Bridgeton Landfill, LLC

Monthly Data Submittals

August 2017

Required by Section 52.E of Agreed Order, Case No. 13SL-CC01088
Effective May 13, 2013

Contents:

Provided Separately:

– Flare Raw Data Excel Spreadsheet
– Gas Wellfield Raw Data Excel Spreadsheet

September 20, 2017

Commentary on Data

September 20, 2017

The following observations and comments are offered during this time period:

Gas Volume

- As seen in Attachment B-1, the gas collection volumetric rate in for this month averaged 178 SCFM from the North Quarry and 1,391 SCFM from the South Quarry, for a total site flow of 1,569 SCFM, as normalized per the MDNR weekly flow and TRS sampling results.

Gas Quality

- Attachments D and E contain the monthly data related to gas quality as measured at the respective wellheads.

- Attachment E-1 contains vertical wells which had oxygen levels over 5% at one (1) or more weekly monitoring events during this reporting period. These consisted of 26 GEW wells that are experiencing low or restricted flows, and four (4) GIW wells that have low gas flow due to the cooling loops that are installed within these wells. By the end of the month, 17 of the GEW wells and 3 of the GIW wells still exhibited oxygen at the wellhead at or greater than 5%. All of these wells are low-flow/vacuum sensitive wells with valves only slightly open. On-going tuning, maintenance, and pump operation is being performed to manage the oxygen content. With the exception of GEW-1A, all of these wells are in the South Quarry area where the flexible membrane liner cap is in place to prevent atmospheric intrusion into the waste mass.

- Attachment E-1 notes that GEW-1A has an oxygen concentration greater than 5% at one (1) or more weekly monitoring events during the reporting period. This has been the case since it's installation in December 2015. The area in which GEW-1A is installed is very saturated. Bridgeton has installed a sump in the vicinity of GEW-1A and will be increasing the force main capacity during the North Quarry capping projects in an effort to lower the potentiometric surface in the area to improve gas quality and reduce ambient air intrusion at the well.

- Attachment E-2 contains gas temperatures as measured at the wellheads. Five (5) vertical wells (excluding GIW wells) increased by 30°F during this reporting period. Additionally, 2 vertical wells (excluding GIW wells) decreased by 30°F or more. All wells that exhibited changes greater than 30 degrees are all within the historical gas temperature norms for these wells or within the range of temperatures of nearby vertical wells.

- All wells in the North Quarry during this reporting period exhibited a maximum wellhead temperature under 145°F. Carbon monoxide (CO) results showed non-detect (ND) for North Quarry wells, with the exception of GEW-053 (61 ppm) and GEW-055 (36 ppm).

Settlement

- The South Quarry exhibited monthly maximum settlement up to 0.43 feet over 27 days for this reporting period (see Attachment F) which is comparable to last month's rate. The rate of settlement directly south of the neck continues to be small and stable.

Bird Monitoring and Mitigation

- Bridgeton Landfill conducted bird monitoring during this reporting period in accordance with the Approved Bird Hazard Monitoring and Mitigation Plan. Logs of bird population observations were provided to the Airport on a weekly basis. An increase in waterfowl was noticed from mid to late March due to spring migration, consistent with observations in the surrounding areas. These birds were dispersed using pyrotechnics, a cap gun and vehicles. A remote-control boat was also utilized to disperse birds on the retention basin adjacent to St. Charles Rock Road. The Bridgeton Landfill submitted an updated Bird Hazard Monitoring and Mitigation Plan to the airport on 12/2/16.

Low Fill Project Area

- Enclosed is the requested clean fill placement figure in accordance with the June 19, 2015 letter from the Missouri Department of Natural Resources (MDNR) granting modification approval to Permit number 0118912. This modification allows for the acceptance of clean fill and use thereof as a method of re-establishing positive surface drainage and maintaining structural stability of landfill infrastructure. Condition 4 of this approval is satisfied via the text below and the accompanying figure in Attachment I-1.

- Clean fill activities commenced on June 28th and continued into August.

ATTACHMENT A

WORK COMPLETED AND PLANNED

Bridgeton Landfill, LLC
Monthly Summary of Work Completed and Planned

Work Completed in August 2017

Gas Collection and Control System (GCCS)

- Continued operation and maintenance of GCCS system.
- Continued upgrades to GCCS system as necessary.

Heat Extraction System (HES)

- Continued operation and maintenance of the HES (pilot and barrier wells).

Leachate Management System

- Continued routine operation of previously installed and upgraded features.
- Replaced the pump and transducer on LCS-5B.

Pre-Treatment Facility

- Continued ongoing operation of facility.
- Continued to optimize operation efficiency of pre-treatment facility.
- Permeate continued to be discharged directly to St. Louis Metropolitan Sewer District (MSD) – Bissell Point Facility or other approved disposal facilities as determined by MSD.

Other Projects

- Continued accepting clean fill for East Fill maintenance.
- Infrastructure in East Fill area has been raised as necessary to perform maintenance on existing infrastructure.
- Completed construction of the gas header system, stormwater infrastructure, and interior roads for the North Quarry EVOH capping project.
- Installed replacement TMPs for North Quarry TMPs 16, 25, and 28.
- Abandoned groundwater monitoring well PZ-110-SS.
- Installed replacement for groundwater monitoring well PZ-110-SS.
- Performed quarterly groundwater sampling event.
- Completed one year of sulfur dioxide (SO2) monitoring as required by the Administrative Settlement Agreement and Order on Consent for Removal Actions issued by USEPA.

Work Planned for September 2017

Gas Collection and Control System (GCCS)

- Continue operation and maintenance of GCCS system.
- Continue upgrades to GCCS system as necessary.

Heat Extraction System (HES)

- Continue operation and maintenance of the HES.
- Continue upgrades to the HES as necessary.

Leachate Management System

- Continue routine operation of previously installed and upgraded features.

Pre-Treatment Facility

- Ongoing operation of facility.
- Continue to optimize operation efficiency of pre-treatment facility.
- Permeate will continue to be discharged directly to St. Louis Metropolitan Sewer District (MSD) – Bissell Point Facility or other approved disposal facilities as determined by MSD.
- Change out the media in the Regenerative Thermal Oxidizer (RTO) units.

Other Projects:

- Continue acceptance of clean fill materials for East Fill maintenance and fill project.
- Infrastructure will continued to be raised as necessary in the East Fill area.
- Begin the East Fill project.
- Complete construction of perimeter roads for the North Quarry EVOH capping project, which will conclude the project.
- Perform large liner repairs in the South Quarry.

ATTACHMENT B

DAILY FLARE MONITORING DATA

ATTACHMENT B-1

FLOW DATA TABLE

Daily Flare Monitoring Data - Bridgeton Landfill
August 2017

Date	Average Device Flow* (scfm)				Total Avg. Flow** (scfm)
	Utility Flare (FL-100)	Utility Flare (FL-120)	Utility Flare (FL-140)	EP14 NQ Utility Flare***	
8/1/2017	0	1,350	0	235	1,585
8/2/2017	0	1,379	0	156	1,534
8/3/2017	0	1,379	0	163	1,542
8/4/2017	0	1,338	0	160	1,498
8/5/2017	0	1,376	0	179	1,555
8/6/2017	0	1,314	0	182	1,496
8/7/2017	0	1,327	0	181	1,508
8/8/2017	0	1,361	0	181	1,542
8/9/2017	0	1,400	0	179	1,579
8/10/2017	0	1,397	0	176	1,573
8/11/2017	0	1,347	0	175	1,522
8/12/2017	0	1,346	0	175	1,522
8/13/2017	0	1,358	0	175	1,533
8/14/2017	0	1,321	0	176	1,496
8/15/2017	0	1,371	0	180	1,552
8/16/2017	0	1,335	0	183	1,519
8/17/2017	0	1,325	0	182	1,506
8/18/2017	0	1,347	0	182	1,529
8/19/2017	0	1,385	0	181	1,567
8/20/2017	0	1,363	0	175	1,538
8/21/2017	0	1,373	0	174	1,547
8/22/2017	0	1,339	0	180	1,519
8/23/2017	0	682	716	196	1,594
8/24/2017	0	0	1,440	187	1,627
8/25/2017	0	0	1,416	183	1,600
8/26/2017	0	0	1,512	173	1,685
8/27/2017	0	0	1,521	168	1,689
8/28/2017	0	0	1,452	168	1,620
8/29/2017	0	0	1,501	172	1,673
8/30/2017	0	0	1,534	176	1,709
8/31/2017	0	0	1,530	179	1,709
AVERAGE	0	984	407	178	**1,569**

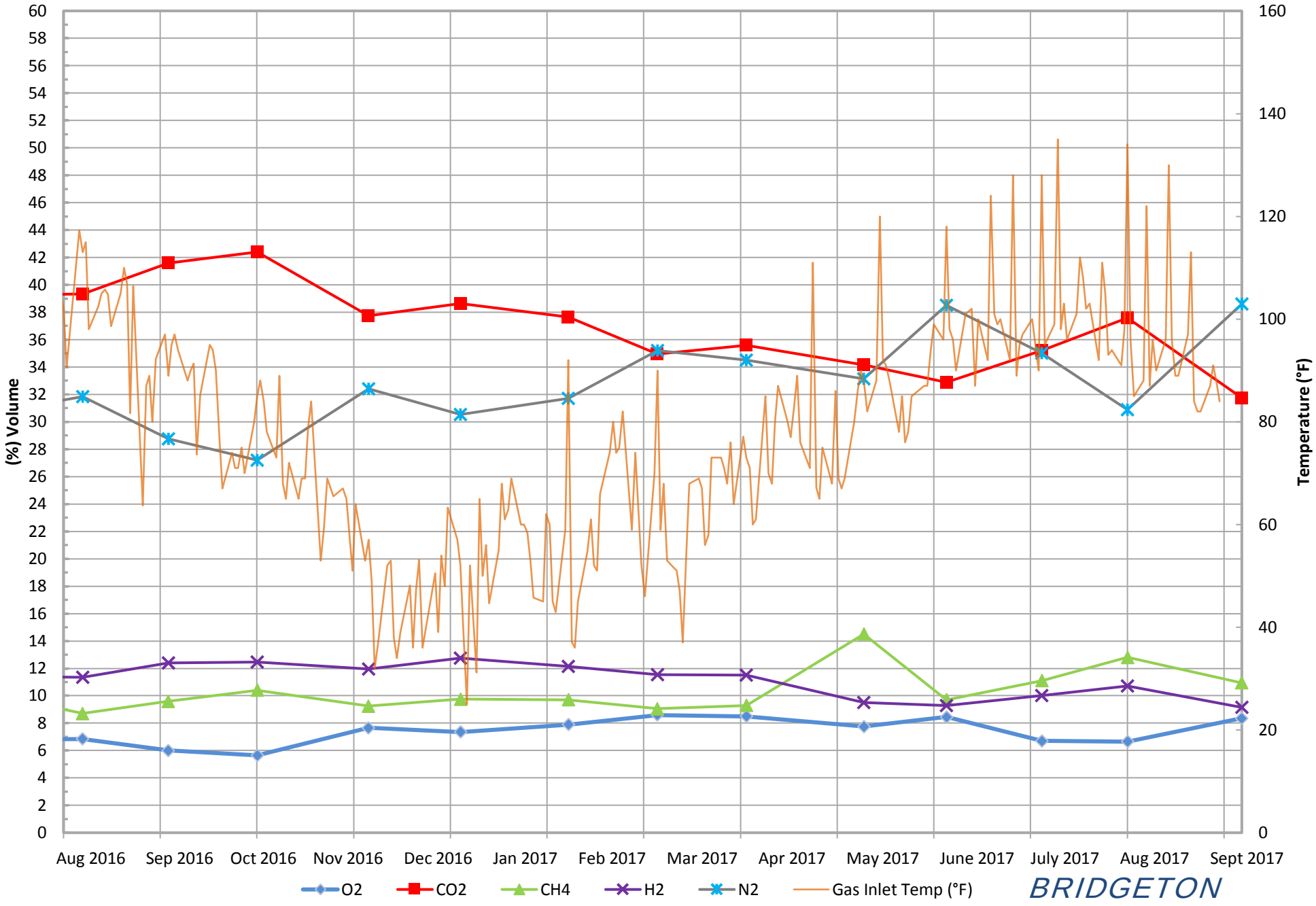
* Flows normalized to **Blower Outlet Flowmeter - EPA Method 2 measurement verified

*** On 3/18/2016, the Bridgeton Landfill began separating the North Quarry gas to the Auxiliary Flare.

ATTACHMENT B-2

FLOW DATA GRAPHS

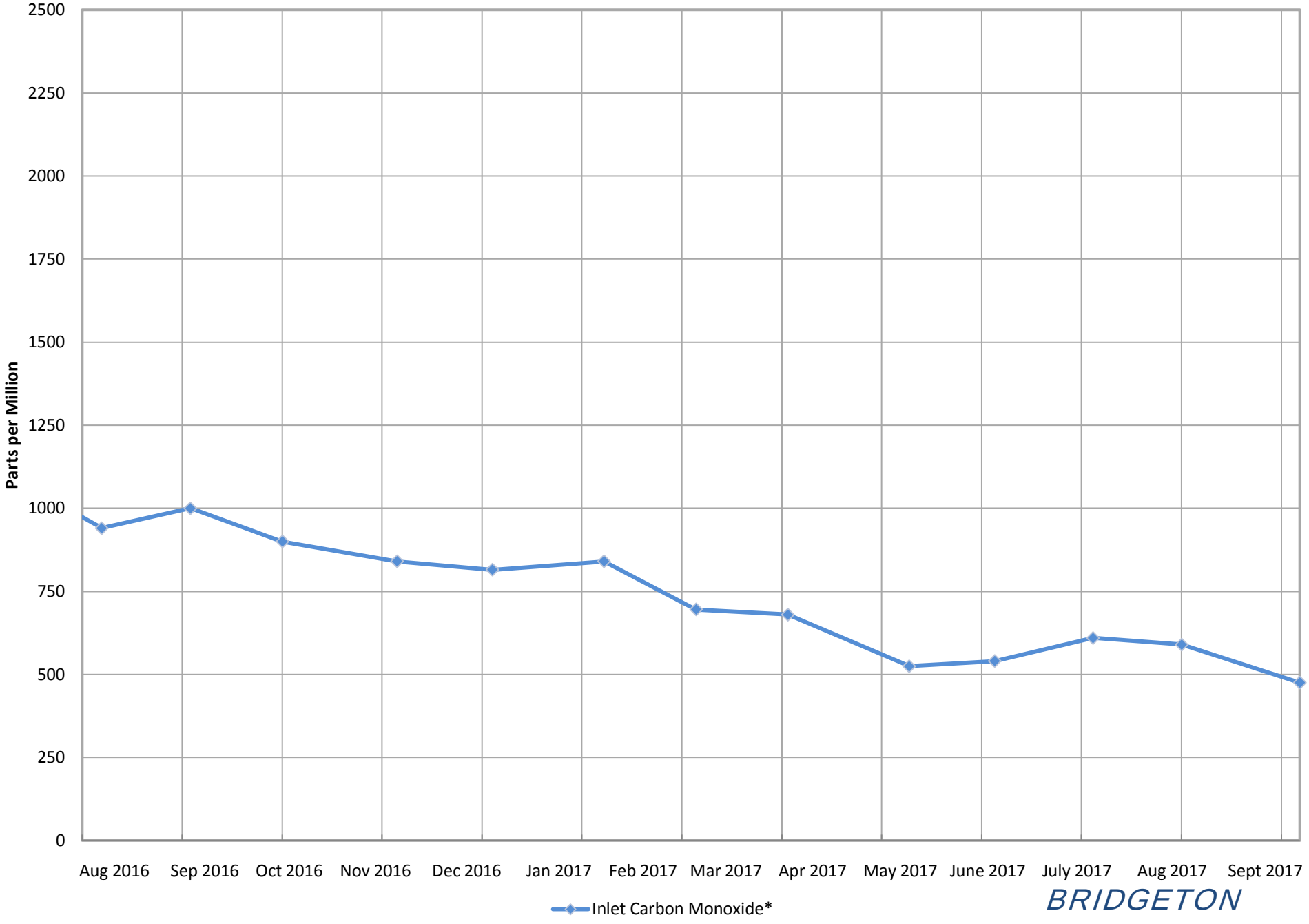
South Quarry Inlet Gas and Temperature*



BRIDGETON LANDFILL

*Gas data collected from Laboratory Reports. Temperature data collected from field readings.

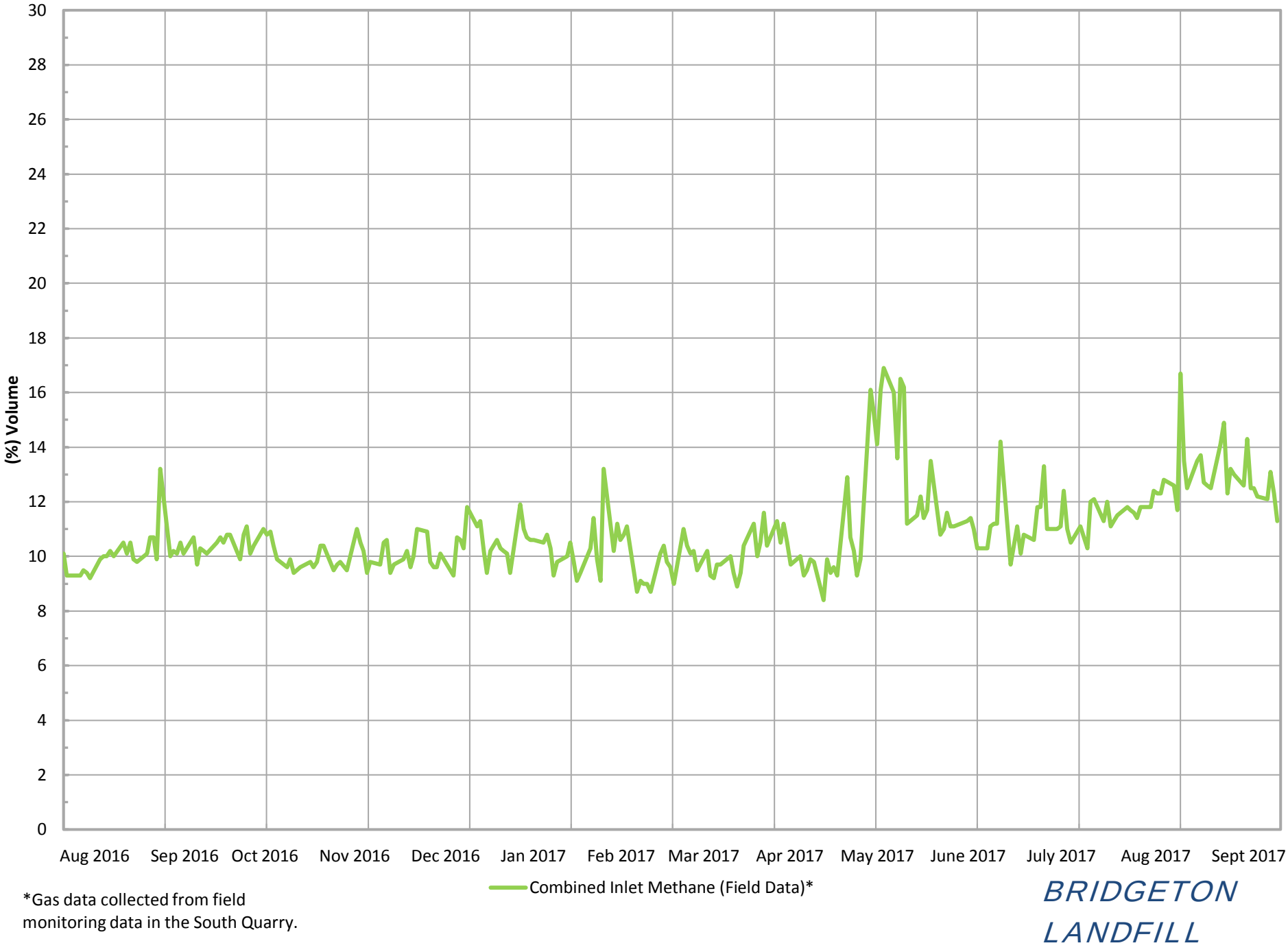
South Quarry Inlet Carbon Monoxide*



*Data collected from Laboratory Reports for the South Quarry.

BRIDGETON LANDFILL

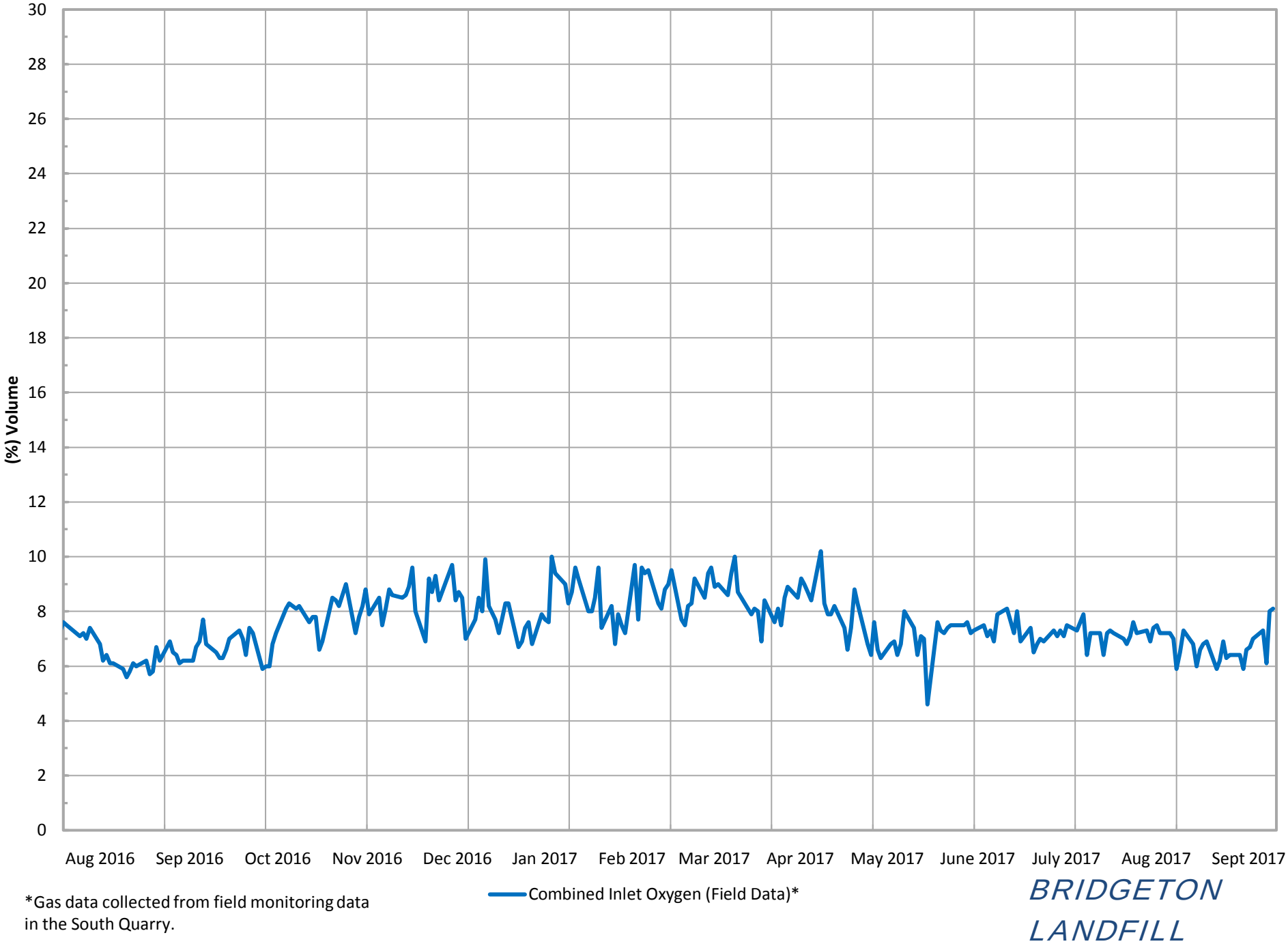
South Quarry Inlet Methane (Field Data)*



*Gas data collected from field monitoring data in the South Quarry.

BRIDGETON LANDFILL

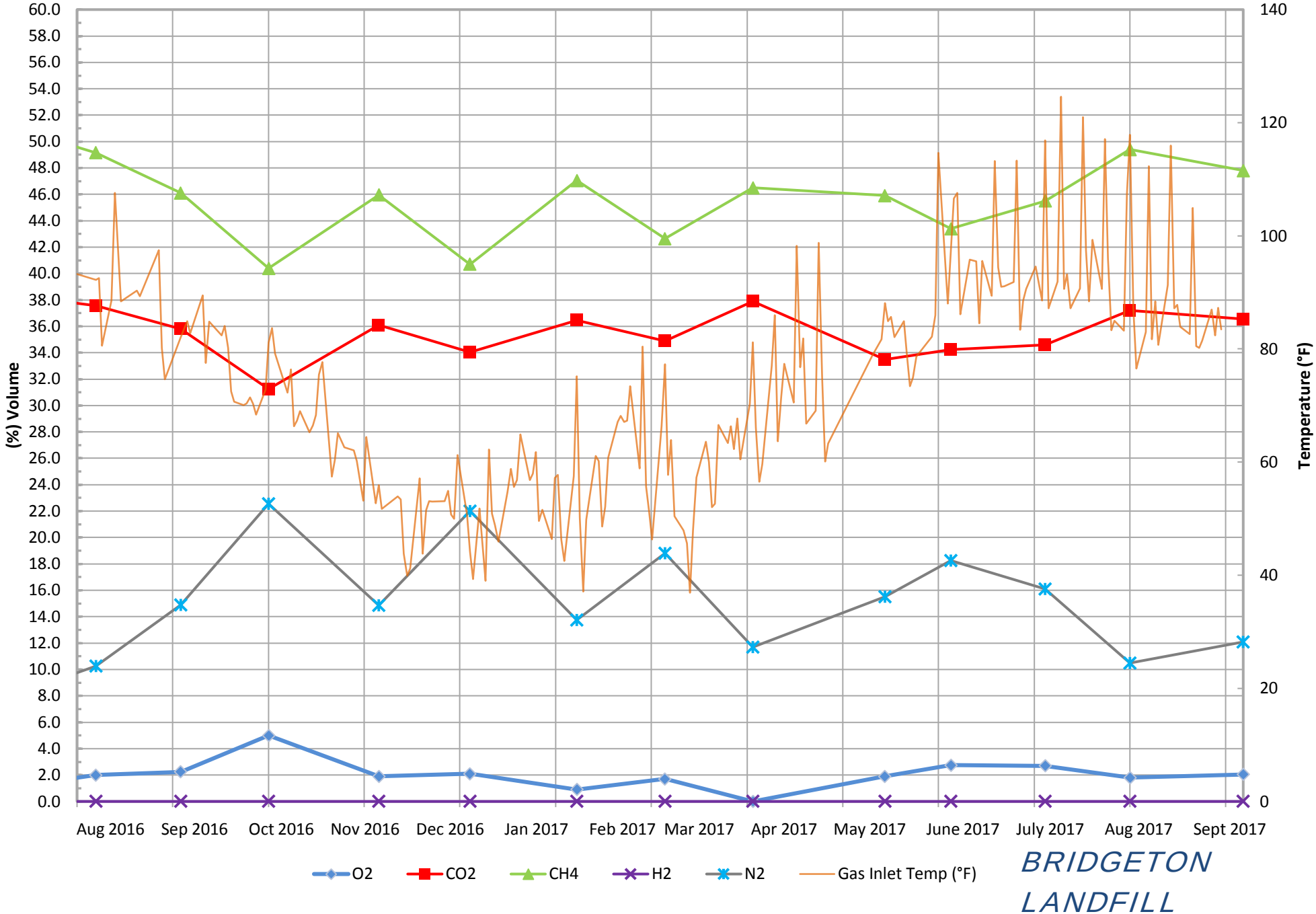
South Quarry Inlet Oxygen (Field Data)*



*Gas data collected from field monitoring data in the South Quarry.

BRIDGETON LANDFILL

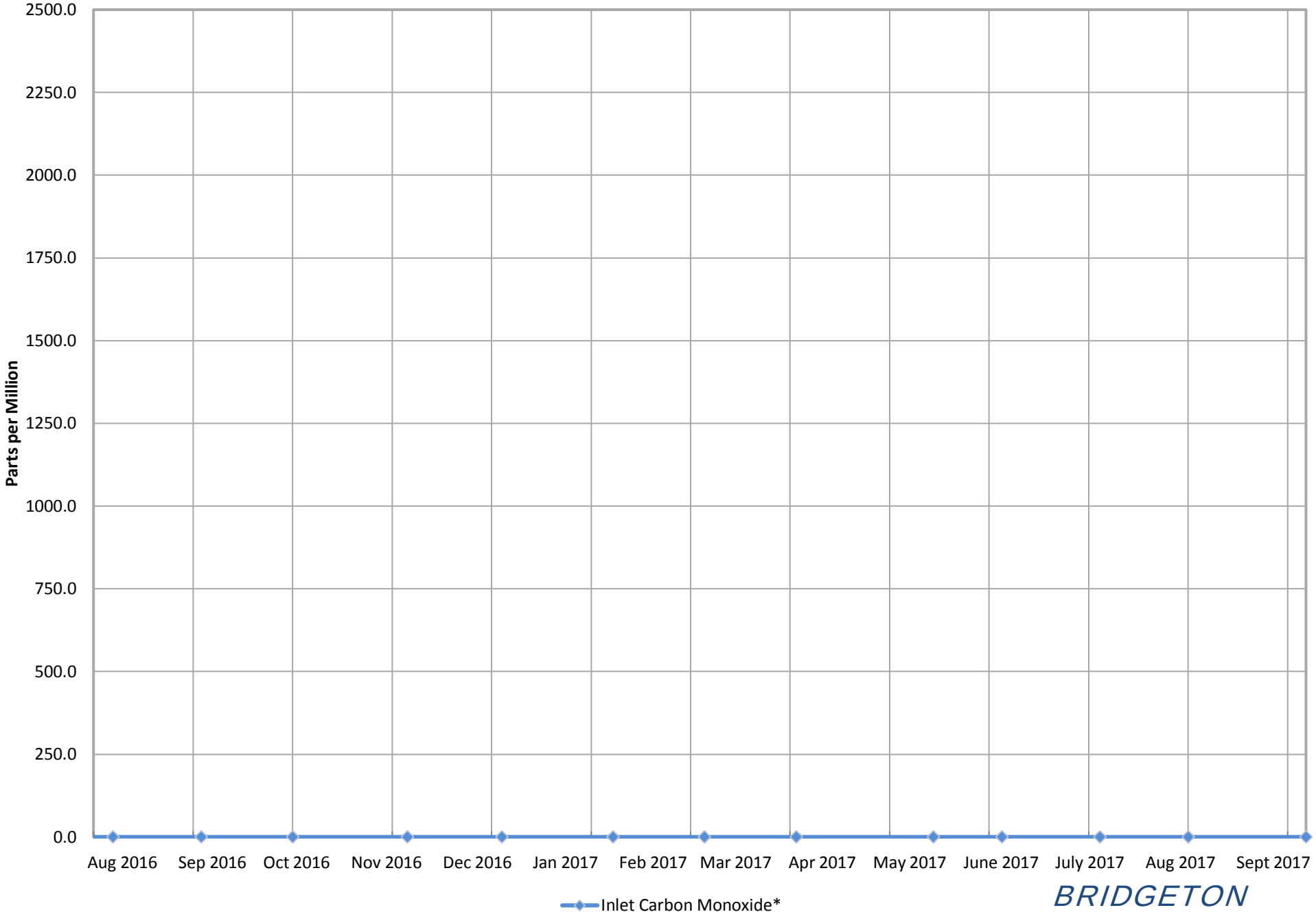
North Quarry Inlet Gas and Temperature*



BRIDGETON LANDFILL

*Gas data collected from Laboratory Reports. Temperature data collected from field readings.

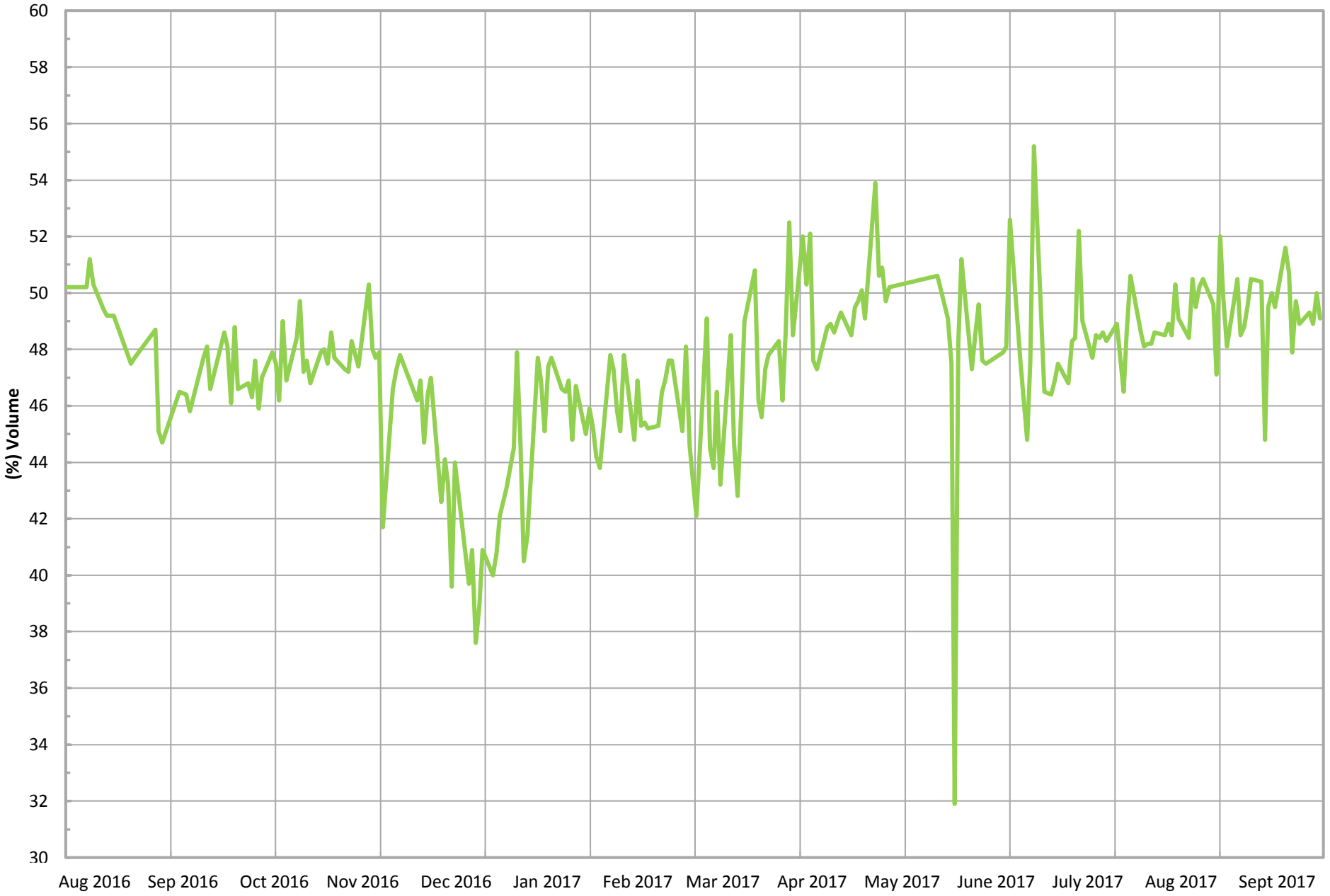
North Quarry Inlet Carbon Monoxide*



*Data collected from Laboratory Reports for the North Quarry.

BRIDGETON LANDFILL

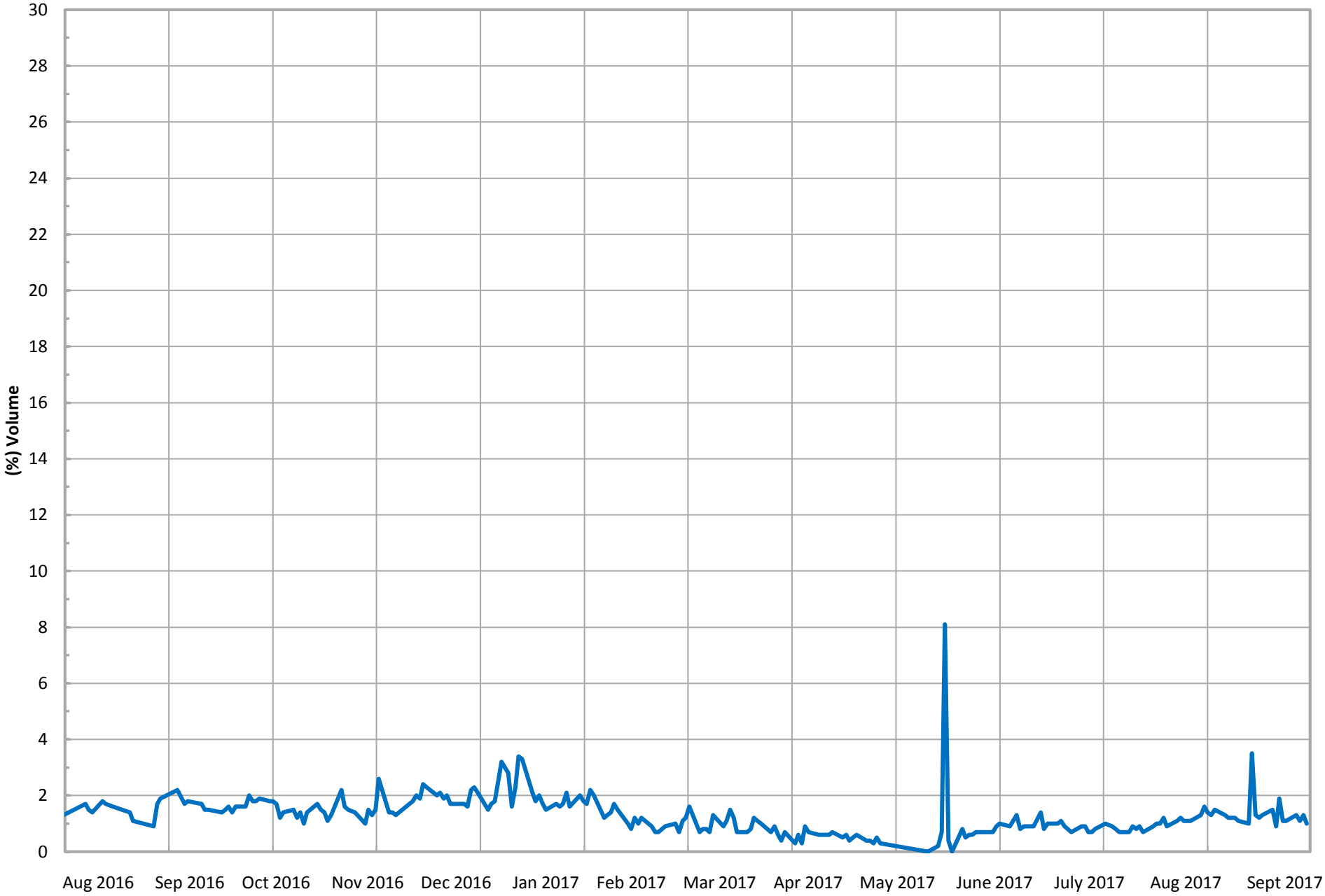
North Quarry Inlet Methane (Field Data)*



*Gas data collected from field monitoring data in the North Quarry.

BRIDGETON LANDFILL

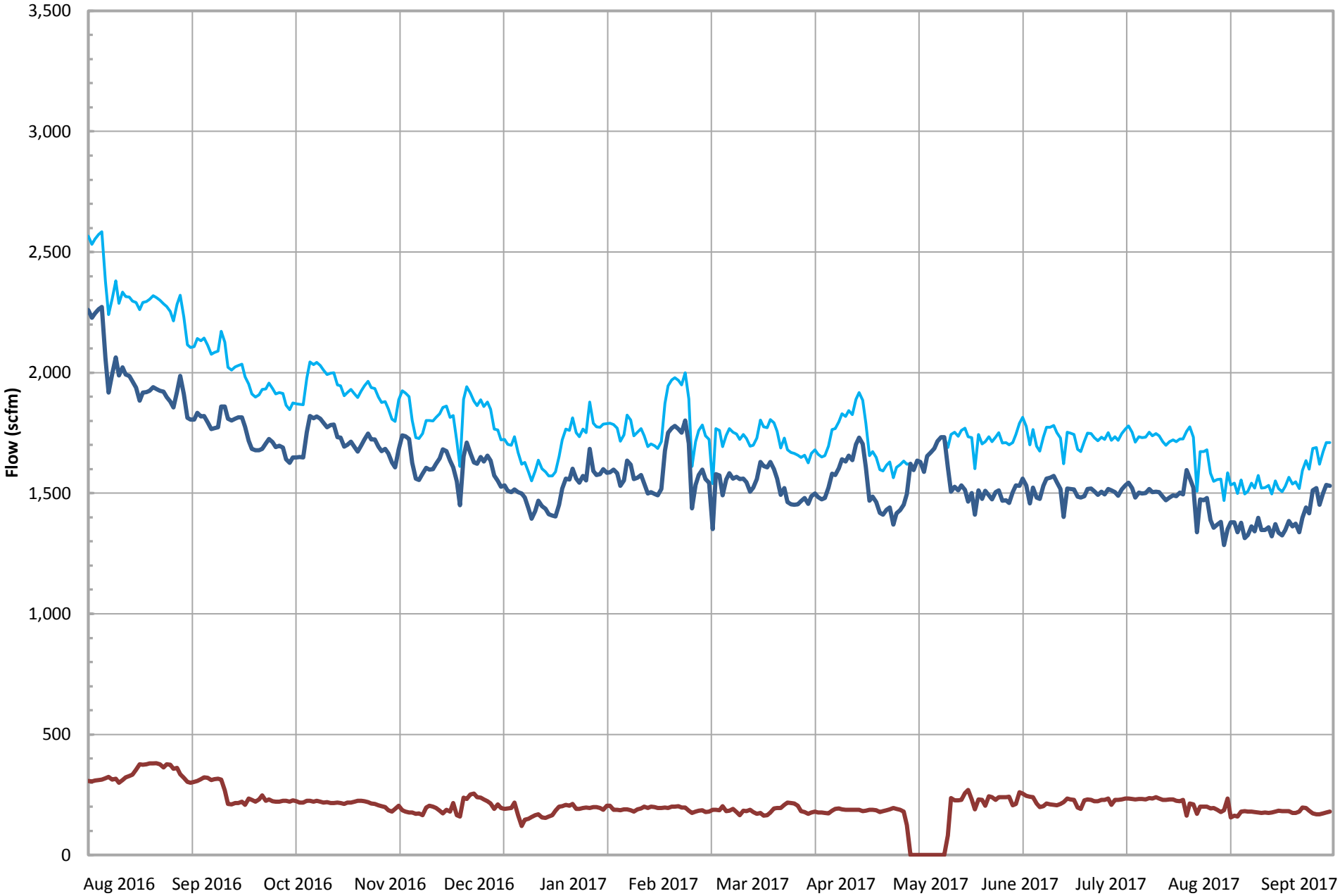
North Quarry Inlet Oxygen (Field Data)*



*Gas data collected from field monitoring data in the North Quarry.

BRIDGETON LANDFILL

Total Combined Flow (scfm)*

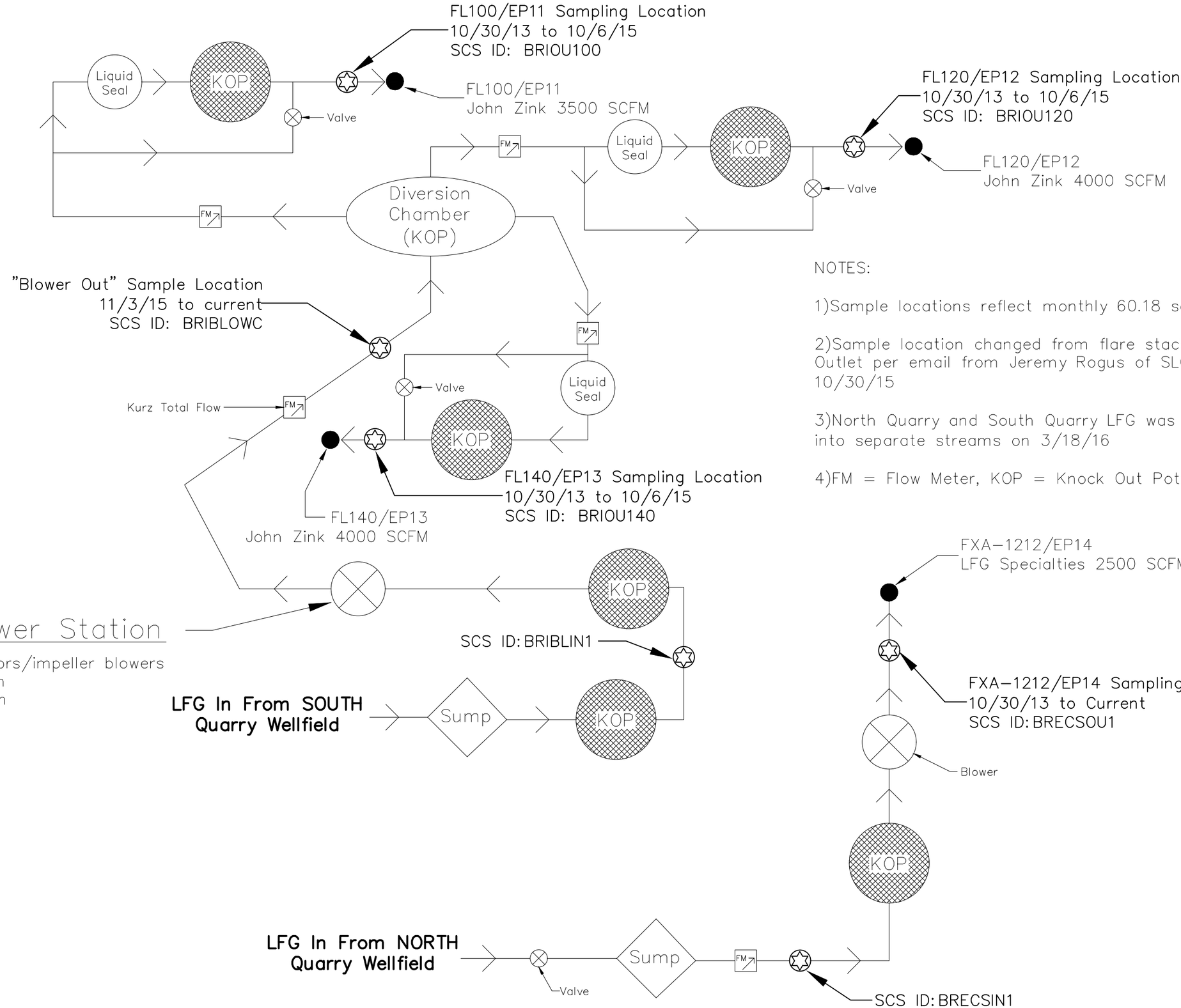


*Combined flow is based on tabulated flow data collected daily from FL-100, FL-120, FL-140, and the Auxillary Candlestick Flare.

BRIDGETON LANDFILL

ATTACHMENT B-3

FLARE TRS / FLARE STATION FLOW



NOTES:

1)Sample locations reflect monthly 60.18 sampling points

2)Sample location changed from flare stacks to Blower Outlet per email from Jeremy Rogus of SLCHD dated 10/30/15

3)North Quarry and South Quarry LFG was segregated into separate streams on 3/18/16

4)FM = Flow Meter, KOP = Knock Out Pot

PREPARED FOR:
BRIDGETON LANDFILL, LLC

FIGURE 1 - NORTH & SOUTH QUARRY FLARE COMPOUND
13570 ST. CHARLES ROCK ROAD
BRIDGETON, MISSOURI

No.	DATE	REVISION DESCRIPTION
1	9/19/2016	EP-08B Removed. Shown only to represent SQ LFG flow

Weaver Consultants Group
WEAVER CONSULTANTS GROUP
6301 EAST HWY AB
COLUMBIA, MISSOURI 65201
(636)-431-3399
www.wcgrp.com

DRAWN BY:	DT
REVIEWED BY:	MC
DATE:	10/7/2016
FILE:	0120-131-10
CAD:	Figure 1 - Flow Diagram.dwg

SHEET 1 OF 1

TABLE 1 **Bridgeton Landfill, LLC.**

Summary of Key LFG Tested Parameters **August 02 to September 07, 2017**

Flare Compound: Blower Outlet

SAMPLE EVENT #	DATE	VELOCITY ft/sec	FLOW dscfm	TRS ppm_{vd}
[1]131-36	9/7/2017	20.26	1477	1300
				1400
[2]130-35	8/29/2017	17.91	1451	1400
				1400
[2]129-34	8/22/2017	15.69	1271	1600
				1300
[2]128-33	8/15/2017	15.98	1294	1600
				1600
[2]127-32	8/8/2017	15.70	1272	1600
				1500
[1]126-31	8/2/2017	16.79	1264	1700
				1700

Notes:

[1]Indicates velocity/flow determined by EPA Method 2

[2]Indicates velocity/flow recorded by Blower Outlet's KURZ Flow Meter

Bridgeton Landfill, LLC
Weekly TRS
Monthly Method 2C
Event 131-36
09/07/2017

	PARAMETER	Blower Out
SOUTH QUARRY LFG - BLOWER OUTLET (FL120/EP-12 Only)		
Date	Test Date	9/7/17
Start	Run Start Time	13:39
	Run Finish Time	15:10
	Net Traversing Points	8 (2 x 4)
Θ	Net Run Time, minutes	1:30:42
C_p	Pitot Tube Coeficient	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.61
% H_2O	Moisture Content of LFG, %	5.80
% RH	Relative Humidity, %	71.75
M_{fd}	Dry Mole Fraction	0.942
%CH_4	Methane, %	10.95
%CO_2	Carbon Dioxide, %	31.75
%O_2	Oxygen, %	8.37
%Balance	Assumed as Nitrogen, %	38.60
%H_2	Hydrogen, %	9.10
%CO	Carbon Monoxide, %	0.05
M_d	Dry Molecular Weight, lb/lb-Mole	29.42
M_s	Wet Molecular weight, lb/lb-Mole	28.76
P_g	Flue Gas Static Pressure, inches of H_2O	14.69
P_s	Absolute Flue Gas Pressure, inches of Mercury	30.69
t_s	Average Stack Gas Temperature, °F	108
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.089
v_s	Average LFG Velocity, feet/second	20.26
A_s	Stack Crossectional Area, square feet	1.35
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	1,477
Q_s	Standard Volumetric Flow Rate, scfm	1,563
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	1,644
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	6,766
NHV	Net Heating Value, Btu/scf	153.3
LFG_{CH4}	Methane, lb/hr	404.1
	Methane, grains/dscf	31.92
LFG_{CO2}	Carbon Dioxide, lb/hr	3,214.7
	Carbon Dioxide, grains/dscf	253.94
LFG_{O2}	Oxygen, lb/hr	616.2
	Oxygen, grains/dscf	48.67
LFG_{N2}	Balance gas as Nitrogen, lb/hr	2,487.7
	Balance gas as Nitrogen, grains/dscf	196.51
LFG_{H2}	Hydrogen, lb/hr	42.2
	Hydrogen, grains/dscf	3.33
LFG_{CO}	Carbon Monoxide, lb/hr	3.0
	Carbon Monoxide, grains/dscf	0.24

		Outlet A	Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	11	14
	Hydrogen Sulfide Rate, lb/hr	0.09	0.11
	Hydrogen Sulfide Rate, grains/dscf	0.007	0.009
COS	Carbonyl Sulfide Concentration, ppmd	0.61	0.63
	Carboynl Sulfide Rate, lb/hr	0.01	0.01
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	120	150
	Methyl Mercaptan Rate, lb/hr	1.33	1.66
	Methyl Mercaptan Rate, grains/dscf	0.105	0.131
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	1.5	1.8
	Ethyl Mercaptan Rate, lb/hr	0.02	0.03
	Ethyl Mercaptan Rate, grains/dscf	0.002	0.002
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	1,000	1,000
	Dimethyl Sulfide Rate, lb/hr	14.29	14.29
	Dimethyl Sulfide Rate, grains/dscf	1.129	1.129
CS_2	Carbon Disulfide Concentration, ppmd	1.1	1.1
	Carbon Disulfide Rate, lb/hr	0.02	0.02
	Carbon Disulfide Rate, grains/dscf	0.002	0.002
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	110	93
	Dimethyl Disulfide Rate, lb/hr	2.38	1.63
	Dimethyl Disulfide Rate, grains/dscf	0.188	0.129

❶ **$E_{TRS-SO2}$**	TRS-->SO2 Emission Concentration, ppmd	1,300	1,400
	TRS-->SO2 Emission Rate, lb/hr	19.16	20.63
	TRS-->SO2 Emission Rate, grains/dscf	1.514	1.630

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

Thursday, September 07, 2017

LOCATION	TIME	FLOW -SCFM			Method 2 vs. Fleetzoom	Method 2 vs Kurz	Kurz vs Fleetzoom
		Method 2	FleetZoom	Kurz FM			
BLOWER OUT	**13:39**	**1,563**	**1,876**	**1,582**	**-20.1%**	**-1.2%**	**-18.6%**

**Note: Fleetzoom data derived from EP-13/FL140 TSI Flow Meter*

Bridgeton Landfill, LLC
Weekly TRS
Monthly Method 2C
Event 77-36
09/07/2017

	PARAMETER	Blower Out
	EP14 NORTH QUARRY LFG ONLY	
Date	Test Date	9/7/17
Start	Run Start Time	10:27
	Run Finish Time	11:54
	Net Traversing Points	8 (2 x 4)
Θ	Net Run Time, minutes	1:26:57
C_p	Pitot Tube Coeficient	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.70
% H_2O	Moisture Content of LFG, %	3.28
% RH	Relative Humidity, %	71.80
M_{fd}	Dry Mole Fraction	0.967
%CH_4	Methane, %	47.80
%CO_2	Carbon Dioxide, %	36.55
%O_2	Oxygen, %	2.05
%Balance	Assumed as Nitrogen, %	12.10
%H_2	Hydrogen, % (** reported at the laboratory detection limit*)	3.00
%CO	Carbon Monoxide, % (** reported at the laboratory detection limit*)	0.00300
M_d	Dry Molecular Weight, lb/lb-Mole	27.86
M_s	Wet Molecular weight, lb/lb-Mole	27.54
P_g	Flue Gas Static Pressure, inches of H_2O	2.22
P_s	Absolute Flue Gas Pressure, inches of Mercury	29.86
t_s	Average Stack Gas Temperature, °F	90
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.006
v_s	Average LFG Velocity, feet/second	5.36
A_s	Stack Crossectional Area, square feet	0.51
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	153
Q_s	Standard Volumetric Flow Rate, scfm	158
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	165
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	664
NHV	Net Heating Value, Btu/scf	434.8
LFG_{CH4}	Methane, lb/hr	182.8
	Methane, grains/dscf	139.36
LFG_{CO2}	Carbon Dioxide, lb/hr	383.5
	Carbon Dioxide, grains/dscf	292.33
LFG_{O2}	Oxygen, lb/hr	15.6
	Oxygen, grains/dscf	11.92
LFG_{N2}	Balance gas as Nitrogen, lb/hr	80.8
	Balance gas as Nitrogen, grains/dscf	61.60
LFG_{H4}	Hydrogen, lb/hr	1.4
	Hydrogen, grains/dscf	1.10
LFG_{CO}	Carbon Monoxide, lb/hr	0.0
	Carbon Monoxide, grains/dscf	0.02

		Outlet A	Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	51	44
	Hydrogen Sulfide Rate, lb/hr	0.04	0.04
	Hydrogen Sulfide Rate, grains/dscf	0.032	0.027
COS	Carbonyl Sulfide Concentration, ppmd	0.59	0.59
	Carboynl Sulfide Rate, lb/hr	0.00	0.00
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	5.1	5.1
	Methyl Mercaptan Rate, lb/hr	0.01	0.01
	Methyl Mercaptan Rate, grains/dscf	0.004	0.004
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	0.59	0.59
	Ethyl Mercaptan Rate, lb/hr	0.00	0.00
	Ethyl Mercaptan Rate, grains/dscf	0.001	0.001
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	20	19
	Dimethyl Sulfide Rate, lb/hr	0.03	0.03
	Dimethyl Sulfide Rate, grains/dscf	0.023	0.021
CS_2	Carbon Disulfide Concentration, ppmd	0.59	0.59
	Carbon Disulfide Rate, lb/hr	0.00	0.00
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	0.59	0.59
	Dimethyl Disulfide Rate, lb/hr	0.00	0.00
	Dimethyl Disulfide Rate, grains/dscf	0.001	0.001

❶**$E_{TRS-SO2}$**	TRS-->SO2 Emission Concentration, ppmd	76	70
	TRS-->SO2 Emission Rate, lb/hr	0.12	0.11
	TRS-->SO2 Emission Rate, grains/dscf	0.088	0.081

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

Air TECHNOLOGY Laboratories, Inc.

September 11, 2017

nelac
LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-14-6
EPA Methods TO14A, TO15
UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

Republic Services
ATTN: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: I090806-01/04

Enclosed are results for sample(s) received 9/08/17 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Nick Bauer and Mike Lambrich; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group, and Jan Feezor, Feezor Engineering on 9/11/17.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

CHAIN OF CUSTODY RECORD

TURNAROUND TIME

Standard ☐ 48 hours ☐
Same Day ☐ 72 hours ☐
24 hours ■ 96 hours ☐
Other: 5 day ☐

DELIVERABLES

EDD ☐
EDF ☐
Level 3 ☐
Level 4 ☐

PAGE: 1 **OF** 1

Condition upon receipt:
Sealed Yes ☐ No ☐
Intact Yes ☐ No ☐
Chilled _____ deg C

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd
City/State/Zip:	Bridgeton, MO 63044
Phone& Fax:	314-683-3921
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.: ~~6312552~~ 660557
Bill to: Republic Services
Attn: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Canister Pressures ("hg) Canister ID	Sample Start	Sample End	Lab Receive	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	EPA Method 15/16	ASTM 1946 + H2 + CO & Btu/SCF		ASTM 1946 + H2 + CO & Btu/SCF (by CH4 only)		
I090806-01	3770	-20.16	-3.48	-4	NQ EP14 A	9/7/2017	10:10	C-6L	LFG	He	X			X		
-02	5988	-19.98	-3.47	-4	NQ EP14 B	9/7/2017	10:40	C-6L	LFG	He	X			X		
-03	2875	-20.07	-3.48	-4.5	Blower Outlet A	9/7/2017	13:42	C-6L	LFG	He	X	X				
-04	1288	-19.98	-3.46	-5	Blower Outlet B	9/7/2017	14:13	C-6L	LFG	He	X	X				

AUTHORIZATION TO PERFORM WORK: Dave Penoyer
COMPANY: Republic Services DATE/TIME:

SAMPLED BY: RB/AK
COMPANY: Republic Services DATE/TIME 9/7/17 1010-1430

RELINQUISHED BY [signature] 9/7/17 DATE RECEIVED BY DATE/TIME

RELINQUISHED BY [signature] 9/7/17 DATE RECEIVED BY DATE/TIME

RELINQUISHED BY FedEx DATE RECEIVED BY ~~[illegible]~~ DATE/TIME 9/8/17 12:30

METHOD OF TRANSPORT (circle one): Walk-In **FedEx** **UPS** Courier ATLI Other_____

COMMENTS

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: **H**=HCl **N**=None / Container: **B**=Bag **C**=Can **V**=VOA **O**=Other *Rev. 03 - 5/7/09*

Client:	**Republic Services**
Attn:	**Nick Bauer**
Project Name:	**Bridgeton Landfill**
Project No.:	**NA**
Date Received:	**09/08/17**
Matrix:	**Air**
Reporting Units:	**% v/v**

ASTM D1946

Lab No.:	I090806-01		I090806-02					
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B					
Date/Time Sampled:	9/7/17 10:10		9/7/17 10:40					
Date/Time Analyzed:	9/8/17 14:40		9/8/17 14:55					
QC Batch No.:	170908GC8A1		170908GC8A1					
Analyst Initials:	AS		AS					
Dilution Factor:	3.0		3.0					
ANALYTE	**Result % v/v**	**RL % v/v**	**Result % v/v**	**RL % v/v**				
Hydrogen	ND	3.0	ND	3.0				
Carbon Dioxide	36.6	0.030	36.5	0.030				
Oxygen/Argon	2.0	1.5	2.1	1.5				
Nitrogen	12.0	3.0	12.2	3.0				
Methane	47.9	0.0030	47.7	0.0030				
Carbon Monoxide	ND	0.0030	ND	0.0030				
Net Heating Value (BTU/ft3) methane only	435.5	3.0	434.1	3.0				
Gross Heating Value (BTU/ft3) methane only	483.7	3.0	482.1	3.0				

Results normalized including non-methane hydrocarbons
BTU values based on D1946 analysis methane only
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ **Date** 9/11/17

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/08/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I090806-03		I090806-04					
Client Sample I.D.:	Blower Outlet A		Blower Outlet B					
Date/Time Sampled:	9/7/17 13:42		9/7/17 14:13					
Date/Time Analyzed:	9/8/17 15:09		9/8/17 15:24					
QC Batch No.:	170908GC8A1		170908GC8A1					
Analyst Initials:	AS		AS					
Dilution Factor:	3.1		3.2					
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v				
Hydrogen	9.0	3.1	9.3	3.2				
Carbon Dioxide	31.5	0.031	32.0	0.032				
Oxygen/Argon	8.5	1.5	8.2	1.6				
Nitrogen	39.1	3.1	38.1	3.2				
Methane	10.9	0.0031	11.0	0.0032				
Carbon Monoxide	0.047	0.0031	0.048	0.0032				
Net Heating Value (BTU/ft3)	150.0	3.1	156.6	3.2				
Gross Heating Value (BTU/ft3)	169.3	3.1	176.8	3.2				

Results normalized including non-methane hydrocarbons
BTU values based on D1946 analysis and non-methane analysis assumed as propane
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 9/11/17
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No: 170908GC8A1
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	9/8/17 12:55			9/8/17 12:04		9/8/17 12:19					
Analyst Initials:	AS			AS		AS					
Dilution Factor:	1.0			1.0		1.0			Limits		
ANALYTE	Result % v/v	RL % v/v	SPIKE AMT. % v/v	Result % v/v	% Rec.	Result % v/v	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
Hydrogen	ND	1.0	5.0	5.59	112	5.53	111	1.1	70	130	30
Carbon Dioxide	ND	0.010	10	9.65	96	9.67	97	0.2	70	130	30
Oxygen/Argon	ND	0.50	15	15.2	103	15.3	103	0.1	70	130	30
Nitrogen	ND	1.0	70	69.3	99	69.3	99	0.0	70	130	30
Methane	ND	0.0010	0.10	0.107	107	0.106	106	0.2	70	130	30
Carbon Monoxide	ND	0.0010	0.10	0.100	100	0.100	100	0.2	70	130	30

ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 9/11/17
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/08/17
Matrix: Air
Reporting Units: ppmv

EPA Methods 15/16

Lab No.:	I090806-01		I090806-02		I090806-03		I090806-04	
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B		Blower Outlet A		Blower Outlet B	
Date/Time Sampled:	9/7/17 10:10		9/7/17 10:40		9/7/17 13:42		9/7/17 14:13	
Date/Time Analyzed:	9/8/17 13:59		9/8/17 14:11		9/8/17 14:24		9/8/17 14:36	
QC Batch No.:	170908GC3A1		170908GC3A1		170908GC3A1		170908GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.0		3.1		3.2	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	51 d	5.9	44 d	5.9	11	0.61	14	0.63
Carbonyl Sulfide	ND	0.59	ND	0.59	ND	0.61	ND	0.63
Methyl Mercaptan	5.1	0.59	5.1	0.59	120 d	61	150 d	63
Ethyl Mercaptan	ND	0.59	0.59	0.59	1.5	0.61	1.8	0.63
Dimethyl Sulfide	20	0.59	19	0.59	1,000 d	61	1,000 d	63
Carbon Disulfide	ND	0.59	ND	0.59	1.1	0.61	1.1	0.63
Dimethyl Disulfide	ND	0.59	ND	0.59	110 d	61	93 d	63
Total Reduced Sulfur	76	0.59	70	0.59	1,300	0.61	1,400	0.63

ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary dilution

Reviewed/Approved By: _____ Date 9/11/17
Mark Johnson
Operations Manager

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AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	9/8/17 9:36		9/8/17 9:11		9/8/17 9:23			
Analyst Initials:	AS		AS		AS			
Datafile:	08sep004		08sep002		08sep003			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	102	70-130%	103	70-130%	1.0	<30
Carbonyl Sulfide	ND	0.20	112	70-130%	111	70-130%	0.4	<30
Methyl Mercaptan	ND	0.20	116	70-130%	116	70-130%	0.5	<30
Ethyl Mercaptan	ND	0.20	106	70-130%	106	70-130%	0.8	<30
Dimethyl Sulfide	ND	0.20	99	70-130%	98	70-130%	0.9	<30
Carbon Disulfide	ND	0.20	101	70-130%	100	70-130%	0.9	<30
Dimethyl Disulfide	ND	0.20	89	70-130%	89	70-130%	0.5	<30

ND = Not Detected (Below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date: 9/11/17
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 130-35
08/29/2017

Kurz FM =	**1,399**	**scfm**
Fleetzoom Total =	**1,527**	**scfm**

Δ = 8.4%

	PARAMETER	Blower Outlet A	Blower Outlet B
SOUTH QUARRY LFG - MAIN FLARE COMPOUND BLOWER OUTLET (FL140)			
Date	Test Date	8/29/17	8/29/17
Time	Start	10:09	10:23
***%CH_4**	Methane, %	13.0	13.1
***%CO_2**	Carbon Dioxide, %	36.9	37.8
***'%O_2**	Oxygen, %	6.8	6.1
***%Balance**	Assumed as Nitrogen, %	43.3	43.0
P_g	Flue Gas Static Pressure, inches of H_2O	14.85	15.42
t_s	Blower Outlet LFG Temperature, °F	85.8	91.8
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	1,451	
Q_s	Fleetzoom FM, Standard Volumetric Flow Rate, scfm	1,527	
LFG_{CH4}	Methane, lb/hr	471.3	474.9
	Methane, grains/dscf	37.90	38.19
LFG_{CO2}	Carbon Dioxide, lb/hr	3,669.7	3,759.2
	Carbon Dioxide, grains/dscf	295.13	302.33
LFG_{O2}	Oxygen, lb/hr	491.7	441.1
	Oxygen, grains/dscf	39.54	35.47
LFG_{N2}	Balance gas as Nitrogen, lb/hr	2,741.0	2,722.0
	Balance gas as Nitrogen, grains/dscf	220.44	218.91

** Fixed gas results based on field parameter data collection at the time of sampling, via Envision Landfill Gas Analyzer*

		Blower Outlet A	Blower Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	3.5	0.59
	Hydrogen Sulfide Rate, lb/hr	0.03	0.00
	Hydrogen Sulfide Rate, grains/dscf	0.002	0.000
COS	Carbonyl Sulfide Concentration, ppmd	0.59	0.59
	Carboynl Sulfide Rate, lb/hr	0.01	0.01
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	140	0.59
	Methyl Mercaptan Rate, lb/hr	1.52	0.01
	Methyl Mercaptan Rate, grains/dscf	0.122	0.001
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	1.4	0.59
	Ethyl Mercaptan Rate, lb/hr	0.02	0.01
	Ethyl Mercaptan Rate, grains/dscf	0.002	0.001
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	1,000	1,000
	Dimethyl Sulfide Rate, lb/hr	14.04	14.04
	Dimethyl Sulfide Rate, grains/dscf	1.129	1.129
CS_2	Carbon Disulfide Concentration, ppmd	0.91	0.87
	Carbon Disulfide Rate, lb/hr	0.02	0.01
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	100	180
	Dimethyl Disulfide Rate, lb/hr	2.13	3.83
	Dimethyl Disulfide Rate, grains/dscf	0.171	0.308
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	1,400	1,400
	TRS-->SO2 Emission Rate, lb/hr	20.27	20.27
	TRS-->SO2 Emission Rate, grains/dscf	1.630	1.630
	TPY =	88.77	88.77

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 76-35
08/29/2017

Fleetzoom Total = 172 scfm

	PARAMETER	EP14 NQ A	EP14 NQ B
EP14 NORTH QUARRY FLARE (OPERATING SOLO to NQ LFG Only)			
Date	Test Date	8/29/17	8/29/17
Time	Start	9:03	9:18
***%CH_4**	Methane, %	48.9	48.3
***%CO_2**	Carbon Dioxide, %	37.2	38.5
***'%O_2**	Oxygen, %	1.1	1.0
***%Balance**	Assumed as Nitrogen, %	12.8	12.2
P_g	Flue Gas Static Pressure, inches of H_2O	1.87	1.81
t_s	Blower Outlet LFG Temperature, °F	82.4	85.8
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	164	
Q_s	Fleetzoom Standard Volumetric Flow Rate, scfm	172	
LFG_{CH4}	Methane, lb/hr	200.1	197.6
	Methane, grains/dscf	142.57	140.82
LFG_{CO2}	Carbon Dioxide, lb/hr	417.5	432.1
	Carbon Dioxide, grains/dscf	297.53	307.92
LFG_{O2}	Oxygen, lb/hr	9.0	8.2
	Oxygen, grains/dscf	6.40	5.82
LFG_{N2}	Balance gas as Nitrogen, lb/hr	91.4	87.2
	Balance gas as Nitrogen, grains/dscf	65.16	62.11

** Fixed gas results based on field parameter data collection at the time of sampling, via Envision Landfill Gas Analyzer*

		EP14 NQ A	EP14 NQ B
H_2S	Hydrogen Sulfide Concentration, ppmd	35	0.56
	Hydrogen Sulfide Rate, lb/hr	0.03	0.00
	Hydrogen Sulfide Rate, grains/dscf	0.022	0.000
COS	Carbonyl Sulfide Concentration, ppmd	0.56	0.56
	Carboynl Sulfide Rate, lb/hr	0.00	0.00
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	4.1	2.8
	Methyl Mercaptan Rate, lb/hr	0.01	0.00
	Methyl Mercaptan Rate, grains/dscf	0.004	0.002
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	0.56	0.56
	Ethyl Mercaptan Rate, lb/hr	0.00	0.00
	Ethyl Mercaptan Rate, grains/dscf	0.001	0.001
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	17	17
	Dimethyl Sulfide Rate, lb/hr	0.03	0.03
	Dimethyl Sulfide Rate, grains/dscf	0.019	0.019
CS_2	Carbon Disulfide Concentration, ppmd	0.56	0.56
	Carbon Disulfide Rate, lb/hr	0.00	0.00
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	0.56	0.56
	Dimethyl Disulfide Rate, lb/hr	0.00	0.00
	Dimethyl Disulfide Rate, grains/dscf	0.001	0.001
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	57	22
	TRS-->SO2 Emission Rate, lb/hr	0.09	0.04
	TRS-->SO2 Emission Rate, grains/dscf	0.066	0.026
	TPY =	0.41	0.16

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

Air TECHNOLOGY Laboratories, Inc.

September 6, 2017

Republic Services
ATTN: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

nelac
LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-14-6
EPA Methods TO14A, TO15
UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: I083002-01/04

Enclosed are results for sample(s) received 8/30/17 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Nick Bauer, Mike Lambrich, Ron Baker and Anthony Kimutis; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group, and Jan Feezor, Feezor Engineering on 9/06/17.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

CHAIN OF CUSTODY RECORD

Air TECHNOLOGY Laboratories, Inc.

18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

TURNAROUND TIME		DELIVERABLES		PAGE: 1 OF 1
Standard	48 hours	EDD		Condition upon receipt:
Same Day	72 hours	EDF		Sealed Yes No
24 hours	96 hours	Level 3		Intact Yes No
Other: ✓	5 day	Level 4		Chilled deg C

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd
City/State/Zip:	Bridgeton, MO 63044
Phone& Fax:	314-683-3921
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.:	~~6312552~~ 605567
Bill to:	Republic Services
	Attn: Nick Bauer
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Canister Pressures ("hg)				SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	EPA Method 15/16 + TRS					
	Canister ID	Sample Start	Sample End	Lab Receive												
IG83002-01	R1371	-18.74	-3.46	-3	EP-14 NQ A	8/29/2017	9:03	C -1L	LFG	He	X					
-02	1531	-19.48	-3.47	-3	EP-14 NQ B	8/29/2017	9:18	C -1L	LFG	He	X					
-03	1618	-19.17	-3.46	-4	Blower Outlet A	8/29/2017	10:09	C -1L	LFG	He	X					
-04	J1718	-18.36	-3.49	-4	Blower Outlet B	8/29/2017	10:23	C -1L	LFG	He	X					

AUTHORIZATION TO PERFORM WORK: Dave Penoyer	COMPANY: Republic Services	DATE/TIME:	**COMMENTS**
SAMPLED BY: Anthony Kimutis	COMPANY: Republic Services	DATE/TIME 8/29/17	
RELINQUISHED BY	DATE 8/29/17 RECEIVED BY	DATE/TIME	
RELINQUISHED BY FED EX	DATE RECEIVED BY	DATE/TIME	
RELINQUISHED BY	DATE RECEIVED BY	DATE/TIME 8/30/17 1147	

METHOD OF TRANSPORT (circle one): Walk-In (FedEx) UPS Courier ATLI Other_____

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: H=HCl N=None / Container: B=Bag C=Can V=VOA O=Other *Rev. 03 - 5/7/09*

Client:	**Republic Services**
Attn:	**Nick Bauer**
Project Name:	**Bridgeton Landfill**
Project No.:	**NA**
Date Received:	**08/30/17**
Matrix:	**Air**
Reporting Units:	**ppmv**

EPA Methods 15/16

Lab No.:	I083002-01		I083002-02		I083002-03		I083002-04	
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B		Blower Outlet A		Blower Outlet B	
Date/Time Sampled:	8/29/17 9:03		8/29/17 9:18		8/29/17 10:09		8/29/17 10:23	
Date/Time Analyzed:	8/31/17 10:49		8/31/17 11:02		8/31/17 11:15		8/31/17 11:27	
QC Batch No.:	170831GC3A1		170831GC3A1		170831GC3A1		170831GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	2.8		2.8		3.0		3.0	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	35 d	5.6	ND	0.56	3.5	0.59	ND	0.59
Carbonyl Sulfide	ND	0.56	ND	0.56	ND	0.59	ND	0.59
Methyl Mercaptan	4.1	0.56	2.8	0.56	140 d	59	ND	0.59
Ethyl Mercaptan	ND	0.56	ND	0.56	1.4	0.59	ND	0.59
Dimethyl Sulfide	17	0.56	17	0.56	1,000 d	59	1,000 d	59
Carbon Disulfide	ND	0.56	ND	0.56	0.91	0.59	0.87	0.59
Dimethyl Disulfide	ND	0.56	ND	0.56	100 d	59	180 d	59
Total Reduced Sulfur	57	0.56	22	0.56	1,400	0.59	1,400	0.59

ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary dilution

Reviewed/Approved By: _____ Date 9-6-17

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	8/31/17 10:02		8/31/17 9:37		8/31/17 9:49			
Analyst Initials:	AS		AS		AS			
Datafile:	31aug006		31aug004		31aug005			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	105	70-130%	104	70-130%	1.1	<30
Carbonyl Sulfide	ND	0.20	109	70-130%	107	70-130%	1.5	<30
Methyl Mercaptan	ND	0.20	115	70-130%	115	70-130%	0.0	<30
Ethyl Mercaptan	ND	0.20	106	70-130%	105	70-130%	0.5	<30
Dimethyl Sulfide	ND	0.20	96	70-130%	94	70-130%	1.8	<30
Carbon Disulfide	ND	0.20	98	70-130%	96	70-130%	1.8	<30
Dimethyl Disulfide	ND	0.20	90	70-130%	89	70-130%	0.7	<30

ND = Not Detected (Below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date: 9-6-17
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 129-34
08/22/2017

Kurz FM =	**1,312**	**scfm**
Fleetzoom Total =	**1,337**	**scfm**

$\Delta =$ **1.9%**

	PARAMETER	Blower Outlet A	Blower Outlet B
SOUTH QUARRY LFG - MAIN FLARE COMPOUND BLOWER OUTLET (FL120)			
Date	Test Date	8/22/17	8/22/17
Time	Start	10:13	10:28
***%CH_4**	Methane, %	12.6	12.8
***%CO_2**	Carbon Dioxide, %	39.4	40.6
***'%O_2**	Oxygen, %	7.0	6.7
***%Balance**	Assumed as Nitrogen, %	41.0	39.9
P_g	Flue Gas Static Pressure, inches of H_2O	14.54	13.57
t_s	Blower Outlet LFG Temperature, °F	89.9	89.9
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	1,271	
Q_s	Fleetzoom FM, Standard Volumetric Flow Rate, scfm	1,337	
LFG_{CH4}	Methane, lb/hr	400.0	406.4
	Methane, grains/dscf	36.73	37.32
LFG_{CO2}	Carbon Dioxide, lb/hr	3,431.7	3,536.2
	Carbon Dioxide, grains/dscf	315.12	324.72
LFG_{O2}	Oxygen, lb/hr	443.3	424.3
	Oxygen, grains/dscf	40.71	38.96
LFG_{N2}	Balance gas as Nitrogen, lb/hr	2,273.1	2,212.1
	Balance gas as Nitrogen, grains/dscf	208.73	203.13

** Fixed gas results based on field parameter data collection at the time of sampling, via Envision Landfill Gas Analyzer*

		Blower Outlet A	Blower Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	4.6	0.59
	Hydrogen Sulfide Rate, lb/hr	0.03	0.00
	Hydrogen Sulfide Rate, grains/dscf	0.003	0.000
COS	Carbonyl Sulfide Concentration, ppmd	0.59	0.59
	Carboynl Sulfide Rate, lb/hr	0.01	0.01
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	170	64
	Methyl Mercaptan Rate, lb/hr	1.62	0.61
	Methyl Mercaptan Rate, grains/dscf	0.149	0.056
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	1.5	0.63
	Ethyl Mercaptan Rate, lb/hr	0.02	0.01
	Ethyl Mercaptan Rate, grains/dscf	0.002	0.001
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	1,200	1,100
	Dimethyl Sulfide Rate, lb/hr	14.76	13.53
	Dimethyl Sulfide Rate, grains/dscf	1.355	1.242
CS_2	Carbon Disulfide Concentration, ppmd	0.95	0.95
	Carbon Disulfide Rate, lb/hr	0.01	0.01
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	110	110
	Dimethyl Disulfide Rate, lb/hr	2.05	2.05
	Dimethyl Disulfide Rate, grains/dscf	0.188	0.188
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	1,600	1,300
	TRS-->SO2 Emission Rate, lb/hr	20.29	16.48
	TRS-->SO2 Emission Rate, grains/dscf	1.863	1.514
	TPY =	88.85	72.19

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 75-34
08/22/2017

Fleetzoom Total = **166** scfm

	PARAMETER	EP14 NQ A	EP14 NQ B
EP14 NORTH QUARRY FLARE (OPERATING SOLO to NQ LFG Only)			
Date	Test Date	8/22/17	8/22/17
Time	Start	9:17	9:35
***%CH_4**	Methane, %	50.9	49.5
***%CO_2**	Carbon Dioxide, %	37.4	38.5
***'%O_2**	Oxygen, %	1.2	1.1
***%Balance**	Assumed as Nitrogen, %	10.5	10.9
P_g	Flue Gas Static Pressure, inches of H_2O	2.07	1.88
t_s	Blower Outlet LFG Temperature, °F	81.9	85.6
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	158	
Q_s	Fleetzoom Standard Volumetric Flow Rate, scfm	166	
LFG_{CH4}	Methane, lb/hr	201.1	195.6
	Methane, grains/dscf	148.40	144.32
LFG_{CO2}	Carbon Dioxide, lb/hr	405.4	417.3
	Carbon Dioxide, grains/dscf	299.13	307.92
LFG_{O2}	Oxygen, lb/hr	9.5	8.7
	Oxygen, grains/dscf	6.98	6.40
LFG_{N2}	Balance gas as Nitrogen, lb/hr	72.4	75.2
	Balance gas as Nitrogen, grains/dscf	53.46	55.49

** Fixed gas results based on field parameter data collection at the time of sampling, via Envision Landfill Gas Analyzer*

		EP14 NQ A	EP14 NQ B
H_2S	Hydrogen Sulfide Concentration, ppmd	23	29
	Hydrogen Sulfide Rate, lb/hr	0.02	0.02
	Hydrogen Sulfide Rate, grains/dscf	0.014	0.018
COS	Carbonyl Sulfide Concentration, ppmd	0.59	0.59
	Carboynl Sulfide Rate, lb/hr	0.00	0.00
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	3.9	4.4
	Methyl Mercaptan Rate, lb/hr	0.00	0.01
	Methyl Mercaptan Rate, grains/dscf	0.003	0.004
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	0.59	0.59
	Ethyl Mercaptan Rate, lb/hr	0.00	0.00
	Ethyl Mercaptan Rate, grains/dscf	0.001	0.001
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	18	19
	Dimethyl Sulfide Rate, lb/hr	0.03	0.03
	Dimethyl Sulfide Rate, grains/dscf	0.020	0.021
CS_2	Carbon Disulfide Concentration, ppmd	0.59	0.59
	Carbon Disulfide Rate, lb/hr	0.00	0.00
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	0.59	0.59
	Dimethyl Disulfide Rate, lb/hr	0.00	0.00
	Dimethyl Disulfide Rate, grains/dscf	0.001	0.001
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	46	53
	TRS-->SO2 Emission Rate, lb/hr	0.07	0.08
	TRS-->SO2 Emission Rate, grains/dscf	0.054	0.062
	TPY =	0.32	0.37

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

August 29, 2017

LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-14-6
EPA Methods TO14A, TO15
UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

Republic Services
ATTN: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: I082305-01/04

Enclosed are results for sample(s) received 8/23/17 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Nick Bauer, Mike Lambrich, Ron Baker and Anthony Kimutis; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group, and Jan Feezor, Feezor Engineering on 8/29/17.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

CHAIN OF CUSTODY RECORD

TURNAROUND TIME: Standard / 48 hours / Same Day / 72 hours / 24 hours / 96 hours / Other: ✓ **5 day**

DELIVERABLES: EDD ✓ / EDF / Level 3 / Level 4

PAGE: 1 OF 1

Condition upon receipt: Sealed Yes No / Intact Yes No / Chilled deg C

Project No.:

Project Name: Bridgeton Landfill

Report To: Nick Bauer

Company: Republic Services

Street: 13570 St. Charles Rock Rd

City/State/Zip: Bridgeton, MO 63044

Phone& Fax: 314-683-3921

e-mail: Nbauer@republicservices.com

BILLING

P.O. No.: ~~6312552~~ 6605567 [illegible]

Bill to: Republic Services
Attn: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

ANALYSIS REQUEST: EPA Method 15/16 + TRS

LAB USE ONLY	Canister ID	Sample Start	Sample End	Lab Receive	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	EPA Method 15/16 + TRS
I082305-01	1620	-19.18	-3.49	-4	EP-14 NQ A	8/22/2017	9:26	C -1L	LFG	He	X
-02	R1346	-19.53	-3.49	-4	EP-14 NQ B	8/22/2017	9:41	C -1L	LFG	He	X
-03	R1352	-19.41	-3.48	-4	Blower Outlet A	8/22/2017	10:21	C -1L	LFG	He	X
-04	1540	-18.7	-3.47	-4	Blower Outlet B	8/22/2017	10:34	C -1L	LFG	He	X

AUTHORIZATION TO PERFORM WORK: **Dave Penoyer** COMPANY: **Republic Services** DATE/TIME:

SAMPLED BY: Ron Bakes / Anthony Kimutis COMPANY: Republic Services DATE/TIME 8/22/2017

RELINQUISHED BY [signature] DATE/RECEIVED BY DATE/TIME

RELINQUISHED BY [signature] DATE/RECEIVED BY DATE/TIME

RELINQUISHED BY FED EX DATE/RECEIVED BY [signature] DATE/TIME 8/23/17 1227

COMMENTS

METHOD OF TRANSPORT (circle one): Walk-In **FedEx** **UPS** Courier ATLI Other

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: **H**=HCl **N**=None / Container: **B**=Bag **C**=Can **V**=VOA **O**=Other *Rev. 03 - 5 7 09*

Client:	**Republic Services**
Attn:	**Nick Bauer**
Project Name:	**Bridgeton Landfill**
Project No.:	**NA**
Date Received:	**08/23/17**
Matrix:	**Air**
Reporting Units:	**ppmv**

EPA Methods 15/16

Lab No.:	I082305-01		I082305-02		I082305-03		I082305-04	
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B		Blower Outlet A		Blower Outlet B	
Date/Time Sampled:	8/22/17 9:26		8/22/17 9:41		8/22/17 10:21		8/22/17 10:34	
Date/Time Analyzed:	8/25/17 11:34		8/25/17 11:46		8/25/17 11:59		8/25/17 12:12	
QC Batch No.:	170825GC3A1		170825GC3A1		170825GC3A1		170825GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.0		3.0		3.0	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	23	0.59	29	0.59	4.6	0.59	ND	0.59
Carbonyl Sulfide	ND	0.59	ND	0.59	ND	0.59	ND	0.59
Methyl Mercaptan	3.9	0.59	4.4	0.59	170 d	59	64 d	59
Ethyl Mercaptan	ND	0.59	ND	0.59	1.5	0.59	0.63	0.59
Dimethyl Sulfide	18	0.59	19	0.59	1,200 d	59	1,100 d	59
Carbon Disulfide	ND	0.59	ND	0.59	0.95	0.59	0.95	0.59
Dimethyl Disulfide	ND	0.59	ND	0.59	110 d	59	110 d	59
Total Reduced Sulfur	46	0.59	53	0.59	1,600	0.59	1,300	0.59

ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary dilution

Reviewed/Approved By: _____ Date 8/29/17
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AIRTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	8/25/17 9:06		8/25/17 8:41		8/25/17 8:53			
Analyst Initials:	AS		AS		AS			
Datafile:	25aug003		25aug001		25aug002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	118	70-130%	117	70-130%	0.9	<30
Carbonyl Sulfide	ND	0.20	115	70-130%	113	70-130%	1.9	<30
Methyl Mercaptan	ND	0.20	130	70-130%	129	70-130%	0.6	<30
Ethyl Mercaptan	ND	0.20	116	70-130%	113	70-130%	2.2	<30
Dimethyl Sulfide	ND	0.20	106	70-130%	103	70-130%	3.1	<30
Carbon Disulfide	ND	0.20	107	70-130%	104	70-130%	2.5	<30
Dimethyl Disulfide	ND	0.20	98	70-130%	96	70-130%	1.4	<30

ND = Not Detected (Below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date: 8/29/17
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 128-33
08/15/2017

Kurz FM =	**1,338**	**scfm**
Fleetzoom Total =	**1,362**	**scfm**

$\Delta =$ **1.7%**

	PARAMETER	Blower Outlet A	Blower Outlet B
SOUTH QUARRY LFG - MAIN FLARE COMPOUND BLOWER OUTLET (FL120)			
Date	Test Date	8/15/17	8/15/17
Time	Start	9:35	9:51
***%CH_4**	Methane, %	12.9	12.8
***%CO_2**	Carbon Dioxide, %	40.7	40.2
***'%O_2**	Oxygen, %	6.4	6.3
***%Balance**	Assumed as Nitrogen, %	40.0	40.7
P_g	Flue Gas Static Pressure, inches of H_2O	16.24	15.90
t_s	Blower Outlet LFG Temperature, °F	100.5	100.5
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	1,294	
Q_s	Fleetzoom FM, Standard Volumetric Flow Rate, scfm	1,362	
LFG_{CH4}	Methane, lb/hr	417.0	413.8
	Methane, grains/dscf	37.61	37.32
LFG_{CO2}	Carbon Dioxide, lb/hr	3,609.2	3,564.9
	Carbon Dioxide, grains/dscf	325.52	321.52
LFG_{O2}	Oxygen, lb/hr	412.7	406.2
	Oxygen, grains/dscf	37.22	36.64
LFG_{N2}	Balance gas as Nitrogen, lb/hr	2,257.8	2,297.4
	Balance gas as Nitrogen, grains/dscf	203.64	207.20

** Fixed gas results based on field parameter data collection at the time of sampling, via Envision Landfill Gas Analyzer*

		Blower Outlet A	Blower Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	3.1	8.4
	Hydrogen Sulfide Rate, lb/hr	0.02	0.06
	Hydrogen Sulfide Rate, grains/dscf	0.002	0.005
COS	Carbonyl Sulfide Concentration, ppmd	0.63	0.63
	Carboynl Sulfide Rate, lb/hr	0.01	0.01
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	150	180
	Methyl Mercaptan Rate, lb/hr	1.45	1.74
	Methyl Mercaptan Rate, grains/dscf	0.131	0.157
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	1.4	1.7
	Ethyl Mercaptan Rate, lb/hr	0.02	0.02
	Ethyl Mercaptan Rate, grains/dscf	0.002	0.002
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	1,200	1,200
	Dimethyl Sulfide Rate, lb/hr	15.02	15.02
	Dimethyl Sulfide Rate, grains/dscf	1.355	1.355
CS_2	Carbon Disulfide Concentration, ppmd	0.96	1.00
	Carbon Disulfide Rate, lb/hr	0.01	0.02
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	120	120
	Dimethyl Disulfide Rate, lb/hr	2.28	2.28
	Dimethyl Disulfide Rate, grains/dscf	0.205	0.205
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	1,600	1,600
	TRS-->SO2 Emission Rate, lb/hr	20.65	20.65
	TRS-->SO2 Emission Rate, grains/dscf	1.863	1.863
	TPY =	90.46	90.46

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 74-33
08/15/2017

Fleetzoom Total = 176 scfm

	PARAMETER	EP14 NQ A	EP14 NQ B
EP14 NORTH QUARRY FLARE (OPERATING SOLO to NQ LFG Only)			
Date	Test Date	8/15/17	8/15/17
Time	Start	8:32	8:52
***%CH_4**	Methane, %	50.8	49.1
***%CO_2**	Carbon Dioxide, %	37.1	38.4
***'%O_2**	Oxygen, %	1.2	1.0
***%Balance**	Assumed as Nitrogen, %	10.9	11.5
P_g	Flue Gas Static Pressure, inches of H_2O	2.07	1.81
t_s	Blower Outlet LFG Temperature, °F	91.2	96.0
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	167	
Q_s	Fleetzoom Standard Volumetric Flow Rate, scfm	176	
LFG_{CH4}	Methane, lb/hr	211.7	204.6
	Methane, grains/dscf	148.11	143.15
LFG_{CO2}	Carbon Dioxide, lb/hr	424.0	438.9
	Carbon Dioxide, grains/dscf	296.73	307.12
LFG_{O2}	Oxygen, lb/hr	10.0	8.3
	Oxygen, grains/dscf	6.98	5.82
LFG_{N2}	Balance gas as Nitrogen, lb/hr	79.3	83.7
	Balance gas as Nitrogen, grains/dscf	55.49	58.55

** Fixed gas results based on field parameter data collection at the time of sampling, via Envision Landfill Gas Analyzer*

		EP14 NQ A	EP14 NQ B
H_2S	Hydrogen Sulfide Concentration, ppmd	25	40
	Hydrogen Sulfide Rate, lb/hr	0.02	0.04
	Hydrogen Sulfide Rate, grains/dscf	0.015	0.025
COS	Carbonyl Sulfide Concentration, ppmd	0.59	0.61
	Carboynl Sulfide Rate, lb/hr	0.00	0.00
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	4.5	5.0
	Methyl Mercaptan Rate, lb/hr	0.01	0.01
	Methyl Mercaptan Rate, grains/dscf	0.004	0.004
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	0.59	0.61
	Ethyl Mercaptan Rate, lb/hr	0.00	0.00
	Ethyl Mercaptan Rate, grains/dscf	0.001	0.001
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	20	20
	Dimethyl Sulfide Rate, lb/hr	0.03	0.03
	Dimethyl Sulfide Rate, grains/dscf	0.023	0.023
CS_2	Carbon Disulfide Concentration, ppmd	0.59	0.61
	Carbon Disulfide Rate, lb/hr	0.00	0.00
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	0.59	0.61
	Dimethyl Disulfide Rate, lb/hr	0.00	0.00
	Dimethyl Disulfide Rate, grains/dscf	0.001	0.001
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	50	66
	TRS-->SO2 Emission Rate, lb/hr	0.08	0.11
	TRS-->SO2 Emission Rate, grains/dscf	0.058	0.077
	TPY =	0.36	0.48

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

Air TECHNOLOGY Laboratories, Inc.

August 22, 2017

Republic Services
ATTN: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

nelac
LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-14-6
EPA Methods TO14A, TO15
UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: I081604-01/04

Enclosed are results for sample(s) received 8/16/17 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Nick Bauer, Mike Lambrich, Ron Baker and Anthony Kimutis; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group, and Jan Feezor, Feezor Engineering on 8/22/17.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

CHAIN OF CUSTODY RECORD

TURNAROUND TIME		DELIVERABLES		PAGE: 1 OF 1
Standard	48 hours	EDD	✓	Condition upon receipt:
Same Day	72 hours	EDF		Sealed Yes No
24 hours	96 hours	Level 3		Intact Yes No
Other: ✓	5 day	Level 4		Chilled deg C

Project No.:
Project Name: Bridgeton Landfill
Report To: Nick Bauer
Company: Republic Services
Street: 13570 St. Charles Rock Rd
City/State/Zip: Bridgeton, MO 63044
Phone& Fax: 314-683-3921
e-mail: Nbauer@republicservices.com

BILLING
P.O. No.: ~~6312552~~ 6605567 DD 8/15/17
Bill to: Republic Services
Attn: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Canister ID	Sample Start ("hg)	Sample End ("hg)	Lab Receive ("hg)	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	EPA Method 15/16 + TRS
I081604-01	R1347	-19.27	-3.48	-4	EP-14 NQ A	8/15/2017	8:32	C -1L	LFG	He	X
-02	R1157	-19.24	-3.44	-4.5	EP-14 NQ B	8/15/2017	8:52	C -1L	LFG	He	X
-03	R1164	-19.03	-3.48	-5	Blower Outlet A	8/15/2017	9:35	C -1L	LFG	He	X
-04	R1367	-19.16	-3.48	-5	Blower Outlet B	8/15/2017	9:51	C -1L	LFG	He	X

AUTHORIZATION TO PERFORM WORK: Dave Penoyer — COMPANY: Republic Services — DATE/TIME:
SAMPLED BY: Ron Baker / Anthony Kimutis — COMPANY: Republic Services — DATE/TIME 8/15/2017
RELINQUISHED BY Ronald W Baker [signature] — DATE 8/5/17 — RECEIVED BY — DATE/TIME
RELINQUISHED BY FED EX — DATE — RECEIVED BY [signature] — DATE/TIME 8/16/17 1000
RELINQUISHED BY — DATE — RECEIVED BY — DATE/TIME

COMMENTS

METHOD OF TRANSPORT (circle one): Walk-In FedEx UPS Courier ATLI Other________

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: H=HCl N=None / Container: B=Bag C=Can V=VOA O=Other Rev. 03 - 5 7 09

Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 08/16/17
Matrix: Air
Reporting Units: ppmv

EPA Methods 15/16

Lab No.:	I081604-01		I081604-02		I081604-03		I081604-04	
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B		Blower Outlet A		Blower Outlet B	
Date/Time Sampled:	8/15/17 8:32		8/15/17 8:52		8/15/17 9:35		8/15/17 9:51	
Date/Time Analyzed:	8/16/17 13:56		8/16/17 14:08		8/16/17 14:21		8/16/17 14:33	
QC Batch No.:	170816GC3A1		170816GC3A1		170816GC3A1		170816GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.1		3.2		3.2	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	25	0.59	40 d	6.1	3.1	0.63	8.4	0.63
Carbonyl Sulfide	ND	0.59	ND	0.61	ND	0.63	ND	0.63
Methyl Mercaptan	4.5	0.59	5.0	0.61	150 d	63	180 d	63
Ethyl Mercaptan	ND	0.59	ND	0.61	1.4	0.63	1.7	0.63
Dimethyl Sulfide	20	0.59	20	0.61	1,200 d	63	1,200 d	63
Carbon Disulfide	ND	0.59	ND	0.61	0.96	0.63	1.00	0.63
Dimethyl Disulfide	ND	0.59	ND	0.61	120 d	63	120 d	63
Total Reduced Sulfur	50	0.59	66	0.61	1,600	0.63	1,600	0.63

ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary dilution

Reviewed/Approved By: _____ Date 8/22/17
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 170816GC3A1
Matrix: Air
Units: ppmv

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	8/16/17 13:43		8/16/17 13:18		8/16/17 13:31			
Analyst Initials:	AS		AS		AS			
Datafile:	16aug003		16Aug001		16Aug002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	90	70-130%	89	70-130%	0.8	<30
Carbonyl Sulfide	ND	0.20	102	70-130%	101	70-130%	0.7	<30
Methyl Mercaptan	ND	0.20	100	70-130%	100	70-130%	0.3	<30
Ethyl Mercaptan	ND	0.20	96	70-130%	95	70-130%	0.5	<30
Dimethyl Sulfide	ND	0.20	89	70-130%	87	70-130%	1.4	<30
Carbon Disulfide	ND	0.20	80	70-130%	79	70-130%	2.3	<30
Dimethyl Disulfide	ND	0.20	70	70-130%	70	70-130%	0.8	<30

ND = Not Detected (Below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date: 8/22/17
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 127-32
08/08/2017

Kurz FM =	**1,320**	**scfm**
Fleetzoom Total =	**1,339**	**scfm**

$\Delta =$ **1.4%**

	PARAMETER	Blower Outlet A	Blower Outlet B
SOUTH QUARRY LFG - MAIN FLARE COMPOUND BLOWER OUTLET (FL120)			
Date	Test Date	8/8/17	8/8/17
Time	Start	9:17	9:36
***%CH_4**	Methane, %	13.2	13.3
***%CO_2**	Carbon Dioxide, %	36.7	36.3
***'%O_2**	Oxygen, %	6.4	6.0
***%Balance**	Assumed as Nitrogen, %	43.7	44.4
P_g	Flue Gas Static Pressure, inches of H_2O	13.16	15.46
t_s	Blower Outlet LFG Temperature, °F	90.0	96.0
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	1,272	
Q_s	Fleetzoom FM, Standard Volumetric Flow Rate, scfm	1,339	
LFG_{CH4}	Methane, lb/hr	419.6	422.8
	Methane, grains/dscf	38.48	38.78
LFG_{CO2}	Carbon Dioxide, lb/hr	3,200.5	3,165.6
	Carbon Dioxide, grains/dscf	293.53	290.33
LFG_{O2}	Oxygen, lb/hr	405.8	380.4
	Oxygen, grains/dscf	37.22	34.89
LFG_{N2}	Balance gas as Nitrogen, lb/hr	2,425.8	2,464.7
	Balance gas as Nitrogen, grains/dscf	222.48	226.04

** Fixed gas results based on field parameter data collection at the time of sampling, via Envision Landfill Gas Analyzer*

		Blower Outlet A	Blower Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	2.8	0.59
	Hydrogen Sulfide Rate, lb/hr	0.02	0.00
	Hydrogen Sulfide Rate, grains/dscf	0.002	0.000
COS	Carbonyl Sulfide Concentration, ppmd	0.59	0.59
	Carboynl Sulfide Rate, lb/hr	0.01	0.01
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	150	130
	Methyl Mercaptan Rate, lb/hr	1.43	1.24
	Methyl Mercaptan Rate, grains/dscf	0.131	0.114
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	1.4	1.3
	Ethyl Mercaptan Rate, lb/hr	0.02	0.02
	Ethyl Mercaptan Rate, grains/dscf	0.002	0.001
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	1,200	1,100
	Dimethyl Sulfide Rate, lb/hr	14.77	13.54
	Dimethyl Sulfide Rate, grains/dscf	1.355	1.242
CS_2	Carbon Disulfide Concentration, ppmd	1.0	0.99
	Carbon Disulfide Rate, lb/hr	0.02	0.01
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	110	110
	Dimethyl Disulfide Rate, lb/hr	2.05	2.05
	Dimethyl Disulfide Rate, grains/dscf	0.188	0.188
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	1,600	1,500
	TRS-->SO2 Emission Rate, lb/hr	20.31	19.04
	TRS-->SO2 Emission Rate, grains/dscf	1.863	1.746
	TPY =	88.96	83.40

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 73-32
08/08/2017

Fleetzoom Total = 179 scfm

	PARAMETER	EP14 NQ A	EP14 NQ B
EP14 NORTH QUARRY FLARE (OPERATING SOLO to NQ LFG Only)			
Date	Test Date	8/8/17	8/8/17
Time	Start	8:22	8:40
***%CH_4**	Methane, %	49.2	48.30
***%CO_2**	Carbon Dioxide, %	35.8	36.50
***'%O_2**	Oxygen, %	1.0	1.00
***%Balance**	Assumed as Nitrogen, %	14.0	14.20
P_g	Flue Gas Static Pressure, inches of H_2O	1.90	1.74
t_s	Blower Outlet LFG Temperature, °F	84.7	90.0
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	170	
Q_s	Fleetzoom Standard Volumetric Flow Rate, scfm	179	
LFG_{CH4}	Methane, lb/hr	208.9	205.1
	Methane, grains/dscf	143.44	140.82
LFG_{CO2}	Carbon Dioxide, lb/hr	417.0	425.1
	Carbon Dioxide, grains/dscf	286.33	291.93
LFG_{O2}	Oxygen, lb/hr	8.5	8.5
	Oxygen, grains/dscf	5.82	5.82
LFG_{N2}	Balance gas as Nitrogen, lb/hr	103.8	105.3
	Balance gas as Nitrogen, grains/dscf	71.27	72.29

** Fixed gas results based on field parameter data collection at the time of sampling, via Envision Landfill Gas Analyzer*

		EP14 NQ A	EP14 NQ B
H_2S	Hydrogen Sulfide Concentration, ppmd	0.59	28
	Hydrogen Sulfide Rate, lb/hr	0.00	0.03
	Hydrogen Sulfide Rate, grains/dscf	0.000	0.017
COS	Carbonyl Sulfide Concentration, ppmd	0.59	0.59
	Carboynl Sulfide Rate, lb/hr	0.00	0.00
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	0.59	4.6
	Methyl Mercaptan Rate, lb/hr	0.00	0.01
	Methyl Mercaptan Rate, grains/dscf	0.001	0.004
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	0.59	0.59
	Ethyl Mercaptan Rate, lb/hr	0.00	0.00
	Ethyl Mercaptan Rate, grains/dscf	0.001	0.001
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	18	20
	Dimethyl Sulfide Rate, lb/hr	0.03	0.03
	Dimethyl Sulfide Rate, grains/dscf	0.020	0.023
CS_2	Carbon Disulfide Concentration, ppmd	0.59	0.59
	Carbon Disulfide Rate, lb/hr	0.00	0.00
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	0.59	0.59
	Dimethyl Disulfide Rate, lb/hr	0.00	0.00
	Dimethyl Disulfide Rate, grains/dscf	0.001	0.001
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	19	54
	TRS-->SO2 Emission Rate, lb/hr	0.03	0.09
	TRS-->SO2 Emission Rate, grains/dscf	0.022	0.063
	TPY =	0.14	0.40

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

AIR TECHNOLOGY Laboratories, Inc.

August 16, 2017

LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-14-6
EPA Methods TO14A, TO15
UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

Republic Services
ATTN: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: I080902-01/04

Enclosed are results for sample(s) received 8/09/17 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Nick Bauer, Mike Lambrich, Ron Baker and Anthony Kimutis; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group, and Jan Feezor, Feezor Engineering on 8/16/17.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

CHAIN OF CUSTODY RECORD

AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

TURNAROUND TIME		DELIVERABLES		PAGE: 1 OF 1
Standard	48 hours	EDD	✓ DD 5W/17	Condition upon receipt:
Same Day	72 hours	EDF		Sealed Yes No
24 hours	96 hours	Level 3		Intact Yes No
Other: ✓	5 day	Level 4		Chilled deg C

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd
City/State/Zip:	Bridgeton, MO 63044
Phone& Fax:	314-683-3921
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.: ~~6312552~~ 6605567 ~~6605611~~

Bill to: Republic Services
Attn: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Canister Pressures ("hg)				SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	EPA Method 15/16 + TRS					
	Canister ID	Sample Start	Sample End	Lab Receive												
I080902-01	1539	-17.54	-3.47	-4	EP-14 NQ A	8/8/2017	8:22	C -1L	LFG	He	X					
-02	R1159	-19.05	-3.46	-4	EP-14 NQ B	8/8/2017	8:40	C -1L	LFG	He	X					
-03	R1374	-19.47	-3.48	-4	Blower Outlet A	8/8/2017	9:17	C -1L	LFG	He	X					
-04	R1163	-19.34	-3.49	-4	Blower Outlet B	8/8/2017	9:36	C -1L	LFG	He	X					

AUTHORIZATION TO PERFORM WORK: Dave Penoyer	COMPANY: Republic Services	DATE/TIME:	**COMMENTS**
SAMPLED BY: Anthony Kimmis / Ron Baker	COMPANY: Republic Services	DATE/TIME 8-08-17	
RELINQUISHED BY	DATE 8/08/17 RECEIVED BY	DATE/TIME	
RELINQUISHED BY	DATE 8/8/17 RECEIVED BY	DATE/TIME	
RELINQUISHED BY FEDEX	DATE RECEIVED BY	DATE/TIME 8/9/17 1158	

METHOD OF TRANSPORT (circle one): Walk-In FedEx UPS Courier ATLI Other

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: H=HCl N=None / Container: B=Bag C=Can V=VOA O=Other *Rev. 03 - 5/7/09*

Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 08/09/17
Matrix: Air
Reporting Units: ppmv

EPA Methods 15/16

Lab No.:	I080902-01		I080902-02		I080902-03		I080902-04	
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B		Blower Outlet A		Blower Outlet B	
Date/Time Sampled:	8/8/17 8:22		8/8/17 8:40		8/8/17 9:17		8/8/17 9:36	
Date/Time Analyzed:	8/11/17 10:43		8/11/17 10:56		8/11/17 11:08		8/11/17 11:21	
QC Batch No.:	170811GC3A1		170811GC3A1		170811GC3A1		170811GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.0		3.0		3.0	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	ND	0.59	28	0.59	2.8	0.59	ND	0.59
Carbonyl Sulfide	ND	0.59	ND	0.59	ND	0.59	ND	0.59
Methyl Mercaptan	ND	0.59	4.6	0.59	150 d	59	130 d	59
Ethyl Mercaptan	ND	0.59	ND	0.59	1.4	0.59	1.3	0.59
Dimethyl Sulfide	18	0.59	20	0.59	1,200 d	59	1,100 d	59
Carbon Disulfide	ND	0.59	ND	0.59	1.0	0.59	0.99	0.59
Dimethyl Disulfide	ND	0.59	ND	0.59	110 d	59	110 d	59
Total Reduced Sulfur	19	0.59	54	0.59	1,600	0.59	1,500	0.59

ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary dilution

Reviewed/Approved By: _____ Date 8/16/17
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	8/11/17 9:13		8/11/17 8:48		8/11/17 9:01			
Analyst Initials:	AS		AS		AS			
Datafile:	11aug004		11aug002		11aug003			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	107	70-130%	106	70-130%	0.6	<30
Carbonyl Sulfide	ND	0.20	110	70-130%	108	70-130%	1.9	<30
Methyl Mercaptan	ND	0.20	118	70-130%	118	70-130%	0.1	<30
Ethyl Mercaptan	ND	0.20	109	70-130%	109	70-130%	0.3	<30
Dimethyl Sulfide	ND	0.20	98	70-130%	98	70-130%	0.8	<30
Carbon Disulfide	ND	0.20	100	70-130%	99	70-130%	1.0	<30
Dimethyl Disulfide	ND	0.20	89	70-130%	89	70-130%	0.8	<30

ND = Not Detected (Below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date: 8/16/17
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Bridgeton Landfill, LLC
Weekly TRS
Monthly Method 2C
Event 126-31
08/02/2017

	PARAMETER	Blower Out
SOUTH QUARRY LFG - BLOWER OUTLET (FL120/EP-12 Only)		
Date	Test Date	8/2/17
Start	Run Start Time	9:51
	Run Finish Time	11:22
	Net Traversing Points	8 (2 x 4)
Θ	Net Run Time, minutes	1:30:20
C_p	Pitot Tube Coeficient	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.57
% H_2O	Moisture Content of LFG, %	4.61
% RH	Relative Humidity, %	73.30
M_{fd}	Dry Mole Fraction	0.954
%CH_4	Methane, %	12.80
%CO_2	Carbon Dioxide, %	37.60
%O_2	Oxygen, %	6.65
%Balance	Assumed as Nitrogen, %	30.90
%H_2	Hydrogen, %	10.70
%CO	Carbon Monoxide, %	0.06
M_d	Dry Molecular Weight, lb/lb-Mole	29.62
M_s	Wet Molecular weight, lb/lb-Mole	29.08
P_g	Flue Gas Static Pressure, inches of H_2O	17.53
P_s	Absolute Flue Gas Pressure, inches of Mercury	30.86
t_s	Average Stack Gas Temperature, °F	100
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.063
v_s	Average LFG Velocity, feet/second	16.79
A_s	Stack Crossectional Area, square feet	1.35
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	1,264
Q_s	Standard Volumetric Flow Rate, scfm	1,322
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	1,363
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	5,829
NHV	Net Heating Value, Btu/scf	176.4
LFG_{CH4}	Methane, lb/hr	404.3
	Methane, grains/dscf	37.32
LFG_{CO2}	Carbon Dioxide, lb/hr	3,257.8
	Carbon Dioxide, grains/dscf	300.73
LFG_{O2}	Oxygen, lb/hr	418.9
	Oxygen, grains/dscf	38.67
LFG_{N2}	Balance gas as Nitrogen, lb/hr	1,704.2
	Balance gas as Nitrogen, grains/dscf	157.31
LFG_{H2}	Hydrogen, lb/hr	42.5
	Hydrogen, grains/dscf	3.92
LFG_{CO}	Carbon Monoxide, lb/hr	3.3
	Carbon Monoxide, grains/dscf	0.30

		Outlet A	Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	0.63	0.67
	Hydrogen Sulfide Rate, lb/hr	0.00	0.00
	Hydrogen Sulfide Rate, grains/dscf	0.000	0.000
COS	Carbonyl Sulfide Concentration, ppmd	0.63	0.67
	Carboynl Sulfide Rate, lb/hr	0.01	0.01
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	160	170
	Methyl Mercaptan Rate, lb/hr	1.52	1.61
	Methyl Mercaptan Rate, grains/dscf	0.140	0.149
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	1.7	2.0
	Ethyl Mercaptan Rate, lb/hr	0.02	0.02
	Ethyl Mercaptan Rate, grains/dscf	0.002	0.002
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	1,300	1,300
	Dimethyl Sulfide Rate, lb/hr	15.90	15.90
	Dimethyl Sulfide Rate, grains/dscf	1.468	1.468
CS_2	Carbon Disulfide Concentration, ppmd	1.2	1.3
	Carbon Disulfide Rate, lb/hr	0.02	0.02
	Carbon Disulfide Rate, grains/dscf	0.002	0.002
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	120	130
	Dimethyl Disulfide Rate, lb/hr	2.23	1.95
	Dimethyl Disulfide Rate, grains/dscf	0.205	0.180

❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	1,700	1,700
	TRS-->SO2 Emission Rate, lb/hr	21.44	21.44
	TRS-->SO2 Emission Rate, grains/dscf	1.979	1.979

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

Wednesday, August 02, 2017

LOCATION	TIME	FLOW -SCFM			Method 2 vs. Fleetzoom	Method 2 vs Kurz	Kurz vs Fleetzoom
		Method 2	FleetZoom	Kurz FM			
BLOWER OUT	**9:51**	**1,322**	**1,386**	**1,358**	**-4.8%**	**-2.7%**	**-2.0%**

**Note: Fleetzoom data derived from EP-12/FL120 TSI Flow Meter*

Bridgeton Landfill, LLC
Weekly TRS
Monthly Method 2C
Event 72-31
08/02/2017

	PARAMETER	Blower Out
	EP14 NORTH QUARRY LFG ONLY	
Date	Test Date	8/2/17
Start	Run Start Time	8:12
	Run Finish Time	9:42
	Net Traversing Points	8 (2 x 4)
Θ	Net Run Time, minutes	1:29:55
C_p	Pitot Tube Coeficient	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.59
% H_2O	Moisture Content of LFG, %	4.36
% RH	Relative Humidity, %	72.85
M_{fd}	Dry Mole Fraction	0.956
%CH_4	Methane, %	49.50
%CO_2	Carbon Dioxide, %	37.15
%O_2	Oxygen, %	1.80
%Balance	Assumed as Nitrogen, %	10.45
%H_2	Hydrogen, % (** reported at the laboratory detection limit*)	3.10
%CO	Carbon Monoxide, % (** reported at the laboratory detection limit*)	0.00310
M_d	Dry Molecular Weight, lb/lb-Mole	27.86
M_s	Wet Molecular weight, lb/lb-Mole	27.43
P_g	Flue Gas Static Pressure, inches of H_2O	1.75
P_s	Absolute Flue Gas Pressure, inches of Mercury	29.72
t_s	Average Stack Gas Temperature, °F	97
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.013
v_s	Average LFG Velocity, feet/second	7.90
A_s	Stack Crossectional Area, square feet	0.51
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	219
Q_s	Standard Volumetric Flow Rate, scfm	229
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	243
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	950
NHV	Net Heating Value, Btu/scf	449.4
LFG_{CH4}	Methane, lb/hr	270.8
	Methane, grains/dscf	144.32
LFG_{CO2}	Carbon Dioxide, lb/hr	557.6
	Carbon Dioxide, grains/dscf	297.13
LFG_{O2}	Oxygen, lb/hr	19.6
	Oxygen, grains/dscf	10.47
LFG_{N2}	Balance gas as Nitrogen, lb/hr	99.8
	Balance gas as Nitrogen, grains/dscf	53.20
LFG_{H4}	Hydrogen, lb/hr	2.1
	Hydrogen, grains/dscf	1.14
LFG_{CO}	Carbon Monoxide, lb/hr	0.0
	Carbon Monoxide, grains/dscf	0.02

		Outlet A	Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	57	55
	Hydrogen Sulfide Rate, lb/hr	0.07	0.06
	Hydrogen Sulfide Rate, grains/dscf	0.035	0.034
COS	Carbonyl Sulfide Concentration, ppmd	0.59	0.63
	Carboynl Sulfide Rate, lb/hr	0.00	0.00
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	3.7	4.0
	Methyl Mercaptan Rate, lb/hr	0.01	0.01
	Methyl Mercaptan Rate, grains/dscf	0.003	0.003
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	0.59	0.63
	Ethyl Mercaptan Rate, lb/hr	0.00	0.00
	Ethyl Mercaptan Rate, grains/dscf	0.001	0.001
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	13	13
	Dimethyl Sulfide Rate, lb/hr	0.03	0.03
	Dimethyl Sulfide Rate, grains/dscf	0.015	0.015
CS_2	Carbon Disulfide Concentration, ppmd	0.59	0.63
	Carbon Disulfide Rate, lb/hr	0.00	0.00
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	0.59	0.63
	Dimethyl Disulfide Rate, lb/hr	0.00	0.00
	Dimethyl Disulfide Rate, grains/dscf	0.001	0.001

❶**$E_{TRS-SO2}$**	TRS-->SO2 Emission Concentration, ppmd	74	73
	TRS-->SO2 Emission Rate, lb/hr	0.16	0.16
	TRS-->SO2 Emission Rate, grains/dscf	0.086	0.085

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

August 4, 2017

LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-14-6
EPA Methods TO14A, TO15
UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

Republic Services
ATTN: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: I080303-01/04

Enclosed are results for sample(s) received 8/03/17 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Nick Bauer and Mike Lambrich; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group, and Jan Feezor, Feezor Engineering on 8/04/17.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

AirTECHNOLOGY *Laboratories, Inc.*

18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

CHAIN OF CUSTODY RECORD

TURNAROUND TIME: Standard ☐ 48 hours ☐ Same Day ☐ 72 hours ☐ **24 hours** ■ 96 hours ☐ Other: 5 day ☐

DELIVERABLES: EDD ☒ EDF ☐ Level 3 ☐ Level 4 ☐

PAGE: 1 OF 1

Condition upon receipt: Sealed Yes ☐ No ☐ Intact Yes ☐ No ☐ Chilled ______ deg C

Project No.:
Project Name: Bridgeton Landfill
Report To: Nick Bauer
Company: Republic Services
Street: 13570 St. Charles Rock Rd
City/State/Zip: Bridgeton, MO 63044
Phone& Fax: 314-683-3921
e-mail: Nbauer@republicservices.com

BILLING
P.O. No.: 6312552 PD 8/3/17
Bill to: Republic Services
Attn: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LAB USE ONLY	Canister ID	Sample Start ("hg)	Sample End ("hg)	Lab Receive ("hg)	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	EPA Method 15/16	ASTM 1946 + H2 + CO & Btu/SCF		ASTM 1946 + H2 + CO & Btu/SCF (by CH4 only)		
I080303-01	1294	-19.78	-3.48	-4	NQ EP14 A	8/2/2017	8:45	C-6L	LFG	He	X			X		
-02	1305	-19.9	-3.49	-5	NQ EP14 B	8/2/2017	9:21	C-6L	LFG	He	X			X		
-03	6011	-19.73	-3.49	-5	Blower Outlet A	8/2/2017	10:10	C-6L	LFG	He	X	X				
-04	5964	-19.49	-3.54	-6	Blower Outlet B	8/2/2017	10:43	C-6L	LFG	He	X	X				

AUTHORIZATION TO PERFORM WORK: Dave Penoyer — **COMPANY:** Republic Services — DATE/TIME:

SAMPLED BY: AK/RB — **COMPANY:** Weaver Consultants Group — DATE/TIME: 08/2/2017 0700-1300

RELINQUISHED BY [signature] DATE 8/2/17 — **RECEIVED BY** — DATE/TIME

RELINQUISHED BY FED EX — DATE — **RECEIVED BY** [signature] — DATE/TIME 8/3/17 0946

RELINQUISHED BY — DATE — **RECEIVED BY** — DATE/TIME

COMMENTS

METHOD OF TRANSPORT (circle one): Walk-In FedEx **UPS** Courier ATLI Other______

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: **H**=HCl **N**=None / Container: **B**=Bag **C**=Can **V**=VOA **O**=Other *Rev. 03 - 5/7/09*

Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 08/03/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I080303-01		I080303-02					
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B					
Date/Time Sampled:	8/2/17 8:45		8/2/17 9:21					
Date/Time Analyzed:	8/3/17 10:46		8/3/17 11:01					
QC Batch No.:	170803GC8A1		170803GC8A1					
Analyst Initials:	AS		AS					
Dilution Factor:	3.0		3.2					
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v				
Hydrogen	ND	3.0	ND	3.2				
Carbon Dioxide	37.1	0.030	37.2	0.032				
Oxygen/Argon	1.8	1.5	1.8	1.6				
Nitrogen	10.5	3.0	10.4	3.2				
Methane	49.3	0.0030	49.5	0.0032				
Carbon Monoxide	ND	0.0030	ND	0.0032				
Net Heating Value (BTU/ft3) methane only	448.4	3.0	450.3	3.2				
Gross Heating Value (BTU/ft3) methane only	498.0	3.0	500.1	3.2				

Results normalized including non-methane hydrocarbons
BTU values based on D1946 analysis methane only
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 8-4-17

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 08/03/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I080303-03		I080303-04					
Client Sample I.D.:	Blower Outlet A		Blower Outlet B					
Date/Time Sampled:	8/2/17 10:10		8/2/17 10:43					
Date/Time Analyzed:	8/3/17 11:15		8/3/17 11:30					
QC Batch No.:	170803GC8A1		170803GC8A1					
Analyst Initials:	AS		AS					
Dilution Factor:	3.2		3.4					
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v				
Hydrogen	10.7	3.2	10.7	3.4				
Carbon Dioxide	37.5	0.032	37.7	0.034				
Oxygen/Argon	6.7	1.6	6.6	1.7				
Nitrogen	31.0	3.2	30.8	3.4				
Methane	12.8	0.0032	12.8	0.0034				
Carbon Monoxide	0.059	0.0032	0.059	0.0034				
Net Heating Value (BTU/ft3)	175.2	3.2	177.6	3.4				
Gross Heating Value (BTU/ft3)	198.0	3.2	200.6	3.4				

Results normalized including non-methane hydrocarbons
BTU values based on D1946 analysis and non-methane analysis assumed as propane
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 8-4-17

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No: 170803GC8A1
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	8/3/17 9:38			8/3/17 9:09		8/3/17 9:24					
Analyst Initials:	AS			AS		AS					
Dilution Factor:	1.0			1.0		1.0			Limits		
ANALYTE	Result % v/v	RL % v/v	SPIKE AMT. % v/v	Result % v/v	% Rec.	Result % v/v	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
Hydrogen	ND	1.0	5.0	4.46	89	4.65	93	4.2	70	130	30
Carbon Dioxide	ND	0.010	10	8.90	89	9.03	90	1.4	70	130	30
Oxygen/Argon	ND	0.50	15	15.4	104	15.6	106	1.6	70	130	30
Nitrogen	ND	1.0	70	69.6	99	70.5	101	1.4	70	130	30
Methane	ND	0.0010	0.10	0.106	106	0.106	106	0.3	70	130	30
Carbon Monoxide	ND	0.0010	0.10	0.102	102	0.101	101	0.4	70	130	30

ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 8-4-17

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 08/03/17
Matrix: Air
Reporting Units: ppmv

EPA Methods 15/16

Lab No.:	I080303-01		I080303-02		I080303-03		I080303-04	
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B		Blower Outlet A		Blower Outlet B	
Date/Time Sampled:	8/2/17 8:45		8/2/17 9:21		8/2/17 10:10		8/2/17 10:43	
Date/Time Analyzed:	8/3/17 11:07		8/3/17 11:24		8/3/17 11:37		8/3/17 11:50	
QC Batch No.:	170803GC3A1		170803GC3A1		170803GC3A1		170803GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.2		3.2		3.4	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	57 d	5.9	55 d	6.3	ND	0.63	ND	0.67
Carbonyl Sulfide	ND	0.59	ND	0.63	ND	0.63	ND	0.67
Methyl Mercaptan	3.7	0.59	4.0	0.63	160 d	63	170 d	67
Ethyl Mercaptan	ND	0.59	ND	0.63	1.7	0.63	2.0	0.67
Dimethyl Sulfide	13	0.59	13	0.63	1,300 d	63	1,300 d	67
Carbon Disulfide	ND	0.59	ND	0.63	1.2	0.63	1.3	0.67
Dimethyl Disulfide	ND	0.59	ND	0.63	120 d	63	130 d	67
Total Reduced Sulfur	74	0.59	73	0.63	1,700	0.63	1,700	0.67

ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary dilution

Reviewed/Approved By: _____ Date 8-4-17

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	8/3/17 8:49		8/3/17 8:24		8/3/17 8:37			
Analyst Initials:	AS		AS		AS			
Datafile:	03aug003		03aug001		03aug002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	96	70-130%	95	70-130%	0.8	<30
Carbonyl Sulfide	ND	0.20	108	70-130%	107	70-130%	1.5	<30
Methyl Mercaptan	ND	0.20	109	70-130%	107	70-130%	1.1	<30
Ethyl Mercaptan	ND	0.20	102	70-130%	101	70-130%	0.7	<30
Dimethyl Sulfide	ND	0.20	95	70-130%	94	70-130%	0.8	<30
Carbon Disulfide	ND	0.20	96	70-130%	94	70-130%	1.8	<30
Dimethyl Disulfide	ND	0.20	85	70-130%	83	70-130%	2.0	<30

ND = Not Detected (Below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date: 8-4-17
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

ATTACHMENT C

GAS WELL ANALYSIS MAPS

LEGEND

< = Well Location

Hydrogen

	<	10%
10	<	20%
20	<	30%
30	<	40%
	>	40%

NOTES:

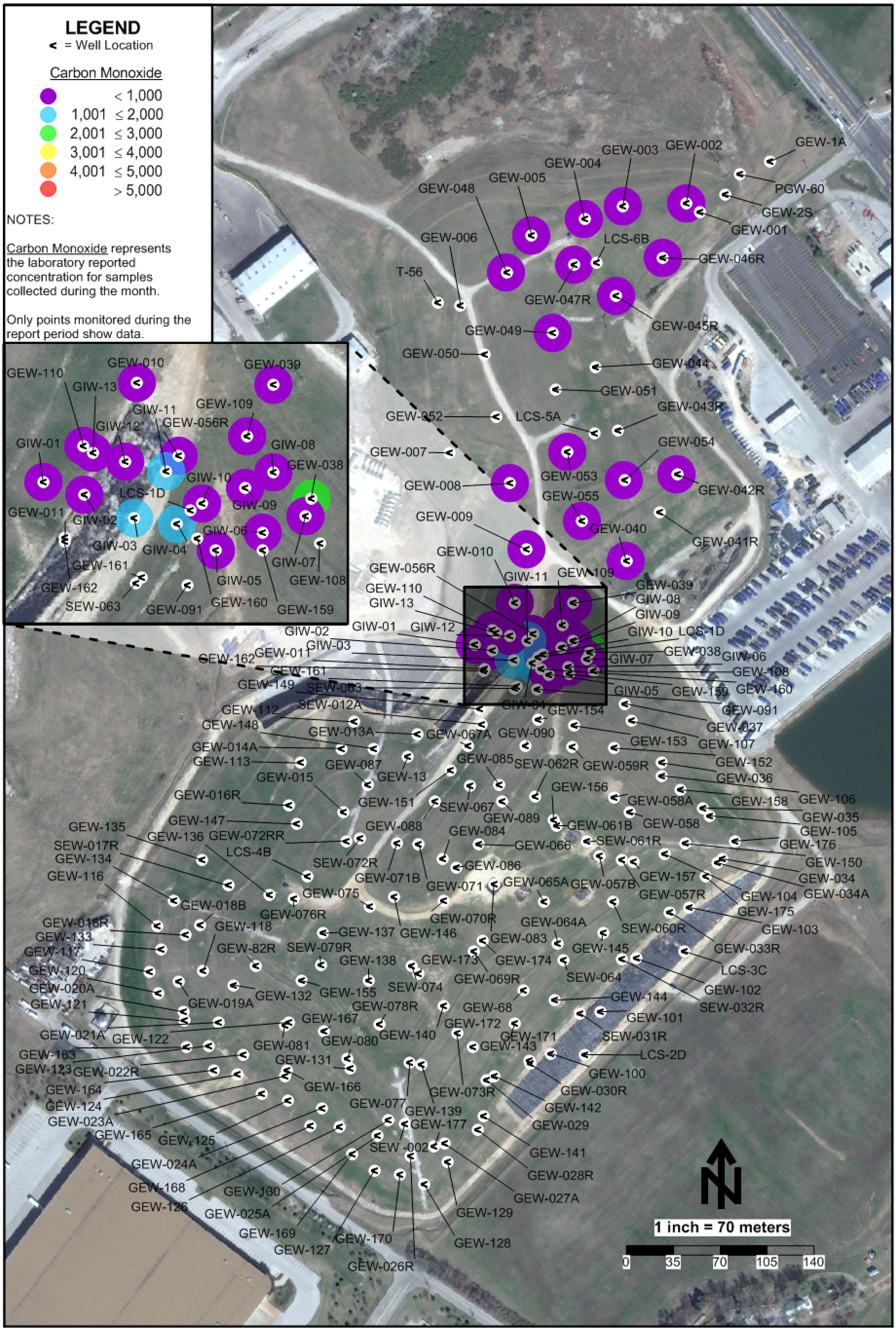
Hydrogen represents the laboratory reported concentration for samples collected during the month.

Only points monitored during the report period show data.

1 inch = 70 meters

0 35 70 105 140

Hydrogen Data Map - August 2017 - Bridgeton Landfill



Carbon Monoxide Data Map - August 2017 - Bridgeton Landfill

LEGEND

< = Well Location

Maximum Temperature

- < 131°
- 131 < 151°
- 151 < 171°
- 171 < 191°
- 191 < 211°
- 211 < 231°
- > 231°

NOTES:

Maximum Temperature represents the maximum initial wellhead temperature reading collected during the month.

Only points monitored during the report period show data.

GEW-1A GEW-002 GEW-003 GEW-004 GEW-005 GEW-048 PGW-60 GEW-2S GEW-001 GEW-006 LCS-6B GEW-046R T-56 GEW-047R GEW-045R GEW-049 GEW-050 GEW-044 GEW-051 GEW-052 LCS-5A GEW-043R GEW-007 GEW-053 GEW-054 GEW-008 GEW-042R GEW-055 GEW-009 GEW-040 GEW-041R GEW-010 GEW-056R GEW-011 GEW-039 GEW-110 GIW-08 GIW-13 GIW-09 GIW-01 GIW-12 GIW-10 LCS-1D GIW-02 GEW-038 GIW-06 GEW-162 GEW-011 GIW-03 GIW-07 GEW-108 GEW-161 GEW-149 SEW-063 GIW-05 GEW-159 GEW-160 GIW-04 GEW-091 GEW-112 SEW-012A GEW-154 GEW-037 GEW-148 GEW-013A GEW-067A GEW-090 GEW-107 GEW-014A GEW-153 GEW-113 GEW-087 GEW-085 SEW-062R GEW-059R GEW-152 GEW-015 GEW-13 GEW-036 GEW-016R GEW-151 SEW-067 GEW-156 GEW-058A GEW-158 GEW-106 GEW-147 GEW-089 GEW-058 GEW-035 GEW-135 GEW-088 GEW-061B GEW-105 GEW-136 GEW-072RR GEW-084 SEW-061R GEW-176 SEW-017R LCS-4B GEW-066 GEW-150 GEW-134 SEW-072R GEW-086 GEW-034 GEW-116 GEW-071B GEW-071 GEW-065A GEW-057B GEW-157 GEW-057R GEW-104 GEW-034A GEW-018B GEW-075 GEW-175 GEW-076R GEW-070R GEW-064A GEW-103 GEW-018R GEW-118 SEW-060R GEW-137 GEW-146 GEW-083 GEW-033R GEW-133 GEW-145 GEW-117 GEW-82R SEW-079R GEW-173 GEW-174 LCS-3C GEW-120 GEW-138 GEW-069R SEW-064 GEW-102 GEW-020A GEW-155 SEW-074 GEW-144 GEW-019A GEW-132 GEW-078R GEW-68 SEW-032R GEW-121 GEW-167 GEW-172 GEW-101 GEW-021A GEW-122 GEW-140 GEW-171 SEW-031R GEW-081 GEW-080 GEW-143 GEW-163 GEW-131 LCS-2D GEW-123 GEW-022R GEW-100 GEW-164 GEW-166 GEW-030R GEW-124 GEW-077 GEW-073R GEW-142 GEW-023A GEW-139 GEW-165 GEW-125 GEW-177 GEW-029 GEW-024A SEW -002 GEW-141 GEW-168 GEW-130 GEW-028R GEW-126 GEW-027A GEW-025A GEW-129 GEW-169 GEW-170 GEW-128 GEW-127 GEW-026R

GEW-110 GEW-010 GEW-039 GIW-13 GIW-11 GEW-109 GEW-056R GIW-01 GIW-12 GIW-08 GEW-038 GIW-10 LCS-1D GEW-011 GIW-02 GIW-09 GIW-06 GIW-03 GIW-04 GIW-07 GEW-161 GIW-05 GEW-108 GEW-162 SEW-063 GEW-091 GEW-160 GEW-159

N

1 inch = 70 meters

0 35 70 105 140

Initial Temperature Maximums -August 2017 - Bridgeton Landfill

ATTACHMENT D

LABORATORY DATA

ATTACHMENT D-1

LAB ANALYSIS SUMMARY

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
North Quarry								
GEW-002	4/11/2017	55	43	ND	ND	ND	ND	
GEW-002	5/9/2017	49	40	2.7	9.1	ND	ND	See Note 3
GEW-002	6/5/2017	40	32	6.2	22	ND	ND	See Note 3
GEW-002	7/12/2017	56	42	ND	ND	ND	ND	
GEW-002	8/8/2017	53	40	ND	4.9	ND	ND	
GEW-02S	5/9/2017	61	34	ND	3.7	ND	ND	
GEW-02S	7/12/2017	60	37	ND	ND	ND	ND	
GEW-003	4/11/2017	51	39	ND	9.8	0.1	ND	
GEW-003	5/9/2017	56	41	ND	ND	0.08	ND	
GEW-003	6/5/2017	48	36	3.2	13.0	0.08	ND	See Note 3
GEW-003	7/12/2017	51	39	ND	9.0	0.18	ND	
GEW-003	8/8/2017	54	39	ND	6.3	0.09	ND	
GEW-004	4/11/2017	50	38	ND	11	0.1	ND	
GEW-004	5/9/2017	54	40	ND	5.7	0.08	ND	
GEW-004	6/5/2017	51	39	ND	9.4	0.07	ND	
GEW-004	7/12/2017	51	39	ND	8.5	0.15	ND	
GEW-004	8/8/2017	55	39	ND	4.5	0.08	ND	
GEW-005	4/11/2017	46	33	ND	20	ND	ND	
GEW-005	5/9/2017	51	35	ND	14	ND	ND	
GEW-005	6/5/2017	40	33	ND	25	ND	ND	
GEW-005	7/12/2017	37	29	3.6	30	ND	ND	See Note 3
GEW-005	8/8/2017	55	38	ND	6.4	0.04	ND	
GEW-006	5/9/2017	56	37	ND	6.6	ND	ND	
GEW-006	7/10/2017	53	37	ND	9.2	ND	ND	
GEW-007	5/9/2017	44	31	5.7	20	ND	ND	See Note 3
GEW-007	7/10/2017	58	40	ND	ND	ND	ND	
GEW-008	4/11/2017	53	43	ND	ND	0.7	ND	
GEW-008	5/9/2017	53	44	ND	ND	0.45	ND	
GEW-008	6/6/2017	51	43	ND	4.2	0.98	ND	
GEW-008	7/10/2017	52	44	ND	ND	1.0	ND	
GEW-008	8/9/2017	52	43	ND	ND	1.1	ND	
GEW-009	4/11/2017	45	39	1.7	13	0.4	ND	See Note 3
GEW-009	5/9/2017	52	42	ND	4.2	0.8	ND	
GEW-009	6/6/2017	48	41	ND	10	0.49	ND	
GEW-009	7/10/2017	52	42	ND	4.6	0.7	ND	
GEW-009	8/9/2017	53	42	ND	4.5	0.48	ND	
GEW-040	4/11/2017	57	41	ND	ND	ND	ND	
GEW-040	5/9/2017	58	40	ND	ND	ND	ND	
GEW-040	6/7/2017	58	40	ND	ND	ND	ND	
GEW-040	7/11/2017	56	39	ND	4.0	ND	ND	
GEW-040	8/9/2017	57	41	ND	ND	ND	ND	
GEW-041R	5/15/2017	56	37	ND	5.1	ND	ND	
GEW-041R	7/11/2017	58	39	ND	ND	ND	ND	
GEW-042R	4/11/2017	56	41	ND	ND	ND	ND	
GEW-042R	5/9/2017	56	41	ND	ND	ND	ND	
GEW-042R	6/7/2017	56	42	ND	ND	ND	ND	
GEW-042R	7/11/2017	57	41	ND	ND	ND	ND	
GEW-042R	8/9/2017	57	41	ND	ND	ND	ND	
GEW-043R	5/9/2017	56	41	ND	ND	0.22	ND	
GEW-043R	7/11/2017	55	42	ND	ND	0.49	ND	
GEW-044	5/9/2017	58	39	ND	ND	ND	ND	
GEW-044	7/10/2017	57	39	ND	ND	ND	ND	
GEW-045R	4/11/2017	60	37	ND	ND	ND	ND	
GEW-045R	5/9/2017	60	38	ND	ND	ND	ND	
GEW-045R	6/7/2017	50	32	3.9	14.0	ND	ND	See Note 3

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GEW-045R	7/12/2017	58	36	ND	4.8	ND	ND	
GEW-045R	8/8/2017	56	41	ND	ND	ND	ND	
GEW-046R	4/11/2017	52	39	ND	8.0	0.1	ND	
GEW-046R	5/9/2017	56	39	ND	3.9	0.06	ND	
GEW-046R	6/7/2017	56	40	ND	3.5	0.07	ND	
GEW-046R	7/12/2017	55	40	ND	4.1	0.15	ND	
GEW-046R	8/8/2017	55	39	ND	5	0.06	ND	
GEW-047R	4/11/2017	32	27	ND	40	0.1	ND	
GEW-047R	5/9/2017	53	39	ND	7.2	ND	ND	
GEW-047R	6/5/2017	40	31	3.8	25	0.07	ND	See Note 3
GEW-047R	7/12/2017	44	36	ND	19	0.21	ND	
GEW-047R	8/8/2017	56	41	ND	ND	ND	ND	
GEW-048	4/11/2017	50	36	ND	14	ND	ND	
GEW-048	5/9/2017	54	38	ND	6.2	ND	ND	
GEW-048	6/6/2017	53	39	ND	7.6	ND	ND	
GEW-048	7/12/2017	54	38	ND	6.9	ND	ND	
GEW-048	8/8/2017	55	38	ND	6.7	ND	ND	
GEW-049	4/11/2017	43	30	2.5	24	ND	ND	See Note 3
GEW-049	5/9/2017	55	38	ND	5.9	ND	ND	
GEW-049	6/6/2017	42	32	3.5	22	ND	ND	See Note 3
GEW-049	7/10/2017	54	39	ND	6.8	ND	ND	
GEW-049	8/9/2017	56	39	ND	4.2	0.05	ND	
GEW-050	5/9/2017	55	38	ND	6	ND	ND	
GEW-050	7/10/2017	53	38	ND	7.8	0.05	ND	
GEW-051	5/9/2017	54	41	ND	ND	1.1	ND	
GEW-051	7/10/2017	55	41	ND	ND	0.8	ND	
GEW-052	5/9/2017	51	36	ND	12	ND	ND	
GEW-052	7/10/2017	51	38	ND	10	0.04	ND	
GEW-053	4/11/2017	46	36	ND	12	4.2	48	
GEW-053	5/9/2017	51	39	ND	5.8	2.8	55	
GEW-053	6/6/2017	39	33	5.4	20	2.8	56	See Note 3
GEW-053	7/11/2017	51	40	ND	ND	4.7	53	
GEW-053	8/9/2017	50	42	ND	ND	5.3	61	
GEW-054	4/11/2017	52	41	ND	4	2.1	35	
GEW-054	5/9/2017	52	40	ND	3.9	2.2	ND	
GEW-054	6/7/2017	54	42	ND	ND	1.5	ND	
GEW-054	7/11/2017	52	40	ND	ND	2.8	ND	
GEW-054	8/9/2017	53	41	ND	ND	2.3	ND	
GEW-055	4/11/2007	48	41	ND	3.7	5.4	45	
GEW-055	5/9/2017	48	41	ND	ND	6.8	53	
GEW-055	6/7/2017	50	42	ND	ND	5	36	
GEW-055	7/11/2017	49	42	ND	ND	4.9	40	
GEW-055	8/9/2017	49	41	ND	3.7	4.6	36	
Flare Station²	4/4/2017	46.5	37.9	ND	11.7	ND	ND	See Note 5
Flare Station²	5/16/2017	45.9	34.5	2.4	15.5	ND	ND	See Note 5
Flare Station²	6/6/2017	43.4	34.3	2.8	18.3	ND	ND	See Note 5
Flare Station²	7/6/2017	45.5	34.6	2.7	16.1	ND	ND	See Note 5
Flare Station²	8/2/2017	49.4	37.2	1.8	10.5	ND	ND	See Note 5

Notes: (1) Based on the comparison of field to laboratory readings, oxygen to balance gas ratios, and historical concentrations, the sample was determined to be suspect due to oxygen introduction which likely occurred during sample collection or laboratory analytical methods. (2) MDNR also collected duplicate LFG samples at these locations during this sampling period. (3) Based on the oxygen verification readings taken with an Envision meter, it was determined there is a sample train leak. (4) Based on the oxygen verification readings taken with an Envision meter, it was determined that the readings are accurate. (5) Flare station gas concentration data is an average of NQ EP14 A (or 1) and NQ EP14 B (or 2), located in the North Quarry. (6) Flare station gas concentration data is an average of Outlets 1 and 2 (A & B) or SQ OU 1 and OU 2, located in the South Quarry. (7) Sample not reported by lab due to canister leak.

ND = Analyte not detected in sample.

² = Flare Station measured at EPA Method 2 flow port (blower outlet)

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
South Quarry								
GEW-010	4/10/2017	56	40	ND	ND	0.13	ND	
GEW-010	5/2/2017	57	40	ND	ND	ND	ND	
GEW-010	6/5/2017	49	35	3.5	12	ND	ND	
GEW-010	7/11/2017	56	41	ND	ND	ND	ND	
GEW-010	8/8/2017	57	40	ND	ND	ND	ND	
GEW-022R	7/12/2017	0.83	60	ND	4.3	31	2,500	
GEW-038	4/11/2017	6.4	55	ND	5.1	32	2,100	
GEW-038	5/2/2017	1.1	56	ND	ND	38	2,400	
GEW-038	6/5/2017	1.1	48	3.4	12	34	2,400	
GEW-038	7/12/2017	0.91	52	2.2	7.7	36	2,100	
GEW-038	8/9/2017	1.1	51	2.1	7.2	38	2,100	See Note 4
GEW-039	4/11/2017	44	54	ND	ND	0.07	ND	
GEW-039	5/2/2017	45	53	ND	ND	0.05	ND	
GEW-039	6/6/2017	45	53	ND	ND	ND	ND	
GEW-039	7/12/2017	44	54	ND	ND	ND	ND	
GEW-039	8/9/2017	42	51	ND	4.7	ND	ND	
GEW-056R	4/10/2017	14	52	ND	4.3	28	880	
GEW-056R	5/2/2017	16	53	ND	ND	28	920	
GEW-056R	6/5/2017	11	42	5.2	18	23	860	
GEW-056R	7/12/2017	18	51	ND	ND	26	820	
GEW-056R	8/8/2017	18	51	ND	ND	28	850	
GEW-057R	5/9/2017	5.9	37	3	42	11	370	
GEW-057R	7/7/2017	16	42	2.8	38	1.3	190	
GEW-058	5/8/2017	11	38	1.8	42	7.4	260	
GEW-058	7/6/2017	5.3	28	6.1	52	8.7	300	
GEW-058A	5/8/2017	9.9	33	2.9	50	4.6	210	
GEW-058A	7/6/2017	4.5	18	11	61	5.4	240	See Note 3
GEW-059R	5/8/2017	7.8	45	ND	ND	43	1,500	
GEW-059R	7/6/2017	7.3	45	ND	ND	44	1,600	
GEW-082R	5/8/2017	2.5	49	ND	ND	45	1,700	
GEW-082R	7/10/2017	7.8	40	3.5	17	31	990	
GEW-086	7/7/2017	3.6	49	1.9	6.5	37	680	
GEW-090	5/9/2017	8.4	38	4.2	15	34	1,300	See Note 3
GEW-090	7/7/2017	11	43	ND	5	39	1,400	
GEW-102	5/9/2017	7.2	47	2.5	8.6	34	640	
GEW-109	4/11/2017	24	49	ND	9.6	17	510	
GEW-109	5/2/2017	23	50	ND	8	18	530	
GEW-109	6/6/2017	26	49	ND	8.2	16	440	
GEW-109	7/12/2017	31	48	ND	7.9	12	320	
GEW-109	8/9/2017	29	48	ND	6.8	15	330	
GEW-110	4/10/2017	5.5	22	12.0	50	10	500	See Note 4
GEW-110	5/2/2017	5.8	22	11	50	11	540	
GEW-110	6/5/2017	7.3	30	9.3	36	17	810	See Note 4
GEW-110	7/11/2017	6.3	23	12	45	13	560	See Note 4
GEW-110	8/8/2017	6.2	22	11	52	9.2	420	See Note 4
GEW-116	5/8/2017	1.8	42	7.4	26	21	1,200	See Note 3
GEW-116	7/10/2017	4.2	53	5.4	19	17	960	
GEW-117	5/9/2017	4.3	43	6.4	22	23	1,100	See Note 4
GEW-117	7/10/2017	13	63	ND	4.6	17	970	
GEW-118	5/8/2017	1.1	54	ND	ND	39	1,600	
GEW-118	7/12/2017	1.3	57	ND	ND	38	1,300	
GEW-120	5/2/2017	16	54	ND	23	5.8	280	
GEW-120	7/12/2017	2.3	47	4.2	15	31	1,500	
GEW-121	5/2/2017	8.8	50	2.7	18	20	980	See Note 3
GEW-121	7/12/2017	11	59	ND	7.3	21	950	

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GEW-122	5/2/2017	11	41	ND	30	16	1,200	
GEW-122	7/12/2017	4.8	53	ND	3.7	37	2,100	
GEW-123	5/5/2017	18	37	3	35	7	420	See Note 3
GEW-123	7/12/2017	18	48	ND	26	5.7	330	
GEW-125	5/2/2017	3.5	54	ND	5.7	35	2,200	
GEW-125	7/12/2017	3.5	54	ND	5.9	34	2,000	
GEW-126	5/2/2017	18	49	ND	26	5.7	440	
GEW-126	7/12/2017	26	51	ND	17	5	410	
GEW-127	5/2/2017	6.4	57	2.6	14	18	1,900	
GEW-127	7/12/2017	5.9	57	2.2	13	20	2,100	
GEW-128	3/2/2017	5.7	61	ND	5.1	27	3,000	
GEW-128	5/2/2017	2.6	64	ND	ND	29	3,300	
GEW-128	7/12/2017	7.5	64	ND	3.8	23	2,500	
GEW-129	3/2/2017	3.4	70	ND	4.6	19	2,400	
GEW-129	5/2/2017	0.7	76	ND	ND	20	2,300	
GEW-130	3/2/2017	1.1	36	8.3	30	24	1,900	See Note 4
GEW-130	5/2/2017	3.3	39	6.9	28	22	1,700	See Note 4
GEW-130	7/12/2017	3.9	45	4.8	18	26	2,100	
GEW-131	3/6/2017	19	46	ND	11	22	1,200	
GEW-131	5/23/2017	12	41	ND	19	26	1,700	
GEW-131	7/12/2017	15	39	ND	24	20	1,600	
GEW-132	3/9/2017	7.5	46	2.1	18	26	1,300	
GEW-132	5/2/2017	5.9	38	3.1	37	15	810	
GEW-132	7/12/2017	6.6	34	3.7	47	8.5	450	
GEW-133	3/9/2017	1.0	55	ND	ND	41	1,600	
GEW-133	5/2/2017	0.88	57	2.4	8.4	30	2,200	
GEW-133	7/10/2017	5.8	57	ND	3.8	32	1,400	
GEW-134	3/15/2017	15	47	2.1	18	18	900	
GEW-134	5/5/2017	8.9	34	6.1	41	11	480	See Note 4
GEW-134	7/10/2017	9.2	29	7.1	49	4.8	200	See Note 4
GEW-135	3/9/2017	0.6	62	ND	ND	34	2,600	
GEW-135	5/5/2017	4.4	33	4.8	44	14	690	
GEW-135	7/10/2017	5	35	4.7	38	17	870	
GEW-136	3/15/2017	3.4	19	13	55	10	320	See Note 4
GEW-136	7/10/2017	6.1	27	9.3	38	19	520	See Note 4
GEW-137	3/9/2017	9.9	23	3.9	63	0.06	ND	
GEW-137	5/5/2017	8.4	20	6.7	65	ND	ND	See Note 3
GEW-137	7/10/2017	22	31	ND	45	ND	ND	
GEW-138	5/5/2017	5.3	33	3.1	41	17	1,000	
GEW-138	7/10/2017	1.7	12	12	71	2.4	250	See Note 4
GEW-139	3/2/2017	3.1	48	2.8	11	34	2,700	
GEW-139	5/9/2017	3.1	48	2.7	10	36	2,500	
GEW-139	7/12/2017	6.4	42	3.2	21	27	1,800	
GEW-140	3/3/2017	3.6	38	6.3	25	28	1,400	See Note 4
GEW-140	5/8/2017	9.8	35	5.7	35	15	730	See Note 4
GEW-140	7/7/2017	12	36	4.9	34	12	450	
GEW-141	3/3/2017	1.9	43	5.6	20	29	3,200	See Note 4
GEW-141	5/8/2017	0.19	45	5.4	19	29	3,300	See Note 4
GEW-141	7/12/2017	0.45	58	ND	ND	38	4,000	
GEW-144	3/3/2017	0.78	45	4.8	17	32	1800	See Note 4
GEW-144	7/7/2017	0.61	55	ND	ND	40	2100	
GEW-146	7/10/2017	2.7	12	13	72	0.45	360	See Note 4
GEW-147	3/7/2017	13	46	ND	18	22	920	
GEW-147	5/5/2017	0.5	53	ND	ND	41	2400	
GEW-147	7/10/2017	9.6	43	2	20	25	970	
GEW-148	5/2/2017	7.1	55	1.8	6.1	30	2,300	

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Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GEW-148	7/10/2017	3.2	45	4.1	14	33	1,900	
GEW-149	3/10/2017	11	43	3.4	30	13	580	
GEW-149	5/2/2017	12	41	3.6	33	9.9	400	
GEW-149	7/7/2017	14	44	2.2	29	11	340	
GEW-150	3/3/2017	11.0	38	5.1	38	7.8	420	See Note 4
GEW-150	5/9/2017	9.2	37	7.2	35	12	590	See Note 4
GEW-150	7/7/2017	18	56	ND	6.5	17	600	
GEW-151	3/10/2017	1	41	1.9	6.5	49	900	See Note 3
GEW-151	7/7/2017	1.3	43	ND	ND	52	720	
GEW-153	3/3/2017	37.0	44.0	ND	ND	16.0	430	
GEW-153	5/8/2017	25	39	2.7	23	10	350	
GEW-153	7/6/2017	27	39	2.7	22	9.5	290	
GEW-154	3/10/2017	33	42	2.3	8	15	700	
GEW-154	5/2/2017	22	29	8.7	38	1.6	140	See Note 4
GEW-154	7/7/2017	8	23	10	58	0.33	45	See Note 4
GEW-155	5/8/2017	2.4	38	2.2	32	25	940	
GEW-155	7/10/2017	1.2	22	8.2	56	12	430	
GEW-156	3/3/2017	16	32	5.3	44	2	95	See Note 4
GEW-156	5/9/2017	10	25	8	56	0.77	40	See Note 4
GEW-156	7/7/2017	25	39	4.2	21	11	210	
GEW-157	5/9/2017	14	50	ND	5.4	28	1,500	
GEW-158	3/10/2017	26	33	4.4	25	11	490	
GEW-158	5/8/2017	5	51	ND	ND	40	1700	
GEW-159	5/8/2017	7.3	27	10	38	17	920	See Note 4
GEW-159	7/6/2017	30	45	ND	ND	21	940	
GEW-160	3/10/2017	11	52	ND	3.6	32	2,000	
GEW-160	5/2/2017	6	51	ND	ND	39	2,300	
GEW-160	7/7/2017	4.9	48	ND	5.2	40	2,100	
GEW-161	5/2/2017	16	42	6	24	11	480	See Note 3
GEW-162	3/10/2017	6.8	31	11	38	13	690	See Note 4
GEW-162	7/7/2017	16	67	ND	6.4	7.8	320	
GEW-163	3/7/2017	4.8	30	8.8	46	9.3	590	See Note 4
GEW-163	5/2/2017	3.1	41	4.8	36	14	900	
GEW-163	7/12/2017	8.9	49	4	25	12	740	
GEW-164	3/7/2017	10	41	7.1	32	8.6	660	See Note 4
GEW-164	5/2/2017	13	64	ND	6.4	15	1,200	
GEW-164	7/12/2017	13	64	ND	4	17	1,300	
GEW-165	3/6/2017	5.6	62	ND	ND	29	2,400	
GEW-165	5/2/2017	5.1	59	1.7	6	28	2,100	
GEW-165	7/12/2017	5	49	4.7	17	23	1,600	
GEW-166	3/6/2017	0.3	54	1.7	5.7	38	3,200	
GEW-166	5/2/2017	0.51	44	4.9	17	32	2,500	
GEW-166	7/12/2017	0.37	54	ND	4.7	38	2,900	
GEW-167	3/6/2017	1.5	46	3.5	14	34	2,400	
GEW-167	5/2/2017	1.4	41	5.1	21	31	2,100	See Note 4
GEW-167	7/12/2017	0.32	53	ND	3.9	41	2,500	
GEW-168	3/6/2017	3.4	53	2.2	7.5	33	2,600	
GEW-168	5/2/2017	3.3	58	ND	ND	34	2,400	
GEW-168	7/12/2017	6.1	39	7.7	27	19	1,300	
GEW-169	3/6/2017	2.1	36	9	32	20	1,700	See Note 4
GEW-169	5/2/2017	1.5	35	9.6	35	18	1,600	See Note 4
GEW-169	7/12/2017	2	52	3.8	14	28	2,200	
GEW-170	3/2/2017	3.3	57	4	16	20	2,700	
GEW-170	5/2/2017	2.9	65	ND	ND	29	3,200	
GEW-170	7/12/2017	6.5	47	5.2	24	16	1,600	
GEW-172	5/9/2017	0.25	48	3.3	12	36	2,800	

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GEW-172	7/7/2017	0.3	52	ND	ND	43	3,200	
GEW-173	5/8/2017	7.1	21	9.2	59	2.7	310	See Note 4
GEW-174	3/3/2017	5.5	34	6.6	34	20	1,200	See Note 4
GEW-174	5/8/2017	8.7	31	6.5	38	15	850	See Note 4
GEW-174	7/7/2017	12	52	ND	8.2	26	1,400	
GEW-175	3/3/2017	16	45	4.5	23	11	510	
GEW-175	5/8/2017	15	43	5.9	24	12	470	See Note 4
GEW-175	7/7/2017	18	48	3.4	17	13	500	
GEW-176	3/3/2017	18	40	6	25	10	400	
GEW-176	5/8/2017	18	54	ND	8.1	17	730	
GEW-176	7/7/2017	29	44	3.1	17	6.9	260	
GEW-177	7/12/2017	0.29	60	ND	4.4	33	4,700	
GIW-01	4/10/2017	17	40	6.6	35	1.2	170	See Note 4
GIW-01	5/1/2017	6.1	28	11	53	1.9	250	See Note 4
GIW-01	6/5/2017	14	53	2.9	20	9.4	620	
GIW-01	7/12/2017	14	37	3.8	44	1.4	190	
GIW-01	8/8/2017	12	64	ND	8.7	13	780	
GIW-02	4/10/2017	2.9	16	16	63	1.9	130	See Note 4
GIW-02	5/1/2017	5.9	31	11	43	8.2	300	See Note 4
GIW-02	6/5/2017	5.5	31	9.8	45	8.7	250	See Note 4
GIW-02	7/12/2017	15	64	ND	ND	17	720	
GIW-02	8/8/2017	17	62	ND	ND	19	660	
GIW-03	4/10/2017	0.85	48	4.6	16	31	1,700	See Note 4
GIW-03	5/1/2017	0.82	52	3.4	12	31	1,800	
GIW-03	6/5/2017	0.83	47	4.9	17	29	1,700	
GIW-03	7/12/2017	0.99	48	4.1	14	32	1,600	
GIW-03	8/8/2017	1.1	50	4.7	17	27	1,500	See Note 4
GIW-04	4/10/2017	0.4	24	11	41	23	1,200	See Note 4
GIW-04	5/2/2017	0.61	29	9.5	33	27	1,600	See Note 4
GIW-04	6/5/2017	0.56	30	9.1	32	27	1,500	
GIW-04	7/12/2017	0.31	19	14	51	16	850	See Note 3
GIW-04	8/8/2017	0.4	23	12	42	22	1,200	See Note 4
GIW-05	4/10/2017	0.01	1.5	22	77	ND	ND	See Note 4
GIW-05	5/2/2017	0.013	2.6	21	76	ND	ND	See Note 4
GIW-05	6/5/2017	0.47	12	16	59	12	190	See Note 4
GIW-05	7/12/2017	4.9	50	ND	ND	41	2,200	
GIW-05	8/9/2017	1.7	50	ND	ND	46	610	
GIW-06	4/11/2017	6.4	50	ND	17	25	600	
GIW-06	5/2/2017	4.5	48	1.7	13	32	640	
GIW-06	6/5/2017	7.2	48	1.7	6	35	870	
GIW-06	7/12/2017	9.4	49	ND	11	28	570	
GIW-06	8/9/2017	21	48	ND	ND	28	530	
GIW-07	4/11/2017	13	51	5.8	21	9.4	680	See Note 4
GIW-07	5/2/2017	17	56	3.3	12	12	940	
GIW-07	6/5/2017	34	50	ND	5	9.7	550	
GIW-07	7/12/2017	26	56	1.8	6.8	9	400	
GIW-07	8/9/2017	32	52	ND	ND	12	590	
GIW-08	4/11/2017	21	68	ND	9.4	0.5	200	
GIW-08	5/2/2017	26	68	ND	4.2	0.7	220	
GIW-08	6/5/2017	29	61	ND	7	1.4	180	
GIW-08	7/12/2017	24	60	ND	13	1.3	150	
GIW-08	8/9/2017	44	51	ND	ND	1.4	120	
GIW-09	4/11/2017	2.3	15	12	66	4.6	160	See Note 4
GIW-09	5/2/2017	11	28	4.4	51	5.7	220	
GIW-09	6/6/2017	3	21	5.5	65	5.1	250	See Note 4
GIW-09	7/12/2017	9	28	2.1	55	5	170	

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GIW-09	8/9/2017	28	40	ND	22	9.3	280	
GIW-10	4/10/2017	1.5	51	ND	ND	43	1,200	
GIW-10	5/2/2017	4	51	ND	ND	42	1,100	
GIW-10	6/5/2017	3.6	48	2.1	7.2	39	980	
GIW-10	7/12/2017	2.2	51	ND	ND	44	830	
GIW-10	8/9/2017	7.3	51	ND	ND	39	810	
GIW-11	4/11/2017	3	61	ND	4.3	30	1,500	
GIW-11	5/2/2017	1.9	60	ND	ND	36	1,600	
GIW-11	6/5/2017	2	58	ND	ND	37	1,700	
GIW-11	7/12/2017	7	58	ND	ND	32	1,300	
GIW-11	8/8/2017	9.8	55	ND	ND	33	1,200	
GIW-12	4/10/2017	10	37	6.9	35	11	380	See Note 4
GIW-12	5/2/2017	11	39	6	30	14	470	See Note 4
GIW-12	6/5/2017	12	40	5.5	27	15	480	See Note 4
GIW-12	7/11/2017	12	39	5.7	30	12	350	
GIW-12	8/8/2017	15	44	3.7	22	15	390	See Note 4
GIW-13	4/10/2017	11	67	ND	ND	18	680	
GIW-13	5/2/2017	9.6	66	ND	ND	22	880	
GIW-13	6/5/2017	9.4	65	ND	ND	23	860	
GIW-13	7/11/2017	11	65	ND	ND	21	770	
GIW-13	8/8/2017	11	62	ND	ND	24	850	
Flare Station[2]	4/4/2017	9.3	35.6	8.5	34.5	11.5	680	See Note 6
Flare Station[2]	5/11/2017	14.5	34.2	7.8	33.2	9.5	525	See Note 6
Flare Station[2]	6/6/2017	9.7	32.9	8.5	38.5	9.3	540	See Note 6
Flare Station[2]	7/6/2017	11.1	35.2	7.5	35.0	10.0	610	See Note 6
Flare Station[2]	8/2/2017	12.8	37.6	6.7	30.9	10.7	590	See Note 6

Notes: (1) Based on the comparison of field to laboratory readings, oxygen to balance gas ratios, and historical concentrations, the sample was determined to be suspect due to oxygen introduction which likely occurred during sample collection or laboratory analytical methods. (2) MDNR also collected duplicate LFG samples at these locations during this sampling period. (3) Based on the oxygen verification readings taken with an Envision meter, it was determined there is a sample train leak. (4) Based on the oxygen verification readings taken with an Envision meter, it was determined that the readings are accurate. (5) Flare station gas concentration data is an average of NQ EP14 A (or 1) and NQ EP14 B (or 2), located in the North Quarry. (6) Flare station gas concentration data is an average of Outlets 1 and 2 (A & B) or SQ OU 1 and OU 2, located in the South Quarry. (7) Sample not reported by lab due to canister leak.

ND = Analyte not detected in sample.

[2] = Flare Station Inlet measured at EPA Method 2 flow port (blower outlet)

ATTACHMENT D-2

LAB ANALYSIS REPORTS

Air TECHNOLOGY Laboratories, Inc.

August 17, 2017

LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-14-6
EPA Methods TO14A, TO15
UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

Republic Services
ATTN: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: I081002-01/35

Enclosed are results for sample(s) received 8/10/17 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Nick Bauer, Mike Lambrich, Anthony Kimutis and Ron Baker; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group; and Jan Feezor, Feezor Engineering on 8/17/17.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

CHAIN OF CUSTODY RECORD

TURNAROUND TIME

5 Day	☒	48 hours	☐
Same Day	☐	72 hours	☐
24 hours	☐	96 hours	☐
Other:			

DELIVERABLES

EDD	☒ 5/16/17
EDF	☐
Level 3	☐
Level 4	☐

PAGE: 1 OF 4

Condition upon receipt:
Sealed Yes ☐ No ☐
Intact Yes ☐ No ☐
Chilled _____ deg C

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd.
City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	618-420-5209
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.:	PO6312552 BK 5/16/17
Bill to:	Republic Services
	Attn: Nick Bauer
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Cannister Pressure ("hg) Cannister ID	Sample Start	Sample End	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					"Hg LAB RECEIPT
I081082-01	5306	-19.7	-5	GEW 2	8/8/2017	1339	C	LFG	NA	X					-6
-02	4658	-19.8	-5	GEW 46R	8/8/2017	1351	C	LFG	NA	X					-6
-03	A7751	-19.9	-5	GEW 45R	8/8/2017	1403	C	LFG	NA	X					-6
-04	A7803	-19.9	-5	GEW 3	8/8/2017	1417	C	LFG	NA	X					-6
-05	5813	-19.8	-5	GEW 4	8/8/2017	1428	C	LFG	NA	X					-6
-06	6144	-19.7	-5	GEW 47R	8/8/2017	1455	C	LFG	NA	X					-6
-07	3126	-19.8	-5	GEW 5	8/8/2017	1513	C	LFG	NA	X					-6
-08	4657	-19.8	-5	GEW 48	8/8/2017	1528	C	LFG	NA	X					-6.5
-09	4644	-20.1	-5	GEW 8	8/9/2017	826	C	LFG	NA	X					-5
-10	A8063	-20.1	-5	GEW 9	8/9/2017	839	C	LFG	NA	X					-5

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services

SAMPLED BY: Ronald Baker COMPANY: Republic Services DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Ronald V Baker Jr	8/9/2017		
FED EX			
			8/10/17 0935

METHOD OF TRANSPORT (circle one): Walk-In **FedEx** UPS Courier ATLI Other_____

COMMENTS

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: **H**=HCl **N**=None / Container: **B**=Bag **C**=Can **V**=VOA **O**=Other *Rev. 03 - 5/7/09*

AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

CHAIN OF CUSTODY RECORD

TURNAROUND TIME

- 5 Day [X] 48 hours [ ]
- Same Day [ ] 72 hours [ ]
- 24 hours [ ] 96 hours [ ]
- Other:

DELIVERABLES

- EDD [ ]
- EDF [ ]
- Level 3 [ ]
- Level 4 [ ]

Condition upon receipt:
Sealed Yes [ ] No [ ]
Intact Yes [ ] No [ ]
Chilled _____ deg C

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd.
City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	618-420-5209
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.:	PO6312552
Bill to:	Republic Services
	Attn: Nick Bauer
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Cannister Pressure ("hg) Cannister ID	Sample Start	Sample End	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					"Hg LAB RECEIPT
IQ81002-11	4656	-19.9	-5	GEW 54	8/9/2017	859	C	LFG	NA	X					-6
-12	3837	-20	-5	GEW 53	8/9/2017	913	C	LFG	NA	X					-6
-13	5308	-19.9	-5	GEW 55	8/9/2017	925	C	LFG	NA	X					-6
-14	A7773	-19.8	-5	GEW 49	8/9/2017	952	C	LFG	NA	X					-6
-15	A7794	-20.5	-5	GEW 42R	8/9/2017	1010	C	LFG	NA	X					-6
-16	5269	-19.8	-5	GEW 40	8/9/2017	1024	C	LFG	NA	X					-6
							C	LFG	NA	X					
							C	LFG	NA	X					
							C	LFG	NA	X					
							C	LFG	NA	X					

AUTHORIZATION TO PERFORM WORK: **Dave Penoyer** COMPANY: **Republic Services**

SAMPLED BY: **Ronald Baker** COMPANY: **Republic Services** DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Ronald W Baker Jr	8/9/2017		
FED EX		[illegible]	8/10/17 0935

METHOD OF TRANSPORT (circle one): Walk-In **FedEx** UPS Courier ATLI Other_____

COMMENTS

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

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Rev. 03 - 5/7/09

AirTECHNOLOGY Laboratories, Inc.

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5 Day ☒ 48 hours ☐
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DELIVERABLES

EDD ☐
EDF ☐
Level 3 ☐
Level 4 ☐

PAGE: 3 **OF** 4

Condition upon receipt:
Sealed Yes ☐ No ☐
Intact Yes ☐ No ☐
Chilled _____ deg C

Project No.:	
Project Name:	Bridgeton Landfill
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Company:	Republic Services
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City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	618-420-5209
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.:	PO6312552
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	Attn: Nick Bauer
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Cannister Pressure ("hg) Cannister ID	Sample Start	Sample End	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					"Hg RECEIPT
108100 2-17	5819	-20.2	-5	GEW 10	8/8/2017	1345	C	LFG	NA	X					-5.4
-18	A8096	-19.9	-5	GEW 110	8/8/2017	1355	C	LFG	NA	X					-6
-19	A7816	-19.9	-5	GIW 13	8/8/2017	1405	C	LFG	NA	X					-6
-20	A7779	-19.7	-5	GIW 12	8/8/2017	1415	C	LFG	NA	X					-6
-21	5831	-19.8	-5	GEW 56R	8/8/2017	1425	C	LFG	NA	X					-6
-22	5305	-19.7	-5	GIW 11	8/8/2017	1437	C	LFG	NA	X					-6
-23	A7770	-20.1	-5	GIW 1	8/8/2017	1456	C	LFG	NA	X					-6
-24	5936	-20	-5	GIW 2	8/8/2017	1506	C	LFG	NA	X					-6
-25	A7649	-19.5	-5	GIW 3	8/8/2017	1515	C	LFG	NA	X					-6.5
-26	A7762	-19.5	-5	GIW 4	8/8/2017	1523	C	LFG	NA	X					-6.5

AUTHORIZATION TO PERFORM WORK: **Dave Penoyer** COMPANY: **Republic Services**

SAMPLED BY: **Anthony Kimutis** COMPANY: **Republic Services** DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Ronald W Baker Jr	8/9/2017		
RELINQUISHED BY: FED EX	DATE/TIME	RECEIVED BY	DATE/TIME
			8/10/17 0935
RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME

METHOD OF TRANSPORT (circle one): Walk-In **FedEx** UPS Courier ATLI Other_____

COMMENTS

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Preservation: **H**=HCl **N**=None / Container: **B**=Bag **C**=Can **V**=VOA **O**=Other *Rev. 03 - 5/7/09*

AirTECHNOLOGY Laboratories, Inc.

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CHAIN OF CUSTODY RECORD

TURNAROUND TIME

5 Day [X] 48 hours [ ]
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DELIVERABLES

EDD [ ]
EDF [ ]
Level 3 [ ]
Level 4 [ ]

PAGE: 4 **OF** 4

Condition upon receipt:
Sealed Yes [ ] No [ ]
Intact Yes [ ] No [ ]
Chilled _____ deg C

Project No.:
Project Name: Bridgeton Landfill
Report To: Nick Bauer
Company: Republic Services
Street: 13570 St. Charles Rock Rd.
City/State/Zip: Bridgeton , MO 63044
Phone& Fax: 618-420-5209
e-mail: Nbauer@republicservices.com

BILLING

P.O. No.: PO6312552
Bill to: Republic Services
Attn: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Cannister Pressure ("hg) Cannister ID	Sample Start	Sample End	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					LAB REQUEST FORM
I081002-27	5840	-20	-5	GIW 10	8/9/2017	851	C	LFG	NA	X					-6
-28	3157	-19.9	-5	GIW 5	8/9/2017	901	C	LFG	NA	X					-6
-29	5921	-19.7	-5	GIW 6	8/9/2017	913	C	LFG	NA	X					-6
-30	5927	-19.8	-5	GIW 7	8/9/2017	931	C	LFG	NA	X					-6
-31	A7795	-20	-5	GIW 8	8/9/2017	942	C	LFG	NA	X					-6
-32	5829	-19.9	-5	GEW 38	8/9/2017	949	C	LFG	NA	X					-6
-33	A7804	-20	-5	GIW 9	8/9/2017	1010	C	LFG	NA	X					-6
-34	5815	-19.8	-5	GEW 109	8/9/2017	1018	C	LFG	NA	X					-6
-35	A7771	-19.5	-5	GEW 39	8/9/2017	1027	C	LFG	NA	X					-6
							C	LFG	NA	X					

AUTHORIZATION TO PERFORM WORK: **Dave Penoyer** COMPANY: **Republic Services**

SAMPLED BY: **Anthony Kimutis** COMPANY: **Republic Services** DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Ronald W Bybee Jr	8/9/2017		
FED EX			
			8/10/17 0935

METHOD OF TRANSPORT (circle one): Walk-In **FedEx** UPS Courier ATLI Other_____

COMMENTS

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: **H**=HCl **N**=None / Container: **B**=Bag **C**=Can **V**=VOA **O**=Other *Rev. 03 - 5/7/09*

Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 08/10/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I081002-01		I081002-02		I081002-03		I081002-04	
Client Sample I.D.:	GEW 2		GEW 46R		GEW 45R		GEW 3	
Date/Time Sampled:	8/8/17 13:39		8/8/17 13:51		8/8/17 14:03		8/8/17 14:17	
Date/Time Analyzed:	8/11/17 10:36		8/11/17 10:50		8/11/17 11:10		8/11/17 11:25	
QC Batch No.:	170811GC8A1		170811GC8A1		170811GC8A1		170811GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.4		3.4		3.4		3.4	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	ND d	0.034	0.059 d	0.034	ND d	0.034	0.086 d	0.034
Carbon Dioxide	40	0.034	39	0.034	41	0.034	39	0.034
Oxygen/Argon	ND	1.7	ND	1.7	ND	1.7	ND	1.7
Nitrogen	4.9	3.4	5.0	3.4	ND	3.4	6.3	3.4
Methane	53	0.0034	55	0.0034	56	0.0034	54	0.0034
Carbon Monoxide	ND	0.0034	ND	0.0034	ND	0.0034	ND	0.0034

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170814GC8A1

Reviewed/Approved By: _____ for
Mark Johnson
Operations Manager

Date 8/17/17

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 08/10/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I081002-05		I081002-06		I081002-07		I081002-08	
Client Sample I.D.:	GEW 4		GEW 47R		GEW 5		GEW 48	
Date/Time Sampled:	8/8/17 14:28		8/8/17 14:55		8/8/17 15:13		8/8/17 15:28	
Date/Time Analyzed:	8/11/17 11:39		8/11/17 11:54		8/11/17 12:09		8/11/17 12:23	
QC Batch No.:	170811GC8A1		170811GC8A1		170811GC8A1		170811GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.4		3.4		3.4		3.5	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	0.081 d	0.034	ND d	0.034	0.039 d	0.034	ND d	0.035
Carbon Dioxide	39	0.034	41	0.034	38	0.034	38	0.035
Oxygen/Argon	ND	1.7	ND	1.7	ND	1.7	ND	1.7
Nitrogen	4.5	3.4	ND	3.4	6.4	3.4	6.7	3.5
Methane	55	0.0034	56	0.0034	55	0.0034	55	0.0035
Carbon Monoxide	ND	0.0034	ND	0.0034	ND	0.0034	ND	0.0035

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170814GC8A1

Reviewed/Approved By: _____ Date 8/17/17
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 08/10/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I081002-09		I081002-10		I081002-11		I081002-12	
Client Sample I.D.:	GEW 8		GEW 9		GEW 54		GEW 53	
Date/Time Sampled:	8/9/17 8:26		8/9/17 8:39		8/9/17 8:59		8/9/17 9:13	
Date/Time Analyzed:	8/11/17 12:38		8/11/17 12:52		8/11/17 13:07		8/11/17 13:22	
QC Batch No.:	170811GC8A1		170811GC8A1		170811GC8A1		170811GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.2		3.2		3.4		3.4	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	1.1 d	0.032	0.48 d	0.032	2.3 d	0.034	5.3	3.4
Carbon Dioxide	43	0.032	42	0.032	41	0.034	42	0.034
Oxygen/Argon	ND	1.6	ND	1.6	ND	1.7	ND	1.7
Nitrogen	ND	3.2	4.5	3.2	ND	3.4	ND	3.4
Methane	52	0.0032	53	0.0032	53	0.0034	50	0.0034
Carbon Monoxide	ND	0.0032	ND	0.0032	ND	0.0034	0.0061	0.0034

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170814GC8A1

Reviewed/Approved By: _____ Date 8/17/17
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 08/10/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I081002-13		I081002-14		I081002-15		I081002-16	
Client Sample I.D.:	GEW 55		GEW 49		GEW 42R		GEW 40	
Date/Time Sampled:	8/9/17 9:25		8/9/17 9:52		8/9/17 10:10		8/9/17 10:24	
Date/Time Analyzed:	8/11/17 13:36		8/11/17 13:51		8/11/17 14:05		8/11/17 14:20	
QC Batch No.:	170811GC8A1		170811GC8A1		170811GC8A1		170811GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.4		3.4		3.4		3.4	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	4.6	3.4	0.048 d	0.034	ND d	0.034	ND d	0.034
Carbon Dioxide	41	0.034	39	0.034	41	0.034	41	0.034
Oxygen/Argon	ND	1.7	ND	1.7	ND	1.7	ND	1.7
Nitrogen	3.7	3.4	4.2	3.4	ND	3.4	ND	3.4
Methane	49	0.0034	56	0.0034	57	0.0034	57	0.0034
Carbon Monoxide	0.0036	0.0034	ND	0.0034	ND	0.0034	ND	0.0034

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
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Reviewed/Approved By: _____ Date 8/17/17
Mark Johnson
Operations Manager

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18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 08/10/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I081002-17		I081002-18		I081002-19		I081002-20	
Client Sample I.D.:	GEW 10		GEW 110		GIW 13		GIW 12	
Date/Time Sampled:	8/8/17 13:45		8/8/17 13:55		8/8/17 14:05		8/8/17 14:15	
Date/Time Analyzed:	8/11/17 16:11		8/11/17 16:26		8/11/17 16:41		8/11/17 16:56	
QC Batch No.:	170811GC8A2		170811GC8A2		170811GC8A2		170811GC8A2	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.3		3.4		3.4		3.4	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	ND d	0.033	9.2	3.4	24	3.4	15	3.4
Carbon Dioxide	40	0.033	22	0.034	62	0.034	44	0.034
Oxygen/Argon	ND	1.6	11	1.7	ND	1.7	3.7	1.7
Nitrogen	ND	3.3	52	3.4	ND	3.4	22	3.4
Methane	57	0.0033	6.2	0.0034	11	0.0034	15	0.0034
Carbon Monoxide	ND	0.0033	0.042	0.0034	0.085	0.0034	0.039	0.0034

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170814GC8A1

Reviewed/Approved By: _____ Date 8/17/17
Mark Johnson
Operations Manager

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AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 08/10/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I081002-21		I081002-22		I081002-23		I081002-24	
Client Sample I.D.:	GEW 56R		GIW 11		GIW 1		GIW 2	
Date/Time Sampled:	8/8/17 14:25		8/8/17 14:37		8/8/17 14:56		8/8/17 15:06	
Date/Time Analyzed:	8/11/17 17:10		8/11/17 17:25		8/11/17 17:39		8/11/17 17:54	
QC Batch No.:	170811GC8A2		170811GC8A2		170811GC8A2		170811GC8A2	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.4		3.4		3.4		3.4	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	28	3.4	33	3.4	13	3.4	19	3.4
Carbon Dioxide	51	0.034	55	0.034	64	0.034	62	0.034
Oxygen/Argon	ND	1.7	ND	1.7	ND	1.7	ND	1.7
Nitrogen	ND	3.4	ND	3.4	8.7	3.4	ND	3.4
Methane	18	0.0034	9.8	0.0034	12	0.0034	17	0.0034
Carbon Monoxide	0.085	0.0034	0.12	0.0034	0.078	0.0034	0.066	0.0034

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
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Reviewed/Approved By: _____ Date 8/17/17
Mark Johnson
Operations Manager

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Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 08/10/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I081002-25		I081002-26		I081002-27		I081002-28	
Client Sample I.D.:	GIW 3		GIW 4		GIW 10		GIW 5	
Date/Time Sampled:	8/8/17 15:15		8/8/17 15:23		8/9/17 8:51		8/9/17 9:01	
Date/Time Analyzed:	8/11/17 18:09		8/11/17 18:23		8/11/17 18:38		8/11/17 18:52	
QC Batch No.:	170811GC8A2		170811GC8A2		170811GC8A2		170811GC8A2	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.5		3.5		3.4		3.4	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	27	3.5	22	3.5	39	3.4	46	3.4
Carbon Dioxide	50	0.035	23	0.035	51	0.034	50	0.034
Oxygen/Argon	4.7	1.7	12	1.7	ND	1.7	ND	1.7
Nitrogen	17	3.5	42	3.5	ND	3.4	ND	3.4
Methane	1.1	0.0035	0.40	0.0035	7.3	0.0034	1.7	0.0034
Carbon Monoxide	0.15	0.0035	0.12	0.0035	0.081	0.0034	0.061	0.0034

Results normalized including non-methane hydrocarbons
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RL = Reporting Limit

Reviewed/Approved By: _____ Date 8/17/17
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Operations Manager

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Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 08/10/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I081002-29		I081002-30		I081002-31		I081002-32	
Client Sample I.D.:	GIW 6		GIW 7		GIW 8		GEW 38	
Date/Time Sampled:	8/9/17 9:13		8/9/17 9:31		8/9/17 9:42		8/9/17 9:49	
Date/Time Analyzed:	8/11/17 19:07		8/11/17 19:22		8/12/17 4:44		8/12/17 4:58	
QC Batch No.:	170811GC8A2		170811GC8A2		170811GC8A2		170811GC8A2	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.4		3.4		3.4		3.4	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	28	3.4	12	3.4	1.4 d	0.034	38	3.4
Carbon Dioxide	48	0.034	52	0.034	51	0.034	51	0.034
Oxygen/Argon	ND	1.7	ND	1.7	ND	1.7	2.1	1.7
Nitrogen	ND	3.4	ND	3.4	ND	3.4	7.2	3.4
Methane	21	0.0034	32	0.0034	44	0.0034	1.1	0.0034
Carbon Monoxide	0.053	0.0034	0.059	0.0034	0.012	0.0034	0.21	0.0034

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170814GC8A1

Reviewed/Approved By: _____ Date 8/17/17
Mark Johnson
Operations Manager

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Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 08/10/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I081002-33		I081002-34		I081002-35			
Client Sample I.D.:	GIW 9		GEW 109		GEW 39			
Date/Time Sampled:	8/9/17 10:10		8/9/17 10:18		8/9/17 10:27			
Date/Time Analyzed:	8/12/17 5:13		8/12/17 5:28		8/12/17 5:42			
QC Batch No.:	170811GC8A2		170811GC8A2		170811GC8A2			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	3.4		3.4		3.4			
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v		
Hydrogen	9.3	3.4	15	3.4	ND d	0.034		
Carbon Dioxide	40	0.034	48	0.034	51	0.034		
Oxygen/Argon	ND	1.7	ND	1.7	ND	1.7		
Nitrogen	22	3.4	6.8	3.4	4.7	3.4		
Methane	28	0.0034	29	0.0034	42	0.0034		
Carbon Monoxide	0.028	0.0034	0.033	0.0034	ND	0.0034		

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170814GC8A1

Reviewed/Approved By: _____ Date 8/17/17
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18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No: 170811GC8A1
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	8/11/17 9:51			8/11/17 9:06		8/11/17 9:20					
Analyst Initials:	AS			AS		AS					
Dilution Factor:	1.0			1.0		1.0			Limits		
ANALYTE	Result % v/v	RL % v/v	SPIKE AMT. % v/v	Result % v/v	% Rec.	Result % v/v	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
Hydrogen	ND	1.0	5.0	3.83	77	3.81	76	0.6	70	130	30
Carbon Dioxide	ND	0.010	10	9.17	92	9.10	91	0.7	70	130	30
Oxygen/Argon	ND	0.50	15	16.4	111	16.3	110	0.6	70	130	30
Nitrogen	ND	1.0	70	72.4	103	71.9	103	0.6	70	130	30
Methane	ND	0.0010	0.10	0.0971	97	0.0960	96	1.2	70	130	30
Carbon Monoxide	ND	0.0010	0.10	0.0924	92	0.0915	92	0.9	70	130	30

ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 8/17/17
Mark Johnson
Operations Manager

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QC Batch No: 170811GC8A2
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	8/11/17 15:56			8/12/17 12:54		8/12/17 13:09					
Analyst Initials:	AS			MJ		MJ					
Dilution Factor:	1.0			1.0		1.0			Limits		
ANALYTE	Result % v/v	RL % v/v	SPIKE AMT. % v/v	Result % v/v	% Rec.	Result % v/v	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
Hydrogen	ND	1.0	5.0	5.94	119	6.06	121	1.8	70	130	30
Carbon Dioxide	ND	0.010	10	10.1	101	10.3	103	1.8	70	130	30
Oxygen/Argon	ND	0.50	15	15.5	104	15.8	107	2.2	70	130	30
Nitrogen	ND	1.0	70	70.4	101	72.1	103	2.4	70	130	30
Methane	ND	0.0010	0.10	0.111	111	0.108	108	2.5	70	130	30
Carbon Monoxide	ND	0.0010	0.10	0.104	104	0.102	102	1.8	70	130	30

ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 8/17/17
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Operations Manager

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QC Batch # 170814GC8A1
Matrix: Air
Units: % v/v

QC for Low Level Hydrogen Analysis

Lab No.:	Blank		LCS		LCSD			
Date Analyzed:	8/14/2017 8:51		8/14/2017 8:37		8/14/2017 8:42			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	%Rec	Criteria	%Rec	Criteria	RPD	Criteria
Hydrogen	ND	0.01	107	70-130	108	70-130	1.4	<20

ND = Not Detected (Below RL)
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ Date: 8/17/17
Mark Johnson
Operations Manager

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ATTACHMENT E

GAS WELLFIELD DATA

ATTACHMENT E-1

WELLFIELD DATA TABLE

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GEW-002	8/7/2017 10:11	54.7	39.4	0.0	5.9	116.3	116.5	32.5	31.8	-0.4	-0.4	-13.0
GEW-002	8/8/2017 13:32	54.3	40.2	0.0	5.5	116.4	116.5	37.1	36.4	-0.4	-0.4	-13.3
GEW-002	8/8/2017 13:40	55.4	39.9	0.0	4.7	115.3	115.1	24.5	26.5	-0.1	-0.1	-13.1
GEW-002	8/16/2017 10:50	56.1	38.0	0.1	5.8	116.6	116.6	17.2	17.6	0.0	0.0	-12.2
GEW-002	8/17/2017 13:49	53.7	40.8	0.0	5.5	114.1	114.1	36.2	35.1	-0.3	-0.2	-12.0
GEW-002	8/22/2017 16:18	55.9	37.8	0.0	6.3	116.0	116.0	16.5	17.0	0.3	0.3	-11.1
GEW-002	8/22/2017 16:19	53.9	41.4	0.0	4.7	116.3	116.4	0.0	0.0	0.3	0.4	-10.0
GEW-002	8/23/2017 8:26	54.8	39.4	0.0	5.8	116.1	116.3	22.6	28.0	-0.6	-0.7	-12.4
GEW-002	8/28/2017 10:30	54.3	39.1	0.0	6.6	118.6	118.6	10.6	11.9	-0.5	-0.5	-12.6
GEW-003	8/7/2017 10:14	52.1	37.7	0.0	10.2	115.9	115.8	12.6	13.2	-0.5	-0.5	-12.8
GEW-003	8/7/2017 10:16	52.7	38.7	0.0	8.6	115.6	115.6	11.0	13.7	-0.5	-0.5	-12.7
GEW-003	8/8/2017 14:12	53.1	38.2	0.0	8.7	115.8	115.9	29.4	27.9	-0.1	-0.1	-12.6
GEW-003	8/8/2017 14:18	53.7	38.0	0.0	8.3	115.9	115.8	0.0	0.0	-0.1	-0.1	-13.0
GEW-003	8/16/2017 10:55	50.9	37.3	0.0	11.8	116.6	116.6	13.7	14.5	-0.3	-0.2	-12.7
GEW-003	8/17/2017 13:13	56.0	35.8	0.0	8.2	115.5	115.5	16.7	13.8	0.1	0.1	-12.0
GEW-003	8/17/2017 13:14	54.5	39.0	0.0	6.5	115.5	115.4	10.3	9.9	0.1	0.1	-12.2
GEW-003	8/22/2017 16:23	52.0	39.0	0.0	9.0	115.8	115.6	14.3	4.8	0.2	0.2	-10.7
GEW-003	8/22/2017 16:25	53.7	40.1	0.0	6.2	116.0	116.0	9.1	12.9	0.1	0.2	-11.9
GEW-003	8/23/2017 8:30	52.7	40.0	0.0	7.3	115.5	115.5	13.2	13.7	-0.5	-0.5	-12.5
GEW-003	8/28/2017 10:33	51.5	38.0	0.0	10.5	115.8	115.8	10.3	12.9	-0.3	-0.3	-12.0
GEW-004	8/7/2017 10:19	53.4	38.4	0.0	8.2	118.4	118.6	15.5	9.9	-0.4	-0.4	-12.4
GEW-004	8/7/2017 10:20	54.1	39.0	0.0	6.9	118.1	118.1	9.9	9.1	-0.4	-0.4	-12.6
GEW-004	8/8/2017 14:23	54.9	39.0	0.0	6.1	118.4	118.4	12.0	15.0	0.0	0.0	-12.8
GEW-004	8/8/2017 14:42	54.9	39.9	0.0	5.2	118.1	118.1	0.0	0.0	0.0	0.0	-13.0
GEW-004	8/16/2017 10:58	53.8	38.6	0.0	7.6	118.5	118.4	14.0	11.6	-0.2	-0.2	-11.2
GEW-004	8/17/2017 11:46	54.8	37.6	0.0	7.6	109.6	109.7	17.5	17.7	0.1	0.1	-11.9
GEW-004	8/17/2017 11:48	54.4	40.4	0.0	5.2	110.5	110.4	12.7	14.1	0.1	0.2	-12.1
GEW-004	8/18/2017 9:02	53.5	39.0	0.0	7.5	111.7	111.7	3.9	3.9	-0.2	-0.2	-12.7
GEW-004	8/22/2017 16:28	54.5	40.3	0.0	5.2	111.5	111.5	0.0	0.0	0.3	0.3	-11.5
GEW-004	8/22/2017 16:29	54.6	40.9	0.0	4.5	115.5	115.5	8.7	6.2	0.1	0.2	-9.1
GEW-004	8/23/2017 8:35	54.5	39.0	0.0	6.5	117.9	117.9	8.7	14.3	-0.4	-0.4	-12.4
GEW-004	8/28/2017 10:36	53.9	40.2	0.0	5.9	118.4	118.4	27.3	26.0	-0.2	-0.2	-12.5
GEW-005	8/7/2017 10:30	50.1	35.0	0.0	14.9	87.2	87.1	2.8	2.8	-0.1	-0.1	-12.9
GEW-005	8/8/2017 15:06	54.5	38.2	0.0	7.3	90.3	90.1	8.0	8.0	0.2	0.2	-12.6
GEW-005	8/8/2017 15:15	55.2	37.2	0.0	7.6	90.3	90.3	0.0	0.0	0.2	0.2	-12.7
GEW-005	8/16/2017 11:09	51.5	39.1	0.0	9.4	89.8	89.8	8.9	9.3	0.1	0.1	-12.4
GEW-005	8/16/2017 11:10	52.6	38.0	0.0	9.4	89.8	89.8	7.5	8.9	0.1	0.1	-12.4
GEW-005	8/17/2017 8:33	51.4	38.4	0.0	10.2	86.3	86.3	11.6	12.0	0.1	0.1	-12.7
GEW-005	8/17/2017 8:34	53.3	38.0	0.0	8.7	87.9	88.0	2.8	9.4	0.0	0.0	-13.1
GEW-005	8/18/2017 9:16	51.8	35.1	0.0	13.1	91.3	91.5	8.9	8.9	-0.2	-0.2	-12.7
GEW-005	8/22/2017 16:39	53.1	39.1	0.0	7.8	92.7	92.7	0.0	0.0	0.2	0.2	-11.9
GEW-005	8/22/2017 16:40	54.1	38.4	0.0	7.5	93.6	93.6	0.0	0.0	0.1	0.1	-11.8
GEW-005	8/23/2017 8:45	52.8	37.5	0.0	9.7	92.7	92.7	10.1	10.1	-0.2	-0.2	-12.0

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GEW-005	8/28/2017 10:48	53.2	37.7	0.0	9.1	94.1	94.1	8.4	8.4	0.0	0.0	-12.7
GEW-005	8/28/2017 10:49	53.7	37.3	0.0	9.0	94.1	94.1	12.2	13.4	0.0	0.0	-12.7
GEW-006	8/7/2017 8:18	55.3	39.0	0.2	5.5	89.6	89.6	15.4	15.4	-0.3	-0.3	-13.2
GEW-006	8/7/2017 8:20	55.5	38.5	0.1	5.9	89.6	89.6	8.9	4.9	-0.3	-0.3	-13.2
GEW-006	8/16/2017 8:15	55.3	38.0	0.0	6.7	90.6	90.7	8.4	10.9	-0.2	-0.2	-13.1
GEW-006	8/22/2017 14:25	59.1	32.4	0.0	8.5	91.7	91.7	15.9	16.6	0.0	0.0	-12.7
GEW-006	8/22/2017 14:26	58.7	37.7	0.0	3.6	91.8	91.7	12.2	11.9	-0.1	-0.1	-13.0
GEW-006	8/28/2017 8:55	57.4	37.4	0.0	5.2	90.4	90.4	0.0	0.0	-0.1	-0.1	-13.2
GEW-007	8/7/2017 8:46	56.9	37.6	0.0	5.5	94.8	94.8	4.0	4.8	-0.8	-0.8	-13.0
GEW-007	8/16/2017 8:40	55.7	38.4	0.0	5.9	95.5	95.5	6.8	8.8	-0.8	-0.8	-13.1
GEW-007	8/22/2017 14:55	56.2	38.8	0.0	5.0	97.7	97.7	37.3	38.2	-0.4	-0.4	-13.0
GEW-007	8/28/2017 9:15	56.3	39.0	0.0	4.7	95.5	95.6	22.0	29.7	-0.6	-0.6	-13.0
GEW-008	8/7/2017 8:51	54.7	38.1	0.0	7.2	111.7	111.7	13.8	11.0	-0.7	-0.6	-13.5
GEW-008	8/9/2017 8:21	51.9	42.2	0.0	5.9	112.3	112.5	18.1	17.4	-0.6	-0.6	-13.1
GEW-008	8/9/2017 8:29	51.8	42.3	0.0	5.9	112.2	112.2	16.1	17.6	-0.6	-0.6	-13.0
GEW-008	8/16/2017 8:44	53.5	39.1	0.0	7.4	112.2	112.0	15.3	14.6	-0.6	-0.6	-12.7
GEW-008	8/22/2017 14:59	53.4	41.0	0.0	5.6	112.7	112.7	9.1	13.5	-0.2	-0.2	-12.8
GEW-008	8/28/2017 9:20	53.3	40.9	0.0	5.8	112.6	112.7	9.5	9.9	-0.4	-0.4	-13.1
GEW-009	8/7/2017 8:55	52.5	41.1	0.0	6.4	122.1	121.8	0.0	0.0	-0.4	-0.4	-13.1
GEW-009	8/9/2017 8:35	51.4	40.6	0.0	8.0	122.1	122.1	16.8	17.7	-0.4	-0.3	-13.2
GEW-009	8/9/2017 8:42	51.3	41.0	0.0	7.7	122.3	122.1	20.4	17.7	-0.3	-0.4	-13.3
GEW-009	8/16/2017 8:49	51.6	40.5	0.0	7.9	122.6	122.8	35.7	36.3	-0.4	-0.4	-13.5
GEW-009	8/22/2017 15:02	51.0	41.3	0.0	7.7	123.1	123.1	24.9	25.5	-0.1	-0.2	-13.3
GEW-009	8/28/2017 9:24	51.5	41.0	0.0	7.5	122.6	122.6	13.1	15.9	-0.3	-0.3	-13.7
GEW-010	8/7/2017 8:31	57.1	39.4	0.0	3.5	76.1	76.1	4.2	4.1	-1.2	-1.2	-18.8
GEW-010	8/8/2017 13:40	57.6	37.5	0.0	4.9	97.2	97.3	5.7	6.1	-1.3	-1.3	-18.8
GEW-010	8/8/2017 13:46	56.6	39.5	0.0	3.9	97.2	97.2	3.6	3.6	-1.2	-1.2	-19.2
GEW-010	8/15/2017 13:46	56.2	38.9	0.0	4.9	106.2	106.2	5.2	5.2	-1.1	-1.1	-18.8
GEW-010	8/21/2017 14:15	57.1	38.6	0.0	4.3	104.8	104.8	7.7	7.8	-1.5	-1.5	-19.7
GEW-010	8/29/2017 13:41	56.6	39.0	0.0	4.4	92.4	92.3	5.4	5.4	-0.8	-0.8	-18.9
GEW-013A	8/1/2017 8:57	10.2	40.2	4.6	45.0	129.0	129.2	116.4	114.6	-3.7	-3.8	-15.5
GEW-013A	8/16/2017 14:13	12.2	46.0	3.0	38.8	132.6	132.7	111.2	113.3	-3.3	-3.2	-14.1
GEW-013A	8/16/2017 14:15	13.3	44.3	2.9	39.5	132.9	133.2	111.2	113.8	-3.2	-3.4	-13.5
GEW-015	8/1/2017 10:02	3.2	35.6	2.0	59.2	162.5	162.9	NFD		-3.1	-3.4	-13.5
GEW-015	8/1/2017 10:03	3.2	37.4	2.0	57.4	163.1	162.9	NFD		-3.3	-3.2	-13.0
GEW-015	8/17/2017 14:53	1.6	28.2	8.5	61.7	162.4	162.4	NFD		-1.9	-1.9	-13.6
GEW-015	8/17/2017 14:54	1.3	27.0	8.7	63.0	162.0	162.0	NFD		-2.0	-1.8	-13.0
GEW-016R	8/1/2017 10:12	3.0	43.2	0.8	53.0	182.1	180.8	NFD		-14.6	-17.5	-14.4
GEW-016R	8/1/2017 10:14	8.4	44.0	0.9	46.7	182.1	182.7	NFD		-15.5	-17.0	-15.3
GEW-016R	8/17/2017 14:44	3.0	48.6	0.4	48.0	182.4	182.7	NFD		-18.6	-18.4	-18.2
GEW-016R	8/17/2017 14:45	3.0	48.2	0.3	48.5	182.7	182.7	NFD		-18.6	-18.6	-18.3
GEW-018B	8/1/2017 10:46	7.3	45.6	3.5	43.6	182.7	182.7	4.5	5.0	-11.2	-11.2	-18.3
GEW-018B	8/1/2017 10:48	7.3	43.4	3.6	45.7	183.3	183.3	4.4	4.1	-11.2	-11.2	-17.8

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GEW-018B	8/2/2017 15:42	4.7	42.1	3.4	49.8	181.4	181.0	8.2	9.0	-11.3	-11.5	-17.8
GEW-018B	8/2/2017 15:50	4.5	41.7	3.4	50.4	171.0	170.6	28.1	28.3	-3.1	-3.1	-18.7
GEW-018B	8/17/2017 11:07	1.1	55.3	0.0	43.6	184.6	184.6	1.7	2.0	4.4	4.5	-18.2
GEW-018B	8/17/2017 11:09	1.1	55.9	0.0	43.0	193.6	193.6	4.1	5.0	-1.0	-1.0	-18.0
GEW-022R	8/1/2017 14:22	2.6	62.2	0.1	35.1	136.2	136.2	5.6	9.1	-15.7	-15.7	-19.1
GEW-022R	8/1/2017 14:23	2.2	63.0	0.1	34.7	136.0	135.9	10.1	9.2	-15.7	-15.7	-18.9
GEW-038	8/7/2017 9:28	1.3	57.1	0.2	41.4	78.2	78.4	3.1	1.2	-1.6	-1.6	-2.4
GEW-038	8/9/2017 9:45	1.6	51.9	1.3	45.2	91.7	92.0	3.6	3.6	-1.5	-1.5	-2.7
GEW-038	8/9/2017 9:50	0.8	53.4	1.3	44.5	95.0	95.1	2.0	5.6	-1.6	-1.6	-2.2
GEW-038	8/15/2017 14:43	1.4	55.7	0.0	42.9	110.2	110.3	4.0	3.5	0.6	0.6	0.0
GEW-038	8/15/2017 14:44	1.0	57.9	0.0	41.1	111.6	111.7	4.3	2.7	0.1	0.0	0.2
GEW-038	8/23/2017 10:53	1.7	37.6	8.4	52.3	90.6	90.6	4.6	5.4	-18.6	-18.7	-18.8
GEW-038	8/23/2017 10:55	0.6	37.8	8.7	52.9	91.2	91.1	1.8	2.4	-18.5	-18.1	-19.0
GEW-038	8/29/2017 14:59	0.6	38.6	8.2	52.6	99.3	99.4	1.1	2.4	-18.1	-17.7	-18.5
GEW-038	8/29/2017 15:00	0.5	38.1	8.3	53.1	101.3	101.4	0.9	0.9	-14.7	-14.7	-18.9
GEW-039	8/7/2017 9:39	43.4	53.0	0.0	3.6	113.2	113.2	13.6	8.9	-0.3	-0.4	-19.0
GEW-039	8/9/2017 10:23	43.7	51.3	0.0	5.0	117.3	117.3	15.6	12.0	-0.5	-0.4	-16.3
GEW-039	8/9/2017 10:27	44.4	46.3	0.0	9.3	117.1	117.1	12.3	12.3	-0.4	-1.0	-20.2
GEW-039	8/15/2017 14:54	43.2	51.8	0.0	5.0	119.9	119.9	8.2	8.5	-0.3	-0.4	-19.4
GEW-039	8/23/2017 11:02	44.2	51.4	0.0	4.4	115.4	115.3	10.6	11.6	-0.4	-0.4	-16.7
GEW-039	8/29/2017 15:13	43.8	51.1	0.0	5.1	116.6	116.8	5.5	8.5	-0.3	-0.2	-15.4
GEW-040	8/7/2017 9:22	54.3	41.2	0.0	4.5	87.0	87.2	23.8	24.6	-0.5	-0.5	-13.3
GEW-040	8/7/2017 9:23	56.2	40.4	0.0	3.4	87.8	87.8	41.1	41.2	-0.5	-0.5	-12.9
GEW-040	8/9/2017 10:19	55.7	39.8	0.0	4.5	93.4	93.4	14.8	15.9	-0.5	-0.5	-13.0
GEW-040	8/9/2017 10:25	55.8	39.6	0.0	4.6	93.4	93.4	11.6	15.8	-0.5	-0.5	-12.5
GEW-040	8/16/2017 9:17	52.3	39.4	0.0	8.3	91.7	91.7	8.4	10.5	-0.4	-0.5	-13.1
GEW-040	8/23/2017 9:47	55.6	40.3	0.0	4.1	85.1	85.2	10.9	11.3	-0.5	-0.5	-11.9
GEW-040	8/31/2017 9:30	55.5	41.9	0.0	2.6	74.7	74.7	7.2	7.2	-0.5	-0.5	-13.1
GEW-041R	8/2/2017 14:22	56.9	39.2	0.0	3.9	106.2	106.2	8.8	8.8	0.0	0.0	-10.9
GEW-041R	8/2/2017 14:23	56.9	39.1	0.0	4.0	106.3	106.2	10.7	9.2	0.0	0.0	-11.0
GEW-041R	8/7/2017 9:28	57.0	38.1	0.1	4.8	100.6	100.6	13.6	13.1	-0.3	-0.3	-13.5
GEW-041R	8/7/2017 9:29	56.7	38.5	0.2	4.6	100.4	100.4	34.4	34.6	-0.3	-0.3	-10.8
GEW-041R	8/16/2017 9:22	56.3	38.7	0.0	5.0	104.8	104.8	9.6	12.4	-0.2	-0.2	-12.3
GEW-041R	8/18/2017 14:15	56.1	36.4	0.1	7.4	106.0	106.0	6.2	10.4	-0.1	-0.1	-12.3
GEW-041R	8/22/2017 15:33	51.6	41.1	0.0	7.3	102.3	102.3	2.8	6.2	0.1	0.0	-12.6
GEW-041R	8/22/2017 15:34	56.5	39.4	0.0	4.1	102.7	102.7	0.0	0.0	0.0	0.0	-12.7
GEW-041R	8/23/2017 9:50	54.2	39.1	0.0	6.7	105.5	105.5	12.4	12.4	-0.2	-0.2	-12.1
GEW-041R	8/28/2017 9:51	55.8	38.7	0.0	5.5	106.0	106.0	12.7	13.9	-0.2	-0.2	-12.8
GEW-042R	8/7/2017 9:32	56.5	37.8	0.0	5.7	107.2	107.3	7.3	8.8	-0.7	-0.7	-11.1
GEW-042R	8/7/2017 9:33	55.5	40.1	0.0	4.4	107.3	107.5	24.4	25.2	-0.7	-0.7	-12.3
GEW-042R	8/9/2017 10:05	55.2	40.1	0.0	4.7	110.5	110.3	13.5	13.8	-0.6	-0.6	-12.0
GEW-042R	8/9/2017 10:11	54.8	39.8	0.0	5.4	110.2	110.2	15.1	16.1	-0.6	-0.6	-12.5
GEW-042R	8/16/2017 9:25	55.4	39.3	0.0	5.3	108.5	108.5	24.7	25.3	-0.6	-0.6	-12.7

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GEW-042R	8/16/2017 9:27	54.5	40.8	0.0	4.7	108.6	108.3	31.6	32.0	-0.5	-0.5	-12.7
GEW-042R	8/16/2017 10:27	54.8	39.1	0.0	6.1	107.7	107.7	14.6	14.9	-0.3	-0.3	-12.6
GEW-042R	8/22/2017 15:38	55.0	38.0	0.0	7.0	110.0	109.9	8.7	8.7	-0.1	-0.2	-12.4
GEW-042R	8/28/2017 9:54	55.0	40.3	0.0	4.7	109.2	109.3	8.7	10.0	-0.4	-0.4	-12.8
GEW-043R	8/7/2017 9:37	55.1	39.1	0.0	5.8	118.5	118.6	23.1	23.6	-0.4	-0.4	-13.1
GEW-043R	8/7/2017 9:39	54.2	41.4	0.0	4.4	119.2	119.1	11.0	11.0	-0.5	-0.5	-13.3
GEW-043R	8/15/2017 14:48	50.4	40.2	0.0	9.4	120.7	120.7	12.6	13.7	0.1	0.1	-11.8
GEW-043R	8/15/2017 14:59	53.4	42.1	0.0	4.5	120.7	120.7	0.0	0.0	0.2	0.2	-11.8
GEW-043R	8/15/2017 15:01	51.7	43.2	0.0	5.1	121.3	121.3	0.0	0.0	0.1	0.1	-12.0
GEW-043R	8/16/2017 9:31	53.8	39.4	0.0	6.8	119.4	119.4	22.1	23.1	-0.5	-0.6	-12.7
GEW-043R	8/16/2017 9:32	53.7	41.3	0.0	5.0	119.4	119.4	37.6	37.4	-0.5	-0.5	-12.9
GEW-043R	8/22/2017 15:42	54.3	39.4	0.0	6.3	119.2	119.2	2.7	6.1	0.3	0.3	-12.6
GEW-043R	8/22/2017 15:44	53.6	41.8	0.0	4.6	119.9	119.9	14.0	14.0	0.2	0.2	-13.0
GEW-043R	8/23/2017 9:54	54.8	39.5	0.0	5.7	120.5	120.5	28.2	28.7	-0.5	-0.5	-12.2
GEW-043R	8/28/2017 9:58	53.1	40.8	0.0	6.1	120.5	120.5	9.9	11.9	-0.2	-0.2	-12.8
GEW-044	8/7/2017 9:44	55.8	39.6	0.0	4.6	90.3	90.4	5.6	5.6	-0.5	-0.5	-13.2
GEW-044	8/15/2017 15:58	54.0	41.3	0.0	4.7	97.2	97.2	7.9	8.4	0.2	0.2	-12.0
GEW-044	8/15/2017 16:15	53.7	41.4	0.0	4.9	97.9	97.8	8.4	9.7	-0.1	-0.1	-11.7
GEW-044	8/16/2017 9:36	52.0	39.1	0.0	8.9	89.1	89.3	8.4	9.3	-0.2	-0.2	-13.1
GEW-044	8/22/2017 15:48	53.0	39.9	0.0	7.1	94.1	94.1	0.0	0.0	0.1	0.1	-12.8
GEW-044	8/22/2017 15:50	55.6	39.9	0.0	4.5	94.4	94.5	0.0	0.0	0.0	0.0	-11.8
GEW-044	8/23/2017 9:58	55.1	40.1	0.0	4.8	94.6	94.6	10.5	10.8	-0.6	-0.6	-11.9
GEW-044	8/28/2017 10:02	54.9	39.8	0.0	5.3	96.0	96.0	4.0	0.0	-0.3	-0.3	-12.8
GEW-045R	8/2/2017 14:26	55.6	40.7	0.0	3.7	106.0	106.0	4.9	4.9	-0.5	-0.5	-11.6
GEW-045R	8/7/2017 9:48	56.2	38.2	0.0	5.6	90.0	90.1	7.4	9.7	-0.2	-0.2	-12.9
GEW-045R	8/8/2017 13:58	55.8	38.8	0.0	5.4	96.0	96.2	0.0	5.6	-0.7	-0.7	-12.7
GEW-045R	8/8/2017 14:06	56.8	39.7	0.0	3.5	98.2	98.2	7.4	10.8	-0.7	-0.7	-13.1
GEW-045R	8/16/2017 9:42	54.2	38.9	0.0	6.9	92.2	92.2	0.0	8.9	0.0	0.0	-13.1
GEW-045R	8/16/2017 9:43	53.3	41.3	0.0	5.4	92.6	92.6	10.1	5.6	-0.2	-0.2	-13.1
GEW-045R	8/17/2017 8:44	52.7	39.4	0.0	7.9	91.9	91.9	11.2	10.1	-0.2	-0.2	-13.1
GEW-045R	8/18/2017 8:52	54.4	38.6	0.0	7.0	94.4	94.4	6.3	7.9	-0.2	-0.2	-12.8
GEW-045R	8/18/2017 8:59	52.6	39.9	0.0	7.5	115.8	115.8	9.5	10.3	-0.4	-0.4	-12.6
GEW-045R	8/22/2017 15:53	55.5	38.7	0.0	5.8	91.5	91.5	0.0	0.0	-1.4	-1.4	-11.9
GEW-045R	8/28/2017 10:06	54.2	39.5	0.0	6.3	96.0	96.0	6.3	5.6	0.2	0.2	-12.7
GEW-045R	8/28/2017 10:07	52.8	42.2	0.0	5.0	96.5	96.5	9.7	9.3	-1.1	-1.1	-12.7
GEW-046R	8/7/2017 9:52	54.8	38.9	0.0	6.3	100.1	100.1	10.0	9.2	-0.5	-0.5	-13.0
GEW-046R	8/8/2017 13:44	54.9	38.4	0.0	6.7	101.8	101.8	12.4	10.8	-0.3	-0.3	-12.9
GEW-046R	8/8/2017 13:53	55.1	39.8	0.0	5.1	101.8	101.8	36.2	36.6	-0.3	-0.3	-12.8
GEW-046R	8/16/2017 9:50	54.1	39.5	0.0	6.4	100.8	100.8	36.0	36.3	-0.4	-0.4	-12.8
GEW-046R	8/17/2017 14:21	53.3	35.3	0.0	11.4	100.8	100.8	8.8	10.1	0.1	0.2	-12.2
GEW-046R	8/17/2017 14:22	54.2	39.7	0.0	6.1	101.3	101.3	10.0	12.8	0.1	0.1	-12.0
GEW-046R	8/18/2017 8:56	53.4	39.8	0.0	6.8	100.0	100.0	7.9	11.5	-0.2	-0.2	-13.1
GEW-046R	8/22/2017 15:56	55.1	38.9	0.0	6.0	101.6	101.6	30.6	31.1	0.1	0.1	-11.4

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GEW-046R	8/22/2017 15:58	55.2	40.3	0.0	4.5	102.1	102.3	10.0	9.6	0.1	0.1	-12.2
GEW-046R	8/23/2017 8:22	53.1	39.8	0.0	7.1	100.0	99.9	41.5	41.5	-0.4	-0.4	-11.7
GEW-046R	8/28/2017 10:11	53.9	39.9	0.0	6.2	102.1	102.1	6.2	8.8	-0.3	-0.3	-12.4
GEW-047R	8/2/2017 14:20	55.1	41.5	0.0	3.4	106.4	107.0	7.4	7.4	0.3	0.3	-11.2
GEW-047R	8/2/2017 14:22	55.0	41.3	0.0	3.7	107.6	107.6	8.3	7.9	0.3	0.3	-11.6
GEW-047R	8/8/2017 14:51	55.1	40.7	0.0	4.2	91.8	91.9	8.4	7.4	0.3	0.3	-12.7
GEW-047R	8/8/2017 14:58	55.1	40.0	0.0	4.9	96.5	96.5	9.7	9.7	0.2	0.2	-12.9
GEW-047R	8/16/2017 11:05	51.1	39.8	0.6	8.5	88.2	88.2	14.1	13.8	0.1	0.1	-12.4
GEW-047R	8/16/2017 11:06	52.6	40.7	0.0	6.7	90.8	91.0	5.6	9.3	0.1	0.1	-12.5
GEW-047R	8/17/2017 8:39	54.9	40.3	0.0	4.8	111.8	111.8	14.3	14.9	0.0	0.0	-12.8
GEW-047R	8/17/2017 8:40	54.3	41.0	0.0	4.7	111.7	111.7	14.3	14.3	0.0	0.0	-12.8
GEW-047R	8/18/2017 8:20	53.4	40.6	0.1	5.9	107.9	108.0	10.0	10.7	-0.2	-0.2	-12.8
GEW-047R	8/22/2017 16:35	53.3	41.0	0.0	5.7	107.2	107.3	0.0	2.8	0.3	0.3	-11.8
GEW-047R	8/22/2017 16:36	53.8	41.3	0.0	4.9	107.0	107.2	0.0	0.0	0.2	0.2	-11.8
GEW-047R	8/28/2017 10:43	53.4	41.1	0.0	5.5	107.5	107.5	7.8	9.6	0.0	0.0	-12.3
GEW-047R	8/28/2017 10:44	53.2	41.5	0.0	5.3	107.5	107.5	9.6	10.0	0.1	0.0	-12.5
GEW-047R	8/30/2017 10:17	56.5	41.5	0.0	2.0	107.5	107.4	5.5	6.2	-0.1	-0.1	-12.6
GEW-048	8/7/2017 10:33	53.5	35.4	0.0	11.1	104.3	104.3	8.3	12.4	-0.4	-0.4	-7.7
GEW-048	8/8/2017 15:23	54.4	38.3	0.0	7.3	104.8	104.8	27.6	27.6	0.0	0.0	-8.6
GEW-048	8/8/2017 15:29	55.2	36.9	0.0	7.9	104.8	104.9	29.5	29.4	0.0	0.0	-7.7
GEW-048	8/16/2017 11:14	54.1	38.8	0.0	7.1	105.0	105.0	27.2	31.8	-0.2	-0.2	-10.6
GEW-048	8/22/2017 16:43	53.7	37.6	0.0	8.7	104.5	104.5	11.8	9.2	-0.1	-0.1	-8.6
GEW-048	8/23/2017 8:50	52.0	35.5	0.0	12.5	104.0	103.9	15.9	13.9	-0.4	-0.4	-7.1
GEW-048	8/28/2017 10:52	55.0	38.1	0.0	6.9	104.6	104.5	3.9	11.1	-0.2	-0.2	-5.5
GEW-049	8/7/2017 8:33	55.2	37.5	0.0	7.3	110.0	110.0	0.0	0.0	-0.3	-0.3	-13.3
GEW-049	8/9/2017 9:48	54.2	39.3	0.0	6.5	111.1	111.2	15.1	15.6	-0.1	-0.1	-12.6
GEW-049	8/9/2017 9:54	54.6	37.1	0.0	8.3	111.2	111.0	0.0	0.0	-0.1	-0.1	-12.7
GEW-049	8/15/2017 15:32	52.6	40.6	0.0	6.8	113.1	113.0	9.6	9.6	0.1	0.1	-11.4
GEW-049	8/15/2017 15:36	53.2	41.2	0.0	5.6	112.2	112.2	22.9	22.9	0.2	0.2	-9.0
GEW-049	8/15/2017 15:39	52.7	41.6	0.0	5.7	113.0	113.0	8.3	8.7	0.1	0.1	-10.4
GEW-049	8/16/2017 8:27	55.2	37.3	0.0	7.5	110.6	110.7	11.4	13.2	-0.4	-0.4	-12.9
GEW-049	8/16/2017 8:28	54.5	39.2	0.0	6.3	110.7	110.7	15.1	16.3	-0.4	-0.4	-13.1
GEW-049	8/22/2017 14:37	55.6	38.0	0.0	6.4	111.0	111.2	28.8	29.4	0.0	0.0	-12.5
GEW-049	8/22/2017 14:39	55.2	39.9	0.0	4.9	111.2	111.2	27.5	28.3	0.0	-0.1	-12.5
GEW-049	8/28/2017 9:05	55.5	37.6	0.0	6.9	110.1	110.2	8.7	11.4	-0.2	-0.2	-12.9
GEW-050	8/7/2017 8:28	56.6	38.7	0.0	4.7	106.5	106.5	16.4	10.4	-0.4	-0.4	-7.7
GEW-050	8/7/2017 8:29	56.3	38.9	0.0	4.8	106.5	106.3	13.6	16.2	-0.4	-0.4	-8.5
GEW-050	8/16/2017 8:22	58.6	36.2	0.0	5.2	106.7	106.8	16.6	20.0	-0.3	-0.3	-5.1
GEW-050	8/16/2017 8:23	57.3	38.2	0.0	4.5	106.7	106.6	11.8	13.6	-0.3	-0.3	-7.3
GEW-050	8/22/2017 14:32	56.0	36.0	0.0	8.0	107.9	108.0	30.3	29.7	0.0	0.1	-5.2
GEW-050	8/22/2017 14:34	57.3	38.8	0.0	3.9	108.0	108.0	31.4	28.4	0.0	0.0	-7.6
GEW-050	8/23/2017 9:32	55.8	38.6	0.0	5.6	107.2	107.2	30.3	29.4	-0.3	-0.2	-7.7
GEW-050	8/28/2017 9:01	55.3	35.8	0.0	8.9	107.0	107.0	9.6	12.4	-0.2	-0.2	-6.2

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GEW-051	8/7/2017 8:38	54.9	38.9	0.0	6.2	125.0	124.7	0.0	0.0	-0.4	-0.4	-12.7
GEW-051	8/7/2017 8:39	54.6	40.1	0.0	5.3	124.7	124.7	0.0	0.0	-0.4	-0.4	-13.0
GEW-051	8/15/2017 15:07	51.5	41.6	0.0	6.9	127.2	127.2	11.2	10.6	0.3	0.3	-11.6
GEW-051	8/15/2017 15:24	51.9	42.2	0.0	5.9	124.4	124.5	28.5	28.0	0.3	0.3	-12.0
GEW-051	8/15/2017 15:26	51.5	42.5	0.0	6.0	125.3	125.3	5.5	3.9	0.3	0.3	-11.8
GEW-051	8/16/2017 8:32	54.0	37.9	0.0	8.1	124.8	125.0	9.4	12.2	-0.5	-0.5	-12.7
GEW-051	8/16/2017 8:33	54.0	40.1	0.0	5.9	125.0	124.7	11.9	10.2	-0.4	-0.4	-13.7
GEW-051	8/22/2017 14:43	54.3	39.1	0.0	6.6	126.3	126.4	22.3	25.1	0.2	0.2	-12.3
GEW-051	8/22/2017 14:44	54.2	40.4	0.0	5.4	127.5	127.5	13.1	13.9	0.0	0.0	-12.4
GEW-051	8/23/2017 9:27	55.3	37.1	0.0	7.6	126.4	126.4	15.6	19.8	-0.7	-0.7	-11.7
GEW-051	8/28/2017 9:08	54.6	38.8	0.0	6.6	125.6	125.8	0.0	9.0	-0.4	-0.4	-12.8
GEW-052	8/7/2017 8:42	51.7	38.6	0.0	9.7	113.5	113.5	0.0	0.0	-0.3	-0.3	-13.0
GEW-052	8/16/2017 8:36	52.2	38.1	0.0	9.7	113.6	113.5	11.7	12.6	-0.3	-0.3	-13.2
GEW-052	8/22/2017 14:51	53.1	37.8	0.0	9.1	115.1	115.1	27.0	29.4	-0.1	-0.1	-12.8
GEW-052	8/28/2017 9:11	53.0	38.6	0.0	8.4	114.0	114.0	29.6	32.2	-0.2	-0.2	-12.8
GEW-053	8/7/2017 9:00	49.1	39.5	0.0	11.4	132.1	132.3	9.4	9.4	-0.4	-0.4	-13.4
GEW-053	8/7/2017 9:01	49.5	41.9	0.0	8.6	132.9	132.9	10.5	9.4	-0.4	-0.4	-13.3
GEW-053	8/9/2017 9:09	49.7	41.3	0.0	9.0	133.7	133.8	15.8	15.8	-0.2	-0.2	-13.0
GEW-053	8/9/2017 9:15	49.3	41.5	0.0	9.2	133.8	133.8	16.2	14.6	-0.2	-0.2	-13.1
GEW-053	8/15/2017 13:49	48.5	41.1	0.0	10.4	135.0	135.1	25.1	25.8	0.1	0.1	-12.3
GEW-053	8/15/2017 13:55	49.1	41.3	0.0	9.6	134.4	134.4	25.7	25.7	0.1	0.1	-11.1
GEW-053	8/15/2017 13:56	48.5	41.9	0.0	9.6	134.6	134.7	0.0	0.0	0.1	0.1	-7.1
GEW-053	8/16/2017 8:55	49.1	40.1	0.0	10.8	133.8	134.0	12.7	12.4	-0.5	-0.5	-12.7
GEW-053	8/16/2017 8:56	48.8	41.8	0.0	9.4	134.1	134.0	9.0	12.7	-0.5	-0.5	-13.1
GEW-053	8/23/2017 9:36	51.8	37.6	0.0	10.6	133.8	133.8	12.1	11.8	-0.6	-0.6	-12.8
GEW-053	8/23/2017 9:38	49.6	42.6	0.0	7.8	133.8	133.5	12.1	14.3	-0.6	-0.6	-11.9
GEW-053	8/28/2017 9:30	48.7	42.5	0.0	8.8	121.9	122.1	0.0	0.0	0.3	0.3	-1.3
GEW-053	8/28/2017 9:31	48.8	42.6	0.0	8.6	123.8	123.9	0.0	0.0	0.2	0.2	-1.3
GEW-053	8/31/2017 9:13	50.2	43.9	0.0	5.9	136.2	136.2	14.6	14.7	-0.7	-0.7	-13.5
GEW-053	8/31/2017 9:14	49.7	43.9	0.0	6.4	136.8	136.5	12.7	15.5	-0.8	-0.8	-13.8
GEW-054	8/7/2017 9:09	52.1	40.9	0.0	7.0	139.3	139.3	35.6	30.7	-3.8	-3.8	-12.8
GEW-054	8/7/2017 9:10	52.1	41.4	0.0	6.5	139.3	139.3	34.2	40.3	-3.8	-3.9	-12.3
GEW-054	8/9/2017 8:54	52.2	40.8	0.0	7.0	140.2	140.2	38.3	37.5	-3.6	-3.6	-13.3
GEW-054	8/9/2017 9:01	52.3	41.3	0.0	6.4	140.2	140.2	35.3	36.6	-3.5	-3.5	-10.8
GEW-054	8/15/2017 12:47	53.0	38.0	0.0	9.0	140.2	140.2	36.3	31.9	-3.4	-3.3	-12.7
GEW-054	8/15/2017 14:24	50.6	41.6	0.0	7.8	140.6	140.6	33.5	38.2	-3.2	-3.1	-11.5
GEW-054	8/15/2017 14:45	49.4	39.1	0.0	11.5	140.5	140.6	37.6	39.5	-3.1	-3.1	-12.3
GEW-054	8/16/2017 9:03	51.9	38.0	0.0	10.1	140.2	140.2	37.2	37.5	-3.9	-4.0	-13.3
GEW-054	8/16/2017 9:04	51.9	41.0	0.0	7.1	140.2	140.2	45.8	38.7	-3.8	-3.9	-13.3
GEW-054	8/22/2017 15:28	51.1	40.4	0.0	8.5	139.6	139.6	38.8	35.0	-3.1	-3.0	-12.9
GEW-054	8/22/2017 15:28	51.5	41.3	0.0	7.2	139.6	139.6	33.8	34.6	-3.0	-3.1	-13.1
GEW-054	8/28/2017 9:40	51.7	40.1	0.0	8.2	140.9	140.9	34.8	31.7	-3.3	-3.3	-13.4
GEW-054	8/28/2017 9:41	50.8	41.9	0.0	7.3	140.9	141.0	34.5	33.9	-3.3	-3.3	-13.6

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GEW-055	8/2/2017 14:27	50.6	39.7	0.0	9.7	135.3	135.3	9.8	6.1	0.4	0.4	-1.5
GEW-055	8/2/2017 14:28	49.8	41.9	0.0	8.3	136.2	136.2	9.4	8.1	0.3	0.3	-1.5
GEW-055	8/7/2017 9:18	49.6	40.4	0.4	9.6	114.9	115.0	3.9	9.9	-0.4	-0.4	-3.4
GEW-055	8/7/2017 9:19	49.3	41.6	0.2	8.9	114.8	114.8	11.0	7.3	-0.4	-0.4	-3.7
GEW-055	8/9/2017 9:20	49.6	41.7	0.0	8.7	135.9	136.0	27.0	27.7	-0.2	-0.2	-2.9
GEW-055	8/9/2017 9:27	49.3	40.6	0.0	10.1	135.8	135.9	16.9	15.0	-0.2	-0.1	-3.3
GEW-055	8/15/2017 13:25	49.6	38.0	0.0	12.4	136.5	136.5	10.5	11.8	0.0	0.0	-2.0
GEW-055	8/15/2017 13:32	48.5	41.6	0.2	9.7	139.6	139.6	10.4	11.7	-0.5	-0.5	-9.7
GEW-055	8/15/2017 13:38	48.8	41.7	0.0	9.5	138.7	138.7	6.0	6.0	-0.2	-0.2	-11.8
GEW-055	8/16/2017 9:12	49.4	39.3	0.3	11.0	137.4	137.6	8.9	10.8	-0.6	-0.6	-13.1
GEW-055	8/16/2017 9:14	49.1	41.5	0.2	9.2	136.8	136.8	34.8	34.9	-0.5	-0.5	-13.1
GEW-055	8/23/2017 9:41	48.9	40.8	0.1	10.2	138.3	138.3	12.6	12.1	-0.5	-0.5	-11.9
GEW-055	8/23/2017 9:42	49.4	42.2	0.0	8.4	138.3	138.3	16.4	15.2	-0.4	-0.4	-12.2
GEW-055	8/31/2017 9:19	49.3	43.4	0.0	7.3	139.3	139.1	10.2	10.2	-0.5	-0.5	-13.1
GEW-055	8/31/2017 9:25	49.3	43.9	0.0	6.8	139.0	138.7	8.7	8.3	-0.4	-0.4	-13.0
GEW-056R	8/7/2017 8:46	18.9	53.4	0.0	27.7	122.3	122.4	3.9	3.1	-0.3	-0.3	-18.2
GEW-056R	8/8/2017 14:20	18.1	52.3	0.0	29.6	127.2	127.2	2.6	3.2	-0.2	-0.2	-18.4
GEW-056R	8/8/2017 14:28	17.9	51.0	0.0	31.1	127.2	126.9	2.6	2.6	-0.2	-0.2	-18.4
GEW-056R	8/15/2017 13:58	16.8	52.0	0.0	31.2	136.2	136.2	3.2	3.2	-0.2	-0.2	-18.9
GEW-056R	8/15/2017 13:59	17.0	53.6	0.0	29.4	136.8	136.8	1.5	2.4	-0.2	-0.2	-18.6
GEW-056R	8/21/2017 14:26	23.9	46.6	0.0	29.5	132.5	132.3	1.5	2.1	-0.4	-0.4	-19.7
GEW-056R	8/21/2017 14:27	24.4	49.0	0.0	26.6	132.6	132.6	2.1	2.1	-0.4	-0.4	-19.7
GEW-056R	8/29/2017 13:57	24.9	49.1	0.0	26.0	128.9	128.9	1.9	2.1	-0.4	-0.4	-18.4
GEW-057B	8/1/2017 10:46	5.3	45.2	3.0	46.5	93.1	93.2	7.2	6.3	-17.2	-16.2	-17.1
GEW-057B	8/1/2017 10:47	5.7	46.5	2.5	45.3	93.4	93.6	7.2	8.1	-17.6	-15.2	-17.1
GEW-057B	8/16/2017 10:42	6.8	46.4	2.1	44.7	88.4	88.4	20.0	23.3	-17.2	-15.6	-16.9
GEW-057R	8/1/2017 10:52	20.5	41.1	0.5	37.9	107.2	107.2	21.4	20.9	-6.8	-6.4	-15.0
GEW-057R	8/16/2017 10:45	0.0	4.1	21.2	74.7	89.1	89.1	10.0	4.7	-0.7	-0.7	-16.3
GEW-057R	8/16/2017 10:47	0.0	0.8	21.3	77.9	89.8	89.8	2.3	3.6	-0.1	-0.1	-16.8
GEW-058	8/1/2017 9:45	8.6	35.5	2.0	53.9	130.6	130.6	25.0	21.4	-6.4	-6.4	-18.9
GEW-058	8/16/2017 10:05	10.6	38.4	0.4	50.6	114.3	114.4	17.8	13.2	-8.3	-8.3	-18.3
GEW-058A	8/1/2017 9:42	3.7	25.5	2.5	68.3	124.2	124.2	2.8	1.9	-2.5	-2.5	-18.3
GEW-058A	8/16/2017 10:02	19.2	37.2	0.5	43.1	109.5	109.5	3.5	3.5	-1.7	-1.7	-19.3
GEW-059R	8/1/2017 9:28	10.9	47.6	0.0	41.5	171.0	171.1	11.1	10.0	-19.1	-19.1	-19.2
GEW-059R	8/1/2017 9:30	9.8	49.3	0.0	40.9	171.0	171.2	7.8	7.8	-18.1	-18.1	-18.3
GEW-059R	8/16/2017 9:43	12.3	47.5	0.0	40.2	167.6	168.1	6.2	6.1	-19.0	-18.8	-18.8
GEW-059R	8/16/2017 9:45	12.0	48.9	0.0	39.1	168.1	168.1	10.4	10.8	-19.4	-18.6	-19.9
GEW-067A	8/1/2017 8:52	4.0	55.2	0.0	40.8	88.6	88.6	5.7	10.5	0.2	0.2	0.2
GEW-067A	8/1/2017 8:53	4.1	56.0	0.0	39.9	88.9	88.9	2.6	2.6	0.3	0.3	0.2
GEW-067A	8/16/2017 14:08	6.5	54.6	0.0	38.9	98.4	98.4	2.5	8.7	0.2	0.2	0.3
GEW-067A	8/16/2017 14:09	3.7	57.5	0.0	38.8	98.7	98.7	4.7	6.1	0.2	0.1	0.6
GEW-067A	8/22/2017 14:57	9.7	50.4	0.0	39.9	168.1	168.1	4.9	4.9	-0.3	-0.3	-18.3
GEW-067A	8/22/2017 14:58	9.5	50.7	0.0	39.8	168.1	168.0	5.3	7.7	-0.2	-0.3	-18.4

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GEW-077	8/25/2017 11:21	0.7	47.7	0.2	51.4	129.4	129.4	38.6	41.6	-18.6	-18.9	-16.6
GEW-078R	8/17/2017 14:14	13.2	43.3	0.0	43.5	171.0	171.0	8.6	8.8	-17.2	-17.2	-17.1
GEW-078R	8/17/2017 14:15	13.1	46.7	0.0	40.2	171.0	171.0	8.5	8.5	-16.7	-16.7	-16.6
GEW-081	8/1/2017 14:09	0.9	52.1	1.4	45.6	92.4	92.4	NR	NR	-18.6	-18.6	-18.8
GEW-081	8/17/2017 10:14	0.6	56.0	1.2	42.2	100.8	99.7	5.6	5.6	-4.3	-4.3	-4.4
GEW-082R	8/1/2017 13:53	8.2	37.2	4.6	50.0	180.9	180.9	12.7	4.6	-17.6	-17.2	-17.7
GEW-082R	8/1/2017 13:55	9.8	39.3	4.5	46.4	181.5	181.5	7.3	5.9	-17.2	-17.6	-17.6
GEW-082R	8/17/2017 11:13	12.5	36.7	5.4	45.4	179.2	179.2	5.5	5.2	-17.1	-17.5	-17.5
GEW-082R	8/17/2017 11:14	12.7	35.7	5.8	45.8	178.6	179.2	5.3	5.3	-16.5	-16.5	-18.0
GEW-086	8/1/2017 9:06	4.2	52.0	0.0	43.8	93.1	93.1	2.3	3.4	0.1	0.1	0.3
GEW-086	8/1/2017 9:08	4.5	56.7	0.0	38.8	94.0	94.1	1.6	3.4	0.1	0.1	0.2
GEW-086	8/16/2017 14:41	4.4	53.6	0.0	42.0	107.3	107.4	2.5	3.7	0.1	0.1	0.4
GEW-086	8/16/2017 14:43	5.5	57.1	0.0	37.4	107.5	107.5	3.5	3.2	0.1	0.1	0.3
GEW-086	8/22/2017 15:11	23.3	51.3	0.0	25.4	114.5	114.5	6.4	6.6	-1.1	-1.1	-18.9
GEW-087	8/1/2017 9:12	2.8	33.2	3.7	60.3	178.2	178.2	NFD		-18.0	-19.0	-17.8
GEW-087	8/1/2017 9:14	3.1	32.6	3.6	60.7	178.2	178.2	NFD		-18.1	-17.3	-18.5
GEW-087	8/16/2017 14:48	5.7	55.6	0.2	38.5	195.7	195.7	NFD		-18.2	-17.9	-17.5
GEW-087	8/16/2017 14:49	6.6	51.9	0.1	41.4	195.7	195.7	NFD		-18.2	-18.4	-16.4
GEW-087	8/17/2017 15:18	3.6	57.5	0.0	38.9	195.7	195.7	NFD		-18.3	-18.6	-18.2
GEW-087	8/17/2017 15:19	4.1	59.5	0.0	36.4	195.7	195.7	NFD		-17.2	-18.4	-17.7
GEW-088	8/22/2017 15:07	9.0	49.5	0.0	41.5	193.6	193.6	45.7	48.2	-3.6	-3.6	-18.9
GEW-088	8/22/2017 15:08	8.7	50.2	0.0	41.1	193.6	193.6	49.0	44.9	-3.7	-3.8	-19.1
GEW-090	8/1/2017 8:37	16.4	44.4	0.0	39.2	173.2	173.1	10.6	10.2	-20.0	-20.2	-19.6
GEW-090	8/1/2017 8:38	16.4	47.0	0.0	36.6	174.0	173.6	16.0	20.8	-19.5	-20.0	-17.6
GEW-090	8/16/2017 13:56	16.0	47.7	0.0	36.3	170.5	170.5	20.3	12.1	-19.9	-19.9	-18.5
GEW-090	8/16/2017 13:57	16.1	46.9	0.0	37.0	169.5	169.0	15.9	13.3	-18.6	-19.7	-17.0
GEW-090	8/22/2017 14:48	14.1	48.3	0.0	37.6	182.7	182.7	20.4	20.4	-18.6	-18.6	-19.4
GEW-090	8/22/2017 14:49	14.9	49.7	0.0	35.4	183.3	183.3	18.8	15.9	-18.1	-18.6	-18.8
GEW-091	8/1/2017 8:29	3.4	55.9	0.0	40.7	179.2	179.2	5.4	5.5	-10.8	-10.6	-10.6
GEW-091	8/1/2017 8:30	3.1	55.7	0.0	41.2	179.7	179.2	6.6	4.1	-10.6	-10.8	-10.5
GEW-091	8/16/2017 13:46	1.7	54.7	0.0	43.6	185.8	186.4	16.2	15.5	-9.8	-9.4	-9.7
GEW-091	8/16/2017 13:47	2.1	56.3	0.0	41.6	186.4	186.8	11.0	10.1	-10.6	-10.0	-10.0
GEW-091	8/22/2017 14:38	2.1	59.1	0.0	38.8	194.3	194.8	15.9	14.3	-18.6	-18.1	-18.9
GEW-091	8/22/2017 14:40	2.2	60.2	0.0	37.6	194.4	194.3	18.8	22.3	-16.2	-15.9	-17.3
GEW-101	8/1/2017 11:16	15.7	61.1	0.2	23.0	105.5	105.6	15.9	16.4	-0.5	-0.4	-8.7
GEW-101	8/16/2017 14:29	13.4	62.8	1.7	22.1	106.0	106.0	21.9	20.6	-0.5	-0.5	-15.1
GEW-102	8/1/2017 11:06	9.2	36.1	8.1	46.6	91.7	91.7	NR	NR	-18.1	-18.1	-18.0
GEW-102	8/1/2017 11:07	9.5	35.6	7.9	47.0	91.7	91.7	NR	NR	-17.6	-18.6	-17.6
GEW-102	8/16/2017 11:11	10.1	46.3	3.2	40.4	91.9	91.9	6.3	4.4	-17.6	-17.6	-17.4
GEW-104	8/1/2017 10:27	0.6	35.0	7.2	57.2	92.7	92.7	1.1	2.9	-12.7	-13.2	-13.3
GEW-104	8/1/2017 10:28	0.1	42.5	7.5	49.9	92.9	92.9	1.1	1.1	-13.2	-13.2	-14.1
GEW-104	8/16/2017 10:34	1.8	35.4	7.7	55.1	90.3	90.3	1.9	3.7	-12.2	-12.2	-12.4
GEW-104	8/16/2017 10:36	1.2	43.7	6.2	48.9	90.0	89.9	1.1	1.5	-11.9	-12.2	-12.3

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GEW-105	8/1/2017 10:01	19.2	41.4	5.6	33.8	154.0	154.2	12.0	11.1	-12.5	-12.7	-12.6
GEW-105	8/1/2017 10:02	18.6	40.8	6.2	34.4	150.2	149.5	6.4	6.1	-3.1	-3.1	-12.7
GEW-105	8/16/2017 10:14	15.7	45.2	2.5	36.6	154.8	154.8	0.6	1.7	-1.6	-1.6	-13.0
GEW-105	8/16/2017 10:15	15.0	48.0	2.5	34.5	154.0	154.1	5.1	3.7	-1.6	-1.5	-9.9
GEW-106	8/1/2017 9:47	24.5	45.6	0.9	29.0	102.2	102.3	5.4	5.3	-0.6	-0.6	-13.9
GEW-106	8/16/2017 10:08	29.0	53.0	0.0	18.0	92.3	92.4	2.3	2.3	-0.7	-0.7	-12.9
GEW-107	8/1/2017 9:34	0.1	1.6	20.5	77.8	100.8	100.8	13.5	13.7	-18.6	-19.1	-18.7
GEW-107	8/1/2017 9:35	0.0	0.9	20.4	78.7	101.8	101.9	4.4	7.2	-18.6	-18.6	-18.4
GEW-107	8/16/2017 9:48	0.1	5.2	20.3	74.4	85.8	85.8	9.8	9.8	-19.0	-19.0	-19.7
GEW-107	8/16/2017 9:50	0.0	1.5	20.8	77.7	86.3	86.3	6.5	6.5	-18.6	-18.6	-18.2
GEW-108	8/1/2017 9:04	3.1	46.5	3.9	46.5	90.5	91.0	2.2	2.2	-20.1	-20.1	-19.9
GEW-108	8/16/2017 9:36	1.6	33.2	3.8	61.4	84.1	84.1	3.5	7.1	-18.6	-19.0	-18.3
GEW-108	8/16/2017 9:37	0.3	36.1	2.9	60.7	84.9	84.9	3.7	3.7	-19.1	-19.1	-19.2
GEW-109	8/7/2017 9:34	30.4	48.6	0.0	21.0	99.6	99.4	2.9	2.6	-18.0	-18.0	-19.8
GEW-109	8/7/2017 9:36	30.3	50.6	0.0	19.1	96.5	96.2	1.9	2.2	-11.4	-11.3	-18.7
GEW-109	8/9/2017 10:14	31.2	47.3	0.0	21.5	101.7	101.8	1.6	1.6	-9.7	-9.7	-19.0
GEW-109	8/9/2017 10:19	29.9	47.6	0.0	22.5	101.3	101.3	1.9	2.5	-8.5	-8.5	-19.2
GEW-109	8/15/2017 14:50	28.7	49.3	0.2	21.8	108.5	108.5	1.1	1.5	-6.9	-6.9	-18.5
GEW-109	8/23/2017 11:00	31.7	45.5	0.0	22.8	95.8	96.0	2.8	2.3	-7.5	-7.5	-18.6
GEW-109	8/29/2017 15:11	32.0	45.8	0.0	22.2	102.3	102.3	3.3	3.8	-6.3	-6.4	-16.2
GEW-110	8/7/2017 8:35	6.9	21.4	11.6	60.1	80.4	80.5	2.6	2.5	-0.1	-0.1	-18.2
GEW-110	8/7/2017 8:36	7.8	21.5	10.8	59.9	80.9	80.9	3.1	2.0	-0.1	-0.1	-19.1
GEW-110	8/8/2017 13:50	7.2	23.8	10.0	59.0	95.5	95.5	1.1	1.6	-0.1	-0.1	-19.0
GEW-110	8/8/2017 13:56	6.6	21.9	10.6	60.9	96.0	96.0	2.0	1.6	-0.1	-0.1	-18.7
GEW-110	8/15/2017 13:49	1.3	9.5	15.8	73.4	102.3	102.3	3.6	3.0	-0.2	-0.2	-18.6
GEW-110	8/15/2017 13:50	0.8	7.6	16.1	75.5	103.1	103.2	1.6	1.6	-0.2	-0.2	-18.4
GEW-110	8/21/2017 14:18	9.1	23.5	11.0	56.4	102.3	102.3	1.1	1.1	-0.2	-0.2	-19.8
GEW-110	8/21/2017 14:19	8.2	22.8	11.4	57.6	102.5	102.5	1.1	1.6	-0.2	-0.2	-19.9
GEW-110	8/29/2017 13:44	8.5	30.1	9.4	52.0	98.4	98.4	1.1	2.3	-0.2	-0.2	-18.3
GEW-110	8/29/2017 13:47	8.0	29.3	9.8	52.9	98.1	98.1	2.8	1.1	-0.1	-0.1	-18.6
GEW-113	8/1/2017 10:07	9.2	40.4	1.5	48.9	157.7	157.7	25.6	28.6	-15.5	-15.5	-17.7
GEW-113	8/1/2017 10:09	9.5	40.9	1.5	48.1	158.1	158.1	27.7	27.5	-15.6	-15.6	-17.8
GEW-113	8/17/2017 14:48	7.7	44.2	0.5	47.6	157.5	157.7	28.2	29.6	-16.1	-16.0	-18.6
GEW-113	8/17/2017 14:50	7.8	42.7	0.5	49.0	156.0	156.0	19.3	20.1	-9.9	-9.9	-19.9
GEW-116	8/1/2017 10:52	11.0	53.4	1.4	34.2	187.6	187.6	14.0	14.0	-15.1	-15.1	-17.7
GEW-116	8/1/2017 10:53	12.5	60.8	1.2	25.5	188.3	188.1	7.9	15.7	-10.8	-10.7	-18.9
GEW-116	8/17/2017 10:57	7.0	64.4	0.5	28.1	190.2	190.2	9.6	8.8	-7.7	-7.7	-18.8
GEW-116	8/17/2017 10:59	8.3	67.1	0.0	24.6	187.6	187.3	9.9	6.8	-1.0	-1.0	-18.0
GEW-117	8/1/2017 11:05	21.6	43.4	2.0	33.0	124.2	124.2	NR	NR	-17.5	-17.6	-17.9
GEW-117	8/17/2017 10:42	26.4	56.0	0.0	17.6	134.4	134.1	NR	NR	-17.5	-17.5	-18.0
GEW-117	8/17/2017 10:43	26.7	56.9	0.0	16.4	134.3	134.4	NR	NR	-17.0	-17.1	-17.4
GEW-118	8/1/2017 13:45	1.7	56.0	0.1	42.2	194.3	194.3	73.2	73.3	-8.8	-8.7	-18.5
GEW-118	8/1/2017 13:46	1.4	56.7	0.0	41.9	194.3	194.3	70.4	69.4	-9.7	-9.7	-18.5

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GEW-118	8/17/2017 10:37	0.9	57.5	0.0	41.6	194.3	194.3	66.7	64.8	-9.3	-9.3	-18.1
GEW-118	8/17/2017 10:38	0.8	58.4	0.0	40.8	194.3	194.3	68.4	64.4	-8.8	-8.8	-18.0
GEW-120	8/1/2017 11:09	26.5	49.4	1.1	23.0	158.0	158.0	25.9	28.9	-15.2	-16.7	-13.4
GEW-120	8/1/2017 11:10	28.8	52.3	0.8	18.1	158.3	158.2	28.7	42.6	-15.3	-12.7	-12.4
GEW-120	8/15/2017 15:00	19.2	55.7	0.0	25.1	164.3	164.3	32.8	25.3	-16.6	-16.2	-17.7
GEW-120	8/15/2017 15:02	18.0	57.0	0.0	25.0	164.3	164.3	27.3	25.8	-16.4	-15.7	-16.9
GEW-121	8/1/2017 14:13	12.3	53.4	0.1	34.2	173.6	173.6	15.2	20.4	-17.6	-18.1	-17.0
GEW-121	8/1/2017 14:14	12.6	54.5	0.0	32.9	173.6	173.6	22.9	32.5	-17.1	-18.6	-16.6
GEW-121	8/17/2017 10:25	12.9	55.3	0.0	31.8	177.5	178.0	42.5	41.6	-16.5	-15.6	-14.3
GEW-121	8/17/2017 10:27	12.3	56.7	0.0	31.0	178.0	178.0	31.7	27.3	-15.0	-13.6	-15.1
GEW-122	8/1/2017 14:03	13.3	39.6	0.2	46.9	165.1	165.1	22.2	22.4	-18.1	-18.1	-18.7
GEW-122	8/1/2017 14:06	13.6	43.3	0.1	43.0	165.7	165.5	23.6	23.4	-18.6	-18.1	-19.2
GEW-122	8/17/2017 10:09	13.4	46.2	0.0	40.4	168.2	168.5	8.7	8.7	-5.8	-5.8	-5.8
GEW-122	8/17/2017 10:10	14.0	47.9	0.0	38.1	167.6	168.1	14.4	14.7	-5.8	-5.6	-5.9
GEW-123	8/1/2017 14:17	11.8	55.6	0.4	32.2	168.6	168.5	4.5	4.2	-4.0	-4.0	-19.0
GEW-123	8/1/2017 14:18	12.3	57.6	0.4	29.7	169.5	169.5	2.8	1.4	-4.0	-4.0	-18.7
GEW-123	8/17/2017 10:20	18.3	57.1	0.1	24.5	148.8	149.1	3.1	1.8	-5.8	-5.8	-17.4
GEW-123	8/17/2017 10:22	18.3	57.2	0.2	24.3	144.9	144.8	1.0	2.5	-4.3	-4.3	-18.2
GEW-124	8/1/2017 14:27	6.9	26.1	15.2	51.8	89.6	89.8	4.4	2.7	-16.2	-16.2	-16.5
GEW-124	8/1/2017 14:28	6.5	13.0	16.9	63.6	90.6	90.6	1.6	2.9	-16.2	-16.2	-16.2
GEW-125	8/1/2017 14:33	4.5	53.5	0.2	41.8	188.9	188.9	29.5	28.8	-17.2	-17.3	-19.2
GEW-125	8/1/2017 14:35	4.4	56.4	0.1	39.1	188.9	188.9	28.3	28.3	-17.2	-17.3	-19.1
GEW-125	8/17/2017 9:30	4.6	57.8	0.0	37.6	188.3	188.3	28.1	28.9	-15.7	-15.7	-17.5
GEW-125	8/17/2017 9:32	4.5	59.2	0.0	36.3	188.4	188.7	24.7	25.3	-13.7	-13.5	-17.5
GEW-126	8/1/2017 14:43	27.6	48.0	0.2	24.2	103.0	103.0	10.8	15.2	-10.3	-10.3	-10.7
GEW-126	8/17/2017 9:21	33.3	53.5	0.0	13.2	92.2	92.4	10.3	6.7	-8.9	-8.7	-9.1
GEW-127	8/1/2017 14:38	6.2	57.7	1.4	34.7	183.9	183.3	30.7	25.1	-16.5	-15.2	-19.4
GEW-127	8/1/2017 14:39	6.1	58.5	1.4	34.0	183.3	183.3	21.8	18.8	-11.8	-12.3	-18.0
GEW-127	8/17/2017 9:08	7.4	60.4	0.1	32.1	182.7	182.5	22.0	18.7	-13.5	-13.1	-14.9
GEW-127	8/17/2017 9:09	7.3	62.8	0.1	29.8	182.2	182.1	26.6	26.9	-10.9	-11.3	-15.2
GEW-128	8/1/2017 14:29	7.9	64.9	0.0	27.2	185.1	185.1	20.9	23.4	-3.0	-3.0	-19.5
GEW-128	8/1/2017 14:30	7.9	65.4	0.0	26.7	185.1	185.1	20.5	22.1	-3.0	-3.0	-18.8
GEW-128	8/16/2017 15:08	9.9	63.7	0.0	26.4	182.1	182.1	26.7	26.5	-8.9	-8.9	-18.0
GEW-128	8/16/2017 15:09	10.4	64.0	0.0	25.6	182.1	182.1	22.1	22.5	-5.9	-5.9	-18.0
GEW-129	8/1/2017 14:26	1.3	57.3	0.1	41.3	91.0	90.9	12.4	16.2	-7.4	-7.4	-7.7
GEW-129	8/16/2017 15:03	0.5	72.7	0.0	26.8	195.7	195.7	5.7	7.3	-17.5	-17.2	-17.5
GEW-129	8/16/2017 15:05	0.3	76.6	0.0	23.1	197.9	197.3	19.2	16.5	-17.6	-17.2	-17.8
GEW-130	8/1/2017 14:42	6.5	47.0	4.1	42.4	182.8	182.7	40.9	37.3	-8.8	-8.8	-18.9
GEW-130	8/1/2017 14:43	6.3	47.0	4.0	42.7	182.7	182.7	40.3	39.1	-8.8	-8.8	-18.6
GEW-130	8/11/2017 9:54	6.5	44.6	4.1	44.8	176.4	176.4	35.6	23.9	-7.4	-7.4	-18.7
GEW-130	8/11/2017 10:29	3.9	50.4	2.3	43.4	185.4	185.3	35.0	22.7	-2.6	-2.6	-17.8
GEW-130	8/17/2017 9:14	4.4	55.5	1.1	39.0	185.7	185.4	23.5	32.1	-2.6	-2.6	-18.3
GEW-130	8/17/2017 9:15	4.7	55.1	1.2	39.0	185.7	185.7	19.2	15.3	-2.6	-2.6	-17.5

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GEW-131	8/1/2017 15:10	38.5	44.3	0.0	17.2	176.9	176.9	29.7	30.6	-13.3	-13.3	-19.0
GEW-131	8/1/2017 15:12	36.0	45.2	0.0	18.8	177.5	177.5	22.7	21.2	-11.3	-11.3	-19.0
GEW-131	8/17/2017 9:25	19.1	45.1	0.0	35.8	171.8	171.6	16.1	16.4	-12.9	-12.9	-17.2
GEW-131	8/17/2017 9:26	15.5	47.0	0.0	37.5	173.6	173.8	12.5	12.8	-11.0	-10.9	-17.8
GEW-132	8/1/2017 13:49	1.2	27.4	11.4	60.0	152.9	152.5	4.5	0.0	-0.1	-0.1	-18.4
GEW-132	8/1/2017 13:50	0.7	23.9	11.4	64.0	154.8	154.8	1.0	6.3	0.0	0.0	-18.4
GEW-132	8/2/2017 14:39	2.7	40.1	1.0	56.2	175.8	175.8	7.9	7.3	-0.2	-0.2	-18.1
GEW-132	8/2/2017 14:40	2.5	42.0	1.0	54.5	175.8	175.8	13.5	13.7	-0.2	-0.2	-18.1
GEW-132	8/17/2017 10:32	4.5	42.9	0.3	52.3	166.1	165.2	3.6	2.9	-0.3	-0.4	-17.1
GEW-132	8/17/2017 10:34	4.4	42.3	0.3	53.0	166.1	166.5	4.6	3.3	-0.3	-0.3	-16.6
GEW-133	8/1/2017 10:56	18.0	55.0	0.0	27.0	170.9	170.6	16.5	18.3	-16.8	-16.8	-17.6
GEW-133	8/1/2017 10:58	19.9	56.0	0.0	24.1	171.0	171.0	17.7	16.5	-17.0	-16.9	-18.2
GEW-133	8/17/2017 10:52	11.6	56.9	0.0	31.5	170.5	170.5	11.3	7.3	-16.5	-16.5	-17.9
GEW-133	8/17/2017 10:54	12.1	57.5	0.0	30.4	170.0	170.0	15.4	15.5	-15.1	-14.8	-16.8
GEW-134	8/1/2017 10:42	11.4	53.2	0.1	35.3	139.6	139.6	1.5	4.7	-0.1	-0.1	-17.9
GEW-134	8/1/2017 10:43	13.5	54.8	0.0	31.7	145.3	145.6	3.5	2.6	-0.2	-0.2	-17.9
GEW-134	8/17/2017 11:02	12.8	52.2	0.2	34.8	135.9	135.9	1.5	2.1	-0.1	-0.1	-18.4
GEW-134	8/17/2017 11:04	12.9	51.2	0.2	35.7	152.1	152.5	3.7	2.7	-0.5	-0.4	-18.2
GEW-135	8/1/2017 10:36	2.8	51.2	0.1	45.9	175.9	175.9	8.3	9.9	0.2	0.3	-17.9
GEW-135	8/1/2017 10:38	3.0	55.0	0.0	42.0	185.5	185.1	28.3	33.0	-1.9	-1.7	-17.6
GEW-135	8/17/2017 14:33	7.2	55.6	0.2	37.0	171.0	170.9	20.4	20.4	-1.8	-1.8	-18.6
GEW-135	8/17/2017 14:34	7.1	56.6	0.1	36.2	171.0	171.0	15.9	15.9	-1.9	-1.9	-18.6
GEW-136	8/1/2017 10:31	7.2	27.6	8.3	56.9	129.7	129.7	2.9	6.0	-0.1	-0.1	-8.6
GEW-136	8/1/2017 10:33	7.8	29.7	8.5	54.0	130.3	130.2	5.9	5.0	-0.1	-0.1	-8.1
GEW-136	8/17/2017 14:28	6.3	33.6	6.7	53.4	127.4	127.5	3.6	4.1	-0.1	-0.1	-8.3
GEW-136	8/17/2017 14:29	6.2	34.3	6.8	52.7	126.9	126.9	3.6	3.6	-0.1	-0.1	-9.0
GEW-137	8/1/2017 10:28	21.8	29.6	1.2	47.4	101.4	101.6	1.1	1.6	-12.4	-12.5	-17.3
GEW-137	8/17/2017 14:23	27.1	37.6	0.0	35.3	97.0	97.1	3.0	2.3	0.1	0.1	0.4
GEW-137	8/17/2017 14:24	27.4	36.8	0.0	35.8	97.9	97.9	3.9	3.9	0.1	0.1	0.4
GEW-138	8/1/2017 10:23	7.8	30.0	3.1	59.1	133.5	133.8	5.0	9.5	-0.3	-0.3	-17.3
GEW-138	8/1/2017 10:25	8.0	28.5	3.0	60.5	132.3	132.3	5.7	3.7	-0.2	-0.2	-18.1
GEW-138	8/17/2017 14:18	19.9	49.1	0.0	31.0	148.0	148.0	7.3	3.3	-0.1	0.0	-15.9
GEW-138	8/17/2017 14:19	20.8	48.6	0.0	30.6	149.9	150.2	3.3	3.3	-0.2	-0.2	-16.6
GEW-139	8/1/2017 14:19	6.7	39.2	4.1	50.0	159.0	159.0	33.3	34.9	-16.2	-16.6	-18.2
GEW-139	8/1/2017 14:20	6.6	40.1	4.1	49.2	159.0	159.0	28.8	28.8	-13.3	-13.4	-18.3
GEW-139	8/11/2017 8:38	13.7	50.0	0.3	36.0	156.9	156.9	8.5	8.2	-11.8	-11.8	-17.1
GEW-139	8/11/2017 8:55	12.9	51.0	0.2	35.9	145.6	144.9	16.3	10.2	-0.7	-0.8	-18.0
GEW-139	8/11/2017 14:20	0.5	54.4	0.0	45.1	145.6	145.6	15.1	15.9	1.6	1.6	-17.8
GEW-139	8/11/2017 14:22	0.8	55.5	0.0	43.7	167.5	168.1	38.0	38.0	-1.3	-1.4	-17.6
GEW-139	8/16/2017 14:54	0.2	58.3	0.0	41.5	184.5	184.5	10.2	10.4	0.3	0.4	-16.0
GEW-139	8/16/2017 14:56	0.4	58.4	0.0	41.2	184.6	184.7	13.4	13.3	-0.4	-0.4	-18.0
GEW-140	8/1/2017 14:02	15.7	44.4	1.8	38.1	119.9	120.0	15.4	19.6	-3.9	-4.0	-19.7
GEW-140	8/16/2017 14:43	0.3	62.6	0.0	37.1	107.5	107.5	1.8	4.3	3.2	3.2	3.0

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GEW-140	8/16/2017 14:44	0.4	61.3	0.0	38.3	107.5	107.5	2.3	6.9	3.2	3.2	3.0
GEW-143	8/1/2017 11:44	1.0	37.7	7.1	54.2	102.8	102.8	2.2	2.2	-15.6	-15.6	-16.0
GEW-143	8/1/2017 11:46	0.9	12.8	15.7	70.6	102.8	102.8	2.4	2.4	-15.6	-15.1	-15.2
GEW-143	8/16/2017 14:17	0.3	31.5	10.0	58.2	103.0	103.0	0.6	0.6	-15.3	-15.3	-16.0
GEW-143	8/16/2017 14:19	0.0	16.0	16.2	67.8	103.6	103.6	0.6	2.8	-15.7	-15.7	-16.4
GEW-144	8/1/2017 11:40	2.3	56.5	0.0	41.2	98.9	99.1	2.3	2.3	2.5	2.5	2.7
GEW-144	8/1/2017 11:41	2.6	57.0	0.0	40.4	100.8	100.9	2.8	2.3	2.2	2.2	2.5
GEW-144	8/16/2017 14:22	1.7	55.0	0.0	43.3	101.6	101.6	2.8	2.8	1.5	1.5	1.5
GEW-144	8/16/2017 14:24	1.6	57.6	0.0	40.8	102.5	102.6	3.1	3.1	0.9	0.9	0.7
GEW-145	8/1/2017 11:11	0.3	11.7	18.3	69.7	91.0	91.0	4.4	5.7	-17.6	-18.1	-17.4
GEW-145	8/1/2017 11:12	0.2	6.7	19.2	73.9	91.2	91.2	3.1	4.0	-18.1	-18.1	-18.2
GEW-145	8/16/2017 11:16	3.7	52.6	0.0	43.7	94.5	94.5	6.5	7.9	-9.3	-9.4	-17.3
GEW-146	8/1/2017 9:56	3.5	16.6	9.4	70.5	105.5	105.5	15.7	13.0	-0.1	-0.1	-17.4
GEW-146	8/1/2017 9:57	3.7	16.1	9.4	70.8	105.3	105.3	14.3	12.5	-0.1	-0.1	-18.1
GEW-146	8/17/2017 15:12	2.9	18.3	6.7	72.1	105.8	105.8	15.4	15.4	-0.1	-0.1	-19.0
GEW-146	8/17/2017 15:13	2.9	17.2	6.7	73.2	106.0	106.0	13.1	15.2	-0.1	-0.1	-19.6
GEW-147	8/1/2017 10:17	13.6	44.6	0.0	41.8	187.0	187.0	41.1	42.0	-16.6	-16.5	-17.4
GEW-147	8/1/2017 10:18	14.8	47.7	0.0	37.5	187.0	187.0	41.4	39.5	-16.5	-16.5	-17.5
GEW-147	8/17/2017 14:56	11.3	47.6	0.0	41.1	187.7	187.7	41.7	42.2	-17.2	-17.2	-17.8
GEW-147	8/17/2017 14:58	11.9	51.6	0.0	36.5	188.3	188.3	42.1	42.1	-16.6	-16.6	-18.2
GEW-148	8/1/2017 9:18	3.7	49.7	1.5	45.1	154.4	154.0	10.0	5.8	-18.0	-17.5	-17.9
GEW-148	8/1/2017 9:19	3.7	51.5	1.6	43.2	153.7	153.7	13.7	10.1	-18.1	-17.9	-18.2
GEW-148	8/16/2017 14:54	8.1	51.3	0.4	40.2	119.4	119.5	3.6	9.1	-17.9	-17.9	-17.2
GEW-148	8/17/2017 15:22	4.1	55.4	0.7	39.8	109.0	109.0	15.9	15.9	-18.6	-18.6	-18.5
GEW-149	8/1/2017 8:47	18.3	46.3	1.1	34.3	109.5	109.5	20.4	15.3	-0.3	-0.3	-7.6
GEW-149	8/1/2017 8:49	18.5	45.1	1.1	35.3	109.6	109.5	14.5	11.1	-0.5	-0.5	-8.1
GEW-149	8/16/2017 14:05	20.3	47.2	0.2	32.3	111.2	111.3	8.8	8.7	-0.4	-0.5	-5.4
GEW-149	8/22/2017 14:53	18.6	50.8	0.1	30.5	138.3	138.3	13.5	14.0	-0.2	-0.2	-5.8
GEW-149	8/22/2017 14:54	18.2	51.3	0.1	30.4	138.3	138.3	10.9	14.7	-0.2	-0.2	-5.7
GEW-150	8/1/2017 10:24	23.5	49.6	1.5	25.4	128.9	128.9	8.5	9.0	-1.6	-1.6	-14.1
GEW-150	8/16/2017 10:31	21.3	46.0	0.7	32.0	128.6	128.6	6.6	6.6	-1.7	-1.7	-16.6
GEW-151	8/1/2017 9:01	1.6	46.6	0.0	51.8	90.1	90.1	4.9	6.0	0.5	0.4	0.7
GEW-151	8/1/2017 9:02	1.7	46.9	0.0	51.4	90.3	90.3	0.0	2.8	0.4	0.5	0.7
GEW-151	8/16/2017 14:19	3.8	44.1	0.0	52.1	99.4	99.5	2.8	3.9	0.5	0.4	0.7
GEW-151	8/16/2017 14:20	1.8	47.7	0.0	50.5	100.4	100.4	2.0	3.8	0.5	0.5	0.7
GEW-151	8/22/2017 15:04	27.6	52.1	0.0	20.3	96.2	97.0	33.7	37.4	-8.5	-11.0	-19.4
GEW-152	8/1/2017 9:37	0.1	0.5	20.9	78.5	97.7	98.2	2.9	1.5	-18.1	-18.1	-19.7
GEW-152	8/1/2017 9:39	0.1	0.2	21.0	78.7	100.6	100.6	2.9	1.9	-18.1	-17.6	-18.5
GEW-152	8/3/2017 10:55	1.1	49.3	0.1	49.5	102.9	103.0	3.4	3.4	3.3	3.3	-19.2
GEW-152	8/3/2017 10:57	1.4	51.8	0.0	46.8	131.7	132.6	3.4	2.8	-1.6	-1.6	-19.5
GEW-152	8/10/2017 11:27	17.8	49.2	1.3	31.7	139.9	139.9	2.2	1.3	-5.8	-5.8	-19.2
GEW-152	8/10/2017 11:28	18.7	47.9	0.9	32.5	128.9	128.1	2.3	2.3	-3.9	-3.9	-18.7
GEW-152	8/16/2017 9:53	8.9	50.5	0.0	40.6	110.5	110.5	3.5	3.5	2.3	2.3	-18.1

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GEW-152	8/16/2017 9:55	10.5	52.2	0.0	37.3	142.2	142.2	2.3	3.8	-1.2	-1.2	-18.6
GEW-153	8/1/2017 9:25	38.9	43.2	0.0	17.9	116.6	116.6	1.9	2.9	-2.3	-2.3	-19.2
GEW-153	8/16/2017 9:40	46.6	43.1	0.0	10.3	105.7	105.5	1.5	3.0	-1.8	-1.8	-18.6
GEW-154	8/1/2017 8:33	16.0	42.1	3.5	38.4	165.7	165.7	6.2	5.1	-1.9	-1.9	-11.2
GEW-154	8/1/2017 8:34	18.3	38.5	3.3	39.9	161.2	161.1	3.7	6.0	-0.8	-0.8	-14.0
GEW-154	8/16/2017 13:50	1.3	55.7	0.0	43.0	178.6	178.6	1.4	3.0	0.7	0.7	-10.9
GEW-154	8/16/2017 13:52	6.1	53.2	0.0	40.7	185.3	185.6	6.2	5.3	-0.1	-0.1	-7.7
GEW-154	8/22/2017 14:43	23.6	36.2	4.7	35.5	154.5	154.5	8.7	6.9	-4.6	-4.6	-20.0
GEW-154	8/22/2017 14:45	23.6	34.8	4.7	36.9	151.3	151.6	3.8	4.6	-3.1	-3.1	-19.3
GEW-155	8/1/2017 13:59	2.7	22.9	6.1	68.3	147.0	147.0	10.4	14.2	-0.4	-0.3	-14.6
GEW-155	8/1/2017 14:00	2.2	21.5	6.2	70.1	147.1	147.2	14.5	13.7	-0.4	-0.4	-15.2
GEW-155	8/2/2017 14:46	2.3	22.2	5.1	70.4	148.4	148.4	14.1	11.8	-0.4	-0.3	-13.9
GEW-155	8/2/2017 15:00	2.3	20.1	5.1	72.5	149.9	149.9	11.8	12.0	-0.4	-0.4	-14.0
GEW-155	8/17/2017 11:20	8.3	26.3	1.3	64.1	96.6	97.0	3.5	3.7	0.0	0.0	0.5
GEW-155	8/17/2017 11:26	8.0	25.5	1.3	65.2	98.2	98.2	3.9	3.2	0.0	0.0	0.1
GEW-156	8/1/2017 10:56	28.2	41.7	2.2	27.9	111.7	112.0	1.6	1.6	0.0	0.0	-19.2
GEW-156	8/1/2017 10:58	29.1	42.1	1.9	26.9	120.2	120.1	3.3	4.5	-0.1	-0.1	-18.5
GEW-156	8/16/2017 11:04	25.9	37.7	0.7	35.7	109.8	109.9	2.2	2.2	0.0	0.0	-18.3
GEW-156	8/16/2017 11:05	25.3	38.7	0.9	35.1	119.1	119.2	6.3	7.9	-0.2	-0.2	-18.5
GEW-157	8/1/2017 10:39	0.1	5.4	19.8	74.7	92.0	92.2	1.9	4.4	-16.6	-16.2	-16.2
GEW-157	8/1/2017 10:41	0.0	3.4	20.3	76.3	93.6	93.6	1.9	3.5	-15.6	-15.6	-14.4
GEW-157	8/16/2017 10:38	0.1	12.7	16.8	70.4	88.1	88.2	3.9	1.5	-15.6	-15.6	-17.9
GEW-157	8/16/2017 10:40	0.1	13.0	17.1	69.8	88.6	88.6	1.5	2.7	-15.7	-15.7	-16.4
GEW-158	8/1/2017 9:52	2.6	56.1	0.0	41.3	100.6	100.8	19.1	19.1	-13.6	-13.6	-18.2
GEW-158	8/16/2017 10:11	37.0	49.8	0.0	13.2	107.5	107.9	7.3	8.5	-0.6	-0.6	-18.5
GEW-159	8/1/2017 9:00	16.4	27.5	9.6	46.5	87.2	87.0	3.6	2.8	-3.0	-3.0	-2.9
GEW-159	8/1/2017 9:02	15.4	28.0	10.1	46.5	87.2	87.3	3.0	1.2	-3.1	-3.1	-3.3
GEW-159	8/16/2017 9:31	13.4	49.3	0.0	37.3	85.7	85.6	1.3	2.0	0.6	0.6	-0.8
GEW-159	8/16/2017 9:33	12.5	52.0	0.0	35.5	85.8	85.8	3.7	1.2	-0.4	-0.4	-1.0
GEW-160	8/1/2017 8:21	3.9	47.3	0.2	48.6	84.9	84.9	6.2	5.5	0.0	0.0	0.2
GEW-160	8/1/2017 8:22	2.1	52.4	0.0	45.5	84.9	84.9	5.5	3.9	0.0	0.0	0.2
GEW-160	8/11/2017 15:09	5.5	52.2	0.5	41.8	90.3	91.0	8.2	8.9	-1.5	-1.5	-1.5
GEW-160	8/16/2017 13:36	2.1	51.6	0.0	46.3	110.0	110.0	0.0	0.0	0.2	0.2	0.3
GEW-160	8/16/2017 13:38	2.0	55.0	0.0	43.0	109.6	109.5	20.3	8.4	0.1	0.1	0.0
GEW-160	8/22/2017 14:31	3.3	57.1	0.0	39.6	98.2	98.0	12.8	9.9	-18.3	-18.6	-18.3
GEW-161	8/1/2017 8:25	2.7	52.7	0.5	44.1	84.2	84.2	2.3	2.0	0.0	0.0	0.2
GEW-161	8/1/2017 8:26	2.7	53.9	0.5	42.9	84.8	84.9	2.3	2.3	0.0	0.0	0.2
GEW-161	8/11/2017 15:11	0.5	51.1	2.3	46.1	89.3	89.3	7.5	6.2	-1.0	-1.0	-1.6
GEW-161	8/16/2017 13:41	0.4	56.3	0.0	43.3	102.5	102.5	6.9	1.7	24.8	24.8	0.6
GEW-161	8/16/2017 13:43	0.4	56.2	0.0	43.4	103.7	103.6	1.1	4.4	6.3	6.4	0.7
GEW-161	8/22/2017 14:34	0.0	32.8	10.4	56.8	86.6	86.8	1.6	3.8	-18.6	-18.6	-18.8
GEW-161	8/22/2017 14:36	0.0	17.8	16.3	65.9	86.5	86.5	2.9	2.9	-16.0	-16.0	-18.5
GEW-162	8/1/2017 8:42	19.4	55.4	1.1	24.1	86.2	86.3	9.2	2.2	-19.2	-19.0	-18.9

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GEW-162	8/1/2017 8:44	17.4	56.5	2.0	24.1	86.8	86.8	10.2	5.7	-18.5	-18.6	-19.1
GEW-162	8/16/2017 14:02	22.6	52.4	1.1	23.9	96.5	96.5	6.6	2.2	-17.9	-17.9	-17.6
GEW-163	8/7/2017 13:25	16.3	48.5	1.1	34.1	166.5	166.1	13.5	13.3	-0.7	-0.7	-17.2
GEW-163	8/7/2017 13:26	15.4	51.8	0.9	31.9	166.3	166.1	14.5	17.1	-0.7	-0.7	-15.3
GEW-163	8/14/2017 10:11	14.4	54.5	0.1	31.0	182.5	182.6	27.3	15.8	-0.3	-0.3	-15.8
GEW-163	8/14/2017 10:12	13.8	56.5	0.1	29.6	182.7	182.7	34.9	22.4	-0.2	-0.2	-14.1
GEW-163	8/21/2017 9:48	14.8	52.3	0.2	32.7	180.9	180.9	30.6	25.0	-0.3	-0.2	-15.4
GEW-163	8/21/2017 9:49	14.6	54.2	0.0	31.2	180.9	181.0	28.6	28.5	-0.3	-0.2	-16.2
GEW-163	8/28/2017 10:12	7.6	39.7	3.8	48.9	180.9	180.9	25.4	21.8	-0.4	-0.4	-16.4
GEW-163	8/28/2017 10:14	7.3	41.5	3.8	47.4	180.3	180.9	22.0	22.0	-0.3	-0.3	-16.0
GEW-164	8/7/2017 13:29	18.5	58.0	0.6	22.9	159.4	159.0	26.8	19.2	-0.9	-0.8	-17.5
GEW-164	8/7/2017 13:30	18.3	60.3	0.5	20.9	159.0	159.4	26.3	25.6	-0.9	-0.9	-17.7
GEW-164	8/14/2017 10:15	18.4	62.7	0.0	18.9	167.1	166.6	20.4	26.7	-0.4	-0.4	-17.8
GEW-164	8/14/2017 10:16	18.3	63.1	0.0	18.6	167.1	167.1	34.8	30.7	-0.4	-0.4	-17.8
GEW-164	8/21/2017 9:53	19.4	62.2	0.0	18.4	170.1	170.0	25.1	22.2	-0.2	-0.3	-17.8
GEW-164	8/21/2017 9:54	19.2	62.9	0.0	17.9	169.5	169.5	22.7	24.4	-0.3	-0.3	-18.2
GEW-164	8/28/2017 10:24	18.3	63.3	0.0	18.4	173.6	173.7	22.6	31.2	-0.1	-0.1	-19.3
GEW-164	8/28/2017 10:25	18.5	64.9	0.0	16.6	174.1	174.2	20.2	21.4	-0.2	-0.3	-19.3
GEW-165	8/7/2017 13:34	4.0	62.7	0.1	33.2	185.8	185.8	11.1	15.0	-1.2	-1.2	-17.4
GEW-165	8/7/2017 13:35	3.7	64.4	0.1	31.8	186.4	185.8	10.6	6.5	-1.2	-1.2	-17.1
GEW-165	8/14/2017 10:19	3.5	63.7	0.1	32.7	182.1	182.4	13.5	12.0	-1.9	-1.8	-17.4
GEW-165	8/14/2017 10:20	3.3	65.3	0.1	31.3	182.1	182.6	17.7	11.1	-1.7	-1.7	-17.5
GEW-165	8/21/2017 9:57	4.1	64.2	0.0	31.7	188.5	188.8	3.3	2.3	-0.9	-0.9	-17.1
GEW-165	8/21/2017 9:58	3.9	65.7	0.0	30.4	188.9	189.0	8.0	6.1	-0.9	-0.9	-17.1
GEW-165	8/28/2017 10:40	8.4	64.1	0.5	27.0	192.3	192.3	41.8	41.8	-8.3	-8.3	-18.8
GEW-165	8/28/2017 10:42	8.7	65.6	0.4	25.3	192.3	192.3	38.1	37.2	-7.4	-7.3	-18.9
GEW-165	8/31/2017 9:43	8.4	58.6	1.2	31.8	190.2	190.2	32.4	29.9	-6.4	-6.4	-18.0
GEW-165	8/31/2017 14:02	8.0	57.0	1.7	33.3	187.0	187.0	39.0	39.1	-9.8	-9.8	-18.5
GEW-166	8/1/2017 9:16	0.3	55.4	0.0	44.3	155.6	156.0	8.2	9.9	5.9	5.9	-17.0
GEW-166	8/1/2017 9:19	0.3	57.9	0.6	41.2	161.1	160.7	29.1	31.8	-6.9	-6.9	-16.9
GEW-166	8/7/2017 13:39	0.7	54.5	0.9	43.9	194.9	195.0	25.3	32.4	-15.7	-15.7	-17.1
GEW-166	8/7/2017 13:40	0.7	55.9	1.0	42.4	195.0	195.0	24.1	28.4	-15.7	-15.7	-16.6
GEW-166	8/14/2017 10:25	0.9	57.5	1.2	40.4	192.4	192.7	18.8	18.6	-17.1	-17.1	-9.3
GEW-166	8/14/2017 10:27	1.0	56.8	1.4	40.8	192.3	192.9	22.6	21.1	-17.1	-17.1	-9.3
GEW-166	8/21/2017 10:01	0.9	58.9	0.3	39.9	197.2	197.2	38.0	38.0	-14.8	-14.8	-17.2
GEW-166	8/21/2017 10:02	0.9	58.6	0.4	40.1	197.2	197.2	34.8	34.8	-14.6	-14.6	-17.2
GEW-166	8/28/2017 10:57	0.6	57.3	0.9	41.2	196.4	196.4	34.8	33.9	-14.6	-14.6	-16.8
GEW-166	8/28/2017 10:58	0.7	59.4	1.0	38.9	196.4	196.4	29.6	33.0	-14.6	-14.6	-17.5
GEW-167	8/7/2017 13:45	0.5	55.2	0.9	43.4	195.5	195.7	42.6	43.0	-0.2	-0.2	-16.5
GEW-167	8/7/2017 13:47	0.4	55.4	0.8	43.4	195.0	195.7	39.4	32.4	-0.3	-0.4	-17.8
GEW-167	8/14/2017 10:31	0.2	56.3	0.0	43.5	195.7	195.0	37.4	36.8	-0.1	-0.1	-17.1
GEW-167	8/14/2017 10:33	0.3	58.1	0.0	41.6	195.7	195.7	31.6	30.7	-0.4	-0.4	-16.3
GEW-167	8/21/2017 10:07	0.4	55.5	0.4	43.7	195.0	195.0	39.2	37.9	0.0	-0.1	-16.1

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GEW-167	8/21/2017 10:09	0.5	56.6	0.4	42.5	195.0	195.0	27.9	31.8	-0.3	-0.3	-14.3
GEW-167	8/28/2017 11:11	0.7	35.6	8.6	55.1	187.0	187.0	48.4	47.0	-0.6	-0.6	-16.8
GEW-167	8/28/2017 11:14	0.6	42.0	6.3	51.1	188.9	189.3	48.8	43.1	-0.4	-0.4	-17.5
GEW-168	8/7/2017 13:53	5.1	48.7	3.9	42.3	185.1	184.5	221.0	219.5	-1.4	-1.4	-16.4
GEW-168	8/7/2017 13:54	5.7	50.0	3.8	40.5	184.6	184.3	229.6	230.6	-2.1	-2.1	-18.4
GEW-168	8/9/2017 8:35	6.0	60.2	0.1	33.7	188.3	188.0	229.1	229.1	-2.0	-2.0	-18.3
GEW-168	8/9/2017 8:36	6.7	59.9	0.0	33.4	187.6	187.6	230.2	230.2	-2.2	-2.2	-18.3
GEW-168	8/11/2017 8:27	7.4	59.1	0.0	33.5	185.7	185.7	226.9	227.7	-2.9	-2.9	-18.5
GEW-168	8/11/2017 8:28	7.4	59.8	0.0	32.8	185.1	185.1	221.8	222.8	-3.1	-3.1	-18.1
GEW-168	8/14/2017 10:37	7.5	59.9	0.0	32.6	185.8	185.9	221.1	220.4	-2.6	-2.6	-17.5
GEW-168	8/14/2017 10:38	7.7	61.4	0.0	30.9	186.4	186.4	220.6	220.6	-2.6	-2.6	-17.5
GEW-168	8/21/2017 10:13	8.0	62.3	0.0	29.7	186.4	185.7	219.9	218.6	-3.0	-3.0	-17.8
GEW-168	8/21/2017 10:14	8.3	61.6	0.0	30.1	185.7	185.7	221.2	218.8	-3.0	-3.0	-17.8
GEW-168	8/28/2017 11:22	4.1	62.3	0.0	33.6	187.8	187.8	148.2	162.1	-10.9	-10.2	-17.5
GEW-168	8/28/2017 11:23	4.4	63.8	0.0	31.8	188.1	188.0	164.5	153.5	-9.3	-9.7	-17.7
GEW-169	8/7/2017 13:59	2.6	50.8	4.2	42.4	190.2	190.2	22.1	22.9	-5.5	-5.5	-18.3
GEW-169	8/7/2017 14:01	2.5	52.1	4.0	41.4	190.2	190.2	30.9	31.7	-2.9	-3.0	-18.5
GEW-169	8/14/2017 10:42	5.1	53.3	3.1	38.5	190.2	190.2	35.5	32.6	-7.8	-7.8	-18.1
GEW-169	8/14/2017 10:44	5.0	54.4	3.1	37.5	190.9	190.9	29.6	32.2	-5.0	-5.0	-18.9
GEW-169	8/17/2017 11:24	4.4	56.3	2.1	37.2	189.6	189.7	25.0	19.6	-4.6	-4.8	-18.0
GEW-169	8/17/2017 16:18	2.8	62.7	0.0	34.5	195.0	195.0	44.6	44.8	-4.8	-5.1	-18.8
GEW-169	8/21/2017 10:17	4.2	51.5	3.2	41.1	186.4	186.4	30.6	30.6	-8.3	-8.3	-18.3
GEW-169	8/21/2017 10:19	4.4	53.4	3.2	39.0	186.4	186.4	16.1	15.3	-3.0	-3.0	-17.5
GEW-169	8/29/2017 14:32	3.2	45.4	5.4	46.0	187.0	187.0	32.9	37.5	-8.3	-8.3	-17.9
GEW-169	8/29/2017 14:41	2.0	58.7	0.7	38.6	191.8	191.6	14.8	20.7	-1.8	-1.9	-18.5
GEW-169	8/31/2017 9:47	2.2	57.8	1.7	38.3	188.9	189.1	25.8	24.6	-1.5	-1.6	-17.8
GEW-169	8/31/2017 14:07	2.4	57.2	1.3	39.1	189.0	189.0	22.7	21.6	-1.5	-1.6	-18.7
GEW-170	8/1/2017 14:33	5.6	51.2	4.2	39.0	183.3	182.7	26.2	26.9	-4.3	-4.4	-14.0
GEW-170	8/1/2017 14:35	5.5	52.2	4.1	38.2	183.9	183.9	22.9	22.9	-2.8	-2.8	-14.9
GEW-170	8/2/2017 15:08	5.4	62.7	0.6	31.3	188.9	188.7	24.8	28.5	-1.2	-1.2	-14.2
GEW-170	8/2/2017 15:09	5.6	63.6	0.6	30.2	188.9	188.9	38.1	25.2	-1.6	-1.6	-14.6
GEW-170	8/16/2017 15:12	8.9	57.6	1.7	31.8	181.0	180.9	26.6	17.7	-4.8	-4.6	-12.6
GEW-170	8/16/2017 15:13	8.8	59.2	1.8	30.2	180.9	180.9	21.3	21.4	-4.5	-4.4	-12.2
GEW-171	8/1/2017 13:42	0.2	19.0	14.3	66.5	92.2	92.4	12.2	14.0	-18.6	-18.2	-18.6
GEW-171	8/1/2017 13:44	0.2	20.8	14.6	64.4	93.0	93.0	4.5	5.8	-18.1	-18.1	-17.7
GEW-172	8/1/2017 13:50	0.0	57.9	1.7	40.4	103.0	105.2	10.2	7.7	-18.1	-17.6	-17.5
GEW-173	8/1/2017 14:05	10.9	23.9	8.2	57.0	114.1	114.2	8.7	11.1	-0.3	-0.3	-19.6
GEW-173	8/1/2017 14:07	11.2	23.0	8.4	57.4	114.2	114.3	10.4	10.8	-0.3	-0.3	-19.5
GEW-173	8/17/2017 9:01	31.2	54.0	0.0	14.8	124.7	124.8	10.9	9.2	-0.2	-0.2	-18.3
GEW-174	8/1/2017 11:27	6.5	56.1	0.0	37.4	176.9	176.9	32.9	19.8	-0.1	-0.1	-5.9
GEW-174	8/1/2017 11:28	7.5	58.2	0.0	34.3	176.9	176.4	39.8	39.8	-0.1	-0.1	-5.4
GEW-174	8/16/2017 14:08	8.5	56.2	0.0	35.3	173.6	173.6	34.8	27.2	-0.2	-0.2	-3.8
GEW-174	8/16/2017 14:10	8.0	58.1	0.0	33.9	173.1	173.1	30.8	36.0	-0.1	-0.2	-3.7

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GEW-175	8/1/2017 10:11	21.7	50.8	1.7	25.8	133.8	133.8	54.3	53.3	-0.8	-0.8	-18.9
GEW-175	8/1/2017 10:12	21.3	51.3	1.7	25.7	133.8	133.8	48.4	51.2	-0.8	-0.8	-17.8
GEW-175	8/16/2017 10:26	19.8	51.0	1.8	27.4	134.4	134.4	53.8	53.2	-0.7	-0.6	-17.5
GEW-175	8/16/2017 10:27	19.9	51.6	1.7	26.8	134.4	134.4	45.6	44.5	-0.7	-0.7	-16.6
GEW-176	8/1/2017 10:05	21.4	46.9	1.5	30.2	95.1	95.3	2.8	3.0	0.1	0.1	-18.9
GEW-176	8/1/2017 10:07	21.1	49.5	1.2	28.2	95.4	95.3	7.1	6.6	-0.2	-0.2	-19.9
GEW-176	8/16/2017 10:18	17.7	53.0	1.7	27.6	90.3	90.3	9.1	8.9	0.0	0.0	-18.6
GEW-176	8/16/2017 10:23	25.5	53.1	0.8	20.6	104.8	104.8	19.1	21.7	-1.6	-1.5	-19.7
GEW-177	8/16/2017 15:00	0.3	47.2	4.5	48.0	110.2	110.2	14.4	18.2	-17.2	-17.6	-17.3
GEW-1A	8/7/2017 9:58	0.7	5.5	20.6	73.2	76.4	76.4	8.2	8.2	-10.7	-10.8	-12.8
GEW-1A	8/7/2017 9:59	0.3	1.5	21.4	76.8	77.3	77.4	8.3	8.3	-11.7	-11.7	-12.9
GEW-1A	8/16/2017 10:04	0.0	0.2	21.9	77.9	88.0	88.0	1.1	1.9	-12.8	-12.8	-13.1
GEW-1A	8/22/2017 16:05	1.8	9.0	18.1	71.1	99.6	99.6	5.5	5.0	-12.4	-12.3	-12.1
GEW-1A	8/22/2017 16:06	1.3	5.2	18.5	75.0	100.6	100.6	2.9	3.5	-12.2	-12.4	-11.9
GEW-1A	8/28/2017 10:18	0.8	6.1	20.0	73.1	84.9	84.9	5.3	4.5	-12.8	-12.7	-12.7
GEW-1A	8/28/2017 10:19	0.4	2.8	20.2	76.6	85.7	85.8	2.5	3.7	-12.7	-12.7	-12.8
GEW-2S	8/7/2017 10:07	58.2	36.3	0.4	5.1	80.3	80.4	3.5	7.1	-6.5	-6.1	-10.4
GEW-2S	8/16/2017 10:38	55.3	36.0	0.0	8.7	92.0	92.1	7.0	7.0	-3.5	-3.5	-12.9
GEW-2S	8/22/2017 16:14	57.4	36.7	0.0	5.9	93.9	94.0	2.3	2.8	-3.7	-3.6	-9.8
GEW-2S	8/28/2017 10:26	54.5	39.2	0.4	5.9	99.6	99.6	5.1	2.2	-10.2	-8.1	-10.3
GIW-01	8/7/2017 8:52	12.3	57.9	1.6	28.2	89.6	89.6	2.7	1.6	-18.9	-18.5	-19.2
GIW-01	8/8/2017 14:51	12.9	59.9	0.8	26.4	101.8	101.8	3.6	3.6	-18.6	-18.6	-18.9
GIW-01	8/8/2017 14:58	12.2	60.1	0.8	26.9	102.8	102.8	3.1	3.1	-15.2	-15.2	-19.2
GIW-01	8/15/2017 14:07	12.4	64.6	0.7	22.3	119.4	119.4	2.1	2.1	-14.1	-14.1	-18.2
GIW-01	8/22/2017 15:21	17.0	60.5	0.1	22.4	97.2	97.2	3.8	2.2	-15.7	-15.7	-19.4
GIW-01	8/29/2017 14:06	18.4	50.8	2.0	28.8	107.2	107.2	1.1	3.1	-15.6	-15.2	-18.3
GIW-02	8/7/2017 8:55	16.9	64.6	0.0	18.5	77.1	77.3	2.4	2.4	0.0	0.0	-18.3
GIW-02	8/8/2017 15:01	16.9	60.0	0.0	23.1	92.8	92.7	2.6	2.8	0.0	0.0	-19.0
GIW-02	8/8/2017 15:07	16.4	59.2	0.0	24.4	92.9	92.9	3.2	3.4	-0.1	-0.1	-18.5
GIW-02	8/15/2017 14:10	13.8	53.0	3.3	29.9	108.5	108.5	1.9	1.9	-0.1	-0.1	-18.7
GIW-02	8/22/2017 15:24	3.6	36.1	11.1	49.2	88.1	88.2	1.2	1.6	-0.2	-0.2	-19.0
GIW-02	8/22/2017 15:25	3.5	33.9	11.3	51.3	88.6	88.6	1.2	2.3	-0.2	-0.2	-18.9
GIW-02	8/29/2017 14:10	3.6	30.6	12.2	53.6	104.8	104.8	1.9	1.9	-0.3	-0.3	-18.6
GIW-02	8/29/2017 14:11	3.6	29.9	12.2	54.3	105.0	105.0	2.5	1.9	-0.3	-0.3	-18.3
GIW-03	8/7/2017 9:03	1.0	54.9	3.8	40.3	77.4	77.5	2.6	2.0	-2.4	-2.5	-2.5
GIW-03	8/8/2017 15:10	1.4	52.3	3.9	42.4	102.3	102.4	3.0	2.2	-2.9	-2.8	-2.8
GIW-03	8/8/2017 15:16	0.8	50.8	4.2	44.2	104.8	104.9	1.9	1.6	-3.3	-3.3	-3.1
GIW-03	8/15/2017 14:13	1.5	56.3	1.9	40.3	112.3	113.0	2.0	2.8	-0.8	-0.9	-1.0
GIW-03	8/22/2017 15:27	7.1	48.7	2.9	41.3	91.3	91.4	2.5	2.5	-18.1	-18.1	-19.5
GIW-03	8/29/2017 14:14	6.8	55.5	1.1	36.6	94.6	94.7	2.5	2.3	-2.8	-2.8	-18.0
GIW-04	8/7/2017 9:06	0.4	27.7	11.2	60.7	76.7	77.0	2.3	2.0	-2.2	-2.2	-2.1
GIW-04	8/7/2017 9:07	0.4	27.9	10.9	60.8	78.4	78.4	3.1	1.7	-2.1	-2.2	-2.3
GIW-04	8/8/2017 15:19	0.4	25.4	12.1	62.1	98.4	98.4	2.3	2.3	-3.0	-3.0	-3.1

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GIW-04	8/8/2017 15:24	0.4	20.2	12.6	66.8	101.6	101.6	3.0	3.2	-2.9	-2.9	-2.8
GIW-04	8/15/2017 14:16	0.7	45.3	4.7	49.3	103.7	104.0	3.2	3.9	-0.2	-0.2	-0.1
GIW-04	8/22/2017 15:30	0.3	35.2	7.8	56.7	91.8	91.9	3.9	3.3	-19.2	-19.1	-18.9
GIW-04	8/22/2017 15:31	0.6	39.0	7.0	53.4	92.9	92.9	1.1	1.1	-19.0	-19.0	-19.2
GIW-04	8/29/2017 14:17	9.4	53.0	2.0	35.6	95.5	96.0	2.5	1.9	-7.4	-7.4	-18.5
GIW-05	8/7/2017 9:14	1.9	53.5	0.0	44.6	76.1	76.3	6.4	6.4	4.0	4.0	3.8
GIW-05	8/7/2017 9:15	2.0	54.7	0.0	43.3	77.1	77.1	6.4	6.4	4.3	4.4	4.4
GIW-05	8/9/2017 8:56	2.0	53.9	0.0	44.1	81.2	81.4	6.4	6.4	3.8	3.8	3.2
GIW-05	8/9/2017 9:02	1.6	46.1	0.0	52.3	84.3	84.4	5.7	4.9	3.8	3.9	3.1
GIW-05	8/11/2017 15:05	3.1	48.7	0.6	47.6	87.5	87.7	4.0	4.0	-0.1	-0.1	-2.1
GIW-05	8/15/2017 14:24	2.5	53.3	0.0	44.2	99.7	100.1	6.8	6.8	1.0	1.0	0.0
GIW-05	8/15/2017 14:26	2.6	54.3	0.0	43.1	101.8	101.9	5.1	5.1	-0.2	-0.1	-0.1
GIW-05	8/22/2017 15:39	30.4	48.3	0.7	20.6	88.2	88.2	7.1	7.1	-17.8	-17.6	-18.9
GIW-05	8/22/2017 15:45	29.1	41.7	2.6	26.6	87.9	87.9	7.9	6.9	-0.5	-0.4	-19.7
GIW-05	8/29/2017 14:22	0.7	23.0	12.8	63.5	88.0	88.2	5.6	6.3	-0.8	-0.8	-14.9
GIW-05	8/29/2017 14:25	0.4	16.1	13.7	69.8	91.0	91.1	6.8	6.8	-0.8	-0.8	-14.2
GIW-06	8/7/2017 9:20	21.2	52.9	0.0	25.9	78.6	78.7	3.9	2.9	-2.6	-2.6	-2.6
GIW-06	8/9/2017 9:08	22.2	52.1	0.0	25.7	86.3	86.5	3.8	3.3	-2.5	-2.4	-2.3
GIW-06	8/9/2017 9:14	20.9	47.3	0.0	31.8	89.3	89.3	1.1	3.4	-2.9	-2.9	-2.7
GIW-06	8/15/2017 14:34	11.0	53.4	0.0	35.6	104.0	105.0	1.3	0.7	-0.2	-0.2	-0.1
GIW-06	8/23/2017 9:34	36.3	44.0	0.4	19.3	85.9	86.1	3.7	4.2	-19.0	-19.0	-18.8
GIW-06	8/23/2017 9:35	36.2	44.9	0.1	18.8	86.3	86.3	1.3	3.6	-17.3	-17.5	-19.2
GIW-06	8/29/2017 14:48	14.7	48.8	0.2	36.3	91.4	91.7	2.2	1.9	-16.7	-16.7	-18.6
GIW-07	8/7/2017 9:23	30.6	54.8	0.0	14.6	78.1	78.2	2.3	2.3	-0.4	-0.4	-2.7
GIW-07	8/9/2017 9:26	32.4	51.6	0.0	16.0	92.2	92.3	2.3	2.0	-0.5	-0.5	-2.5
GIW-07	8/9/2017 9:32	31.3	50.2	0.1	18.4	93.9	93.9	3.8	3.8	-0.4	-0.4	-2.5
GIW-07	8/15/2017 14:36	23.1	61.7	0.0	15.2	101.0	101.4	3.2	2.8	0.8	0.8	0.1
GIW-07	8/16/2017 9:28	35.8	46.3	0.4	17.5	82.3	82.4	6.0	5.1	-0.7	-0.7	-0.6
GIW-07	8/23/2017 10:48	42.6	46.0	0.5	10.9	90.1	90.3	2.0	3.9	-18.0	-18.0	-18.9
GIW-07	8/29/2017 14:51	28.0	52.7	0.5	18.8	93.6	93.5	1.9	1.9	-16.1	-16.1	-18.5
GIW-08	8/7/2017 9:26	43.3	51.9	0.0	4.8	81.2	81.2	2.9	1.6	-1.4	-1.4	-2.6
GIW-08	8/9/2017 9:38	44.2	48.1	0.0	7.7	89.6	89.6	1.6	1.6	-1.3	-1.3	-2.7
GIW-08	8/9/2017 9:43	44.3	46.8	0.0	8.9	90.5	90.5	3.2	4.0	-1.3	-1.3	-2.2
GIW-08	8/15/2017 14:39	42.2	51.5	0.0	6.3	106.8	107.0	3.0	3.0	0.0	0.0	0.0
GIW-08	8/15/2017 14:41	42.8	50.3	0.0	6.9	108.2	108.2	0.9	0.9	0.0	0.0	0.1
GIW-08	8/23/2017 10:50	29.3	49.1	0.0	21.6	92.2	92.6	2.8	2.9	-7.2	-7.3	-19.0
GIW-08	8/23/2017 10:52	27.6	51.7	0.0	20.7	95.3	95.3	2.1	2.3	-3.0	-3.0	-19.1
GIW-08	8/29/2017 14:56	22.7	54.6	0.0	22.7	102.5	102.8	2.5	2.7	-3.9	-3.9	-18.0
GIW-09	8/7/2017 9:31	25.1	43.5	0.0	31.4	79.1	79.1	2.3	2.0	-0.3	-0.3	-2.6
GIW-09	8/9/2017 10:06	28.3	41.3	0.0	30.4	94.8	95.1	3.0	2.3	-0.3	-0.3	-2.9
GIW-09	8/9/2017 10:11	28.1	36.9	0.0	35.0	96.5	96.5	2.3	2.0	-0.3	-0.3	-2.7
GIW-09	8/15/2017 14:47	28.3	51.2	0.0	20.5	101.6	102.3	3.4	2.7	0.2	0.2	0.0
GIW-09	8/15/2017 14:48	29.1	50.5	0.0	20.4	103.0	103.0	2.8	2.8	0.1	0.1	0.0

August 2017 Wellfield Monitoring Data - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GIW-09	8/23/2017 10:57	15.7	35.9	1.0	47.4	91.0	91.0	1.9	3.2	-2.6	-2.6	-19.1
GIW-09	8/29/2017 15:03	9.4	29.1	2.3	59.2	101.4	101.8	2.7	2.2	-3.5	-3.5	-18.0
GIW-10	8/7/2017 9:10	7.3	54.3	0.0	38.4	77.7	77.8	2.0	2.4	-0.2	-0.2	-2.1
GIW-10	8/9/2017 8:47	7.3	50.3	0.0	42.4	79.6	79.6	2.3	2.3	-0.4	-0.4	-3.1
GIW-10	8/9/2017 8:52	7.0	46.1	0.0	46.9	80.9	80.9	2.6	2.6	-0.4	-0.4	-2.9
GIW-10	8/15/2017 14:19	5.5	52.1	0.0	42.4	104.9	105.5	1.2	1.2	0.5	0.5	0.0
GIW-10	8/15/2017 14:21	5.5	54.1	0.0	40.4	106.3	106.7	1.6	1.4	0.0	0.0	-0.1
GIW-10	8/22/2017 15:35	12.1	52.7	0.0	35.2	90.8	90.8	3.5	2.7	-11.6	-11.6	-19.4
GIW-10	8/22/2017 15:36	12.3	53.0	0.0	34.7	91.2	91.3	2.0	1.1	-6.3	-5.9	-19.4
GIW-10	8/29/2017 14:20	10.1	50.3	0.0	39.6	94.3	94.7	1.6	2.3	-4.1	-4.1	-18.5
GIW-11	8/7/2017 8:48	10.4	56.8	0.0	32.8	78.9	78.8	5.2	2.6	-0.4	-0.4	-18.0
GIW-11	8/8/2017 14:33	10.3	54.7	0.0	35.0	94.3	94.3	5.3	4.6	-0.4	-0.4	-18.6
GIW-11	8/8/2017 14:39	9.5	52.1	0.0	38.4	94.1	94.1	4.7	4.7	-0.4	-0.4	-19.8
GIW-11	8/15/2017 14:03	10.4	54.2	0.0	35.4	106.4	106.3	3.2	2.7	-0.3	-0.3	-18.6
GIW-11	8/21/2017 14:29	19.3	52.0	0.0	28.7	102.8	102.8	4.5	3.5	-1.4	-1.4	-19.4
GIW-11	8/29/2017 14:03	18.2	50.6	0.0	31.2	98.4	98.4	2.5	2.0	-1.2	-1.2	-17.6
GIW-12	8/7/2017 8:43	14.7	46.6	3.4	35.3	79.1	79.1	3.5	2.0	-0.2	-0.2	-14.4
GIW-12	8/8/2017 14:10	15.3	47.0	2.9	34.8	92.0	91.9	1.6	2.0	-0.2	-0.2	-16.3
GIW-12	8/8/2017 14:16	15.1	45.4	3.0	36.5	92.3	92.4	4.9	4.0	-0.2	-0.2	-15.7
GIW-12	8/15/2017 13:55	16.0	47.3	2.6	34.1	102.4	102.4	2.2	2.5	-0.2	-0.2	-15.1
GIW-12	8/21/2017 14:23	14.8	37.0	6.6	41.6	102.1	102.1	3.0	1.9	-0.4	-0.4	-14.6
GIW-12	8/21/2017 14:24	15.7	34.6	6.8	42.9	102.1	102.1	1.6	1.6	-0.4	-0.4	-15.8
GIW-12	8/29/2017 13:53	14.8	36.5	6.1	42.6	93.1	93.1	1.6	1.1	-0.3	-0.3	-13.5
GIW-12	8/29/2017 13:54	15.3	34.9	6.2	43.6	95.0	95.0	2.3	2.5	-0.2	-0.2	-14.0
GIW-13	8/7/2017 8:40	11.9	59.9	0.0	28.2	79.8	80.0	4.8	3.5	-0.9	-0.9	-6.7
GIW-13	8/8/2017 14:00	12.3	58.8	0.0	28.9	92.2	92.2	3.4	2.8	-0.9	-0.9	-6.9
GIW-13	8/8/2017 14:07	11.2	58.9	0.0	29.9	90.1	90.0	2.3	2.3	-0.9	-0.9	-7.1
GIW-13	8/15/2017 13:52	11.7	59.7	0.0	28.6	99.6	99.9	4.2	3.9	-0.8	-0.8	-7.9
GIW-13	8/21/2017 14:21	15.7	56.9	0.0	27.4	101.1	101.2	3.0	3.2	-1.3	-1.3	-7.7
GIW-13	8/29/2017 13:50	14.1	62.1	0.0	23.8	88.9	89.1	2.6	1.6	-0.9	-0.9	-6.3
LCS-1D	8/25/2017 11:28	8.3	25.6	16.4	49.7	96.3	96.5	7.7	6.7	-17.6	-17.3	-18.4
LCS-1D	8/25/2017 11:30	11.2	11.8	17.6	59.4	96.7	96.7	5.2	3.6	-17.3	-17.6	-18.0
LCS-5A	8/7/2017 9:04	53.6	41.0	0.7	4.7	90.5	90.7	NFD		-13.4	-12.7	-13.0
LCS-5A	8/16/2017 8:59	53.2	40.0	0.4	6.4	91.5	91.2	NFD		-12.9	-13.1	-12.8
LCS-5A	8/22/2017 14:47	54.7	40.0	0.1	5.2	92.4	92.4	NFD		-13.1	-13.1	-12.8
LCS-5A	8/28/2017 9:37	52.2	40.4	0.0	7.4	91.7	91.7	NFD		-12.9	-12.9	-12.8
LCS-5B	8/4/2017 11:38	52.3	38.4	0.3	9.0	152.4	152.2	77.4	77.4	-8.6	-8.6	-9.6
LCS-5B	8/7/2017 9:13	51.2	40.4	0.4	8.0	151.7	151.8	51.6	45.2	-10.0	-10.5	-10.6
LCS-5B	8/7/2017 9:15	51.0	40.3	0.4	8.3	152.1	151.8	53.0	49.5	-9.6	-10.1	-9.9
LCS-5B	8/16/2017 9:08	51.6	40.2	0.0	8.2	149.5	149.5	47.4	46.9	-10.2	-10.6	-10.7
LCS-5B	8/16/2017 9:09	51.4	40.7	0.0	7.9	149.9	149.5	47.0	46.2	-9.6	-10.2	-10.5
LCS-5B	8/18/2017 10:13	52.8	36.3	0.0	10.9	150.6	150.6	27.9	40.0	-9.5	-10.5	-9.4
LCS-5B	8/18/2017 10:50	53.3	35.7	0.2	10.8	150.2	150.3	35.1	36.7	-11.4	-11.4	-12.4

August 2017 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	**Date Sampled**	**Methane**	**CO_2**	**O_2**	**Balance Gas**	**Init Temp**	**Adj Temp**	**Init Flow**	**Adj Flow**	**Init Static Press**	**Adj Static Press**	**System Pressure**
		(% vol)				**°F**		**scfm**		**H_2O**		
LCS-5B	8/22/2017 15:24	51.3	39.5	0.0	9.2	148.7	148.6	36.6	30.1	-12.5	-12.7	-12.1
LCS-5B	8/22/2017 15:24	51.5	41.3	0.0	7.2	148.9	148.9	31.3	33.1	-12.5	-12.9	-12.6
LCS-5B	8/28/2017 9:44	51.0	41.1	0.0	7.9	152.5	152.5	28.3	28.7	-12.5	-12.5	-12.7
LCS-5B	8/28/2017 9:46	51.2	41.5	0.0	7.3	151.5	151.7	19.1	17.9	-12.8	-12.8	-12.7
LCS-6B	8/7/2017 10:23	53.8	38.5	0.2	7.5	111.0	111.2	0.0	0.0	-2.5	-2.5	-13.0
LCS-6B	8/16/2017 11:02	53.0	38.6	0.0	8.4	111.2	110.9	8.2	8.2	-2.5	-2.5	-12.3
LCS-6B	8/22/2017 16:32	53.4	39.7	0.0	6.9	107.7	107.6	0.0	0.0	-1.9	-1.9	-11.7
LCS-6B	8/28/2017 10:40	53.6	40.2	0.0	6.2	112.5	112.9	7.3	8.7	-2.3	-2.3	-12.5
PGW-60	8/7/2017 10:03	57.7	35.2	0.9	6.2	87.5	87.5	18.3	9.1	-9.7	-9.9	-10.9
PGW-60	8/22/2017 16:10	55.0	32.2	0.0	12.8	92.6	92.6	11.4	14.0	-7.1	-8.1	-8.8
PGW-60	8/30/2017 10:25	57.0	39.4	0.1	3.5	89.7	89.7	3.3	3.3	-7.7	-7.7	-8.3
T-56	8/7/2017 8:22	39.1	32.6	1.0	27.3	76.9	76.8	17.3	15.9	-0.1	-0.1	-12.9
T-56	8/7/2017 8:24	38.9	31.6	1.0	28.5	77.8	77.9	17.8	19.1	0.0	0.0	-13.2
T-56	8/16/2017 8:18	39.4	33.7	0.0	26.9	79.1	79.1	16.6	17.7	-0.1	-0.1	-13.2
T-56	8/22/2017 14:29	45.3	33.8	0.0	20.9	82.7	82.8	16.0	15.0	0.0	0.0	-11.7
T-56	8/28/2017 8:57	45.2	34.9	0.1	19.8	79.0	79.1	14.2	18.6	0.0	0.0	-12.9

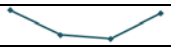
ATTACHMENT E-2

MAXIMUM WELLHEAD TEMPERATURE TABLE

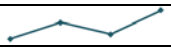
Wellfield Temperature - Bridgeton Landfill

Well Name	May 2017	June 2017	July 2017	August 2017	Temp Trend ><30°F	Comments
GEW-001	--	--	--	--		
GEW-002	110.0	105.0	117.3	118.6		
GEW-003	116.6	117.6	117.1	116.6		
GEW-004	119.9	120.2	119.8	118.5		
GEW-005	93.9	93.8	93.9	94.1		
GEW-006	90.1	92.7	93.6	91.8		
GEW-007	94.6	98.4	100.6	97.7		
GEW-008	113.5	114.3	113.7	112.7		
GEW-009	124.1	123.1	123.4	123.1		
GEW-010	97.7	95.8	113.1	106.2		
GEW-011	--	--	--	--		
GEW-013A	136.2	141.5	138.3	132.9		
GEW-014A	--	--	--	--		
GEW-015	176.4	175.9	170	163.1		
GEW-016R	183.6	182.7	181.8	182.7		
GEW-018B	183.3	183.3	180.9	193.6		
GEW-018R	--	--	--	--		
GEW-019A	--	--	--	--		
GEW-020A	--	--	--	--		
GEW-021A	--	--	--	--		
GEW-022R	152.9	152.9	164.8	136.2		
GEW-023A	--	--	--	--		
GEW-024A	--	--	--	--		
GEW-025A	--	--	--	--		
GEW-026R	--	--	--	--		
GEW-027A	--	--	--	--		
GEW-028R	--	--	--	--		
GEW-029	--	--	--	--		
GEW-030R	--	--	--	--		
GEW-033R	--	--	--	--		
GEW-034	--	--	--	--		
GEW-034A	--	--	--	--		
GEW-035	--	--	--	--		
GEW-036	--	--	--	--		
GEW-037	--	--	--	--		
GEW-038	99.9	107.3	115.5	111.6		
GEW-039	120.5	120.5	120.7	119.9		
GEW-040	90.8	95.5	98	93.4		
GEW-041R	101.1	104.8	105.6	106.3		
GEW-042R	103.6	110.2	111.8	110.5		
GEW-043R	120.2	121.3	121.0	121.3		

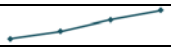
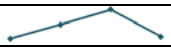
Wellfield Temperature - Bridgeton Landfill

Well Name	May 2017	June 2017	July 2017	August 2017	Temp Trend ><30°F	Comments
GEW-044	88.9	97.0	98.7	97.9		
GEW-045R	86.5	90.6	97.0	115.8		
GEW-046R	100.4	102.8	101.8	102.1		
GEW-047R	118.1	121.5	119.5	111.8		
GEW-048	103.6	104.7	104.8	105.0		
GEW-049	109.7	111.7	111.5	113.1		
GEW-050	108.5	109.2	109.1	108.0		
GEW-051	125.1	126.5	126.8	127.5		
GEW-052	115.1	115.6	115.8	115.1		
GEW-053	130.9	135.0	134.1	136.8		
GEW-054	144.2	141.5	140.2	140.9		
GEW-055	135.0	137.1	135.9	139.6		
GEW-056R	129.4	138.6	132.1	136.8		
GEW-057B	81.9	101.8	104.5	93.4		
GEW-057R	101.0	114.0	112.1	107.2		
GEW-058	127.5	133.5	140.2	130.6		
GEW-058A	115.5	148.0	127.5	124.2		
GEW-059R	177.8	175.2	172.3	171.0		
GEW-061B	--	--	--	--		
GEW-064A	--	93.6	--	--		
GEW-065A	--	--	--	--		
GEW-066	--	--	--	--		
GEW-067A	178.6	97.5	85.6	168.1		
GEW-068A	--	--	--	--		
GEW-069R	--	--	--	--		
GEW-070R	--	--	--	--		
GEW-071	--	--	--	--		
GEW-071B	--	--	--	--		
GEW-072RR	--	--	--	--		
GEW-073R	--	--	--	--		
GEW-075	--	--	--	--		
GEW-076R	--	--	--	--		
GEW-077	--	184.5	175.7	129.4		
GEW-078R	172.7	173.6	170.8	171.0		
GEW-080	--	--	--	--		
GEW-081	91.5	109.7	105.0	100.8		
GEW-082R	190.9	100.6	187.6	181.5		
GEW-083	--	--	--	--		
GEW-084	--	--	--	--		
GEW-085	--	--	--	--		
GEW-086	91.1	97.4	105.5	114.5		

Wellfield Temperature - Bridgeton Landfill

Well Name	May 2017	June 2017	July 2017	August 2017	Temp Trend ><30°F	Comments
GEW-087	195.7	194.3	188.9	195.7		
GEW-088	174.7	194.8	189.6	193.6		
GEW-089	--	--	--	--		
GEW-090	166.5	182.8	173.1	183.3		
GEW-091	189.3	185.2	180.3	194.4		
GEW-100	--	--	--	--		
GEW-101	95.6	107.1	109.4	106.0		
GEW-102	82.1	95.4	105.5	91.9		
GEW-103	--	--	--	--		
GEW-104	79.6	102.2	104.4	92.9		
GEW-105	--	--	--	154.8		
GEW-106	92.7	112.3	117.5	102.2		
GEW-107	98.4	99.4	114.0	101.8		
GEW-108	86.9	103.8	116.6	90.5		
GEW-109	112.0	118.6	126.8	108.5		
GEW-110	94.6	106.0	113.0	103.1		
GEW-112	--	--	--	--		
GEW-113	158.5	160.2	155.6	158.1		
GEW-116	108.7	155.2	171.6	190.2		
GEW-117	102.8	104.7	124.7	134.4		
GEW-118	195	194.3	197.2	194.3		
GEW-120	122.9	132	158.7	164.3		
GEW-121	171.6	171	174.7	178.0		
GEW-122	166.7	162	174	168.2		
GEW-123	123.9	129.7	128.9	169.5		
GEW-124	92	108	89	90.6		
GEW-125	181.0	181.5	187.0	188.9		
GEW-126	101.1	112.5	115.7	103.0		
GEW-127	155.2	156.3	179.7	183.9		
GEW-128	182.7	183.5	181.5	185.1		
GEW-129	88.6	150.6	106.2	197.9		
GEW-130	185.1	169	195.7	185.7		
GEW-131	152.5	175.3	185.7	177.5		
GEW-132	164.7	169	153.6	175.8		
GEW-133	104.8	133.4	172.1	171.0		
GEW-134	127.2	144.9	127.8	152.1		
GEW-135	154	157	160	185.5		
GEW-136	116.6	120.2	115.3	130.3		
GEW-137	105.7	101.3	100.6	101.4		
GEW-138	164.1	145.6	156.0	149.9		
GEW-139	173.6	169.1	173.8	184.6		

Wellfield Temperature - Bridgeton Landfill

Well Name	May 2017	June 2017	July 2017	August 2017	Temp Trend ><30°F	Comments
GEW-140	121.8	117.3	123.1	119.9		
GEW-141	87	110	98	--		
GEW-142	87.7	94.2	101.1	--		
GEW-143	88.2	--	99.9	103.6		
GEW-144	89.1	104.1	102.3	102.5		
GEW-145	82.8	96.2	103.8	94.5		
GEW-146	100.1	103.3	105.2	106.0		
GEW-147	203.9	191.6	189	188.3		
GEW-148	125.0	119.2	140.3	154.4		
GEW-149	105	109.7	115.3	138.3		
GEW-150	132.8	134.9	137.1	128.9		
GEW-151	73.2	97	107.5	100.4		
GEW-152	87.5	100.2	100.6	142.2		
GEW-153	132.3	128.6	128.2	116.6		
GEW-154	80.1	107.2	149.9	185.3		
GEW-155	190	145	165	149.9		
GEW-156	104.3	118.3	115.1	120.2		
GEW-157	100.8	107.0	102.3	93.6		
GEW-158	92.9	102.3	117.8	107.5		
GEW-159	84.3	106.8	131.4	87.2		
GEW-160	100.2	106.1	107.2	110.0		
GEW-161	93.4	105.0	103.7	103.7		
GEW-162	82.1	119.4	113.0	96.5		
GEW-163	183.3	191.7	180.8	182.7		
GEW-164	175.3	164.3	167.1	174.1		
GEW-165	186.4	183.3	180.9	192.3		
GEW-166	188.9	197.5	200.1	197.2		
GEW-167	190.9	190.9	197.2	195.7		
GEW-168	187.0	186.3	195.0	188.3		
GEW-169	188.3	184.6	199.3	195.0		
GEW-170	180.3	161.1	160.9	188.9		
GEW-171	97.4	--	101.8	93.0		
GEW-172	176.9	116.5	114.0	103.0		
GEW-173	129.3	116.3	114.3	124.7		
GEW-174	140.9	142.9	160.2	176.9		
GEW-175	133.5	135.6	136.8	134.4		
GEW-176	124.5	124.6	104.0	104.8		
GEW-177	95.3	98.3	104.0	110.2		
GEW-1A	97.7	106.5	94.8	100.6		
GEW-2S	96.0	100.4	98.5	99.6		
GIW-01	102.1	111.0	111.4	119.4		

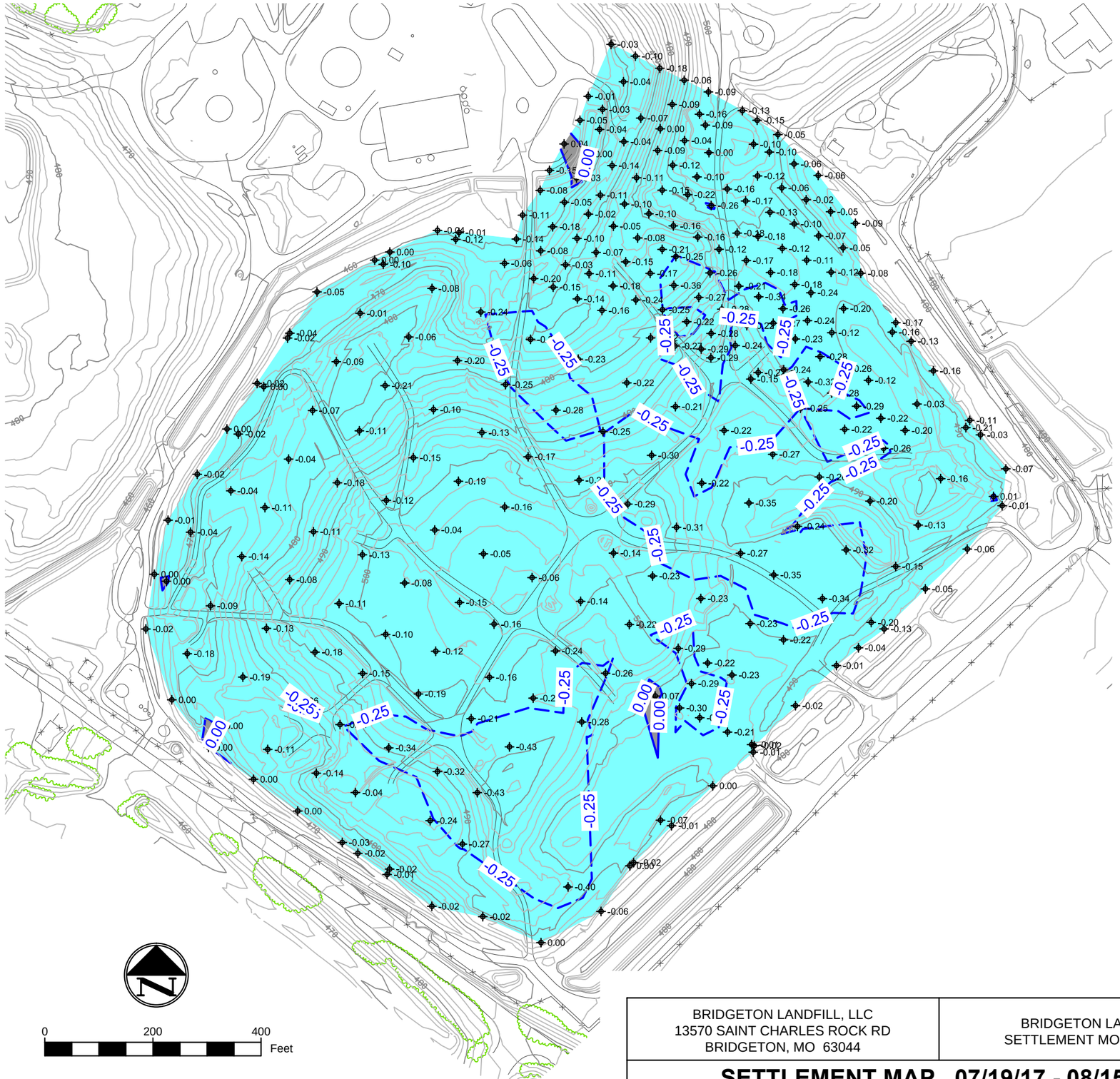
Wellfield Temperature - Bridgeton Landfill

Well Name	May 2017	June 2017	July 2017	August 2017	Temp Trend ><30°F	Comments
GIW-02	96.3	101.8	101.6	108.5		
GIW-03	92.6	112.4	111.7	112.3		
GIW-04	96.5	103.3	106.7	103.7		
GIW-05	91.5	101.3	100.6	101.8		
GIW-06	91.9	99.1	105.0	104.0		
GIW-07	100.9	100.8	101.3	101.0		
GIW-08	101.5	107.6	111.0	108.2		
GIW-09	95.1	100.8	108.2	103.0		
GIW-10	90.1	109	96.5	106.3		
GIW-11	92.9	100.1	97.9	106.4		
GIW-12	91.7	99.4	105.7	102.4		
GIW-13	90.7	100.1	108.8	101.1		
LCS-1D	106.7	117.7	119	96.7		
LCS-2D	--	--	--	--		
LCS-3C	--	--	--	--		
LCS-4B	--	--	--	--		
LCS-5A	93.0	99.6	96.8	92.4		
LCS-6B	112.2	110.2	119.2	112.5		
PGW-60	87	93	95	92.6		
SEW-002	81.2	105.0	105.7	--		
SEW-012A	--	--	--	--		
SEW-017R	--	--	--	--		
SEW-031R	--	--	--	--		
SEW-032R	--	--	--	--		
SEW-060R	--	--	--	--		
SEW-061R	--	--	--	--		
SEW-062R	--	--	--	--		
SEW-063	--	--	--	--		
SEW-064	--	--	--	--		
SEW-067	--	--	--	--		
SEW-072R	--	--	--	--		
SEW-074	--	--	--	--		
SEW-079R	--	--	--	--		
T-56	71	78	106	82.7		

-- = Indicates no data available.

ATTACHMENT F

SETTLEMENT FRONT MAP



Thickness Map				
Range	Minimum Depth	Maximum Depth	2D Area (Sq. Ft.)	Color
1	-5.00	-4.00	0.00	
2	-4.00	-3.00	0.00	
3	-3.00	-2.00	0.00	
4	-2.00	-1.00	0.00	
5	-1.00	0.00	1,528,123.47	
6	0.00	1.00	6,846.00	

LEGEND

- 12-2-2016 TOPOGRAPHY (2' CONTOUR)
- 500 — 12-2-2016 TOPOGRAPHY (10' CONTOUR)
- .25 — MINOR ELEVATION CHANGE CONTOUR (0.25 FEET)
- .50 — MAJOR ELEVATION CHANGE CONTOUR (0.50 FEET)
- -.03 — SPOT ELEVATION DIFFERENCE (7-19-2017 TO 8-15-2017)
- 8–15 — *SETTLEMENT FRONT CONTOUR FOR AREA WITH 1.21' PER 27 DAYS FOR CURRENT PERIOD OF DAYS (AREA REPRESENTS 1.26' OVER 28 DAYS BASED ON CONVERSION)

*NONE FOR AUGUST 2017

NOTES:

1. EXISTING CONTOURS DEVELOPED FROM SITE AERIAL TOPOGRAPHIC SURVEY BY COOPER AERIAL SURVEYS CO. ON DECEMBER 2, 2016.
2. FOR CLARITY, NOT ALL SITE FEATURES MAY BE SHOWN.
3. ELEVATION DIFFERENCE DETERMINED BY SUBTRACTING SPOT ELEVATIONS SURVEYED ON 7-19-17 FROM SPOT ELEVATIONS SURVEYED ON 8-15-17.
4. SURVEY POINTS WERE PERFORMED USING GPS METHODS.
5. SETTLEMENT RANGE SURFACE WAS GENERATED FROM THE SPOT ELEVATION DIFFERENCES.
6. ELEVATION DIFFERENCES THAT ARE SHOWN AS NEGATIVE INDICATE SPOTS OF SETTLEMENT.
7. ANY POINTS THAT ARE NOT A GROUND-TO-GROUND COMPARISON TO THE PREVIOUS MONTH'S POINTS, OR THAT WERE NOT SURVEYED IN THE SAME LOCATION AS THE PREVIOUS MONTH ARE NOT INCLUDED AND WERE NOT USED IN ANY SURFACE GENERATION.

BRIDGETON LANDFILL, LLC
13570 SAINT CHARLES ROCK RD
BRIDGETON, MO 63044

BRIDGETON LANDFILL
SETTLEMENT MONITORING

SETTLEMENT MAP 07/19/17 - 08/15/17

PROJECT NUMBER: BT-145 | FILE PATH: E:\Dropbox (Feezor Engineering)\BT-145 Agreed Order Reporting\Monthly Reports\08-2017 Report\Internal Site Data\Settlement\3_deliverables\Settlement And Fill 8-15-17.dwg

Engineering for a Better World
FEEZOR ENGINEERING, INC.

AUGUST 2017	
DESIGNED BY: PML	
APPROVED BY: DRF	
REVISION	DATE

DRAWING NO.: 001

ATTACHMENT G

SUMMARY OF ODOR COMPLAINTS

August 1, 2017 – August 31, 2017 / MDNR ODOR COMPLAINTS

Name: N/A

Message: Odor logged August 1, 2017, at 10:16 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor was observed at this location within an hour of the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: N/A

Message: No date, time, or odor strength was provided.

Follow-up: No information was provided in this odor concern received on August 4, 2017, therefore Bridgeton Landfill staff could not investigate.

Name: Mel Leib

Message: Odor logged August 7, 2017, at 6:17 pm strength of 9

Follow-up: The time listed in the following concern was 35 minutes in the future from the time the concern was submitted. Bridgeton Landfill staff followed up on this concern within an hour of the time this concern was submitted. No odor was observed at this location within an hour of the time this concern was submitted. Odor patrols performed before and after the time this concern was submitted did not observe Bridgeton Landfill odor. At the time this concern was submitted, winds were of a northeastern origin placing this location outside the downwind pathway of the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: Rhonda Steelman

Message: Odor logged August 8, 2017, at 9:37 am strength of 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern was reported over 11 hours after the observation time so real time follow-up was not possible. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor. This location is in close proximity to another known odor source with frequent off-site odor emissions. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: S Rohde

Message: Odor logged August 9, 2017, at 9:12 pm strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Odor from another known odor source with frequent off-site odor emissions was observed at this location within an hour of the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor. This location is in close proximity to another known odor source with frequent off-site odor emissions. This was not a Bridgeton Landfill Odor.

Name: N/A

Message: No date, time, or odor strength was provided.

Follow-up: No information was provided in this odor concern received on August 11, 2017, therefore Bridgeton Landfill staff could not investigate.

Name: N/A

Message: No date, time, or odor strength was provided.

Follow-up: No information was provided in this odor concern received on August 19, 2017, therefore Bridgeton Landfill staff could not investigate.

Name: Robbin Dailey

Message: Odor logged August 20, 2017, at 11:57 am strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor was observed at this location within an hour of the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor. There is no evidence to suggest that this was a Bridgeton Landfill Odor.

Name: Michael Dailey

Message: Odor logged August 20, 2017, at 11:58 am strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor was observed at this location within an hour of the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor. There is no evidence to suggest that this was a Bridgeton Landfill Odor.

Name: Susan Rohde

Message: Odor logged August 22, 2017, at 6:23 pm strength of 9

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Odor from another known odor source with frequent off-site odor emissions was observed at this location within an hour of the time cited in this concern. An odor patrol performed concurrently with the time cited in this concern did not observe Bridgeton Landfill odor. This location is in close proximity to another known odor source with frequent off-site odor emissions. This was not a Bridgeton Landfill Odor.

Name: N/A

Message: Odor logged August 24, 2017, at 7:32 am strength of 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor was observed at this location within an hour of the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor. At the time cited in this concern winds were calm. There is no evidence to suggest that this was a Bridgeton Landfill Odor.

ATTACHMENT H

LIQUID CHARACTERIZATION DATA AND DISCHARGE LOG

Bridgeton Landfill - Leachate PreTreatment Plant

August 2017

Liquid Characterization Data

Liquid characterization data is made available to MDNR on an ongoing basis. No additional lechate characterization data, beyond that produced for MSD, was collected during the prior month.

Hauled Disposal to MSD – Bissell Point

Date	Waste	Source	Transporter	Quantity
8/1/2017	LPTP Activated Sludge/ Permeate	Tank 1 (T1)	MBI	0
8/2/2017				0
8/3/2017				0
8/4/2017				0
8/5/2017				0
8/6/2017				0
8/7/2017				0
8/8/2017				0
8/9/2017				0
8/10/2017				0
8/11/2017				0
8/12/2017				0
8/13/2017				0
8/14/2017				0
8/15/2017				0
8/16/2017				0
8/17/2017				0
8/18/2017				0
8/19/2017				0
8/20/2017				0
8/21/2017				0
8/22/2017				0
8/23/2017				0
8/24/2017				0
8/25/2017				0
8/26/2017				0
8/27/2017				0
8/28/2017				0
8/29/2017				0
8/30/2017				0
8/31/2017				0
			Total	**0**

Direct Discharge to MSD

Date	Waste	Source	Quantity (gal)
8/1/2017	LPTP Permeate	Through Tank AST 97k (MSD Sampling Point 013)	183,652
8/2/2017			130,516
8/3/2017			166,608
8/4/2017			156,876
8/5/2017			158,176
8/6/2017			156,736
8/7/2017			154,364
8/8/2017			153,548
8/9/2017			151,424
8/10/2017			147,940
8/11/2017			145,984
8/12/2017			140,756
8/13/2017			132,720
8/14/2017			151,340
8/15/2017			146,268
8/16/2017			146,880
8/17/2017			146,928
8/18/2017			120,700
8/19/2017			181,800
8/20/2017			176,100
8/21/2017			249,808
8/22/2017			173,980
8/23/2017			145,020
8/24/2017			135,608
8/25/2017			130,652
8/26/2017			132,272
8/27/2017			131,824
8/28/2017			142,472
8/29/2017			148,768
8/30/2017			146,498
8/31/2017			143,440
		Total	**4,729,658**

ATTACHMENT I

LOW FILL PROJECT AREA

ATTACHMENT I-1

LOW FILL AREA BOUNDARY

LEGEND

BOUNDARY OF FILL AREA FOR 7-19-17 THROUGH 8-15-17

BOUNDARY OF STOCKPILE AREA FOR 7-19-17 THROUGH 8-15-17

NOTES:

1. SITE AERIAL TOPOGRAPHIC SURVEY BY COOPER AERIAL SURVEYS CO. ON DECEMBER 2, 2016.
2. FOR CLARITY, NOT ALL SITE FEATURES MAY BE SHOWN.
3. SURVEY POINTS WERE PERFORMED USING GPS METHODS.

N

0 350 700 Feet

BRIDGETON LANDFILL, LLC
13570 SAINT CHARLES ROCK RD
BRIDGETON, MO 63044

BRIDGETON LANDFILL
SETTLEMENT MONITORING

LOW FILL AREA BOUNDARY 7/19/2017 - 8/15/2017

PROJECT NUMBER: BT-145 | FILE PATH: E:\Dropbox (Feezor Engineering)\BT-145 Agreed Order Reporting\Monthly Reports\08-2017 Report\Internal Site Data\Settlement\3_deliverables\Settlement And Fill 8-15-17.dwg

Engineering for a Better World
FEEZOR ENGINEERING, INC.

AUGUST 2017
DESIGNED BY: PML
APPROVED BY: DRF

REVISION	DATE

DRAWING NO.:
002