--	--	0.3	0.3	0.2	0.0	0.1	0.0	0.1	0.3	0.1	0.1	0.2	0.3	0.8
07/30/18	19.1	18.8	16.0	17.4	--	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
07/13/18	17.1	16.5	2.2	18.2	--	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	21.0	0.0	0.0
06/29/18	16.5	16.7	18.5	19.1	--	--	--	--	0.0	1.4	0.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	15.7	0.0	0.3
06/15/18	16.3	17.4	18.3	18.9	--	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	13.0	0.0	0.0
06/01/18	15.9	17.8	18.3	20.4	--	--	--	--	0.1	18.7	21.1	3.0	6.0	0.2	0.2	12.9	0.0	0.0	2.6	0.0	0.0
05/11/18	20.3	19.6	17.5	19.5	--	--	--	--	0.0	17.8	0.0	0.0	0.0	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0
04/26/18	13.5	17.0	18.8	19.5	--	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.5	0.0	0.0	0.0	0.0	0.0
04/06/18	14.7	17.4	15.5	17.5	--	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.0	0.0	0.0	0.0
03/07/18	14.0	16.8	16.1	18.0	--	--	--	--	0.3	0.0	0.0	0.3	0.3	0.3	0.3	0.0	0.6	0.0	3.0	0.0	0.2
02/21/18	13.4	17.1	16.0	16.7	--	--	--	--	0.4	0.0	0.0	0.0	1.1	0.0	0.0	2.3	0.0	0.0	5.1	0.0	0.0
02/05/18	12.6	20.7	20.2	14.9	--	--	--	--	1.4	1.8	2.0	0.0	0.0	0.0	0.1	2.0	0.9	0.6	2.1	0.0	0.0
01/24/18	13.5	17.3	13.9	14.9	--	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/09/18	14.6	16.0	14.9	15.2	--	--	--	--	0.0	19.5	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0
12/27/17	14.5	16.9	13.8	15.8	--	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12/12/17	14.3	15.4	14.4	16.1	--	--	--	--	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11/27/17	15.2	15.5	13.5	16.3	--	--	--	--	0.8	16.0	0.0	13.4	3.1	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0
11/11/17	16.5	14.9	16.1	15.7	--	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10/28/17	16.3	15.3	15.7	17.0	--	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.0	0.0	0.0	0.0
10/13/17	17.6	17.3	16.8	17.3	--	--	--	--	0.2	20.2	11.3	15.4	8.9	6.5	8.9	9.2	0.0	0.0	0.0	0.0	0.0
09/27/17	17.4	16.0	16.6	18.0	--	--	--	--	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09/16/17	17.7	15.8	18.8	18.0	--	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08/30/17	17.8	16.1	18.6	18.3	--	--	--	--	0.1	1.1	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0
08/17/17	17.4	16.1	18.9	18.6	--	--	--	--	0.6	2.6	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
07/24/17	17.8	16.2	17.2	19.0	--	--	--	--	0.2	0.3	0.2	0.0	0.1	0.0	1.3	0.9	1.0	5.3	2.2	1.5	1.2
07/10/17	17.3	16.0	--	--	--	--	--	--	0.0	1.6	0.1	0.1	0.1	0.1	0.1	1.7	--	--	--	--	--
06/08/17	15.4	16.2	16.8	17.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1	0.1
05/09/17	13.0	15.2	15.4	17.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1	0.4
04/11/17	13.2	16.8	20.4	16.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1	0.2
03/08/17	15.3	18.3	19.9	18.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.6	3.7
02/21/17	16.1	18.2	20.3	15.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.2	0.7
02/07/17	16.8	17.9	18.5	17.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.7	0.1
01/23/17	16.5	18.4	19.1	17.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0	0.5
01/05/17	15.4	15.3	15.1	17.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4	1.3
12/16/16	17.9	15.2	17.4	17.9	--	--	--	--	1.2	0.8	1.1	0.5	0.5	0.6	0.4	1.0	0.3	0.1	0.5	0.7	1.0
11/16/16	16.8	15.5	16.2	15.1	--	--	--	--	2.5	--	1.1	0.2	0.2	0.1	0.0	0.2	1.5	0.2	0.2	0.0	0.6
10/16/16	17.5	16.6	17.1	18.4	--	--	--	--	10.5	5.0	6.9	4.4	2.3	0.9	2.4	14.5	0.1	0.1	0.8	6.1	14.5
09/16/16	18.3	15.3	16.8	18.4	--	--	--	--	9.7	4.6	5.3	0.6	1.2	0.4	2.1	11.3	0.4	0.0	1.3	5.2	14.1
08/16/16	18.6	15.7	16.8	18.3	--	--	--	--	9.9	6.3	8.1	3.2	2.5	0.8	4.2	20.6	0.6	0.0	0.6	9.0	15.2
07/16/16	18.4	15.2	18.1	18.5	--	--	--	--	10.9	6.6	8.8	4.6	3.2	0.8	4.4	13.1	0.3	0.1	0.2	12.1	15.5
06/01/16	18.5	16.4	18.1	19.5	--	--	--	--	11.4	7.3	10.4	10.7	4.3	1.2	5.0	15.5	0.8	0.0	2.0	13.3	15.1
05/01/16	19.2	15.9	17.1	19.2	--	--	--	--	11.0	5.4	5.2	0.9	1.2	0.3	2.0	5.9	0.0	0.0	0.0	15.5	15.9
03/08/16	18.2	16.6	19.4	17.8	--	--	--	--	14.3	7.0	9.1	14.9	6.8	6.3	7.4	19.7	1.0	0.6	2.1	16.1	20.4
02/09/16	18.1	14.5	18.6	17.6	--	--	--	--	13.0	6.0	6.0	1.0	1.1	0.3	2.1	11.5	0.1	0.1	0.1	18.6	16.2
01/12/16	17.3	15.9	16.8	17.2	--	--	--	--	12.4	5.1	4.4	0.4	1.1	0.6	2.1	8.9	0.4	0.0	1.1	18.5	17.5
12/09/15	17.5	16.7	15.5	16.9	--	--	--	--	12.0	4.1	7.4	11.4	2.8	1.6	2.3	18.8	0.4	0.0	2.3	17.2	13.5
11/10/15	16.4	14.4	15.9	16.6	--	--	--	--	12.8	6.0	6.5	2.4	1.7	0.8	1.9	17.5	0.8	0.1	0.6	14.3	12.4
10/14/15	16.7	12.7	15.3	17.2	--	--	--	--	11.5	4.9	6.0	0.8	1.3	0.5	2.2	3.3	0.6	0.1	0.7	8.0	12.7
09/15/15	16.4	13.8	15.1	17.6	--	--	--	--	11.5	5.1	6.0	1.9	1.8	0.7	2.6	11.2	0.6	1.0	0.7	6.0	11.3

Table 5. Oxygen
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
08/15/15	18.3	14.5	18.4	16.6	--	--	--	--	4.4	3.3	7.1	5.4	0.7	0.0	0.3	6.0	0.0	0.0	0.0	0.4	1.7
07/15/15	18.1	14.4	18.4	17.9	--	--	--	--	8.6	5.5	6.9	2.9	2.4	0.4	2.3	7.5	0.1	0.1	0.1	7.9	13.5
06/15/15	17.9	16.0	17.6	18.4	--	--	--	--	11.3	6.0	7.0	1.9	3.3	0.9	5.1	11.5	0.7	0.3	1.3	11.7	16.1
05/15/15	16.5	16.4	16.7	18.0	--	--	--	--	11.1	6.7	5.5	4.5	3.5	1.5	5.3	13.4	0.4	0.0	1.0	14.0	17.5
04/15/15	17.4	16.5	16.3	16.6	--	--	--	--	7.4	2.9	3.5	0.2	1.0	0.6	4.4	17.6	0.3	0.5	0.5	16.6	9.0
03/15/15	17.2	16.7	17.5	18.3	--	--	--	--	11.8	5.5	6.0	1.8	1.2	0.5	2.8	4.6	0.1	0.0	0.5	16.1	18.0
02/15/15	17.1	17.5	19.9	18.2	--	--	--	--	12.9	6.8	11.6	14.4	4.0	1.6	5.5	19.6	0.7	0.0	2.3	16.4	18.0
01/15/15	17.7	17.4	16.6	17.7	--	--	--	--	12.9	6.1	8.8	3.7	3.1	1.0	3.8	19.5	0.3	0.2	2.0	16.7	17.9
Dec-14	16.7	17.0	16.8	17.0	--	--	--	--	11.8	6.3	10.5	14.2	3.3	2.6	3.0	16.5	2.2	0.6	3.0	15.2	15.4
Nov-14	15.8	13.0	16.8	16.3	--	--	--	--	11.8	7.0	7.3	5.8	3.2	3.0	3.5	19.6	1.9	0.1	4.9	14.9	15.4
Oct-14	16.5	13.4	16.4	16.7	--	--	--	--	8.9	4.3	4.4	0.8	1.7	0.8	0.9	8.8	0.1	0.1	3.3	8.5	11.7
09/14/14	17.5	15.0	17.4	18.0	--	--	--	--	8.6	5.7	7.7	1.8	1.8	1.3	3.3	10.7	0.0	0.0	1.0	6.6	12.6
08/14/14	17.8	14.8	17.3	18.0	--	--	--	--	11.1	6.8	9.3	4.1	3.4	1.8	4.1	19.7	1.6	0.2	2.8	14.4	15.2
Jun-14	16.6	14.0	18.6	19.0	--	--	--	--	9.8	5.8	8.0	6.5	2.0	1.6	3.5	10.8	2.5	0.9	0.0	12.0	15.4
May-14	17.2	14.5	17.2	18.4	--	--	--	--	12.6	5.7	7.2	1.7	2.1	1.0	2.9	5.7	1.7	0.6	1.0	17.3	17.2
Apr-14	17.0	15.9	18.1	19.6	--	--	--	--	12.6	5.9	6.9	1.8	2.2	1.1	2.2	10.0	0.8	0.2	0.9	13.0	17.1
03/13/14	16.3	16.6	21.0	16.9	--	--	--	--	5.6	3.1	3.2	0.2	2.3	0.4	1.7	17.4	0.0	0.1	0.0	4.8	0.1
02/13/14	18.5	18.6	19.5	17.7	--	--	--	--	13.2	5.9	9.7	2.0	4.4	2.9	4.8	19.0	2.4	0.1	2.7	17.1	16.2
01/13/14	18.7	16.4	16.9	17.6	--	--	--	--	15.5	7.0	10.5	8.2	4.6	3.2	7.0	20.0	3.2	0.0	4.0	18.0	17.9
12/13/13	18.8	16.5	15.0	16.9	--	--	--	--	14.5	6.5	9.6	2.5	2.9	2.1	4.5	8.2	1.2	0.0	1.3	16.3	17.5
11/13/13	17.4	15.0	16.9	17.7	--	--	--	--	14.1	6.3	9.5	2.8	2.6	1.6	4.6	13.2	0.9	0.0	1.6	16.6	17.4
10/13/13	16.8	13.4	16.5	16.8	--	--	--	--	12.8	6.3	9.9	5.5	3.6	1.7	4.6	14.2	1.3	0.0	1.7	15.6	16.0
09/13/13	18.1	13.9	18.4	17.7	--	--	--	--	12.1	6.5	10.3	7.4	4.0	1.8	6.0	14.0	1.6	0.0	1.2	14.0	14.9
08/13/13	18.5	18.7	13.8	18.7	--	--	--	--	11.0	7.1	8.8	4.2	3.2	1.6	4.4	12.3	1.1	0.0	1.5	14.5	15.0
07/13/13	18.6	13.4	16.0	18.5	--	--	--	--	11.8	6.6	8.4	2.2	3.0	1.3	4.5	3.6	0.9	0.0	1.3	16.5	16.0
06/13/13	18.0	15.5	18.5	19.0	--	--	--	--	12.9	8.0	11.4	9.0	4.8	2.7	6.5	15.3	2.5	0.2	3.4	17.4	17.5
05/13/13	17.4	15.8	16.2	19.2	--	--	--	--	13.5	7.2	9.3	3.2	5.7	1.7	5.5	14.9	1.4	0.0	2.8	18.0	17.0
04/13/13	17.1	15.0	15.6	19.2	--	--	--	--	14.0	6.7	8.6	2.5	3.4	1.5	4.8	3.2	0.8	0.4	1.3	18.2	18.6
03/13/13	18.2	16.2	17.6	19.2	--	--	--	--	15.0	7.6	10.6	17.0	5.3	3.0	7.0	18.0	2.3	0.0	3.1	18.1	17.9
02/12/13	18.5	17.0	18.0	19.4	--	--	--	--	14.3	7.8	10.3	7.6	4.7	2.6	7.0	16.2	1.7	0.1	0.5	17.7	18.4
01/13/13	19.5	18.0	17.3	18.3	--	--	--	--	15.4	7.1	8.7	3.2	3.5	2.2	6.9	7.8	3.0	0.5	2.1	17.7	18.5
12/12/12	17.1	17.3	18.7	18.3	--	--	--	--	14.2	8.1	10.9	5.6	4.3	3.2	7.0	18.3	2.8	0.3	--	17.5	17.1
11/12/12	18.3	13.7	16.3	18.6	--	--	--	--	14.4	6.6	11.3	2.7	3.6	0.7	4.4	16.2	0.2	0.0	--	16.8	15.7
10/12/12	19.3	14.4	19.4	19.3	--	--	--	--	11.8	5.5	7.8	2.7	3.0	1.3	4.5	10.6	1.3	0.1	1.4	11.0	5.1
09/01/12	19.2	14.6	19.2	19.1	--	--	--	--	11.2	7.4	10.3	1.6	2.8	1.5	4.4	12.4	1.1	0.1	2.1	18.7	15.1
08/01/12	19.0	13.6	17.6	18.9	--	--	--	--	12.1	7.7	10.0	3.1	7.8	1.9	5.8	13.3	1.6	0.4	2.3	19.1	14.4
07/01/12	18.5	14.8	15.7	18.3	--	--	--	--	13.4	7.5	13.4	7.8	4.9	2.7	7.7	15.7	2.2	0.1	1.8	18.4	16.2
06/01/12	17.1	15.2	17.8	19.9	--	--	--	--	13.5	7.2	13.2	17.0	6.9	4.0	9.6	16.2	3.3	2.0	3.0	18.2	15.9
05/01/12	17.8	15.5	17.2	19.8	--	--	--	--	14.3	8.0	10.3	6.1	4.3	2.9	7.6	18.5	2.9	0.1	2.8	18.6	16.0
04/01/12	17.8	17.2	19.8	19.9	--	--	--	--	15.0	7.4	10.7	4.0	4.3	2.8	9.2	20.1	2.8	0.1	4.0	19.2	17.3
03/01/12	19.2	16.1	18.9	19.2	--	--	--	--	14.8	8.0	10.3	6.9	4.7	3.1	9.9	19.4	2.6	0.0	3.6	18.6	18.9
02/01/12	18.8	15.8	18.9	18.9	--	--	--	--	14.3	6.4	9.7	2.9	3.0	3.3	6.7	19.9	3.1	0.0	--	18.4	16.9
01/01/12	17.2	16.1	17.6	18.3	--	--	--	--	13.7	6.9	10.7	8.6	5.0	3.6	8.0	19.6	3.9	0.0	--	18.2	17.5
12/01/11	16.9	15.2	18.3	18.1	--	--	--	--	14.6	6.2	9.6	3.2	3.5	2.6	6.3	18.1	2.5	0.0	4.4	17.7	17.1
11/01/11	17.8	15.6	18.1	18.6	--	--	--	--	13.3	6.5	10.5	12.4	5.3	2.6	6.2	14.9	2.1	0.0	2.7	17.3	16.1
10/01/11	17.9	12.2	16.5	17.8	--	--	--	--	11.7	5.3	6.6	0.5	1.4	0.6	2.4	2.4	0.6	0.7	0.8	16.0	15.2
09/01/11	17.1	13.3	16.7	18.2	--	--	--	--	11.0	7.0	9.7	4.7	6.6	1.9	5.2	13.5	1.6	0.0	2.3	17.5	15.8
08/01/11	16.0	12.6	18.6	18.5	--	--	--	--	11.7	7.1	9.5	4.9	9.8	1.9	5.1	13.6	1.7	0.0	1.9	16.6	14.0
07/01/11	17.2	12.8	16.1	18.2	--	--	--	--	12.8	7.3	11.0	16.3	4.8	3.5	7.7	16.2	2.6	0.0	2.5	16.8	15.0
06/01/11	16.9	13.6	17.1	18.3	--	--	--	--	13.7	7.0	9.9	4.6	4.0	1.8	6.8	19.6	1.5	0.0	2.3	18.3	16.5
05/01/11	17.5	16.6	17.2	18.8	--	--	--	--	15.0	7.1	11.5	9.8	5.5	3.3	8.9	19.5	2.4	0.0	4.5	19.3	19.2
04/01/11	17.5	16.6	17.2	18.8	--	--	--	--	15.0	7.1	11.5	9.8	5.5	3.3	8.9	19.5	2.4	0.0	4.5	19.3	19.2
03/01/11	17.7	17.0	16.9	19.4	--	--	--	--	14.0	6.0	8.3	3.5	3.5	2.2	7.4	8.1	1.2	0.0	2.9	18.7	18.6
02/01/11	17.3	16.4	18.0	19.1	--	--	--	--	14.1	6.2	9.4	5.1	3.8	2.2	8.0	18.0	1.2	0.0	2.7	18.3	15.3
01/01/11	17.2	15.7	17.5	18.4	--	--	--	--	14.1	6.3	8.6	6.8	4.2	2.9	7.5	18.9	1.5	0.0	4.5	18.2	17.9
12/01/10	16.6	14.7	13.4	16.2	--	--	--	--	11.4	5.4	8.1	4.7	2.8	1.7	1.8	17.2	1.3	0.0	1.4	15.9	14.8
11/01/10	15.9	8.7	12.4	17.2	--	--	--	--	11.3	5.0	6.5	3.4	4.4	1.1	3.1	0.0	2.5	0.0	2.3	17.9	15.5

Table 5. Oxygen
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
10/01/10	16.4	10.6	14.7	16.6	--	--	--	--	10.4	5.3	6.8	1.9	1.8	0.7	2.6	0.2	0.6	0.0	0.6	16.8	15.4
09/01/10	18.4	10.8	18.7	18.2	--	--	--	--	9.8	6.5	9.3	3.3	11.8	1.4	4.3	12.1	1.3	0.0	1.2	13.1	14.0
08/01/10	18.3	6.7	18.0	18.4	--	--	--	--	10.9	7.0	9.2	4.3	3.0	1.5	5.3	13.4	1.5	0.0	2.0	15.6	15.5
07/01/10	16.6	9.7	12.9	17.8	--	--	--	--	11.6	6.3	8.1	2.3	2.4	1.1	4.7	0.7	0.9	0.0	1.8	17.7	15.7
06/08/10	16.3	10.6	13.2	18.5	--	--	--	--	12.3	5.7	7.6	1.5	1.9	0.8	3.8	0.0	0.5	0.0	1.0	18.6	16.8
05/11/10	17.5	13.6	17.8	19.3	--	--	--	--	13.4	7.0	10.6	7.7	3.8	2.2	6.5	19.2	1.8	0.0	2.7	18.5	18.2
12/08/09	10.3	8.6	16.8	17.7	--	--	--	--	12.6	6.4	9.5	2.8	2.3	2.4	3.6	19.5	1.9	0.2	1.8	17.7	17.3
11/06/09	16.9	8.0	15.0	17.5	--	--	--	--	10.1	4.8	12.7	12.9	11.8	1.7	4.7	15.6	4.9	3.0	4.6	17.1	14.9
10/03/09	17.9	NA	16.9	18.1	--	--	--	--	11.2	5.2	7.7	8.0	8.2	0.9	4.0	11.7	1.3	0.0	3.4	17.2	16.1
09/08/09	17.5	18.0	17.9	17.3	--	--	--	--	9.0	4.4	7.0	1.2	1.6	0.5	3.2	1.0	0.5	0.0	1.0	15.3	17.2
08/04/09	18.4	18.3	17.5	18.8	--	--	--	--	9.5	6.3	7.8	3.1	2.4	0.7	3.5	10.3	0.7	0.0	2.8	17.8	16.2
07/02/09	18.2	16.1	17.3	19.2	--	--	--	--	10.7	6.7	7.8	2.3	2.2	1.1	3.6	12.9	0.9	0.0	2.2	17.3	13.4
06/05/09	17.8	15.5	14.5	19.0	--	--	--	--	11.8	6.6	9.0	2.5	2.6	1.0	3.5	12.9	0.5	0.7	1.3	18.6	15.0
05/08/09	17.7	19.1	14.8	18.7	--	--	--	--	13.0	6.5	8.9	2.4	3.0	1.5	5.5	2.0	1.2	0.6	1.6	18.1	17.3
04/03/09	18.6	17.9	15.4	18.4	--	--	--	--	13.3	6.2	10.2	8.1	4.2	2.4	6.2	19.7	2.1	0.0	2.6	18.7	17.2
03/03/09	19.0	12.4	17.3	18.8	--	--	--	--	13.0	6.7	10.2	7.4	3.8	1.8	4.1	19.7	1.8	0.0	2.3	18.5	17.3
02/03/09	19.3	19.2	17.5	18.0	--	--	--	--	12.4	6.2	7.9	2.9	2.6	1.3	3.7	17.0	0.6	0.0	1.1	18.1	17.3
01/09/09	18.0	18.5	16.6	17.5	--	--	--	--	12.9	5.9	5.8	3.1	2.5	1.4	5.4	17.1	1.5	0.0	3.0	18.4	16.6
12/02/08	17.8	18.8	17.9	17.1	--	--	--	--	11.4	6.4	8.7	5.1	3.6	1.3	3.9	17.3	1.1	0.0	1.3	17.6	16.3
11/05/08	17.8	18.1	18.4	17.8	--	--	--	--	10.2	5.8	8.3	4.6	3.2	1.3	3.8	19.6	0.4	0.0	0.9	17.5	15.0
10/03/08	17.7	17.1	18.3	17.9	--	--	--	--	8.8	5.0	7.2	4.2	2.6	0.8	3.3	0.0	0.6	0.0	0.7	15.7	13.2
09/11/08	16.5	16.7	15.9	18.0	--	--	--	--	8.2	5.1	7.9	4.5	2.5	0.6	3.0	0.5	0.4	0.0	0.7	15.4	12.1
08/18/08	18.3	17.4	18.8	18.3	--	--	--	--	9.0	5.5	7.8	3.8	3.0	1.1	3.9	4.6	0.6	0.0	1.0	16.1	15.5
07/28/08	18.2	17.6	18.5	18.5	--	--	--	--	10.0	5.8	7.5	1.8	2.1	0.9	3.8	1.4	0.0	0.0	0.2	18.1	17.9
06/04/08	17.9	16.8	16.1	17.7	--	--	--	--	11.8	6.1	8.2	3.2	3.1	2.1	4.8	18.1	1.0	0.0	1.5	18.2	17.8
05/02/08	17.1	15.1	16.6	17.5	--	--	--	--	12.4	6.3	8.7	4.4	3.4	1.8	4.6	19.2	1.3	0.0	1.9	18.1	17.4
04/04/08	18.8	17.1	17.9	18.7	--	--	--	--	12.2	5.8	8.3	3.2	3.4	2.0	4.5	18.6	1.2	0.0	1.7	18.6	17.4
03/04/08	18.7	16.2	17.7	19.0	--	--	--	--	12.2	6.8	9.8	7.3	4.6	3.1	7.4	19.8	2.1	0.0	2.6	18.4	17.5
02/01/08	18.3	16.3	16.1	17.9	--	--	--	--	12.6	5.8	10.0	6.5	5.3	3.3	7.8	19.6	2.0	0.0	2.8	18.5	18.1
01/08/08	17.8	18.1	15.1	18.1	--	--	--	--	11.6	4.7	7.8	4.8	3.7	2.0	4.3	17.5	1.4	0.0	1.7	18.0	18.4
12/07/07	18.8	16.9	18.5	17.5	--	--	--	--	11.1	7.4	8.3	6.7	3.9	2.5	5.0	18.2	1.7	4.7	5.8	17.6	16.7
11/01/07	18.9	17.2	17.4	18.4	--	--	--	--	11.1	5.5	8.5	4.3	3.6	2.8	5.7	18.3	0.9	0.8	1.6	17.4	17.3
10/02/07	18.9	17.1	16.0	18.3	--	--	--	--	9.5	4.5	6.8	2.1	2.7	1.2	3.9	18.1	0.8	0.2	1.4	15.8	14.0
09/05/07	20.6	17.6	19.4	17.9	--	--	--	--	9.0	4.6	7.3	2.7	2.5	1.2	3.6	2.5	0.5	0.0	1.4	--	15.6
08/02/07	18.3	16.9	17.4	17.2	--	--	--	--	9.0	5.1	8.1	3.7	3.1	1.4	4.2	17.7	1.1	0.1	2.4	17.0	12.4
07/09/07	18.1	17.0	17.9	19.0	--	--	--	--	9.3	5.5	7.8	2.7	2.9	1.3	4.0	2.0	0.1	0.0	2.5	18.4	14.2
06/08/07	17.7	15.8	14.8	18.9	--	--	--	--	10.5	5.3	8.0	3.6	3.1	1.4	4.4	18.8	1.2	0.0	1.2	18.6	13.6
05/10/07	17.7	15.6	15.0	18.9	--	--	--	--	11.5	5.6	8.0	3.1	3.2	1.6	4.4	19.3	0.8	0.0	1.3	18.8	13.9
04/17/07	17.1	15.6	18.0	18.6	--	--	--	--	12.0	5.7	8.3	3.4	3.7	2.0	5.5	19.9	1.0	0.0	1.9	19.0	15.1
03/23/07	17.7	16.4	18.2	19.1	--	--	--	--	12.0	5.2	8.0	3.9	4.0	2.3	6.9	0.9	1.3	0.1	1.5	19.1	14.1
02/28/07	18.0	15.8	18.9	18.7	--	--	--	--	12.7	6.2	9.9	17.4	5.3	3.0	7.5	19.8	2.0	2.1	--	16.1	12.4
01/30/07	18.3	16.5	19.0	19.3	--	--	--	--	12.3	6.0	8.3	5.1	4.5	2.4	6.9	19.8	1.3	2.7	--	19.0	15.3
11/30/06	16.1	14.2	13.8	12.0	--	--	--	--	10.9	12.6	10.8	11.0	10.0	3.2	7.0	17.1	2.4	0.8	--	15.5	13.3
10/27/06	17.4	17.2	16.7	17.8	--	--	--	--	10.1	5.1	7.2	2.4	3.0	1.3	4.5	19.7	0.3	0.0	1.3	16.2	14.0
09/27/06	17.1	16.8	16.5	17.6	--	--	--	--	9.7	4.1	6.7	2.5	2.7	1.1	4.1	16.7	0.3	0.0	1.2	17.1	12.2
08/31/06	16.7	17.0	19.0	18.0	--	--	--	--	8.3	4.9	6.3	2.0	2.7	1.3	4.5	14.5	0.4	0.8	1.3	--	14.7
07/25/06	16.7	17.3	16.9	18.6	--	--	--	--	8.6	4.7	7.6	3.9	3.2	1.2	3.8	14.1	0.6	0.0	1.8	16.8	7.0
06/23/06	16.3	15.3	15.8	18.5	--	--	--	--	10.7	4.6	7.0	3.0	3.4	1.4	4.1	19.0	0.8	0.4	1.1	18.6	11.9
05/25/06	17.3	17.7	17.1	18.9	--	--	--	--	10.9	4.7	6.4	1.4	2.9	1.2	3.7	10.6	0.4	0.0	1.8	19.1	12.5
04/27/06	17.3	17.5	18.1	16.7	--	--	--	--	12.3	5.2	7.1	2.4	3.2	1.6	4.3	18.1	0.8	0.0	14.7	13.1	14.3
03/24/06	16.7	15.9	18.1	18.2	--	--	--	--	13.0	5.4	8.6	6.6	5.5	2.9	7.5	17.5	1.3	0.0	--	17.9	13.1
02/27/06	17.2	16.6	18.0	18.5	--	--	--	--	13.4	4.7	8.7	12.6	3.3	1.6	5.9	13.8	0.5	0.0	0.6	18.0	12.2
01/27/06	17.4	13.8	14.2	18.7	--	--	--	--	13.1	5.4	9.0	5.0	5.2	3.1	6.7	18.9	1.9	0.0	3.5	18.6	12.0
12/28/05	16.7	14.0	13.2	16.3	--	--	--	--	13.1	4.2	10.6	0.6	5.6	3.7	8.9	18.5	1.7	5.2	0.1	18.6	14.6
11/28/05	16.0	14.0	13.7	15.6	--	--	--	--	3.7	1.2	1.8	0.0	0.4	0.1	0.4	0.6	0.0	0.0	0.1	10.3	7.5
10/31/05	16.9	16.1	15.9	16.5	--	--	--	--	10.5	3.3	6.3	3.0	3.0	1.5	4.2	16.0	0.4	0.0	0.5	15.7	12.9
06/24/05	15.0	14.4	11.8	18.0	--	--	--	--	10.3	4.4	6.6	1.4	2.2	1.0	3.0	16.6	0.3	0.0	0.4	17.7	13.2

Table 5. Oxygen
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
05/31/05	14.9	13.5	14.3	18.1	--	--	--	--	10.9	4.6	7.0	2.3	3.0	1.4	4.1	18.8	0.4	0.0	0.7	18.3	11.5
04/26/05	15.3	10.9	15.8	17.5	--	--	--	--	8.8	2.8	4.3	0.6	1.6	0.5	1.8	16.1	0.1	0.0	0.1	15.5	0.9
03/25/05	15.9	14.0	14.0	17.0	--	--	--	--	8.1	2.6	3.9	0.2	0.7	0.5	1.5	3.3	0.0	0.1	0.1	14.2	1.2
02/28/05	16.0	15.0	15.0	19.0	--	--	--	--	4.0	1.5	3.5	0.0	0.9	0.6	3.3	11.1	0.0	0.5	0.0	9.0	0.0
01/25/05	14.6	15.0	14.1	14.8	--	--	--	--	7.6	1.1	0.3	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	16.2	1.8
12/23/04	14.1	13.4	14.2	16.0	--	--	--	--	6.9	2.1	1.7	0.1	0.0	0.0	0.6	2.0	0.0	0.0	0.0	12.5	1.5
10/29/04	1.0	1.2	1.0	1.0	--	--	--	--	0.9	1.5	0.9	0.9	0.9	0.9	0.9	1.1	1.1	1.1	1.0	1.1	1.1
09/29/04	4.4	14.9	12.1	14.8	--	--	--	--	5.7	5.5	6.2	3.4	4.6	0.6	2.1	4.7	0.0	0.0	0.0	4.8	4.8
08/27/04	12.2	15.9	16.5	16.4	--	--	--	--	5.4	1.5	2.7	0.2	0.4	0.0	2.0	0.9	0.0	0.0	0.0	10.1	0.0
07/30/04	15.0	17.0	17.2	19.2	--	--	--	--	4.5	2.8	4.0	0.7	1.0	0.1	3.2	4.2	0.0	0.0	--	17.1	0.1
06/30/04	14.8	15.9	16.1	17.2	--	--	--	--	4.1	1.7	2.2	0.2	0.2	0.0	0.2	0.0	0.0	0.0	0.0	8.8	0.6
05/25/04	--	--	--	--	--	--	--	--	6.8	2.1	2.3	0.8	0.2	0.3	0.2	--	0.0	0.0	0.3	--	--
04/27/04	16.0	14.6	13.5	18.1	--	--	--	--	7.5	2.5	2.3	0.8	0.5	0.4	1.4	0.6	0.0	0.0	0.0	15.9	1.4
03/31/04	16.0	14.0	13.5	17.0	--	--	--	--	7.6	20.7	3.8	0.1	0.9	0.3	0.8	3.0	--	--	0.0	14.2	1.0
02/26/04	16.5	15.7	17.7	19.6	--	--	--	--	10.2	--	5.4	4.4	2.9	--	3.8	13.6	0.1	0.0	0.3	15.8	2.5
01/27/04	16.2	16.0	14.5	15.0	--	--	--	--	9.6	1.2	4.3	1.0	1.5	0.4	2.3	16.5	0.0	0.0	0.7	17.3	3.5
12/30/03	15.0	14.1	14.5	14.2	--	--	--	--	8.9	--	2.5	2.1	1.1	0.2	0.8	0.3	0.3	0.0	0.0	16.2	6.4
11/25/03	14.0	13.0	14.8	13.2	--	--	--	--	10.5	--	9.1	7.7	1.8	1.0	9.0	13.1	0.0	0.0	0.0	11.5	0.5
10/30/03	20.7	13.4	13.6	15.4	--	--	--	--	11.3	2.5	6.2	8.3	3.2	0.7	5.7	13.5	0.0	0.0	0.0	12.4	0.5
09/29/03	15.0	17.0	18.1	17.0	--	--	--	--	7.6	2.8	4.5	1.2	1.5	0.1	1.3	7.2	0.0	0.0	0.0	11.0	0.7
08/29/03	16.5	16.5	18.3	17.2	--	--	--	--	6.6	3.2	5.0	2.8	2.9	0.4	2.7	5.2	0.1	0.1	0.1	10.7	2.5
07/31/03	16.2	20.0	17.8	16.4	--	--	--	--	4.8	3.1	5.3	1.8	1.7	0.3	2.2	6.9	0.0	0.0	0.0	--	--
06/20/03	15.3	14.9	16.2	17.6	--	--	--	--	7.7	3.4	5.5	1.2	1.5	0.2	3.0	8.7	0.0	0.0	0.0	13.5	5.5
05/28/03	14.7	13.6	11.2	19.1	--	--	--	--	9.7	5.1	8.8	2.2	4.3	1.4	9.5	12.7	0.9	0.0	1.4	15.2	14.4
04/28/03	14.3	13.3	15.7	18.5	--	--	--	--	2.8	0.2	4.2	20.7	0.4	0.0	0.8	2.5	0.3	0.4	0.0	9.2	0.8
03/01/03	14.5	13.6	17.2	17.9	--	--	--	--	11.7	20.8	7.4	20.1	2.4	1.0	2.1	17.9	0.0	0.0	0.3	16.8	12.2
02/01/03	14.8	15.7	18.8	19.1	--	--	--	--	11.4	--	7.9	20.9	3.4	1.2	4.4	15.6	0.8	0.4	1.0	16.9	13.0
01/01/03	14.1	14.1	18.1	17.5	--	--	--	--	10.1	--	4.6	20.7	2.3	1.5	1.5	--	0.4	0.0	0.7	16.4	7.7
12/23/02	16.9	13.8	13.6	13.7	--	--	--	--	10.8	--	5.1	--	1.1	0.0	1.4	14.2	0.1	0.0	0.0	12.2	2.7
11/15/02	14.0	16.1	17.6	15.7	--	--	--	--	11.5	--	5.8	1.1	1.9	0.6	2.8	15.6	0.0	0.0	0.1	10.7	4.0
10/15/02	13.4	17.4	17.7	13.7	--	--	--	--	3.0	1.1	3.1	0.0	0.6	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0
09/15/02	15.4	17.5	18.9	18.2	--	--	--	--	9.5	3.5	5.5	1.9	2.5	0.9	3.0	7.8	0.0	0.0	0.0	2.5	1.9
08/15/02	14.2	18.2	18.4	18.4	--	--	--	--	8.1	3.8	4.4	1.3	1.6	1.2	4.5	11.0	0.3	0.0	0.2	12.6	6.4
07/15/02	13.2	17.0	17.4	18.8	--	--	--	--	8.6	3.9	6.6	4.9	3.1	1.1	5.3	12.5	0.3	0.0	0.3	13.3	9.8
06/15/02	13.3	16.1	17.0	18.5	--	--	--	--	8.9	3.2	5.7	2.0	1.6	0.0	2.0	9.1	0.0	0.0	0.0	13.7	20.7
05/15/02	14.1	15.1	19.6	18.9	--	--	--	--	11.8	3.8	6.9	5.8	3.3	0.7	5.6	14.0	0.0	0.0	0.2	15.5	11.9
04/15/02	14.7	15.0	18.7	18.6	--	--	--	--	15.7	--	7.7	6.4	3.6	1.2	7.2	15.9	0.5	0.0	0.3	13.7	10.0
03/15/02	15.6	16.8	18.3	19.8	--	--	--	--	11.4	--	8.0	11.7	4.9	2.0	8.3	18.3	0.7	0.0	0.7	17.3	17.0
02/15/02	16.9	17.4	17.7	19.0	--	--	--	--	13.2	--	10.2	18.3	5.5	3.1	9.1	17.0	1.7	0.3	1.4	16.3	14.9
01/15/02	16.9	17.4	17.7	19.0	--	--	--	--	13.2	9.0	10.2	18.3	5.5	3.1	9.1	17.0	1.7	0.3	1.4	16.3	14.9
12/15/01	1.1	5.6	4.2	1.4	--	--	--	--	10.2	--	7.8	16.7	4.4	2.0	2.1	13.0	2.0	0.0	3.0	15.9	12.7
11/15/01	13.5	13.2	10.2	15.7	--	--	--	--	12.9	--	9.2	19.9	3.9	2.5	4.4	12.6	0.5	0.4	19.0	6.0	3.8
10/15/01	13.4	14.8	12.3	14.6	--	--	--	--	8.4	0.1	3.7	0.2	0.0	0.0	3.4	7.7	0.0	0.0	0.0	11.6	5.3
09/15/01	5.3	6.3	16.4	15.9	--	--	--	--	3.7	0.7	2.8	2.8	0.8	0.0	2.8	4.9	0.0	0.0	0.0	5.8	1.9
08/01/01	12.3	14.1	11.8	16.1	--	--	--	--	9.2	2.1	6.8	6.6	2.6	1.0	6.2	16.5	0.0	0.0	0.1	14.2	4.7
07/01/01	11.5	14.3	10.5	16.6	--	--	--	--	9.3	4.1	6.6	4.5	4.1	1.2	6.5	7.0	0.1	0.0	0.4	15.4	10.7
06/01/01	11.9	19.2	15.9	16.9	--	--	--	--	8.8	2.8	6.2	2.7	2.7	0.7	4.7	6.9	0.0	0.0	0.2	16.2	14.1
05/01/01	13.3	13.3	16.0	17.5	--	--	--	--	9.7	2.9	5.4	1.1	1.7	0.6	3.9	8.0	0.8	0.0	1.2	16.0	15.1
04/01/01	14.8	13.6	11.5	17.1	--	--	--	--	10.3	--	7.3	7.3	3.4	1.5	5.2	11.1	1.0	0.1	1.3	16.3	15.0
03/10/01	17.8	15.0	17.3	--	--	--	--	--	10.6	--	6.8	5.7	3.8	2.1	8.2	--	1.0	0.0	1.5	17.3	15.3
02/01/01	--	14.3	11.4	17.8	--	--	--	--	11.5	--	7.0	3.7	2.8	1.6	3.8	--	1.0	0.3	1.2	17.3	13.0
01/01/01	--	--	11.6	--	--	--	--	--	12.7	--	7.6	7.5	3.5	2.3	7.0	10.9	1.7	0.4	4.1	16.8	16.5
12/01/00	8.3	11.2	5.8	16.4	--	--	--	--	11.2	--	5.3	2.2	13.0	1.4	3.8	5.3	1.5	0.4	1.8	14.8	10.6
11/01/00	12.2	18.5	17.0	10.0	--	--	--	--	12.7	4.0	8.2	13.6	4.5	3.2	11.7	17.3	1.5	1.7	1.5	14.8	9.1
10/01/00	12.0	16.0	15.5	17.1	--	--	--	--	9.2	2.0	6.7	6.0	3.4	1.7	5.5	7.9	1.4	0.4	0.9	13.9	9.5
09/15/00	11.0	15.9	11.9	18.0	--	--	--	--	6.5	2.9	6.8	6.3	3.4	1.5	5.7	5.5	1.6	0.3	1.2	14.0	14.8
08/01/00	10.3	15.2	17.0	15.6	--	--	--	--	7.1	1.5	5.5	8.6	4.0	1.7	6.8	4.0	1.8	0.0	0.8	18.2	11.4

Table 5. Oxygen
Terminal 5 / RA-3 Landfill Gas Monitoring
(Landtec GEM 5000, or LMS-40, or GEM 2000 instrument field measurement - percent by volume.)

Date	Off-Site Soil Gas Probes				On-Site Soil Gas Probes				Landfill Gas Collection System Monitoring Points												
	SG-302	SG-303	SG-304	SG-329	VP-1	VP-2*	VP-3	VP-4	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13
07/01/00	11.5	16.2	14.0	17.2	--	--	--	--	7.5	3.2	6.9	5.4	3.6	1.8	6.0	6.0	1.5	0.2	3.1	15.9	11.5
06/01/00	8.5	11.7	4.9	16.3	--	--	--	--	6.9	1.9	5.7	3.4	2.4	1.0	3.0	0.3	0.3	0.0	0.2	15.1	5.4
05/01/00	--	11.7	5.8	17.1	--	--	--	--	1.4	--	5.5	0.2	2.5	1.0	5.5	0.4	0.9	0.8	0.6	0.5	1.1
04/01/00	8.0	14.0	13.5	17.0	--	--	--	--	1.2	--	5.4	0.3	2.0	1.0	4.0	0.0	0.3	0.3	0.0	0.3	0.7
03/01/00	7.8	13.3	13.5	16.1	--	--	--	--	3.4	--	8.1	5.7	5.1	2.0	7.7	0.9	--	0.0	0.2	18.5	11.0
02/01/00	9.0	14.2	12.4	18.4	--	--	--	--	13.4	--	11.4	13.8	7.2	3.0	9.4	13.7	--	0.4	3.5	18.2	12.3
01/01/00	--	--	--	--	--	--	--	--	12.3	--	10.2	10.7	5.6	2.9	4.9	1.6	--	--	5.0	17.3	10.5
12/01/99	--	--	--	--	--	--	--	--	10.7	--	8.3	4.9	3.6	1.6	1.5	20.8	--	--	0.6	18.0	9.4
11/01/99	--	--	--	--	--	--	--	--	11.1	0.9	6.9	3.7	2.8	1.2	2.3	15.1	--	0.0	--	17.3	5.4
10/01/99	--	--	--	--	--	--	--	--	9.8	0.9	7.9	--	--	1.7	6.5	6.4	1.8	0.0	1.2	15.7	3.3
09/01/99	--	--	--	--	--	--	--	--	6.2	1.1	6.5	--	--	1.4	5.6	4.3	1.6	0.1	1.1	17.0	9.3
08/01/99	--	--	--	--	--	--	--	--	6.7	1.0	6.9	--	--	1.2	6.5	3.8	1.0	0.1	0.8	17.5	8.6
07/01/99	--	--	--	--	--	--	--	--	8.4	1.3	8.6	9.1	3.9	1.6	8.3	4.0	1.8	0.0	1.2	17.9	11.6
06/01/99	--	--	--	--	--	--	--	--	8.4	1.8	8.4	6.2	3.1	1.3	5.7	3.4	1.2	0.0	0.5	18.4	11.2
05/01/99	--	--	--	--	--	--	--	--	10.8	2.1	9.3	8.5	4.9	2.5	9.0	0.8	3.9	0.0	8.1	19.0	9.9
04/01/99	--	--	--	--	--	--	--	--	10.7	--	8.3	3.6	3.5	1.4	6.2	0.9	1.4	0.0	4.9	18.3	8.8
03/01/99	--	--	--	--	--	--	--	--	13.0	--	10.7	9.3	4.8	2.1	8.1	1.1	0.0	0.0	1.7	19.6	5.7
02/01/99	--	--	--	--	--	--	--	--	7.7	--	3.7	0.7	0.4	0.0	0.0	13.1	--	--	8.8	16.6	4.1
01/01/99	--	--	--	--	--	--	--	--	11.7	--	10.9	20.5	5.6	2.8	4.4	13.1	--	--	--	34.5	26.2

Definitions and Notes:

* VP-2 is the only on-site soil gas probe within the limits of the landfill. VP-1, VP-3, and VP-4 are located beyond the landfill limits.
-- Data was not provided for this period. Monitoring was conducted by others, prior to AECOM.
Bold Values in bold were collected by AECOM (Jan 2023 to date).
NA Not accessible.
Green shading indicates monitoring point connected to landfill gas collection piping.
Blue shading indicates perimeter monitoring point, not connected to landfill gas collection piping.

Figures

Legend

- Approximate Geomembrane Limits
- Existing Building

0 250 500 1,000 Feet

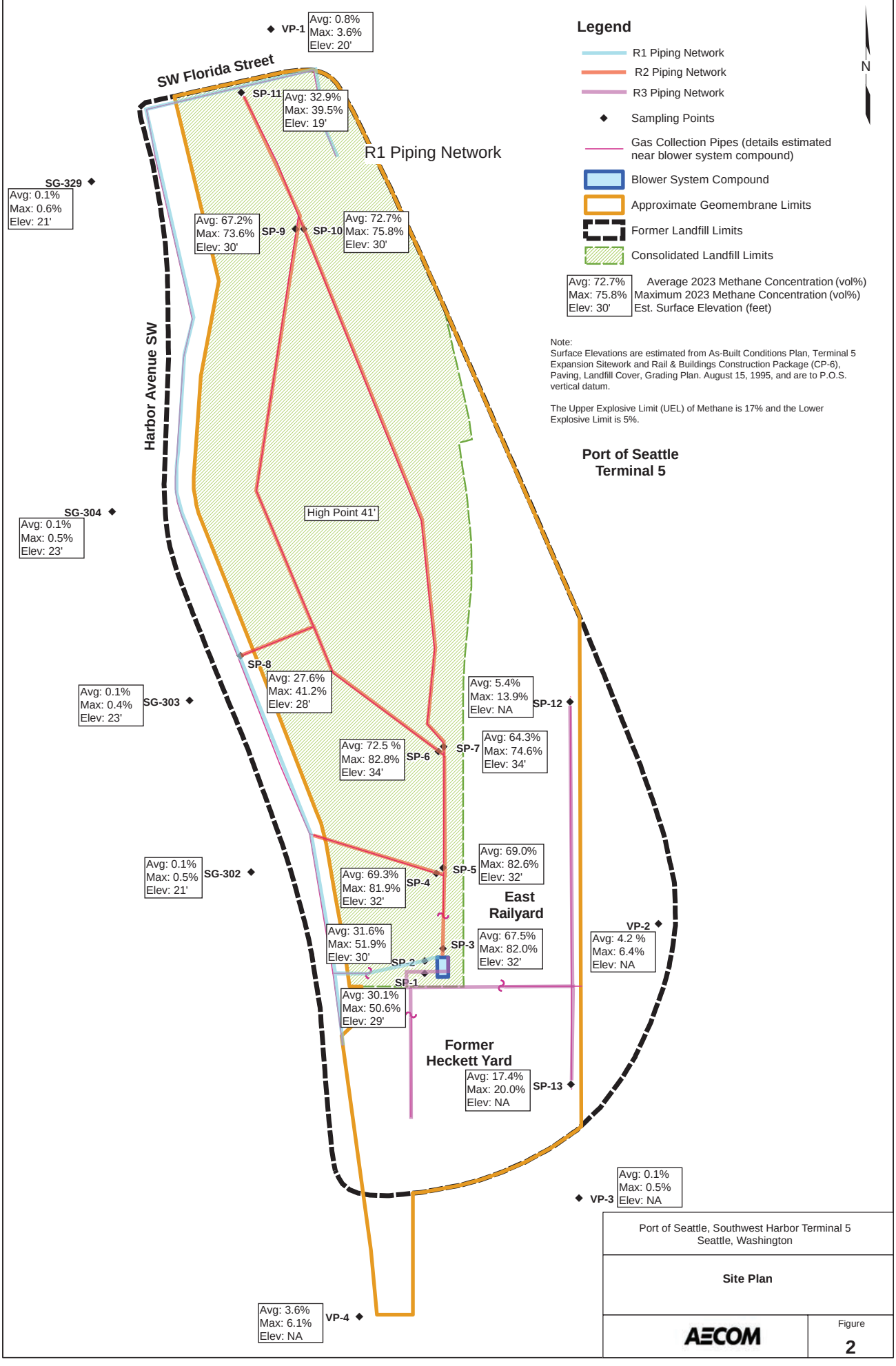
N

Port of Seattle, Southwest Harbor Terminal 5
Seattle, Washington

Vicinity Map Showing Nearby Structures

AECOM

Figure 1



Note:
Surface Elevations are estimated from As-Built Conditions Plan, Terminal 5 Expansion Sitework and Rail & Buildings Construction Package (CP-6), Paving, Landfill Cover, Grading Plan. August 15, 1995, and are to P.O.S. vertical datum.

The Upper Explosive Limit (UEL) of Methane is 17% and the Lower Explosive Limit is 5%.

Port of Seattle Terminal 5

Port of Seattle, Southwest Harbor Terminal 5
Seattle, Washington

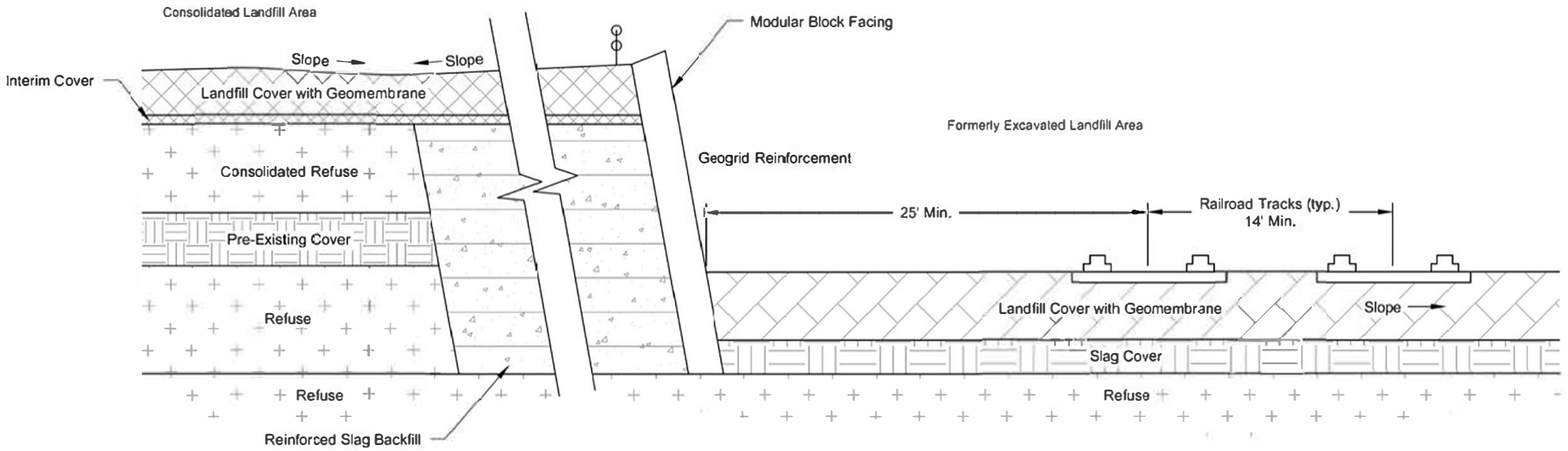
Site Plan

AECOM

Figure
2

West

East



0 6 12

Approximate Scale in Feet

Port of Seattle, Southwest Harbor Terminal 5
Seattle, Washington

Schematic Cross Section

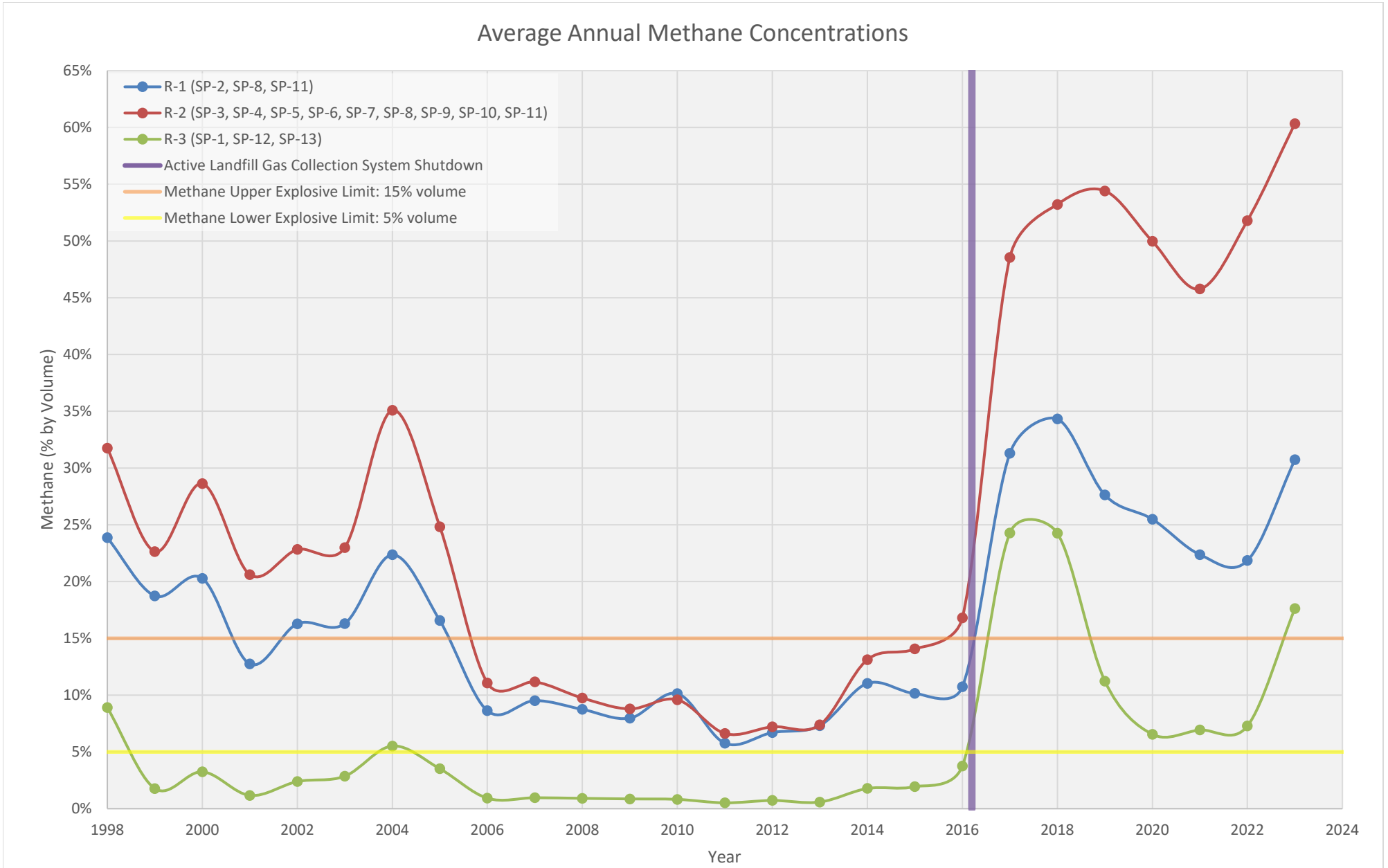
17627-06 1/23

AECOM

Figure 3

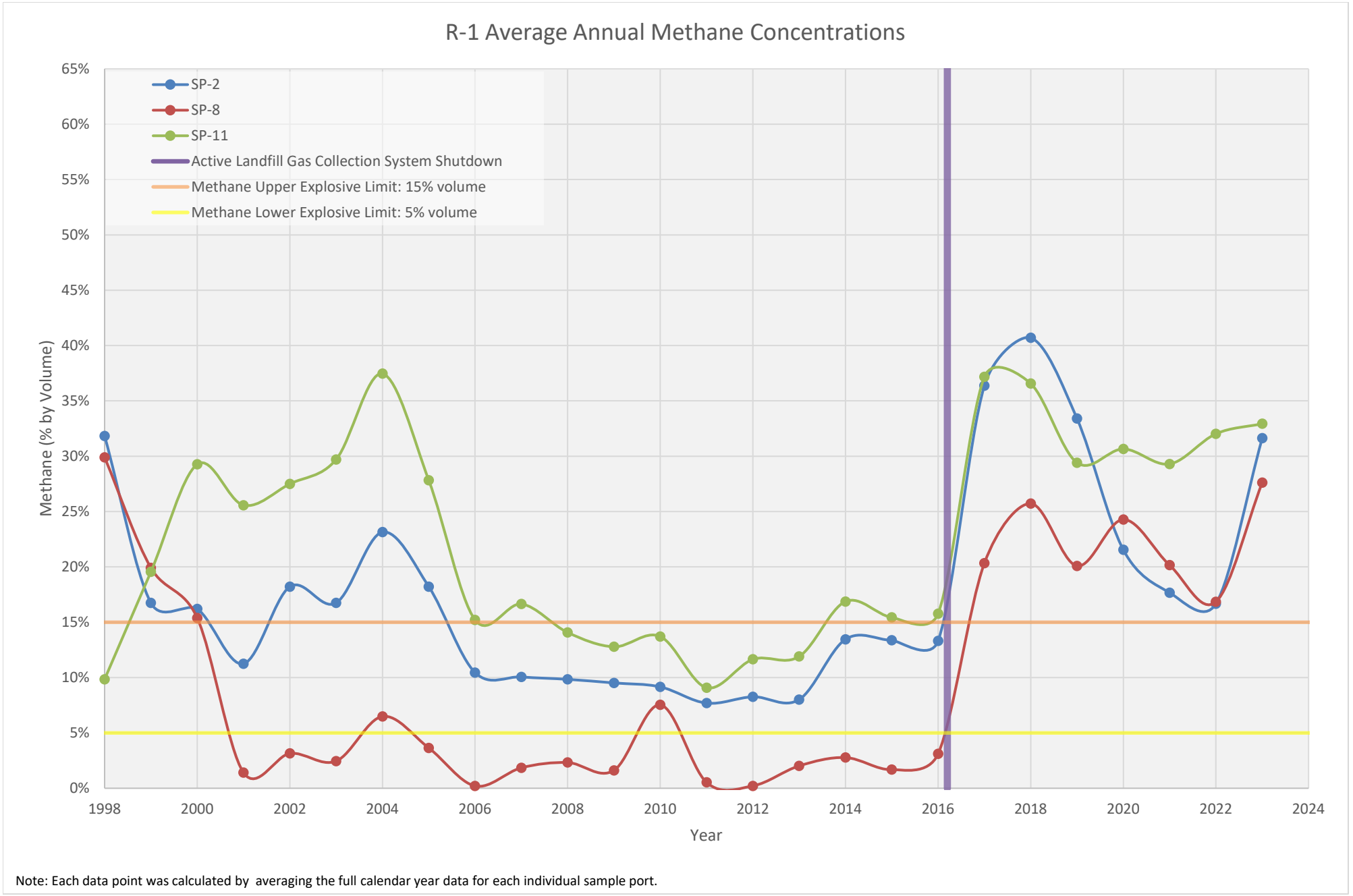
Sources: Figure prepared from PDF "Cross Section - Final Landfill Cover System," created by Woodward-Clyde Consultants, dated 2/21/95.

Figure 4. Piping Networks Average Annual Methane Concentration
Terminal 5 / RA-3 Landfill Gas Monitoring



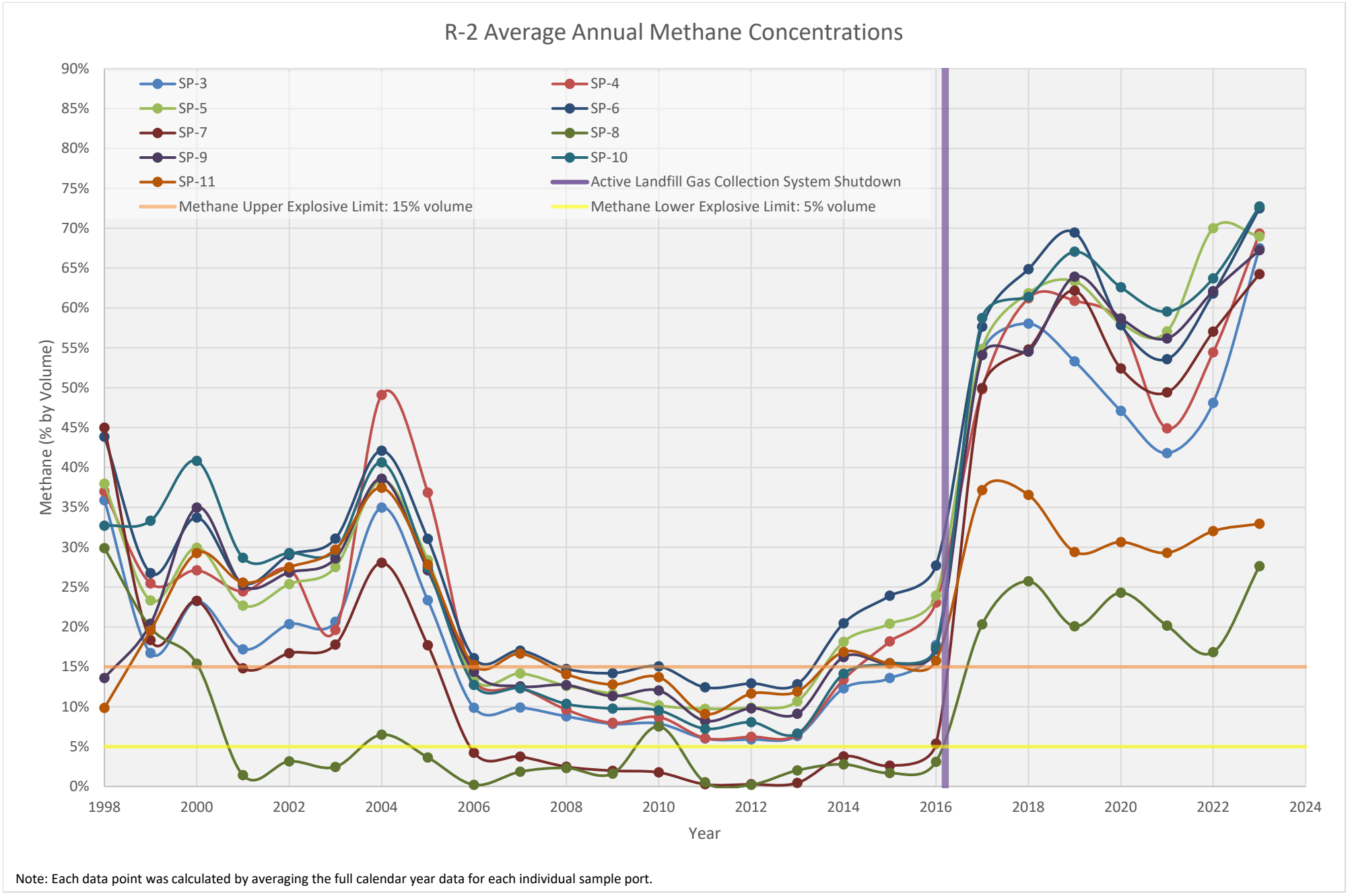
Note: Each data point was calculated by first averaging the full calendar year data for each individual sample port. The individual sample port averages for each of the three piping lines were then averaged for the year.

Figure 5. R-1 Piping Network and Sample Ports Average Annual Methane Concentration
Terminal 5 / RA-3 Landfill Gas Monitoring



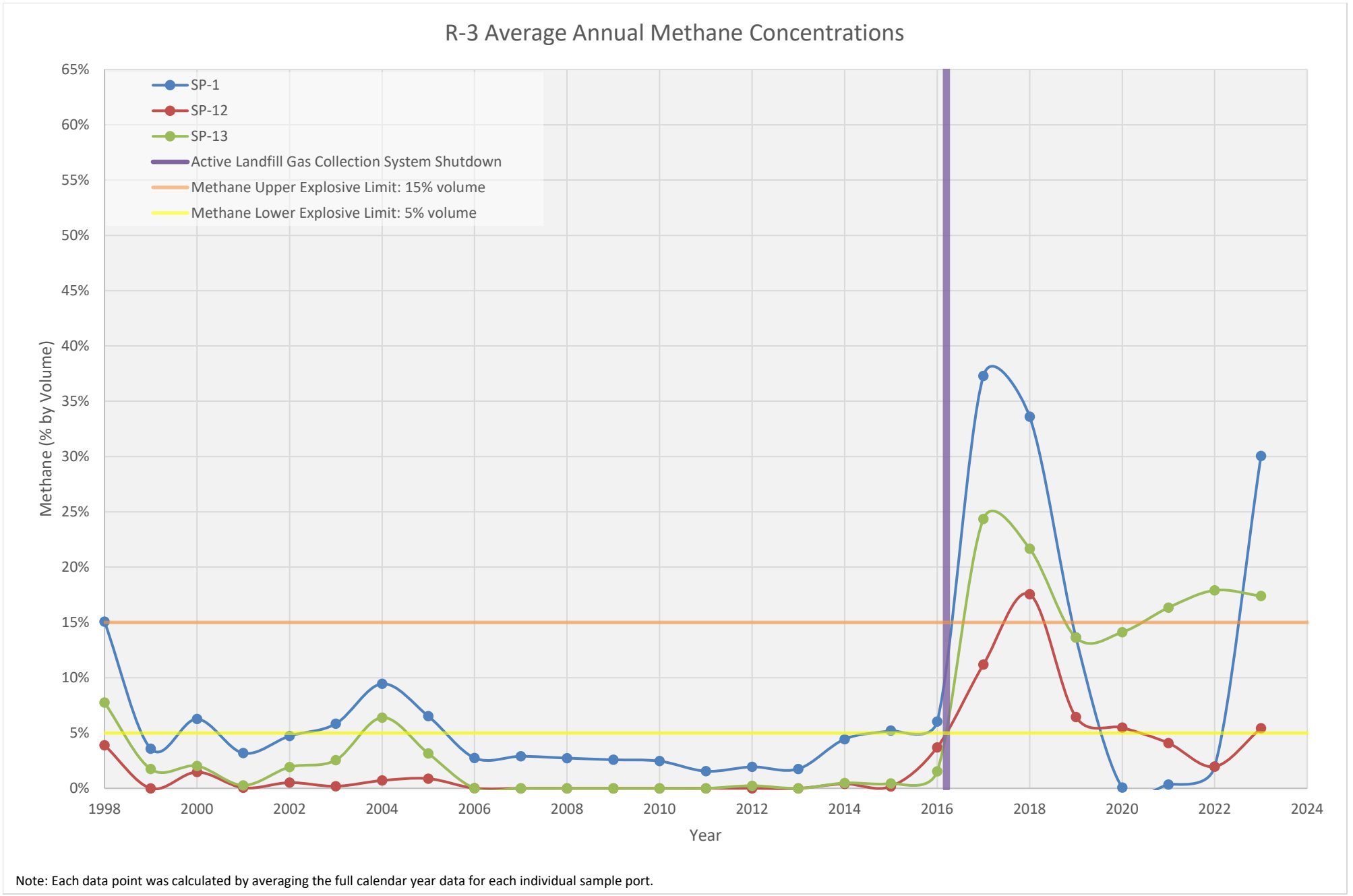
Note: Each data point was calculated by averaging the full calendar year data for each individual sample port.

Figure 6. R-2 Piping Network and Sample Ports Average Annual Methane Concentration
Terminal 5 / RA-3 Landfill Gas Monitoring



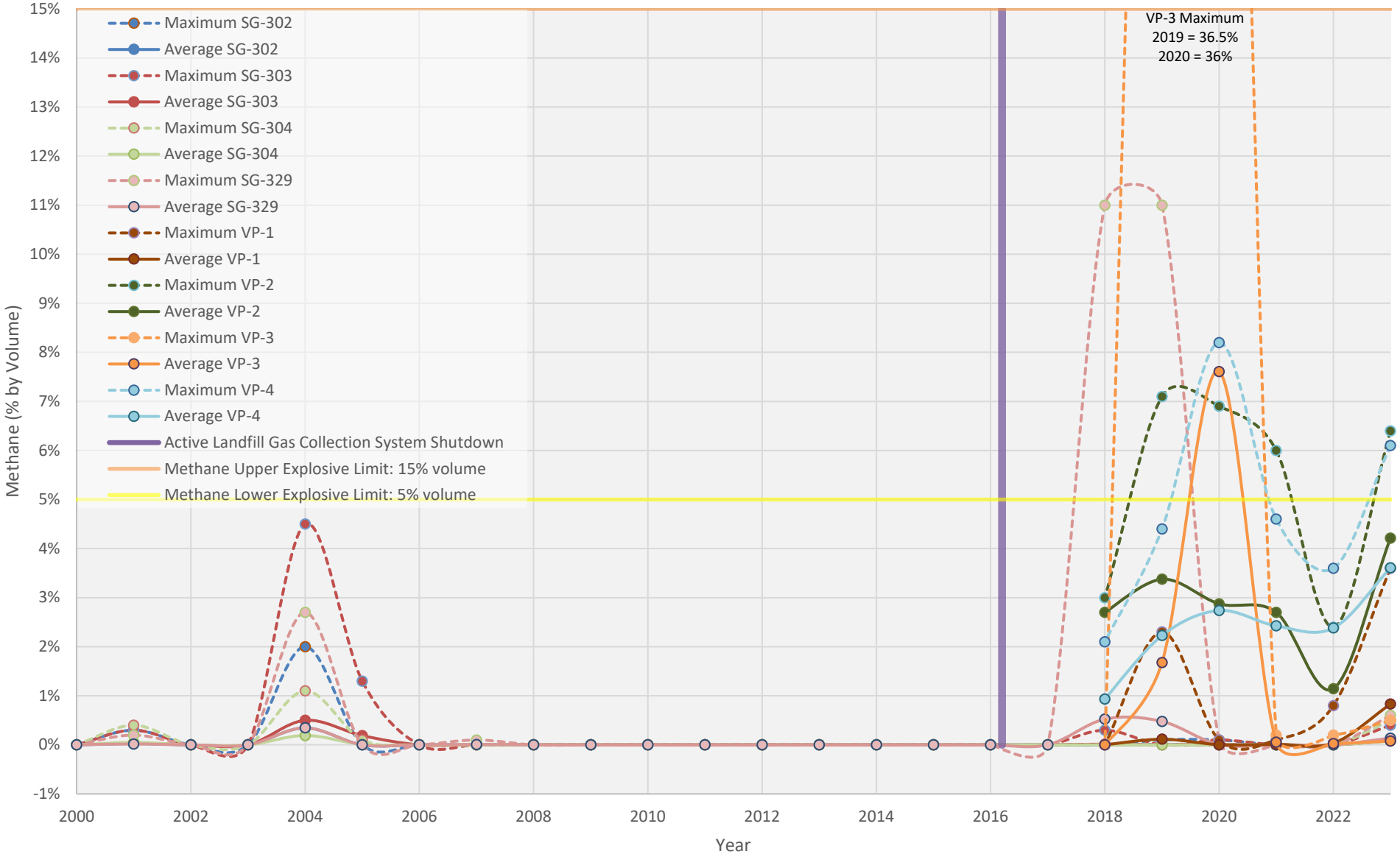
Note: Each data point was calculated by averaging the full calendar year data for each individual sample port.

Figure 7. R-3 Piping Network and Sample Ports Average Annual Methane Concentration
Terminal 5 / RA-3 Landfill Gas Monitoring



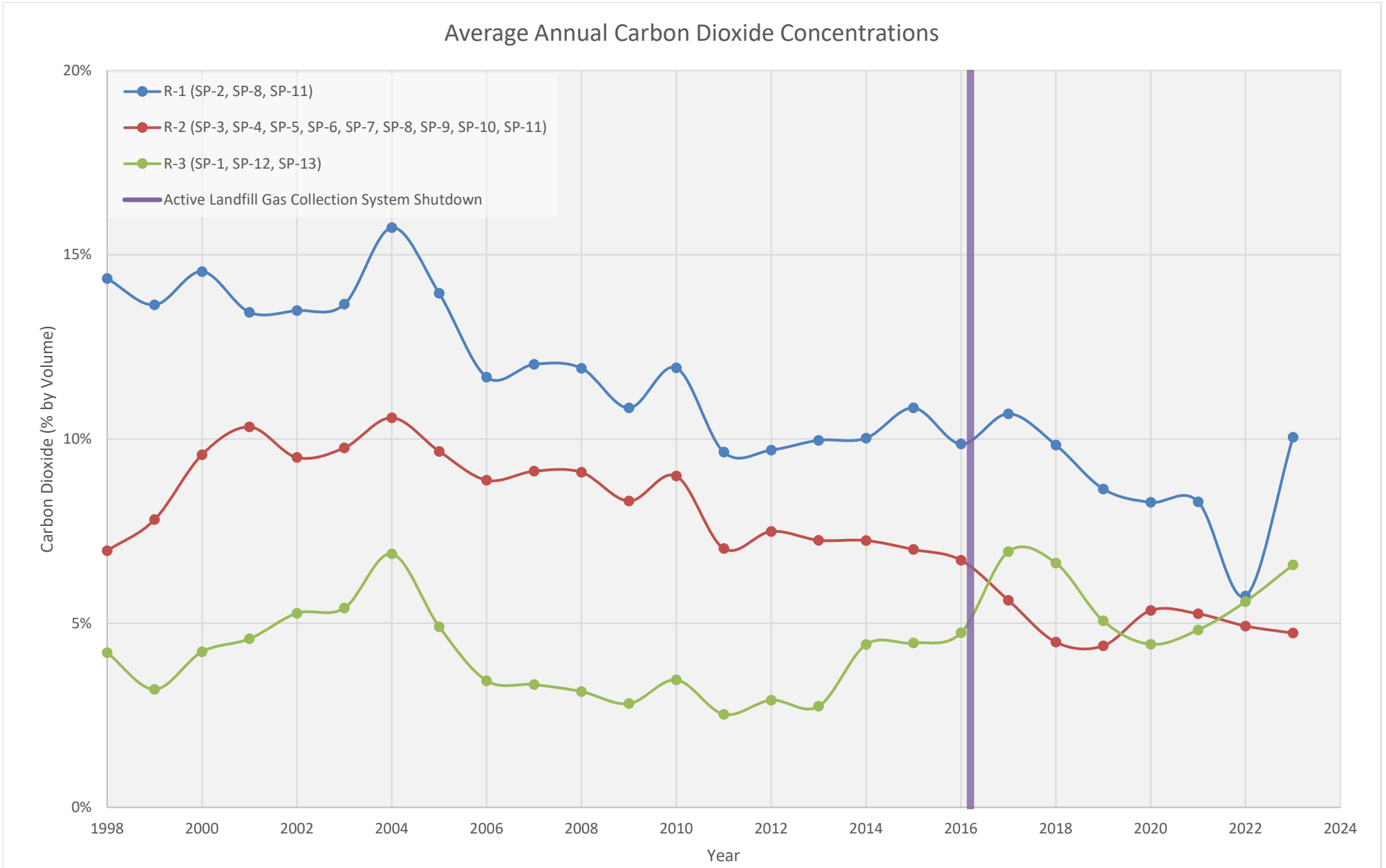
Note: Each data point was calculated by averaging the full calendar year data for each individual sample port.

Figure 8. Soil Gas Probes Average and Maximum Annual Methane Concentration
Terminal 5 / RA-3 Landfill Gas Monitoring



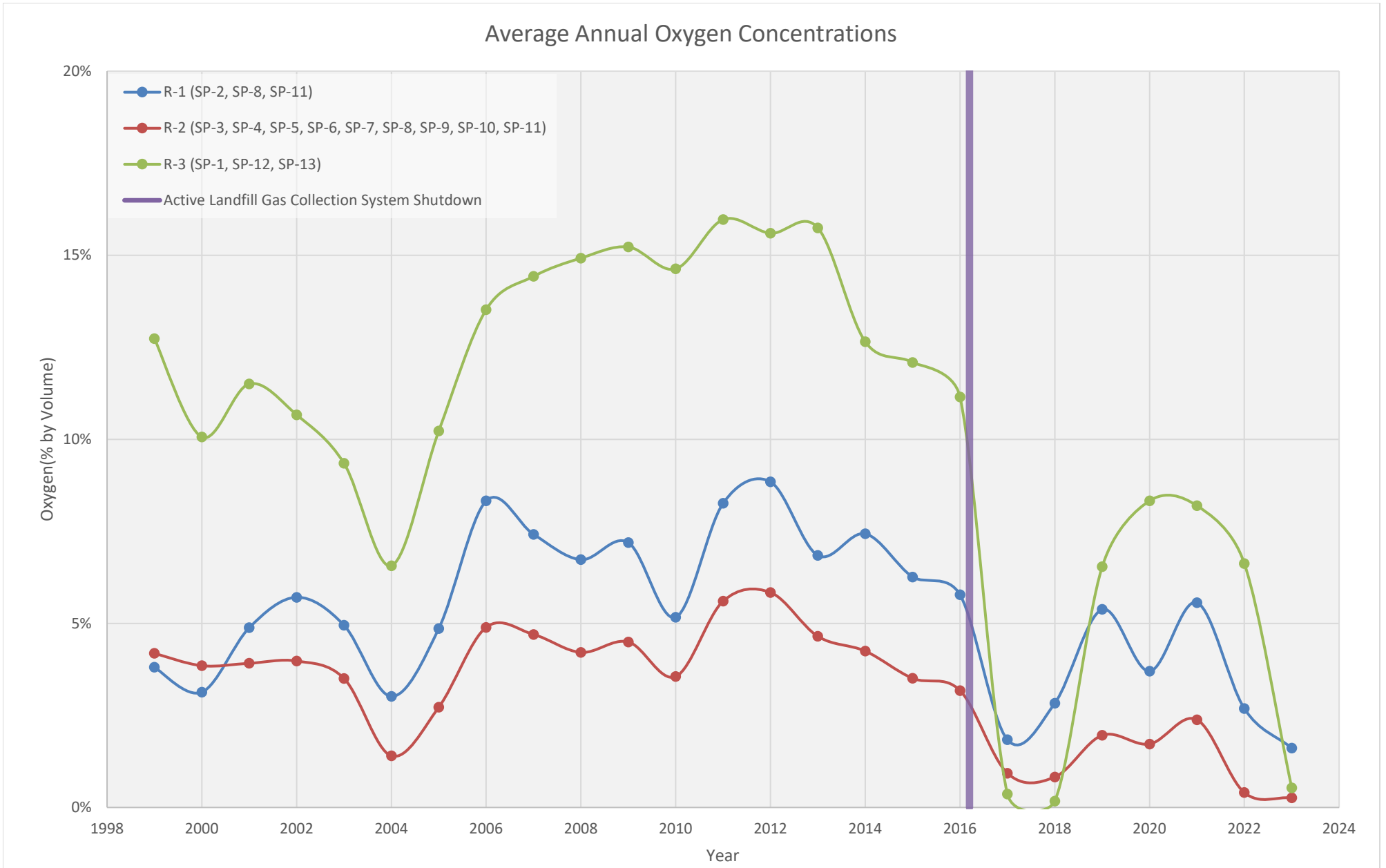
Notes: Each data point was calculated by averaging the full calendar year data for each individual sample port.
Soil gas probes VP-1, VP-2, VP-3, and VP-4 were first monitored in 2018.

Figure 9. Piping Networks Average Annual Carbon Dioxide Concentration
Terminal 5 / RA-3 Landfill Gas Monitoring



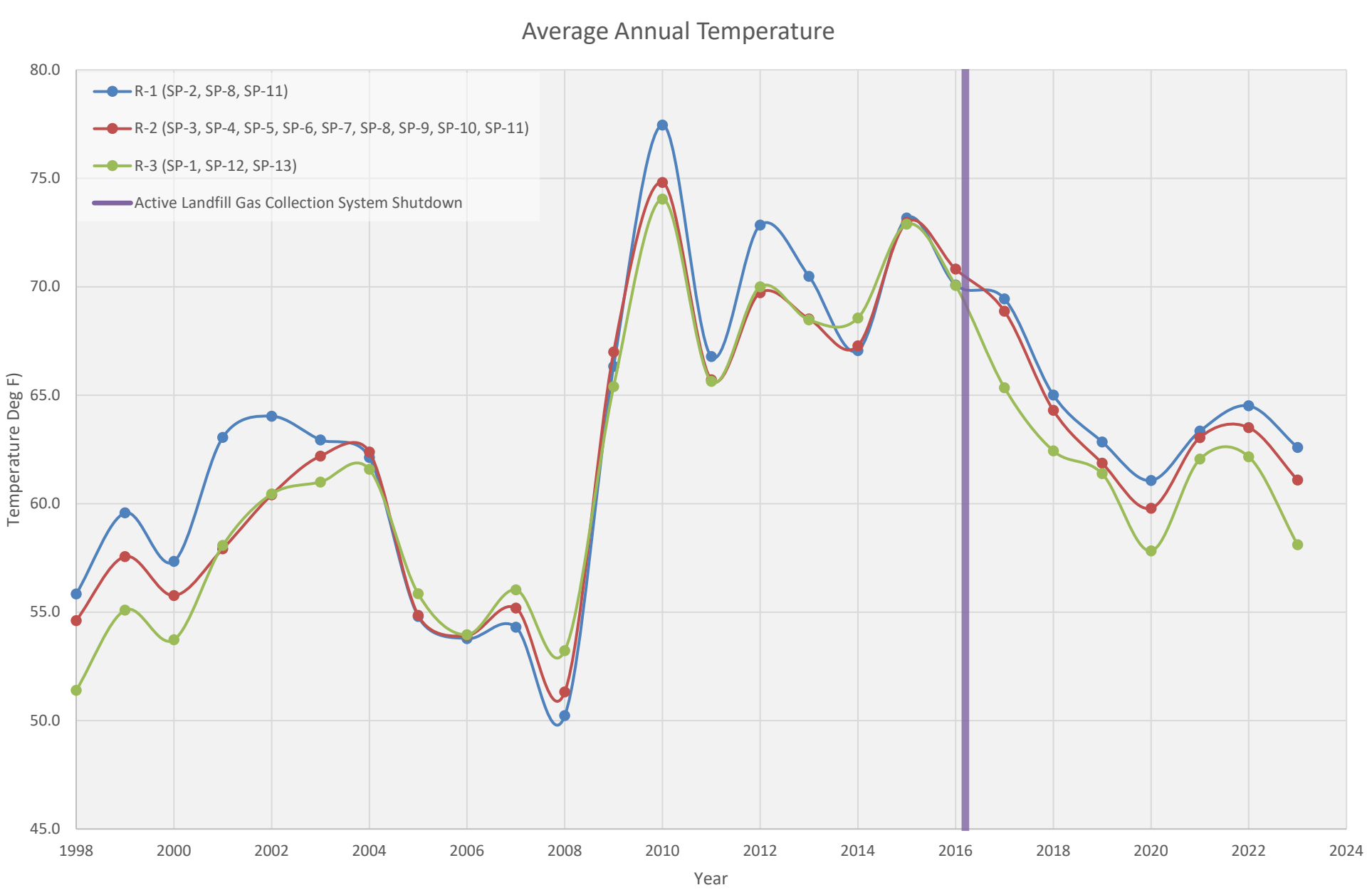
Note: Each data point was calculated by first averaging the full calendar year data for each individual sample port. The individual sample port averages for each of the three piping lines were then averaged for the year.

Figure 10. Piping Networks Average Annual Oxygen Concentration
Terminal 5 / RA-3 Landfill Gas Monitoring



Note: Each data point was calculated by first averaging the full calendar year data for each individual sample port. The individual sample port averages for each of the three piping lines were then averaged for the year.

Figure 11. Piping Networks Average Annual Temperature
Terminal 5 / RA-3 Landfill Gas Monitoring



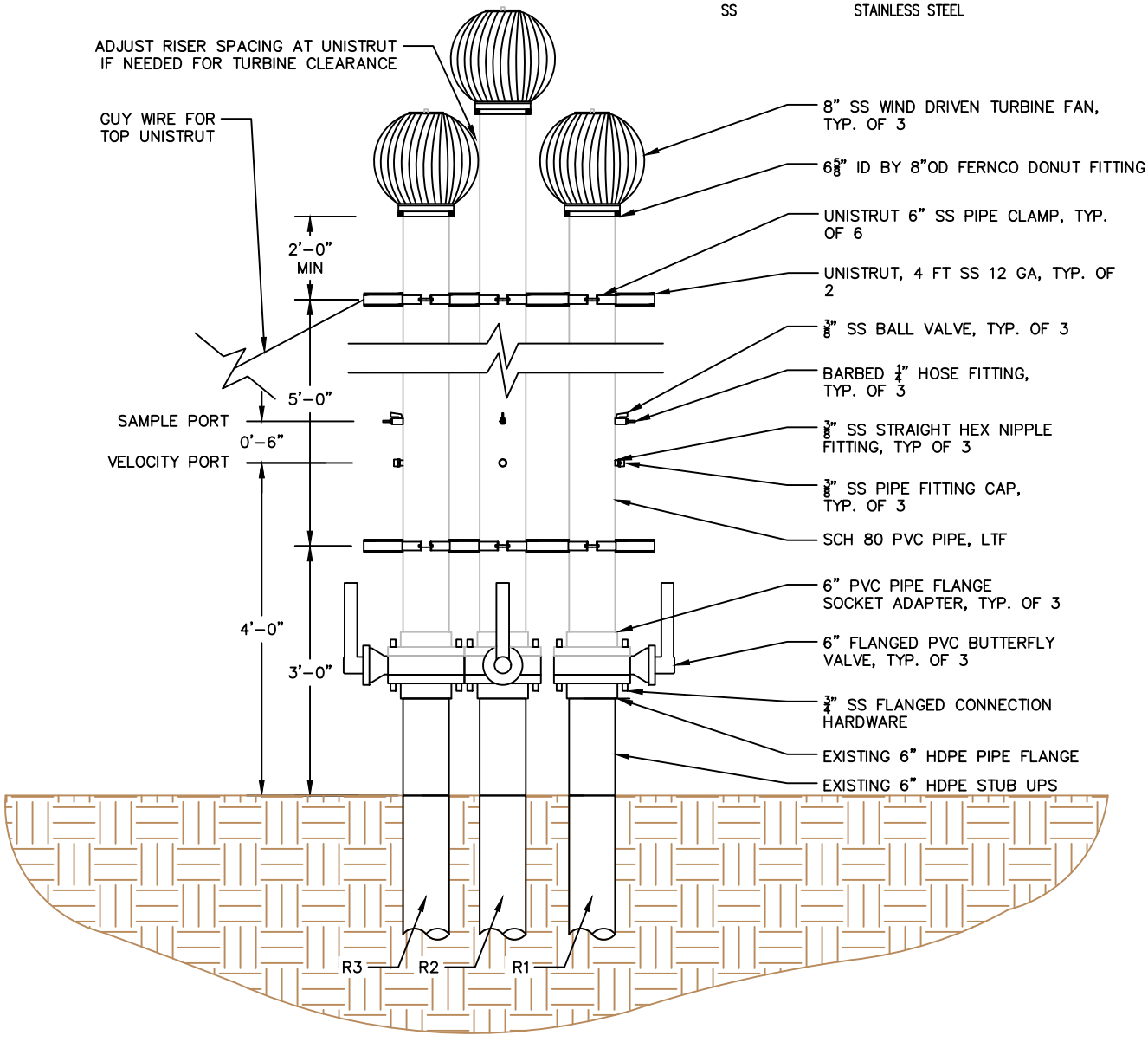
Note: Each data point was calculated by first averaging the full calendar year data for each individual sample port. The individual sample port averages for each of the three piping lines were then averaged for the year.

NOTES

1. EACH VELOCITY AND SAMPLE PORT SHALL BE INSTALLED WHERE INDICATED BY TAPPING PIPE WITH $\frac{3}{8}$" NPT THREADS AND INSTALLING A NPT SS HEX FITTING AS INDICATED IN THE DRAWING.
2. TURBINE BASES SHALL BE AT LEAST 10' ABOVE THE GROUND SURFACE BELOW. HEIGHT OF THE MIDDLE TURBINE SHALL BE AS NEEDED ABOVE 10' TO AVOID INTERFERING WITH ADJACENT TURBINES.
3. THE TOP UNISTRUT SHALL BE SECURED USING AT LEAST 3 0.25" DIA GUY WIRES, CONNECTED AS NECESSARY TO ADJACENT FENCING.
4. DIMENSIONS AND LOCATIONS OF EXISTING STUB-UPS ARE TO SCALE IN DRAWING BASED ON FIELD MEASUREMENTS.

ABBREVIATIONS

GA	GAUGE
GAL	GALVANIZED
HDPE	HIGH DENSITY POLYETHYLENE
ID	INSIDE DIAMETER
LTF	LENGTH TO FIT
DIA	DIAMETER
NPT	NATIONAL PIPE THREAD
OD	OUTSIDE DIAMETER
PVC	POLYVINYL CHLORIDE
SCH	SCHEDULE
SS	STAINLESS STEEL



LOOKING SOUTH

0 1' 2'

SCALE: 1"=2'-0"

Port of Seattle, Southwest Harbor Terminal 5
Seattle, Washington

Passive Stack Conceptual Design

AECOM

Figure **12**

ATTACHMENT 4

Semiannual Inspections of T-5 Ecology-Lead Sites

RA-1 (FORMER BURLINGTON NORTHERN BUCKLEY YARD PROPERTY), RA-2 AND RA-3 INSPECTION FORM FOR PAVEMENT AND BALLAST COVERS, SURFACE WATER COLLECTION SYSTEMS, AND SECURITY SYSTEMS

Name of Inspector: Gus Friedman (AECOM), Megan Valcq (AECOM), Lillian Celovsky (AECOM)
Date (M/D/Y): 6/28/2023, 6/29/2023
Title: Environmental Engineer
Employer: AECOM Technical Services, Inc.

FORMER RA-1 BUCKLEY YARD, RA-2 AND RA-3 PAVEMENT AND BALLAST COVERS

1. Interview site personnel. Inquire about condition of pavement and ballast covers including location(s) of any penetrations, cracks, tears, gouges, persistent ponding of water on pavement or around surface water collection system components. Inquire about condition of security fencing and security measures effectiveness. Summarize information obtained from site personnel interviews in the space below along with the name, job title, and daytime telephone number of the interviewee(s).

   This inspection was conducted on June 28 and 29, 2023. Tenant activity was limited to the Terminal 5 entrance and the BNSF railyard. Staff at the Terminal entrance informed field crew that there is little to no Terminal activity on Fridays. This will be considered when planning future inspections. Inspections were conducted in a way to avoid terminal and rail activity. Gate and access security to the terminal continues to be maintained; a guard continues to control access at the terminal entrance.

   This inspection consisted of examining cap surfaces, select drainage features, fencing, and access controls (e.g., locks), at the former Burlington Northern Buckley Yard (BNBY) property (RA-1), the former Salmon Bay Steel North property (RA-2), and RA-3. No interviews were conducted as part of this inspection. These areas are shown on the provided Map (Attachment 1).

   The chain-link security fencing surrounding the consolidated landfill was examined. Substantial vegetation growth was observed along the western edge of the fence. This did not inhibit the inspection but should be removed for future inspections. This vegetation included blackberry brambles that were spilling into the drainage area and potentially inhibiting proper storm drainage.

2. Inspect pavement and ballast covers, observable surface water collection system components, and site security measures. Identify areas which represent potential pathways for infiltration of surface water through pavement. Include exact location, the nature of the problem, and possible corrective actions. Estimate percentage of pavement with surficial cracks (cracks that do not completely penetrate pavement cover) if surficial cracking appears prevalent. If large areas of site pavement are inaccessible at the time of inspection due to container placement or site activities, identify these locations. Inspect surface water collection system catch basins and identify maintenance (clean out) or possible repair requirements. Also inspect perimeter fencing and comment on site security measures. Summarize inspection observations in spaces below.

   The pavements, ballast covers, fencing, and surface features associated with the stormwater

drainage systems were examined during this inspection.

There were approximately 49 general locations that were identified to have at least one of the following concerns: cracks wider than ¼ inch, large plant growth, holes, ponding or mounding, and significant erosion or scrapes. Examples of these concerns can be found in the Photo Log (Attachment 2) where the 49 photographs and locations are listed and categorized. Overall, there were 27 areas of cracks identified, 17 plant growth areas, 2 spots with significant erosion or scrapes, 23 holes, and 5 spots of identified ponding or mounding. The specific detail of each of these locations is given in the Photo Log.

Here is a generalized summary with examples of the areas of concern within the RAs inspected:

1. Many of the areas of concerns were concentrated along the drainage area of the consolidated landfill in RA-3. These areas of concerns were mostly holes in the asphalt, where there was heavy bramble growth, as well as large cracks. These areas should have the vegetation removed, holes and cracks sealed, and curbing repaired. Gravel or ballast can be placed along areas on some of the vegetation to inhibit growth that will cause damage to the asphalt.

2. Several areas of concern were identified due to damage done to the 3N and 4N posts in RA-1 within the Terminal area. This area can be identified at photos 2023-18, -19, and -20 on the Map. It appears that these posts were run into or bumped in a way that moved the post and created large holes and cracks in the asphalt and concrete in the area. This area is of high concern and should be addressed as soon as possible.

3. Across the Terminal part of RA-3 and RA-1, there are several areas that were identified that require cracks to be re-sealed. They were clearly sealed previously, but over time the seal has come out, exposing the crack. Examples of this include photos 2023-25, -27, and -28 in RA-1 and 2023-38 and -39 in RA-3.

4. Examples of significant erosion, abrasions and scraping can be seen in photo 2023-34 in RA-2, which show gashes made in the asphalt near the railroad tracks.

5. Several of the manholes, catch basins, and monuments had cracks forming around their concrete pads. Examples of this can be seen in photo 2023-41 located in RA-1 and photo 2023-37 located in RA-3. Both photos show cracking in the concrete around those installed structures. To maintain the integrity of these areas, it is suggested that the cracks around these structures should be reinforced and re-sealed.

6. Additional cracking in the concrete was identified in photo 2023-48 located in RA-2. This is representative of several cracks that were observed in the loading dock area. These cracks in the concrete should be cleaned and resealed to prevent further damage to the pad.

7. Areas of concern shown in photos 2023-35 and -44, where the switch pits are located,

highlight vegetation growth and the need for additional ballast placement to provide more cover and suppress the vegetation.

8. There was one area in RA-3 along the fence bordering the T-5 secured area and the BNSF boundary that should be addressed. Two large areas of subsidence were observed within the terminal fencing in an area that requires asphalt capping that has been filled with ballast The cause of the subsidence should be assessed and repaired to match the existing asphalt cap in this area. These areas can be seen in photos 2023-30, -31, and -32 in the Photo Log and on the Map.

9. In general, across RA-1, -2, and -3, there was evidence of spidering and weathered cracks in the asphalt that may not pose as an immediate concern but will be monitored in future inspections. Examples of this more general spidering cracking can be seen in photo 2023-22 in the Photo Log and the Map.

10. The BNSF area of RA-1 and -3 was inspected and it was discovered the area seemed to be well maintained with limited vegetation and sufficient ballast. The gate located on the south end of the BNSF boundary was open during inspection, so crew was able to access the property. Locks and gates to access the T-5 area were intact and crew was able to use them to gain access to other RAs.

11. The entrance to the Terminal was not inspected due to heavy Terminal activity. The entrance will be addressed in future inspections.

3. Immediately contact Port of Seattle Environmental Manager at (206) 787-3193 if any crack, tear, or hole is present in the pavement or ballast cover that provides direct contact to subsurface soils. Penetrations through the cap/covers that provide direct contact to subsurface soils require immediate repair. Minor surficial pavement cracks are to be repaired on a more routine maintenance schedule but on a schedule that prevents exacerbation of cracking to allow infiltration of surface water or direct contact with subsurface soils.

   The items 1, 2, 5, 7, and 8 from above will require the most immediate response. These areas pose direct concern and threat to the integrity of the cap. The other areas should also be addressed or at least monitored in future inspections.

RAILROAD TRACK AREA
Ballast covering ties, shoulders as designed: ___Y__
Ballast rutted or uneven, requiring regrading: ___N__
Repair Type/Location: _____

PAVEMENT AREA
Open cracks and/or ruts: None _____ Repair needed __X__
Surface Drainage (ponding): None ____ Repair needed _X___
Repair Type/Location: See Sections 1, 2, and 3 above for information on the various areas that need to be addressed.

SURFACE WATER COLLECTION

Slow drainage or ponding at catch basin: None __X__ Repair needed_____

Ponding in other areas: None __X__ Repair needed_____

Maintenance/Repair Type/Location: See Sections 2 and 3 above for information on the ponding observed in areas inspected.

SITE SECURITY

Signs, fence & gates in place Yes __X__ No, repair needed _____

Repair Type/Location: none

4. Sketch site. Attach a site sketch indicating areas inspected, locations of problem areas (prevalent surface cracking in pavement, etc.), and inaccessible areas. Include photographs of problem areas if appropriate.

A Map (Attachment 1) and Photo Log (Attachment 2) are attached showing locations and issues noted in this inspection report.

CONSOLIDATED LANDFILL COVER

1. Inspect the cover surface semi-annually to check for erosion and any areas of ponding. If erosion extends to the depth of the geotextile layer, the geotextile must be inspected for any damage (punctures, tears, bulging, etc.) and repaired in accordance with the Field Quality Control Manual. The Port's Environmental Specialist shall be notified regarding any damage or alteration to the landfill cover or surface water collection systems.

Does erosion of the cover exist in any form resulting in the potential for exposure of the underlying geotextile layer? _____ YES __X__NO

Are there areas of persistent ponding of water that result from depressions in the pavement surface or from lack of catch basin/storm drain maintenance?

___X__ YES ____NO

Note any problem areas on an attached site sketch or map and include photographs as needed.

Area of ponding observed in the landfill area is noted in the Map as 2023-15. Ponding more likely due to depressions in pavement than lack of drain maintenance but will be continuously monitored in future inspections to confirm.

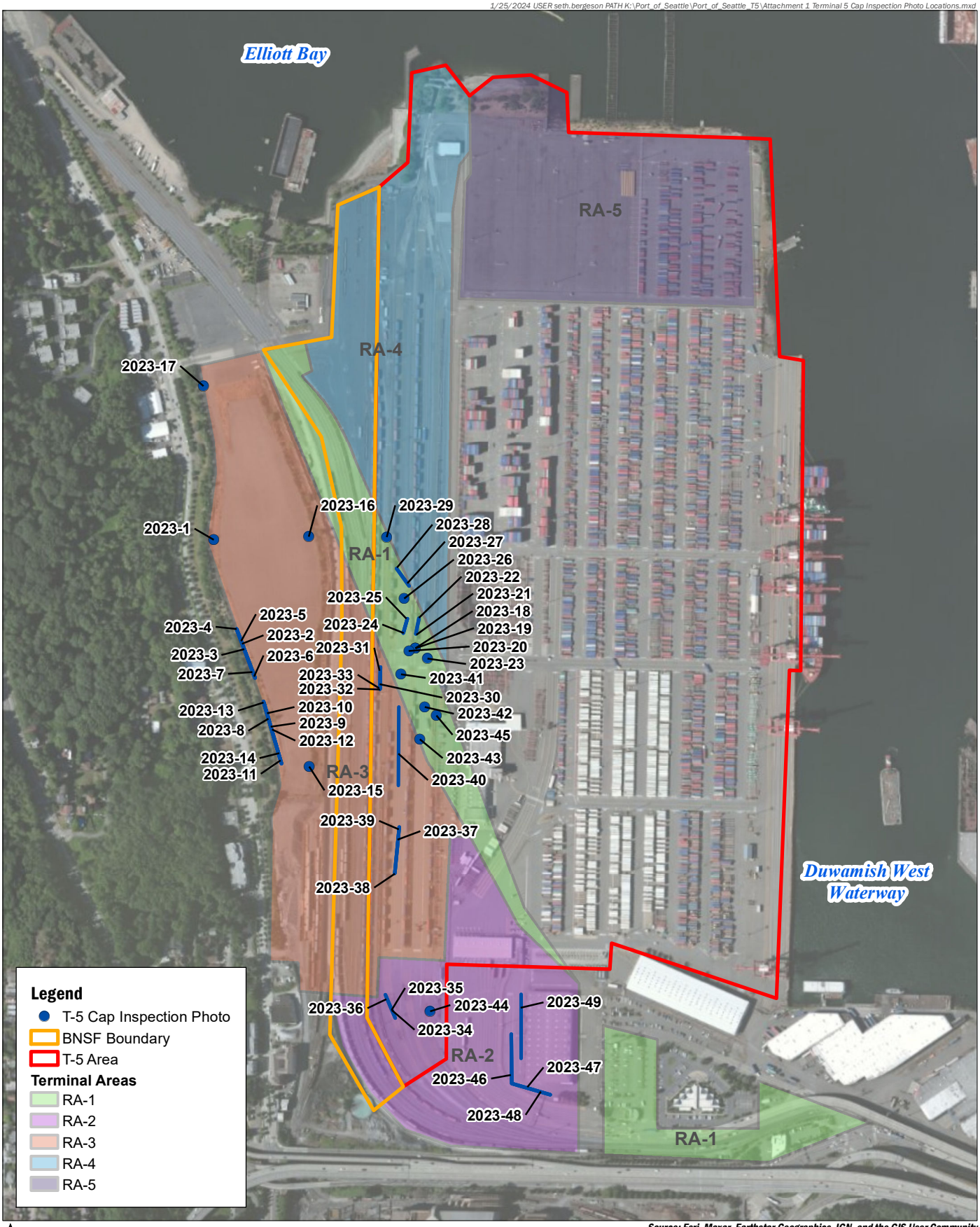
SUMMARY OF RECOMMENDATIONS

The conditions identified in this report requiring follow-up actions are listed below:

Condition Noted	Map and Photo Log Reference (Attachment 1 and 2)	Follow-Up Action Suggested
Cracks and holes in pavement with heavy vegetation growth along landfill, RA-3.	2023-1, -3, -4, -5, -6, -7, -8, -9, -10, -11, -13, -14	Remove vegetation from these locations during maintenance. Excavate erosion and fill and seal cracks and holes as needed.
Cracks wider than ¼ in with various vegetation or old sealant, RA-3.	2023-2, -12, -17, -21, -24, -25, -27, -28, -29, -32, -36, -37, -38, -39, -43	Remove vegetation and/or degrading sealant from these location during maintenance. Clean and seal cracks.
Ponding, RA-3.	2023-15, -33	Evaluate and repair based on drainage during heavy precipitation events. Check during future inspections.
Damage to Terminal posts 3N and 4N created holes and cracks in pavement, RA- 1	2023-18, -19, -20	Evaluate damage and replace damaged posts. Holes and cracks should be filled and sealed.
Significant erosion and/or scraping of pavement, RA-2	2023-34, 2023-45	Evaluate need for coat of sealant across impacted areas. Monitor during future inspections to ensure no added cracking.
Damage to structures such as well monuments, manholes, and catch basins, RA-1, -	2023-26, -37, -41, -42	Evaluate and repair damage to concrete and/or asphalt around structures.
Cracks wider than ¼ in. in concrete pad next to loading dock, RA-2	2023-48, -49	Remove any vegetation then repair concrete pavement.
Vegetation growth and thinning ballast in switch pits, RA-2	2023-35, -44	Remove large vegetation and add ballast where needed.
Large holes filled with ballast along fence line of Terminal, RA-3	2023-30, -31	Evaluate holes and assess if added ballast was by design. Potentially remove existing ballast and repair pavement.
Large areas of cracks spidering and larger than ¼ in., RA-1, -2, -3	2023-40, -46, -47	Clean and seal cracks, as needed. Layer of sealcoat necessary to cover larger areas.
Holes in pavement with cracking around, RA-1	2023-22, -23	Clean and restore pavement. Seal any cracks.

List attachments below:

Attachment 1: Terminal 5 Cap Inspection Photo Locations (Map)
Attachment 2: Terminal 5 Cap Inspection Photo Log (Photo Log)



Source: Esri, Maxar, Earthstar Geographics, IGN, and the GIS User Community

AECOM

Port of Seattle

Terminal 5 Cap Inspection

SEATTLE, WASHINGTON

Attachment 1

Terminal 5 Cap Inspection Photo Locations

SA #1 June 2023

RA-1 (FORMER BURLINGTON NORTHERN BUCKLEY YARD PROPERTY), RA-2 AND RA-3 INSPECTION FORM FOR PAVEMENT AND BALLAST COVERS, SURFACE WATER COLLECTION SYSTEMS, AND SECURITY SYSTEMS

Image Number	Image	Observations	Recommendations
2023-01		Approximately 4.5’ and 2’ long cracks >0.25” wide with vegetation.	Remove vegetation, clean, and seal cracks.
2023-02		Approximately 5.5’ long crack >0.25” wide with vegetation.	Remove vegetation, clean, and seal crack.
2023-03		Approximately 3’ long crack >0.25” wide with vegetation.	Remove vegetation, clean, and seal crack.

Image Number	Image	Observations	Recommendations
2023-04		Approximately 3.5’ long crack >0.25” wide with vegetation.	Remove vegetation, clean, and seal crack.
2023-05		Approximately 3’ long crack >0.25” wide.	Clean and seal crack.
2023-06		Approximately 7’ x 3’ hole along drainage swale with vegetation	Fill hole and restore pavement.

Image Number	Image	Observations	Recommendations
2023-07		Approximately 3’ long crack >0.25” wide with vegetation	Remove vegetation, clean, and seal crack.
2023-08		Approximately 6.5’ x 3.5’ hole with vegetation.	Fill hole and restore pavement.
2023-09		Approximately 6” x 6” hole with vegetation in drainage swale.	Remove vegetation, fill hole, and restore pavement.

Image Number	Image	Observations	Recommendations
2023-10		Approximately 5’ long crack in drainage swale with vegetation.	Remove vegetation, clean, and seal crack.
2023-11		Approximately 5’ long crack >0.25” wide with vegetation.	Remove vegetation, clean, and seal crack.
2023-12		Vegetation growing from pavement cracks.	Remove vegetation, clean, and seal cracks.

Image Number	Image	Observations	Recommendations
2023-13		Approximately 5’ x 1’ hole in pavement.	Fill hole and restore pavement and curb.
2023-14		Approximately 6’ x 2.5’ hole along drainage swale.	Fill hole and restore pavement.
2023-15		Standing water due to depression in asphalt surface.	Continue to monitor.

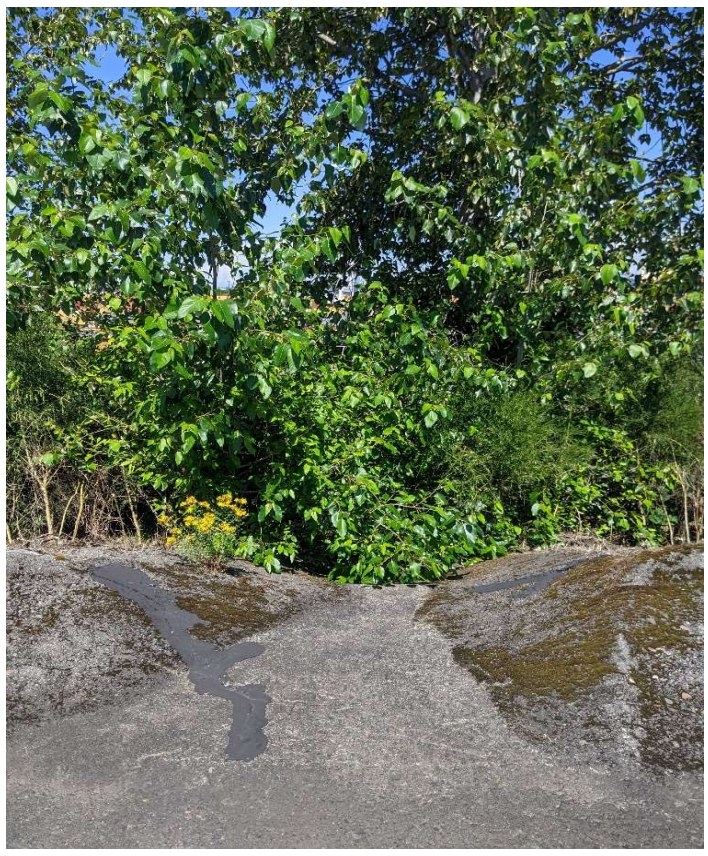
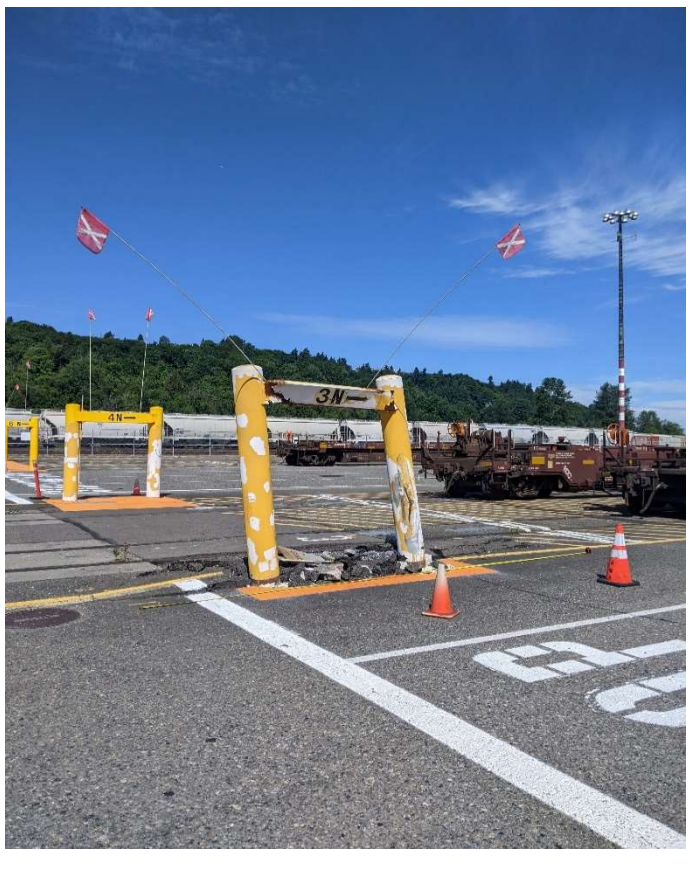
Image Number	Image	Observations	Recommendations
2023-16		Vegetation growing along edge of pavement in drainage swale.	Remove vegetation from drainage swales.
2023-17		Vegetation surrounding drain.	Remove vegetation, clean, and seal cracks.
2023-18		3N bollard damage due to vehicle strike.	Restore pavement and bollards.

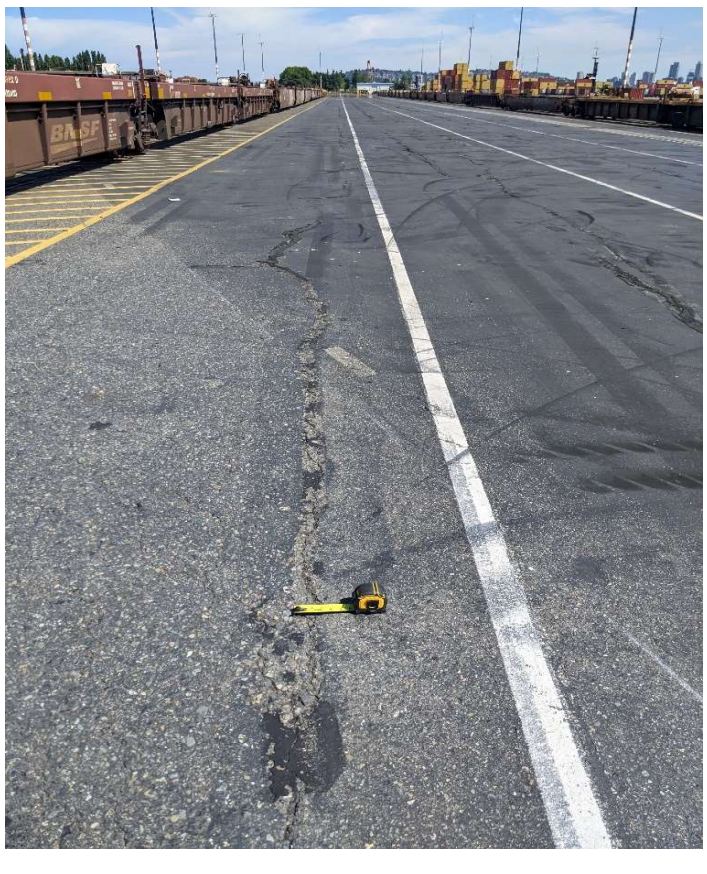
Image Number	Image	Observations	Recommendations
2023-19		3N bollard damage, approximately 8’ x 6’ of damaged pavement.	Restore pavement and bollards.
2023-20		Damage to tower 4N bollard and approximately 2’ area of cracked pavement.	Restore pavement and bollard.
2023-21		Approximately 1.5” wide crack.	Clean and reseal crack; remove and replace failing sealant as necessary.

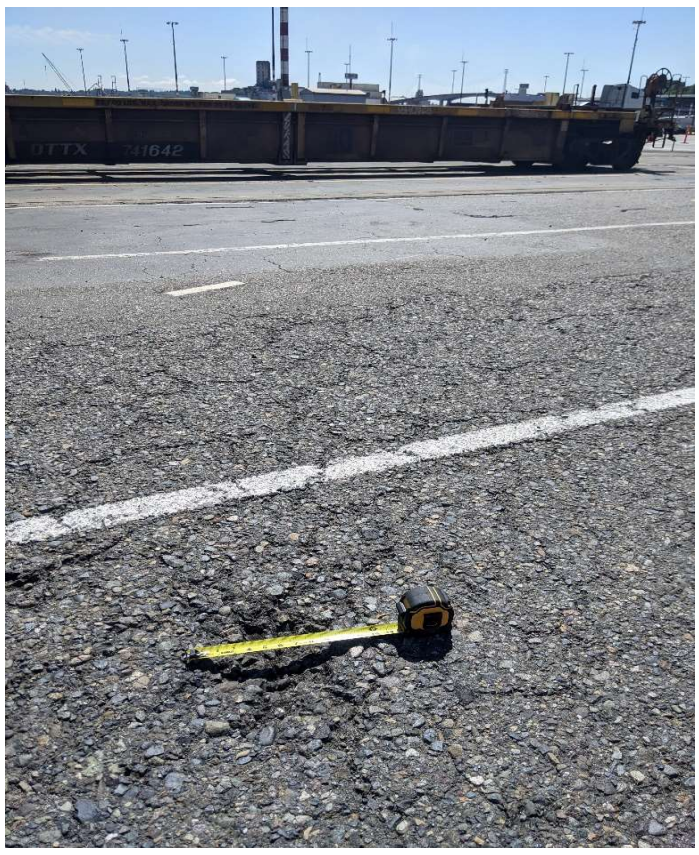
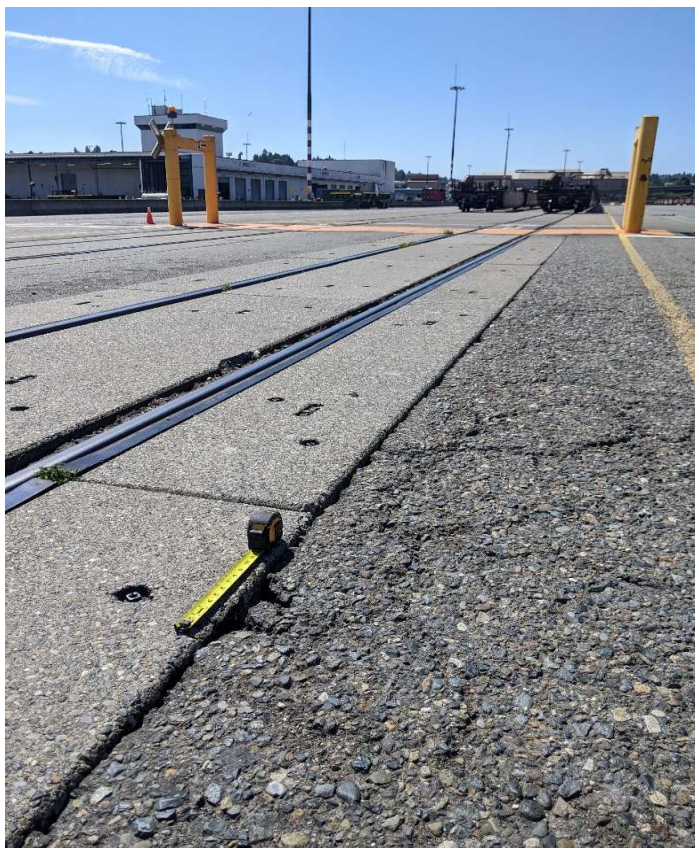
Image Number	Image	Observations	Recommendations
2023-22		Approximately 8” diameter hole, about 0.5” deep.	Fill hole and restore pavement.
2023-23		Representative hole/gap along seam of track pavement and cap, several along seam.	Fill hole/gap and restore pavement.
2023-24		Approximately 13’ long crack >0.25” wide.	Clean and seal crack.

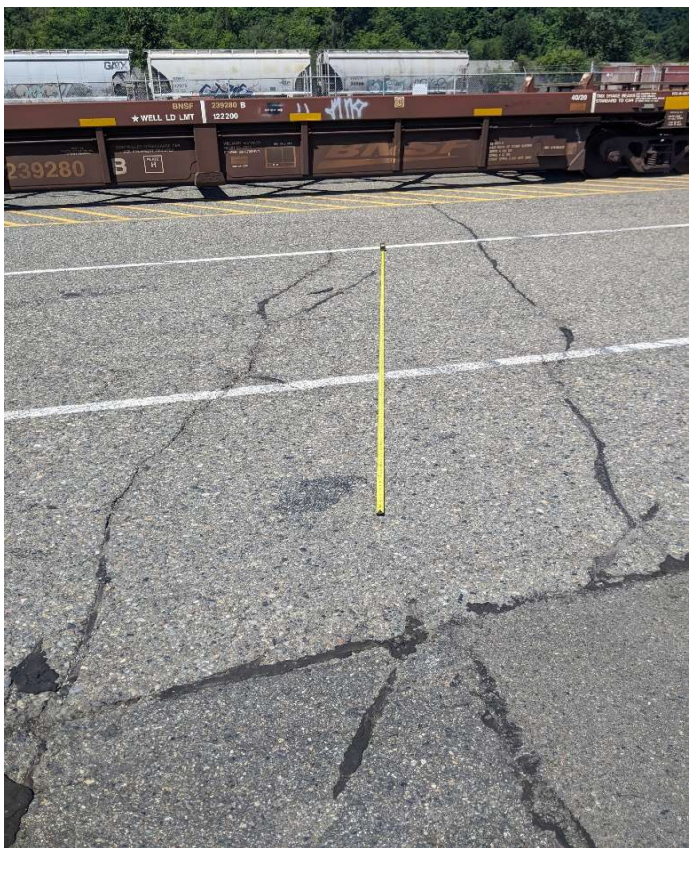
Image Number	Image	Observations	Recommendations
2023-25		Approximately 18’ long crack >0.25” wide.	Clean and reseal crack; remove and replace failing sealant as necessary.
2023-26		Cracking >0.25” wide around monument.	Clean and seal crack; restore pavement.
2023-27		Several cracks >0.25” wide.	Clean and reseal cracks; remove and replace failing sealant as necessary.

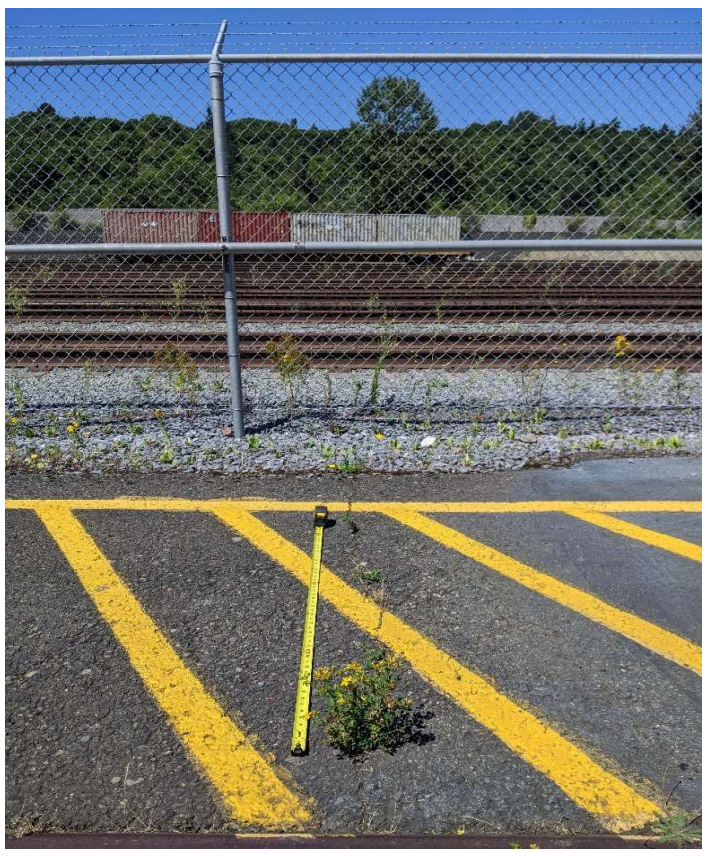
Image Number	Image	Observations	Recommendations
2023-28		Approximately 4.5’ long crack >0.25” wide.	Clean and reseal crack; remove and replace failing sealant as necessary.
2023-29		Approximately 4’ long crack >0.25” wide with vegetation.	Remove vegetation, clean, and seal crack.
2023-30		Approximately 12’ x 5’ hole filled with ballast.	Evaluate cause of setting/damage and correct; remove ballast and restore pavement.

Image Number	Image	Observations	Recommendations
2023-31		Large hole filled with ballast next to terminal fence and gate.	Evaluate cause of setting/damage and correct; remove ballast and restore pavement.
2023-32		Approximately 15’ long crack >0.25” wide.	Clean and seal crack.
2023-33		Evidence of ponding in depression near terminal fence.	Restore original grade and restore pavement.

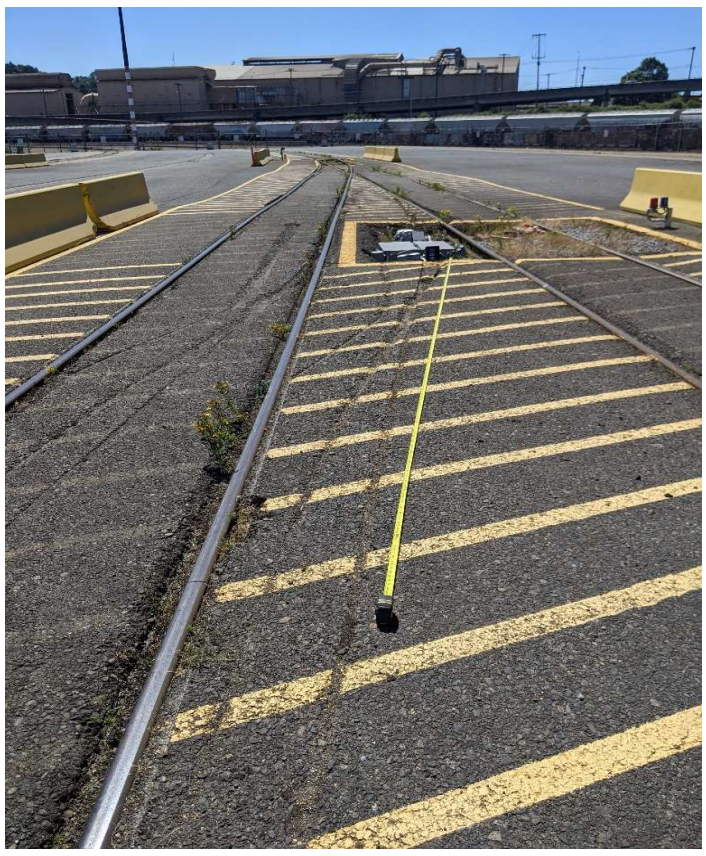
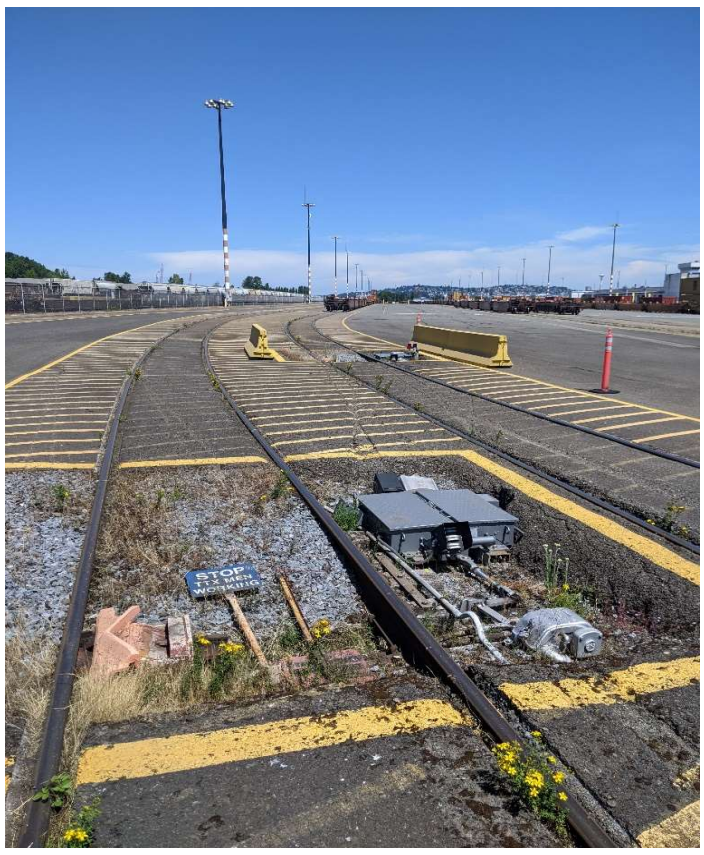
Image Number	Image	Observations	Recommendations
2023-34		Series of scrapes/abrasions along tracks, approximately 0.25-0.5” deep.	Evaluate cause of damage and address and monitor. Restore pavement.
2023-35		Representative photo of missing ballast at rail.	Replace/restore ballast cover.
2023-36		Approximately 5.5’ long crack/settlement >0.25” wide along tracks.	Evaluate cause of damage and correct; restore pavement and seal cracks.

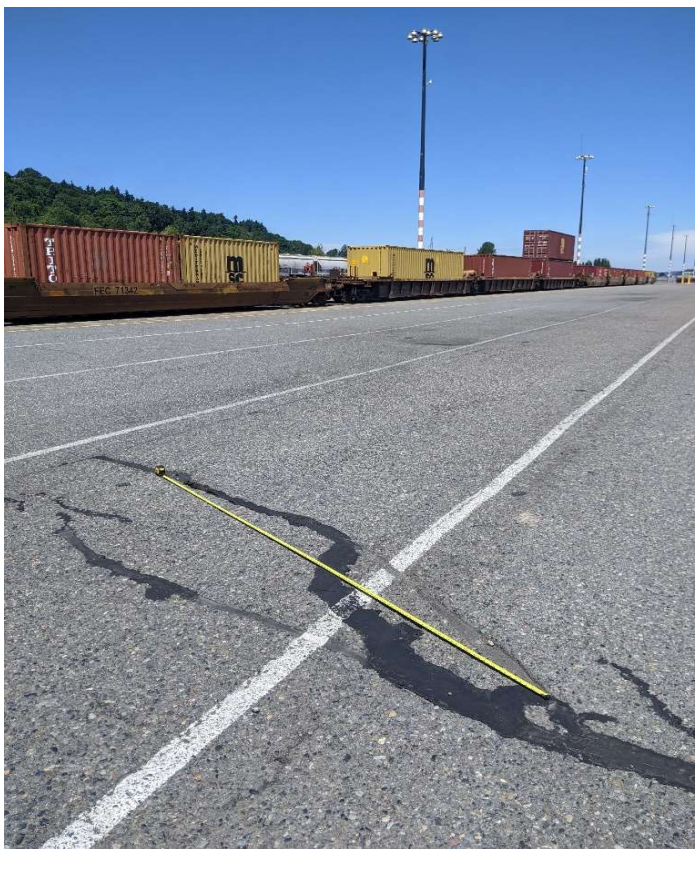
Image Number	Image	Observations	Recommendations
2023-37		Cracks >0.25” wide around monuments.	Evaluate cause of damage and address and monitor; clean and seal cracks; remove and replace failing sealant as necessary.
2023-38		Approximately 3’ long crack >0.25” wide.	Clean and reseal cracks; remove and replace failing sealant as necessary.
2023-39		Approximately 12’ long crack >0.25” wide.	Clean and reseal cracks; remove and replace failing sealant as necessary.

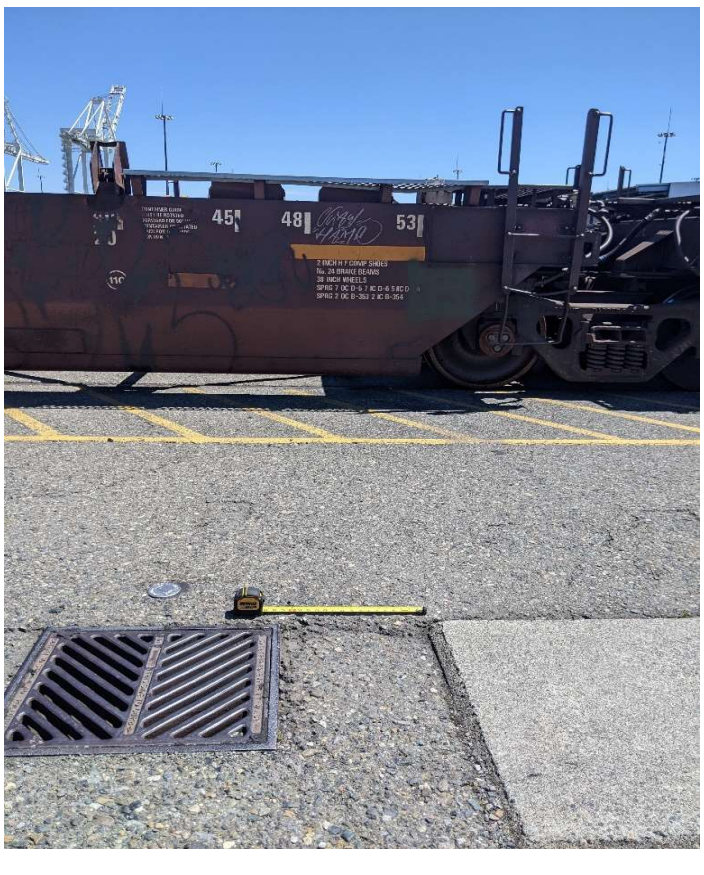
Image Number	Image	Observations	Recommendations
2023-40		Approximately 300’ long crack >0.25” wide.	Clean and seal crack.
2023-41		Erosion approximately 0.5” deep and cracks >0.25” wide around manhole cover.	Remove damaged asphalt, restore pavement, clean and seal new pavement and cracks.
2023-42		Approximately 1.5’ long, >0.25” wide crack.	Clean and seal crack.

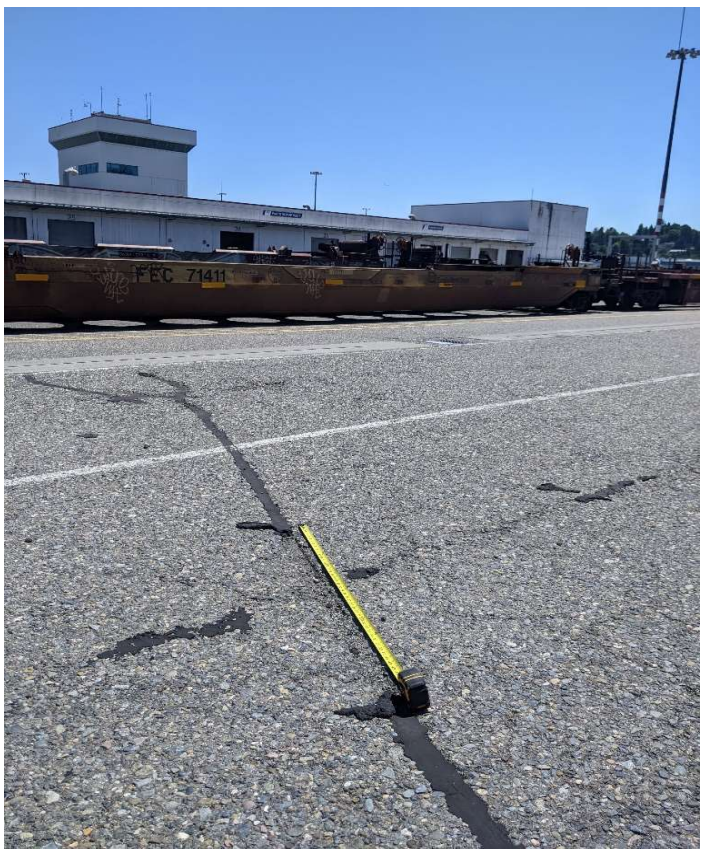
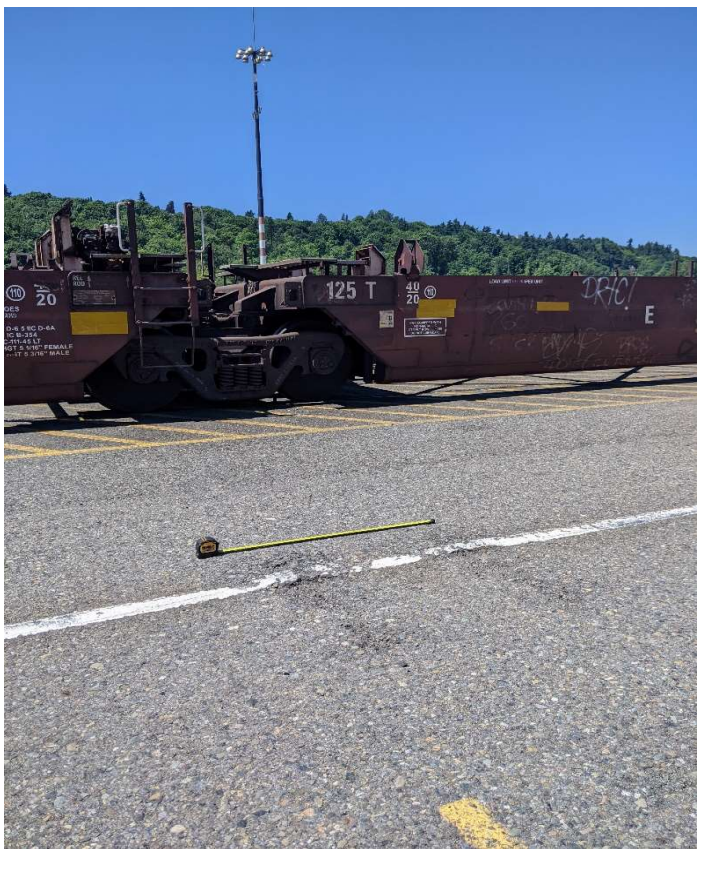
Image Number	Image	Observations	Recommendations
2023-43		Approximately 3.5’ long crack >0.25” wide.	Clean and reseal cracks; remove and replace failing sealant as necessary.
2023-44		Ballast missing at track switch area.	Replace/restore ballast cover.
2023-45		Pavement mounding with >0.25” wide cracks. Scrapes in pavement clearly eroded.	Evaluate cause of damage and address and monitor; remove highpoint with planer, clean and seal surface and cracks; check during future inspections.

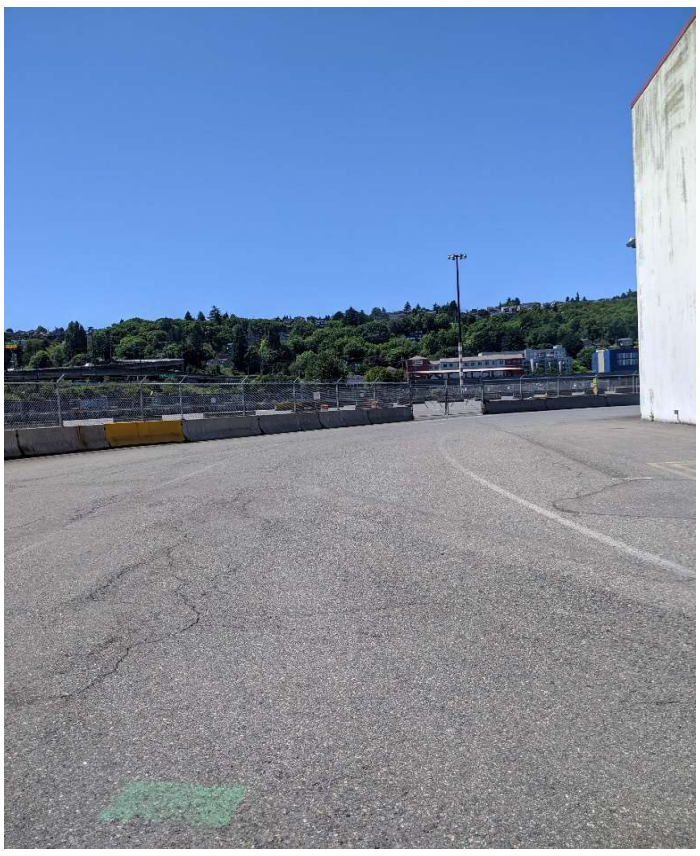
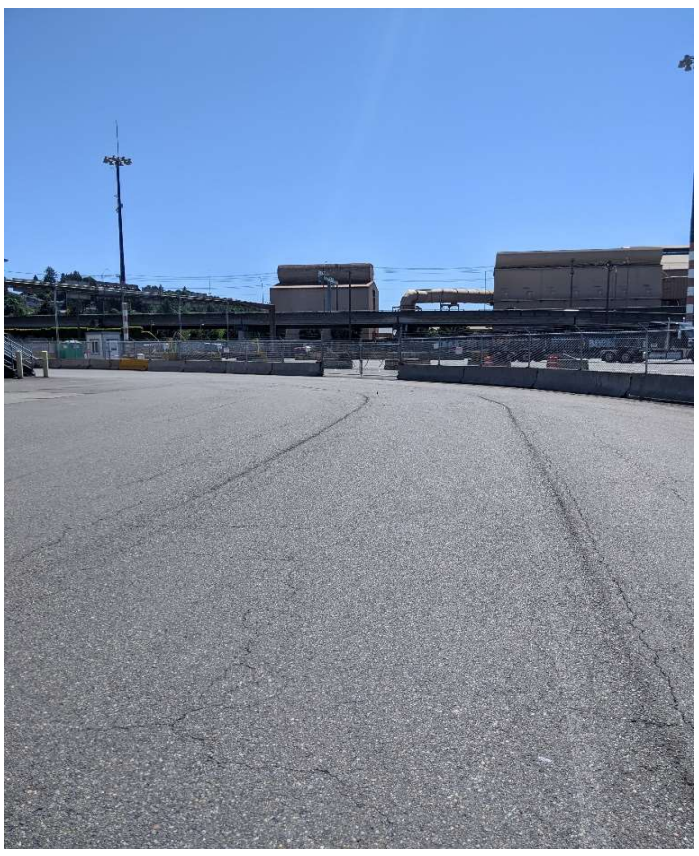
Image Number	Image	Observations	Recommendations
2023-46		Series of cracks and grooves >0.25” wide.	Clean and seal cracks and grooves.
2023-47		Series of cracks and grooves >0.25” wide.	Clean and seal cracks and grooves.
2023-48		Approximately 8’ long crack >0.25” wide in concrete pad.	Clean and seal crack.

Image Number	Image	Observations	Recommendations
2023-49		Vegetation growth along seam in approximately 10’ long crack >0.25” wide.	Remove vegetation, clean, and seal crack.

Port of Seattle: Terminal 5 Cap Inspection Report

RA-1 (FORMER BURLINGTON NORTHERN BUCKLEY YARD PROPERTY), RA-2 AND RA-3 INSPECTION FORM FOR PAVEMENT AND BALLAST COVERS, SURFACE WATER COLLECTION SYSTEMS, AND SECURITY SYSTEMS

Name of Inspector: Lillian Celovsky (AECOM), Megan Valcq (AECOM), Emily Richardson (AECOM), and Carson Malm (AECOM)
Date (D/M/Y): 11/29/2023, 11/30/2023 and 12/8/2023
Title: Environmental Engineers / Geologist
Employer: AECOM Technical Services, Inc.

1. Inquire about condition of pavement and ballast covers including location(s) of any penetrations, cracks, tears, gouges, persistent ponding of water on pavement or around surface water collection system components. Inquire about condition of security fencing and security measures effectiveness. A summary of findings is described below, including location, nature of the problem, and possible corrective actions.

The inspection was conducted on November 29-30 and December 8, 2023. Tenant activity was limited to the Terminal 5 entrance and the BNSF railyard. Inspections were conducted in a way to avoid terminal and rail activity. Gate and access security to the terminal continues to be maintained; a guard continues to control access at the terminal entrance.

This inspection consisted of examining cap surfaces, select drainage features, fencing, and access controls (e.g., locks), at the former Burlington Northern Buckley Yard (BNBY) property (RA-1), the former Salmon Bay Steel North property (RA-2), and RA-3 as well as a drive-through of the BNSF railyard. The inspection was focused on previously identified issues as well as any new damage found in RA-1, RA-2, and RA-3. Interviews were not conducted as part of this inspection, with the exception of at the BNSF railyard where one employee was available but said they were not at the railyard often enough to point out potential issues. Inspection areas are depicted in the Site Map (Attachment 1).

Some of the rails were in operation at the BNSF railyard during the inspection so observations were limited to what could be seen from driving the area. No major issues or damage were noted by AECOM or the interviewed employee.

2. Inspect pavement and ballast covers, observable surface water collection system components, and site security measures. Identify areas which represent potential pathways for infiltration of surface water through pavement. Include exact location, the nature of the problem, and possible corrective actions. Estimate percentage of pavement with surficial cracks (cracks that do not completely penetrate pavement cover) if surficial cracking appears prevalent. If large areas of site pavement are inaccessible at the time of inspection due to container placement or site activities, identify these locations. Inspect surface water collection system catch basins and identify maintenance (clean out) or possible repair requirements. Also inspect perimeter fencing and comment on site security measures. A summary of findings is described below, including location, nature of the problem, and possible corrective actions.

The pavement, ballast covers, fencing, and surface features associated with the stormwater drainage

systems were examined during this inspection.

There were approximately 80 general locations that were identified to have at least one of the following concerns: damaged fencing, cracks wider than ¼ inch, large plant growth, holes, ponding or mounding, and significant erosion or scrapes. Examples of these concerns can be found in the Photo Log (Attachment 2) where the 80 photographs and locations are listed and categorized. Overall, there were 36 cracks identified, 22 plant growth areas, 3 spots with significant erosion or scrapes, 34 holes, and 7 spots of identified ponding. The specific details for each of these locations are given in the Photo Log.

Here is a generalized summary with examples of the areas of concern within the RAs inspected:

1) A hole was observed in the fence along the landfill area in RA-3 and should be repaired as soon as possible. The Port was notified of this issue on December 8, 2023. Damage can be seen in photo 2023-58.

2) During the August 2023 inspection, many of the areas of concerns were concentrated along the drainage area of the consolidated landfill in RA-3. These areas of concern were mostly holes in the asphalt where there was heavy blackberry bramble growth, as well as large asphalt cracks, as seen in photos 2023-8, -9, and -10. These areas were revisited during this inspection and found to be in the same condition. These areas should have the vegetation removed, holes and cracks sealed, and curbing repaired. Gravel or ballast can be placed along areas on some of the vegetation to inhibit growth that will cause damage to the asphalt.

3) Cracks identified during the August 2023 inspection across the terminal part of RA-3 and RA-1 were revisited and are still present. These identified areas require cracks to be re-sealed. They were clearly sealed previously but over time the seal has come out, exposing the crack. Examples of this include photos 2023-25, -27, and -28 in RA-1, and 2023-38 and -39 in RA-3.

4) New cracks wider than ¼ inch wide were observed across the site. Photos 2023-59 at RA-1 and 2023-63 at RA-3 are representative of the cracking. Cracks should be sealed to prevent further damage to the cap.

5) Holes up to 2 inches deep were observed across RA -1 and RA-3. Representative holes can be seen in photos 2023-65, -71, and -77. Holes should be filled and sealed to prevent further damage to the cap.

6) Several areas of concerns were identified related to damage done to the 3N and 4N posts in RA-1, within the T-5 area. This area was identified in the August 2023 inspection and the damage was reobserved during this event. The area can be identified at photos 2023-18, -19, and -20 on the Map. It appears that these posts were run into or bumped in a way that moved the post and created large holes and cracks in the asphalt and concrete in the area. This area remains a high concern and should be addressed as soon as possible.

7) There was one area in RA-3 along the fence bordering T-5 and the BNSF boundary, noted in the August 2023 inspection, that should be addressed. It appears that two large holes in the asphalt were filled with ballast. It should be reviewed if this was intentional or something that should be

repaved to protect the cap. These holes can be seen in photos 2023-30 and -31 in the Photo Log and the Map.

8) Cracks and depressions were observed in RA-1 as seen in photo 2023-63. Depressions appear to be from shipping containers being placed on the cap. These depressions do not represent an issue as-is but should be monitored in future inspections to ensure the quality of the cap remains intact.

9) Examples of significant erosion, abrasions and scraping can be seen in photo 2023-66 in RA-1 which shows a series of holes in the asphalt. Another example that represents the abrasions on the cap includes photo 2023-34 in RA-2. Holes and scrapes should be filled and sealed while erosion should continue to be monitored for further deterioration.

10) Several of the manholes, catch basins, and monuments had cracks forming in surrounding concrete pads and asphalt, as noted in the August 2023 inspection. Examples of this can be seen in photo 2023-26 located in RA-1 and photos 2023-37 and -41 located in RA-3. Additionally, a newer occurrence of this is seen in photo 72 in RA-3. To maintain the integrity of these areas, it is suggested that the cracks around these structures be reinforced and resealed.

11) Mounding and ponding were observed in RAs-1, -2 and -3. Photos 2023-52, -76, -77, and -78 are representative of the areas. These areas should be monitored for ponding and potential leaks into the cap during future inspections.

12) Pavement was observed to be cracking along the rail, including some holes and vegetation in the area. Photo 2023-80 in RA-2 and photo 2023-75 in RA-3 show the damage. Cracks and holes should be filled and sealed to prevent damage to the rails.

13) In general, across RA-1, -2, and -3 there was evidence of spidering and weathered cracks in the asphalt that may not pose as an immediate concern, but will be monitored through future inspections. Examples of this more general spidering cracking can be seen in photo 2023-67 in the Photo Log and the Map. A coat of sealant over these large areas of cracks could help provide some protection and prevent further cracking in these areas.

3. Immediately contact Port of Seattle Environmental Manager at (206) 787-3193 if any crack, tear, or hole is present in the pavement or ballast cover that provides direct contact to subsurface soils. Penetrations through the cap/covers that provide direct contact to subsurface soils require immediate repair. Minor surficial pavement cracks are to be repaired on a more routine maintenance schedule but on a schedule that prevents exacerbation of cracking to allow infiltration of surface water or direct contact with subsurface soils.

The items 1, 2, 6, 7, and 12 from above will require the most immediate response. These areas pose direct concern and threat to the integrity of the cap. The other areas should also be addressed or monitored in future inspections.

RAILROAD TRACK AREA

Ballast covering ties, shoulders as designed: ___Y__
Ballast rutted or uneven, requiring regrading: ___N__
Repair Type/Location: _____

PAVEMENT AREA
Open cracks and/or ruts: None _____ Repair needed __X__
Surface Drainage (ponding): None ____ Repair needed __X__
Repair Type/Location: See Sections 1, 2, and 3 for information

SURFACE WATER COLLECTION
Slow drainage or ponding at catch basin: None ____ Repair needed__X___
Ponding in other areas: None ____ Repair needed__X___
Maintenance/Repair Type/Location: Vegetation growth in drainage swale of the consolidated landfill should be removed to aid with stormwater drainage. Other areas of ponding will be monitored in future inspections.

SITE SECURITY
Signs, fence & gates in place Yes __X___ No, repair needed _____
Repair Type/Location

4. Sketch site. Attach a site sketch indicating areas inspected, locations of problem areas (prevalent surface cracking in pavement, etc.), and inaccessible areas. Include photographs of problem areas if appropriate.

A map (Attachment 1) and photos (Attachment 2) are attached showing locations and issues noted in this inspection report.

CONSOLIDATED LANDFILL COVER

1. Inspect the cover surface semi-annually to check for erosion and any areas of ponding. If erosion extends to the depth of the geotextile layer, the geotextile must be inspected for any damage (punctures, tears, bulging, etc.) and repaired in accordance with the Field Quality Control Manual. The Port's Environmental Specialist shall be notified regarding any damage or alteration to the landfill cover or surface water collection systems.

Does erosion of the cover exist in any form resulting in the potential for exposure of the underlying geotextile layer? _____ YES __X__NO

No major erosion was observed during this inspection. Holes and cracks around eroding areas should be addressed and monitored in future inspections.

Are there areas of persistent ponding of water that result from depressions in the pavement surface or from lack of catch basin/storm drain maintenance?
__X___ YES ____NO
Note any problem areas on an attached site sketch or map and include photographs as needed.

Ponding was observed in multiple areas across RAs-1, -2, and -3 (as noted in section 2). These areas will continue to be monitored to ensure there are no leaks through the cap.

SUMMARY OF RECOMMENDATIONS

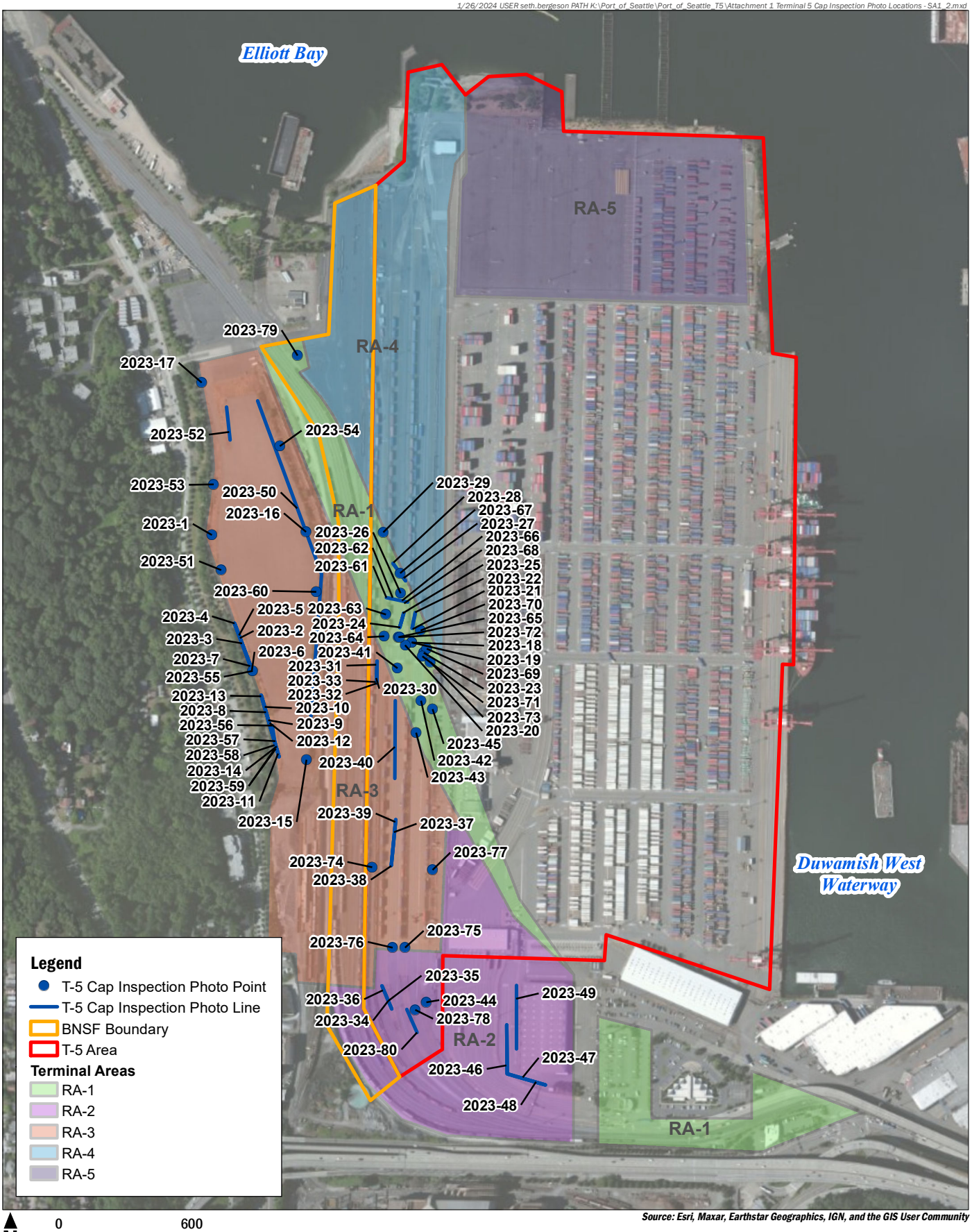
The conditions identified in this report requiring follow-up actions are listed below:

Condition Noted	Map (Attachment 1) reference	Recommendation
Hole in fence	2023-58	Repair fence as soon as possible.
Damaged posts	2023-18, -19, and -20	Replace/repair posts and fill and seal asphalt.
Unsealed asphalt	2023-21, -24, -25, -27, -28, -32, -38, -39, -40, and -43	Reseal cracks and monitor during future inspections.
Cracking around drainage features/monuments	2023-17, -26, -37, -41, -42, -54, -55, and -72	Fill and seal cracks.
Vegetation growth	2023-01, -02, -03, -04, -06, -07, -08, -09, -10, -11, -12, -16, -17, -29, -49, -50, -51, and -54,	Remove vegetation from these locations during maintenance. Fill and seal holes.
Ponding of water and/or mounding	2023-15, -33, -40, -52, -53, -76, -78, and -79	Monitor during future inspections.
Elongated pavement cracks wider than ¼ in., RA-2 and RA-3	2023-02, -03, -04, -05, -07, -10, -11, -12, -29, -36, -45, -46, -47, -48, -49, -57, -59, -62, -63, -64, -67, -68, -74, -75, and -80	Clean and seal cracks where needed. Check during future inspections
Holes in asphalt and along the rail	2023-06, -08, -09, -13, -14, -22, -23, -30, -31, -36, -55, -56, -57, -61, -65, -69, -70, -71, -73, -75, -77, and -80	Fill and seal holes. Monitor during future inspections.
Abrasions/erosion	2023-34, -54, -60, -64, -66, -69, -71, and -75	Repair asphalt and monitor during future inspections.
Missing ballast at rail	2023-35 and -44	Add ballasts to railway areas.

List attachments:

Attachment 1. Site Map

Attachment 2. Photo log



Source: Esri, Maxar, Earthstar Geographics, IGN, and the GIS User Community

AECOM

Port of Seattle

Terminal 5 Cap Inspection

SEATTLE, WASHINGTON

Attachment 1

Terminal 5 Cap Inspection Photo Locations

SA #1 & 2

RA-1 (FORMER BURLINGTON NORTHERN BUCKLEY YARD PROPERTY), RA-2 AND RA-3 INSPECTION FORM FOR PAVEMENT AND BALLAST COVERS, SURFACE WATER COLLECTION SYSTEMS, AND SECURITY SYSTEMS

Table 1: Updated observations from the First Semi-Annual 2023 Inspection

Image Number	Image	Observations	Recommendations
2023-01		Approximately 4.5’ and 2’ long cracks >0.5” wide with vegetation.	Remove vegetation, clean, and seal cracks.
2023-02		Approximately 5.5’ long crack >0.5” wide with vegetation.	Remove vegetation, clean, and seal crack.
2023-03		Approximately 3’ long crack >0.5” wide with vegetation. Approximately 3.7’ x 2.5’ hole, 2” deep.	Remove vegetation, clean, and seal crack.

Image Number	Image	Observations	Recommendations
2023-04		Approximately 3.5’ long crack >0.5” wide with vegetation.	Remove vegetation, clean, and seal crack.
2023-05		Approximately 3’ long crack >1” wide.	Clean and seal crack.
2023-06		Approximately 7’ x 3’ hole along drainage swale with vegetation	Fill hole and restore pavement.

Image Number	Image	Observations	Recommendations
2023-07		Approximately 3’ long crack >0.5” wide with vegetation	Remove vegetation, clean, and seal crack.
2023-08		Approximately 9’ x 5.6’ hole with vegetation.	Fill hole and restore pavement.
2023-09		Approximately 6” x 9” hole with vegetation in drainage swale. New observation: approximately 2.5’ x 1.4’ hole with vegetation in drainage swale.	Remove vegetation, fill hole, and restore pavement.

Image Number	Image	Observations	Recommendations
2023-10		Approximately 5’ long crack in drainage swale with vegetation.	Remove vegetation, clean, and seal crack
2023-11		Approximately 5’ long crack >0.5” wide with vegetation. New observation: Approximately 2.5’ x 1.4’ hole.	Remove vegetation, clean, and seal crack. Remove vegetation, fill hole, and restore pavement.
2023-12		Vegetation growing from pavement crack 4.6’ x 0.25”.	Remove vegetation, clean, and seal cracks.

Image Number	Image	Observations	Recommendations
2023-13		Approximately 5’ x 1’ hole in pavement.	Fill hole and restore pavement and curb.
2023-14		Observation: approximately 6’ x 2.5’ hole along drainage swale.	Remove vegetation, fill hole, and restore pavement.
2023-15		Evidence of settled sediment due to depression and previously collected water in asphalt surface.	Continue to monitor.

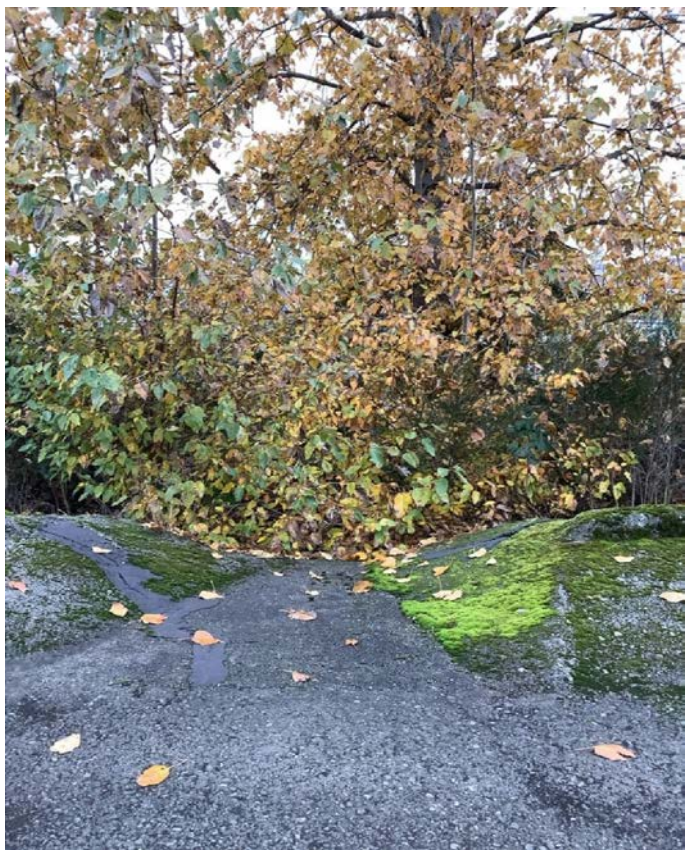
Image Number	Image	Observations	Recommendations
2023-16		Large tree and vegetation growing along edge of pavement in drainage swale.	Remove vegetation from drainage swales.
2023-17		Previous vegetation surrounding drain. Cracks visible around drain.	Remove vegetation, clean, and seal cracks.
2023-18		3N bollard damage due to vehicle strike. Concrete foundation and asphalt exposed.	Restore pavement and bollards.

Image Number	Image	Observations	Recommendations
2023-19		3N bollard damage, approximately 8’ x 6’ of damaged pavement.	Restore pavement and bollards.
2023-20		Damage to tower 4N bollard and approximately 2’ area of cracked pavement.	Restore pavement and bollard.
2023-21		Approximately 14’ x 1.5” crack.	Clean and reseal crack; remove and replace failing sealant as necessary.

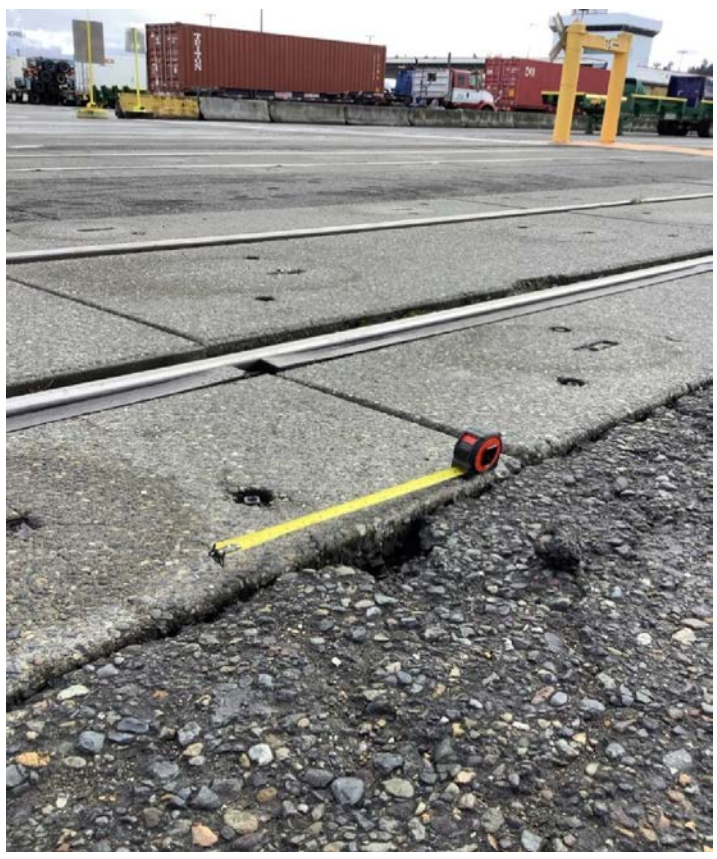
Image Number	Image	Observations	Recommendations
2023-22		Observation: approximately 8” diameter hole, about 0.75-1” deep.	Fill hole and restore pavement.
2023-23		Representative hole/gap along seam of track pavement and cap, several along seam.	Fill hole/gap and restore pavement.
2023-24		Approximately 14’ long crack >0.25” wide with erosion extending longer.	Clean and seal crack.

Image Number	Image	Observations	Recommendations
2023-25		Approximately 23’ long crack >0.25” wide.	Clean and reseal crack; remove and replace failing sealant as necessary.
2023-26		Cracking >0.25” wide around monument.	Clean and seal crack; restore pavement.
2023-27		Several cracks >0.25” wide.	Clean and reseal cracks; remove and replace failing sealant as necessary.

Image Number	Image	Observations	Recommendations
2023-28		Approximately 4.5’ long crack >0.5” wide.	Clean and reseal crack; remove and replace failing sealant as necessary.
2023-29		Approximately 4’ long crack >0.25” wide with vegetation.	Remove vegetation, clean, and seal crack.
2023-30		Approximately 12’ x 5’ hole filled with ballast.	Evaluate cause of setting/damage and correct; remove ballast and restore pavement.

Image Number	Image	Observations	Recommendations
2023-31		Large hole filled with ballast next to terminal fence and gate.	Evaluate cause of setting/damage and correct; remove ballast and restore pavement.
2023-32		Approximately 30’ long crack 0.5 - 1” wide between the two ballast patches.	Clean and seal crack.
2023-33		Evidence of ponding in depression near terminal fence.	Restore original grade and restore pavement.

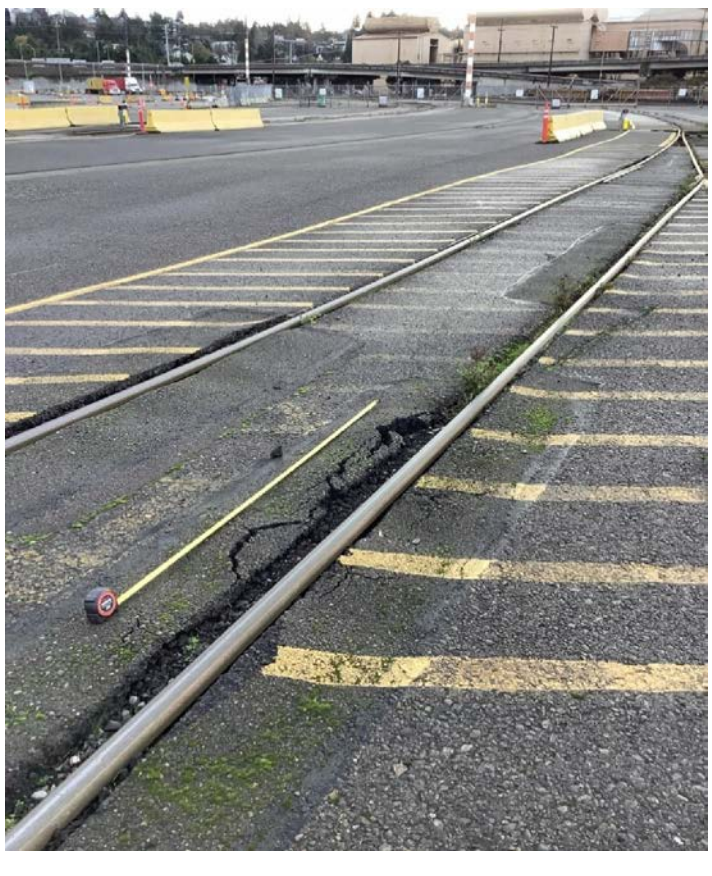
Image Number	Image	Observations	Recommendations
2023-34		Series of scrapes/abrasions along tracks, approximately 0.5 - 1” deep.	Evaluate cause of damage and address and monitor. Restore pavement.
2023-235		Representative photo of missing ballast at rail.	Replace/restore ballast cover.
2023-36		Approximately 5.5’ long crack/settlement 1 - 2” wide along tracks. Chunks of pavement starting to break off.	Evaluate cause of damage and correct; restore pavement and seal cracks.

Image Number	Image	Observations	Recommendations
2023-37		Cracks >0.5 - 1” wide around monuments.	Evaluate cause of damage and address and monitor; clean and seal cracks; remove and replace failing sealant as necessary.
2023-38		Approximately 3’ long crack >0.25” wide.	Clean and reseal cracks; remove and replace failing sealant as necessary.
2023-39		Approximately 12’ long crack >0.25” wide.	Clean and reseal cracks; remove and replace failing sealant as necessary.

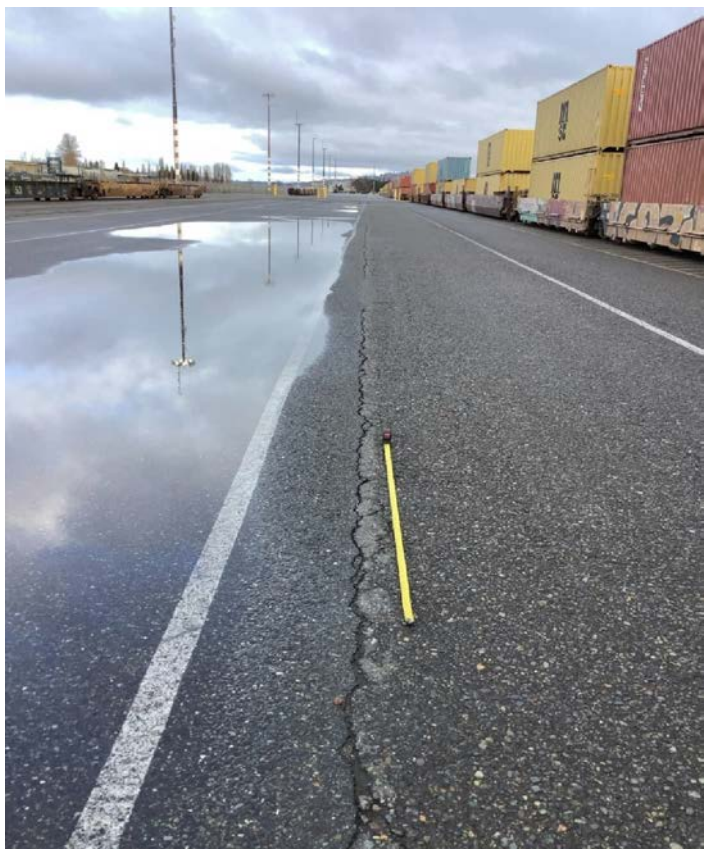
Image Number	Image	Observations	Recommendations
2023-40		Approximately 300’ long crack >0.5” wide. Clear ponding with standing water along crack.	Clean and seal crack.
2023-41		Erosion approximately 2” deep and cracks >0.5” wide with a 3’ x 0.6’ hole around manhole cover.	Remove damaged asphalt, restore pavement, clean and seal new pavement and cracks.
2023-42		Approximately 1.5’ long, >1” wide crack. Pavement angles down towards concrete next to drain.	Clean and seal crack.

Image Number	Image	Observations	Recommendations
2023-43		Approximately 3.5’ long crack >0.25” wide.	Clean and reseal cracks; remove and replace failing sealant as necessary.
2023-44		Ballast missing at track switch area.	Replace/restore ballast cover.
2023-45		Pavement mounding with >0.5” wide cracks. Scrapes in pavement clearly eroded.	Evaluate cause of damage and address and monitor; remove highpoint with planer, clean and seal surface and cracks; check during future inspections.

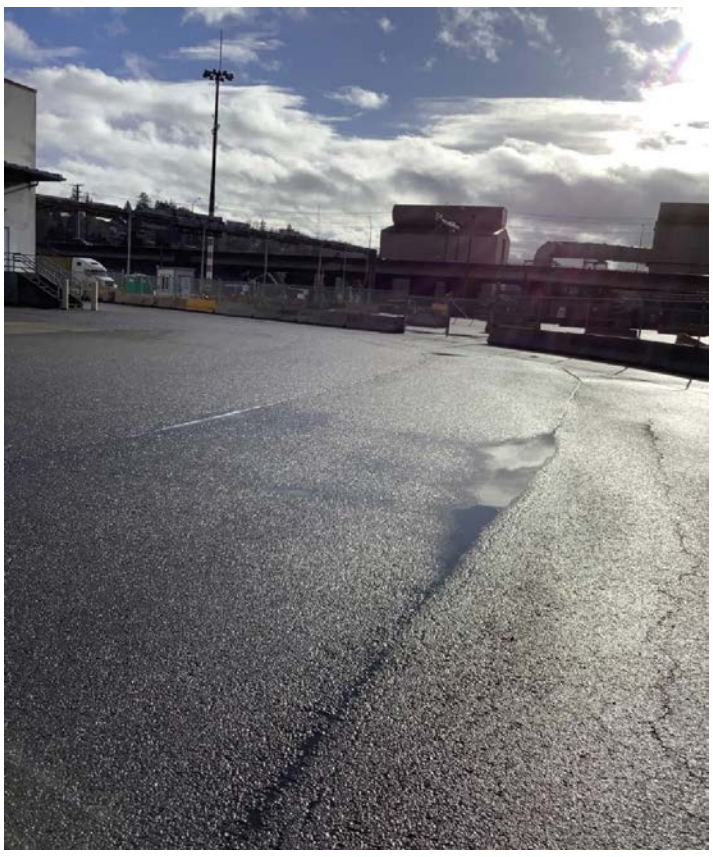
Image Number	Image	Observations	Recommendations
2023-46		Series of cracks and grooves >0.25” wide.	Clean and seal cracks and grooves.
2023-47		Series of cracks and grooves >0.25” wide.	Clean and seal cracks and grooves.
2023-48		Observation: approximately 8’ long crack 1 - 2.5” wide in concrete pad.	Clean and seal crack.

Image Number	Image	Observations	Recommendations
2023-49		Vegetation growth along seam in approximately 10’ long crack > ¼” wide. Larger vegetation growing along the ramp.	Remove vegetation, clean, and seal crack.

Table 2: New observation points from the Second Semi-Annual 2023 Inspection

Image Number	Image	Observation	Recommendation
2023-50		Several large trees and vegetation growing within the drainage area along landfill pavement. Roots may impact geomembrane.	Assess risk of vegetation and remove accordingly.
2023-51		Large butterfly bush growing in the pavement along curbing of landfill.	Remove vegetation and patch any damage to asphalt/pavement.
2023-52		Standing water and sediment buildup suggesting ponding in area.	Continue to monitor.

Image Number	Image	Observation	Recommendation
2023-53		Standing water and collected sediment suggesting ponding and depression in pavement along drainage.	Continue to monitor.
2023-54		13” long, 0.5” wide crack with some vegetation and erosion in the drainage area.	Clean crack and remove vegetation. Seal crack and restore eroded pavement.
2023-55		5.0’ long, 1-2” wide crack with a 1.3’ x 0.7’ hole.	Clean and seal crack, fill hole, and restore pavement.

Image Number	Image	Observation	Recommendation
2023-56		Two holes with dimensions, 1.4’ x 1.1’ and 2’ x 1.5’. Both about 1” deep.	Fill holes and restore pavement.
2023-57		5.1’ long crack with a 0.4’ x 0.5’ hole, 0.5” deep. Another 4’ x 1.3’ hole 1” deep forming on side of drainage.	Clean and fill crack and holes.
2023-58		Hole cut in fence. Port was notified December 8, 2023.	Patch hole and secure fence.

Image Number	Image	Observation	Recommendation
2023-59		Two cracks, one 7’ long and 0.5-1.0” wide crack and one 1.8’ long and 0.5” wide crack.	Clean and seal cracks.
2023-60		14’ long deeply eroded and scraped area in drainage ditch.	Continue to monitor.
2023-61		1.3’ x 0.5’ eroded hole.	Fill hole and restore pavement.

Image Number	Image	Observation	Recommendation
2023-62		4’ long crack, >0.5” wide. Cracking around depression in pavement and valve monument.	Clean and fill cracking. Assess cause of depression around valve monument. Restore pavement.
2023-63		7’ long, 0.25-1” wide crack with depressions from shipping containers visible.	Clean and seal crack.
2023-64		7’ long and 1” wide crack that appears to go completely through the pavement. Erosion also visible along tracks.	Clean and seal crack. Restore eroded pavement.

Image Number	Image	Observation	Recommendation
2023-65		3’ x 1’ hole 1-2” deep. Erosion visible from hole.	Fill hole and restore pavement.
2023-66		5’ long heavily eroded area 1” deep.	Fill holes and restore pavement.
2023-67		Several long cracks >0.5” wide.	Clean and fill cracks.

Image Number	Image	Observation	Recommendation
2023-68		9’ long crack, 0.5-0.75” wide.	Clean and fill crack.
2023-69		6’ long area with several eroded holes 1” deep. Cracking observed between eroded holes.	Clean and fill cracks and holes. Restore pavement.
2023-70		9’ long area with several large, eroded holes 1-1.5” deep.	Fill holes and restore pavement.

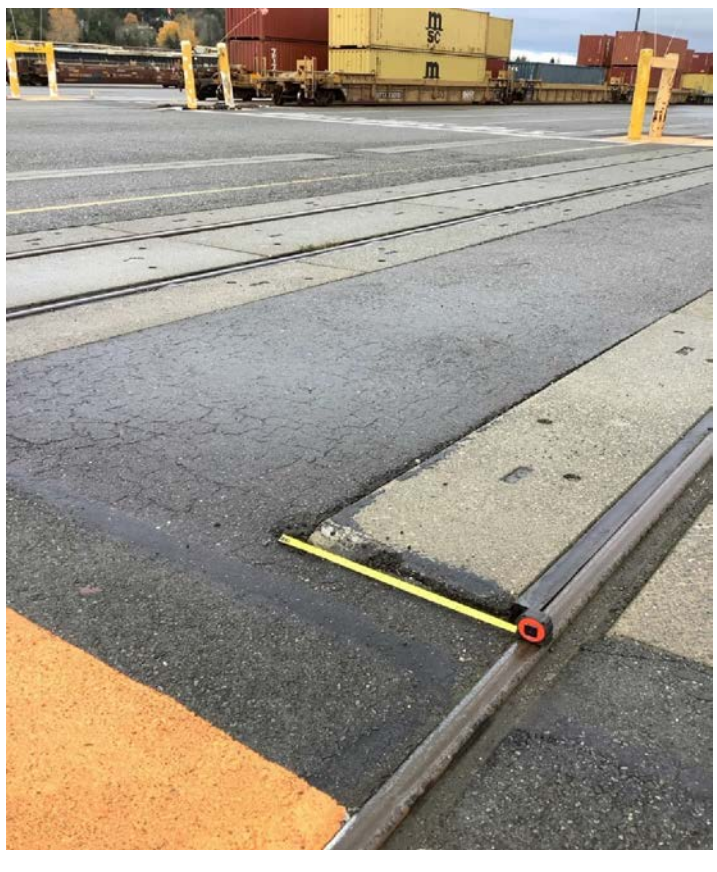
Image Number	Image	Observation	Recommendation
2023-71		4.5’ x 1.3’ hole, 1.5-2” deep. Pavement eroded around hole.	Fill hole and restore pavement.
2023-72		Cracking around manhole with a 0.8’ x 0.4’ hole 1” deep along manhole.	Clean and seal cracks, fill hole, and restore pavement.
2023-73		2.5’ long gap between asphalt and concrete tracks. 4” deep gaping hole next to track.	Restore pavement along concrete.

Image Number	Image	Observation	Recommendation
2023-74		7’ long and 1.5” wide crack filled with sediment.	Clean and seal crack.
2023-75		9’ long eroded area along tracks due to cracking. Holes 1-2” deep.	Fill holes and restore pavement.
2023-76		Large area of mounding and ponding.	Continue to monitor.

Image Number	Image	Observation	Recommendation
2023-77		1’ x 1.5’ hole 1-2” deep. Mounding also observed.	Fill hole and restore pavement.
2023-78		Several large areas of mounding observed.	Continue to monitor.
2023-79		10’ length of standing water suggesting ponding.	Continue to monitor.

Image Number	Image	Observation	Recommendation
2023-80		Cracks with deep and large gaps along extent of rail. Some plant growth in cracks observed.	Repair pavement along rail and remove any vegetation.