August 16, 2016 Reference No. 038443

Mr. Scott Arentsen
Dayton Power & Light Company
1065 Woodman Drive
Dayton, Ohio
45432

Mr. Edward Rizer
Dayton Power & Light Company
1065 Woodman Drive
Dayton, Ohio
45432

Dear Mr. Arentsen and Mr. Rizer:

Re: Notification of Elevated Methane Levels adjacent to Dayton Power and Light (DP&L) 1900 Dryden Road, Moraine, Ohio

This letter provides notification of methane results observed during sampling that GHD (formerly Conestoga-Rovers & Associates) completed adjacent to the Dayton Power & Light Company (DP&L) property located at 1900 Dryden Road, Moraine, Ohio.

GHD completed soil gas probe sampling on behalf of the Respondents to the Administrative Settlement and Order on Consent (ASAOC) Removal Action Proceeding Under Sections 104, 106(a), 107, and 122 of the CERCLA, 42 U.S.C. §§ 9604, 9606(a), 9607, and 9622 United States Environmental Protection (USEPA) Docket No. V-W-13-C-010, effective April 8, 2013 (Removal Action ASAOC) (South Dayton Dump Removal ASAOC Respondents).

GHD and USEPA have documented detectable methane levels using field screening, using a Landtec GEM2000 meter, with and without charcoal carbon filter, at soil gas probe GP-2 (12-foot and 16-foot depths) ranging from 0.1 percent (%) to 34.6% (unfiltered measurements). Note that the readings greater than the lower explosive limit (LEL) for methane of 5% have been recorded during hot summer weather. GP-2 is located on the east side of Dryden Road, in the right of way, adjacent to the DP&L garage building. GHD completed concurrent methane monitoring at soil gas probes located on the west side of Dryden Road, on and adjacent to the South Dayton Dump and Landfill Site; no methane was detected in these probes. We have previously observed elevated methane at GP-2 during August, indicating the potential for a local source in the vicinity of the soil gas probe, which may include the DP&L property. The location of the soil gas probes are shown on Figure 1. Results of the methane field screening at GP-2 is provided in Table 1.

Based on discussion with USEPA and Ohio EPA we will be conducting further monitoring and are providing notification to DP&L and the City of Moraine, due to the presence of methane and potential explosion hazards.

Should you have any questions on the above, please do not hesitate to contact us.

Sincerely,

GHD

Julian Hayward

Julian Hayward

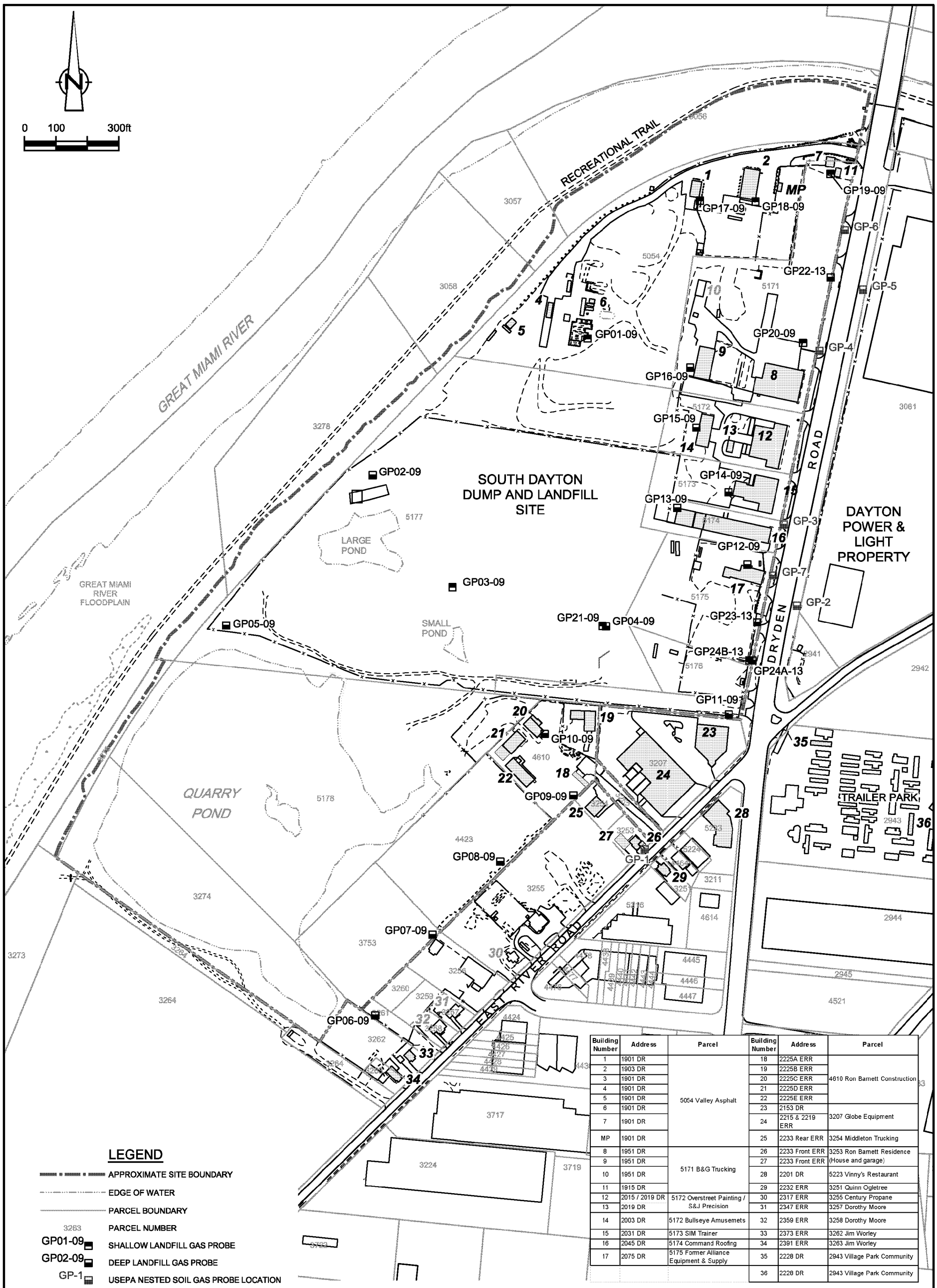
Valerie Chan

Valerie Chan

VC/cb/1

Encl.

cc: Leslie Patterson, USEPA
Steve Renninger, USEPA
Madelyn Adams, Ohio EPA



Building Number	Address	Parcel	Building Number	Address	Parcel
1	1901 DR	5054 Valley Asphalt	18	2225A ERR	4610 Ron Barnett Construction
2	1903 DR		19	2225B ERR	
3	1901 DR		20	2225C ERR	
4	1901 DR		21	2225D ERR	
5	1901 DR		22	2225E ERR	
6	1901 DR		23	2153 DR	3207 Globe Equipment
7	1901 DR		24	2215 & 2219 ERR	
MP	1901 DR		25	2233 Rear ERR	3254 Middleton Trucking
8	1951 DR	5171 B&G Trucking	26	2233 Front ERR	3253 Ron Barnett Residence (House and garage)
9	1951 DR		27	2233 Front ERR	
10	1951 DR		28	2201 DR	5223 Vinny's Restaurant
11	1915 DR		29	2232 ERR	3251 Quinn Ogletree
12	2015 / 2019 DR	5172 Overstreet Painting / S&J Precision	30	2317 ERR	3255 Century Propane
13	2019 DR		31	2347 ERR	3257 Dorothy Moore
14	2003 DR	5172 Bullseye Amusemets	32	2359 ERR	3258 Dorothy Moore
15	2031 DR	5173 SIM Trainer	33	2373 ERR	3262 Jim Worley
16	2045 DR	5174 Command Roofing	34	2391 ERR	3263 Jim Worley
17	2075 DR	5175 Former Alliance Equipment & Supply	35	2228 DR	2943 Village Park Community
			36	2228 DR	2943 Village Park Community

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

figure 1

SOIL GAS PROBE LOCATIONS
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-112(PRES048)GN-WA001 AUG 15, 2016

Table 1

GP-2 Field Monitoring Values
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	Date:	Time	PID (ppm)	O_2 (%)	CO_2 (%)	CH_4[2] (%)	LEL (%)	Ambient Temperature (°F)	Summary of Recent Precipitation	Barometric Pressure (hPa)	Water Levels (ft BTOR)
GP-2 (12') without filter	11/9/2012	13:54	--	4.1	10.6	0.0	0	30s - 40s	none		
GP-2 (12') with filter		--	--	5.6	9.1	0.0	0				
GP-2 (16') without filter		--		2.0	11.6	0.0	0				
GP-2 (16') with filter		--		4.6	10.0	0.0	0				
GP-2 (12') without filter	11/15/2012	15:04	0.0	2.4	10.8	0.0	0	30s - 40s	none		
GP-2 (12') with filter		--	0.0	2.3	10.3	0.0	0				
GP-2 (16') without filter		15:09	0.0	1.0	11.8	0.0	0				
GP-2 (16') with filter		--	0.0	0.9	11.4	0.0	0				
GP-2 (12') without filter	11/20/2012	14:35	0.0	2.2	11.3	0.0	0	50s	Trace		
GP-2 (12') with filter		--	0.0	2.1	11.0	0.0	0				
GP-2 (16') without filter		14:40	0.0	0.9	12.1	0.0	0				
GP-2 (16') with filter		--	0.0	0.8	11.9	0.0	0				
GP-2 (12') without filter	11/29/2012	13:53	0.0	4.3	11.0	0.0	0	40s - 50s	none		
GP-2 (12') with filter		--	0.0	4.7	11.2	0.0	0				
GP-2 (16') without filter		13:58	0.0	2.1	12.1	0.0	0				
GP-2 (16') with filter		13:58	0.0	2.0	11.9	0.0	0				
GP-2 (12') without filter	12/4/2012	16:03	0.0	6.6	9.6	0.0	0	50s	rainy (~0.3 inches)		
GP-2 (12') with filter		--	0.0	6.7	8.5	0.0	0				
GP-2 (16') without filter		16:08	--	6.1	10.3	0.0	0				
GP-2 (16') with filter		--	--	6.4	9.2	0.0	0				
GP-2 (12') without filter	12/13/2012	13:44	0.0	6.6	9.7	0.0	0	40s	none		
GP-2 (12') with filter		--	0.0	6.9	9.3	0.1 U	2 U				
GP-2 (16') without filter		13:39	0.0	3.7	11.8	0.0	0				
GP-2 (16') with filter		--	0.0	4.1	10.2	0.1 U	2 U				
GP-2 (12') without filter	12/18/2012	13:30	0.0	8.2	9.2	0.0	0	40s	none		
GP-2 (12') with filter		--	0.0	8.1	8.9	0.0	1 [1]				
GP-2 (16') without filter		--	0.0	5.8	10.8	0.0	0				
GP-2 (16') with filter		--	0.0	5.7	10.4	0.0	1 [1]				
GP-2 (12') without filter	1/24/2013	15:34	0.0	19.9	2.6	0.0	0.0	20s	none		
GP-2 (12') with filter		15:34	0.0	18.6	2.2	0.0	0.0				
GP-2 (16') without filter		15:40	0.0	15.3	7.7	0.0	0.0				
GP-2 (16') with filter		15:40	0.0	16.9	1.6	0.0	0.0				
GP-2 (12') without filter	1/31/2013	13:50	0.0	17.5	5.0	0.0	0.0	10s - 20s	none		
GP-2 (12') with filter		13:50	0.0	17.1	4.2	0.0	0.0				
GP-2 (16') without filter		13:55	0.0	16.8	5.0	0.0	0.0				
GP-2 (16') with filter		13:55	0.0	17.2	3.4	0.0	0.0				

Table 1

GP-2 Field Monitoring Values
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	Date:	Time	PID (ppm)	O_2 (%)	CO_2 (%)	CH_4[2] (%)	LEL (%)	Ambient Temperature (°F)	Summary of Recent Precipitation	Barometric Pressure (hPa)	Water Levels (ft BTOR)
GP-2 (12') without filter	2/7/2013	15:14	0.0	15.4	5.4	0.0	0.0	20s - 50s	none		
GP-2 (12') with filter		15:14	0.0	16.0	3.5	0.0	0.0				
GP-2 (16') without filter		15:17	0.0	15.0	6.4	0.0	0.0				
GP-2 (16') with filter		15:17	0.0	15.3	4.5	0.0	0.0				
GP-2 (12') without filter	2/12/2013	12:30	0.1	9.2	8.8	0.0	0.0	30s - 40s	none		
GP-2 (12') with filter		12:30	0.1	9.7	8.4	0.0	0.0				
GP-2 (16') without filter		12:45	0.0	7.5	9.1	0.0	0.0				
GP-2 (16') with filter		12:45	0.0	6.9	8.2	0.0	0.0				
GP-2 (12') without filter	2/21/2013	13:45	0.0	8.8	8.5	0.0	0.0	20s	trace		
GP-2 (12') with filter		13:45	0.0	9.1	8.0	0.0	0.0				
GP-2 (16') without filter		13:50	0.0	6.9	7.0	0.0	0.0				
GP-2 (16') with filter		13:50	0.0	7.0	6.7	0.0	0.0				
GP-2 (12') without filter	2/28/2013	12:45	0.0	15.8	4.9	0.0	0.0	30s - 40s	~1 inch		
GP-2 (12') with filter		12:45	0.0	15.8	5.1	0.0	0.0				
GP-2 (16') without filter		12:49	0.0	13.6	6.2	0.0	0.0				
GP-2 (16') with filter		12:49	0.0	13.5	6.2	0.0	0.0				
GP-2	3/7/2013	Inaccessible due to snow cover from road plow activity						30s	None		
GP-2 (12') without filter	3/14/2013	13:45	0.0	16.2	4.3	0.0	0.0	20s - 40s	None		
GP-2 (12') with filter		13:45	0.0	16.1	4.4	0.0	0.0				
GP-2 (16') without filter		13:53	0.0	13.9	6.1	0.0	0.0				
GP-2 (16') with filter		13:53	0.0	13.9	6.2	0.0	0.0				
GP-2 (12') without filter	3/21/2013	12:20	0.0	15.9	3.8	0.0	0.0	20s - 30s	Trace		
GP-2 (12') with filter		12:20	0.0	15.9	3.9	0.0	0.0				
GP-2 (16') without filter		12:26	0.0	14.2	5.7	0.0	0.0				
GP-2 (16') with filter		12:26	0.0	14.1	5.9	0.0	0.0				
GP-2 (12') without filter	3/28/2013	12:10	0.0	14.6	6.1	0.0	0.0	30s - 40s	None		
GP-2 (12') with filter		12:10	0.0	14.4	6.3	0.0	0.0				
GP-2 (16') without filter		12:15	0.0	12.9	7.4	0.0	0.0				
GP-2 (16') with filter		12:15	0.0	12.9	7.5	0.0	0.0				
GP-2 (12') without filter	4/4/2013	14:04	0.0	15.7	5.2	0.0	0.0	30s - 50s	None		
GP-2 (12') with filter		14:04	0.0	15.6	5.1	0.0	0.0				
GP-2 (16') without filter		14:11	0.0	13.8	6.0	0.0	0.0				
GP-2 (16') with filter		14:11	0.0	13.8	6.1	0.0	0.0				
GP-2 (12') without filter	4/9/2013	13:56	0.0	13.9	5.2	0.0	0.0	50s - 80s	None		
GP-2 (12') with filter		13:56	0.0	13.8	5.5	0.0	0.0				
GP-2 (16') without filter		14:03	0.0	12.2	5.9	0.0	0.0				
GP-2 (16') with filter		14:03	0.0	12.2	6.0	0.0	0.0				

Table 1

GP-2 Field Monitoring Values
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	Date:	Time	PID (ppm)	O_2 (%)	CO_2 (%)	CH_4[2] (%)	LEL (%)	Ambient Temperature (°F)	Summary of Recent Precipitation	Barometric Pressure (hPa)	Water Levels (ft BTOR)
GP-2 (12') without filter	4/18/2013	13:48	0.0	14.7	6.1	0.0	0.0	60s - 80s	None		
GP-2 (12') with filter		13:48	0.0	14.7	6.0	0.0	0.0				
GP-2 (16') without filter		13:54	0.0	13.2	7.4	0.0	0.0				
GP-2 (16') with filter		13:54	0.0	13.3	7.2	0.0	0.0				
GP-2 (12') without filter	4/23/2013	14:45	0.0	16.3	3.8	0.0	0.0	50s - 60s	None		
GP-2 (12') with filter		14:45	0.0	16.8	0.8	0.0	0.0				
GP-2 (16') without filter		14:48	0.0	15.9	4.2	0.0	0.0				
GP-2 (16') with filter		14:48	0.0	16.3	2.9	0.0	0.0				
GP-2 (12') without filter	4/30/2013	14:45	0.0	16.8	3.4	0.0	0.0	40s - 70s	None		
GP-2 (12') with filter		14:45	0.0	17.0	0.9	0.0	0.0				
GP-2 (16') without filter		14:50	0.0	16.3	3.9	0.0	0.0				
GP-2 (16') with filter		14:50	0.0	16.7	1.6	0.0	0.0				
GP-2 (12') without filter	5/9/2013	14:41	0.0	14.8	3.3	0.0	0.0	50s - 70s	None		
GP-2 (12') with filter		14:41	0.0	14.9	0.9	0.0	0.0				
GP-2 (16') without filter		14:45	0.0	14.1	3.8	0.0	0.0				
GP-2 (16') with filter		14:45	0.0	14.5	1.5	0.0	0.0				
GP-2 (12') without filter	5/16/2013	13:25	0.0	15.3	4.1	0.0	0.0	40s - 80s	~1 inch		
GP-2 (12') with filter		13:25	0.0	15.3	4.0	0.0	0.0				
GP-2 (16') without filter		13:32	0.0	13.9	4.8	0.0	0.0				
GP-2 (16') with filter		13:32	0.0	13.9	4.8	0.0	0.0				
GP-2 (12') without filter	5/21/2013	15:29	0.0	13.7	3.8	0.0	0.0	40s - 80s	~0.2 inch		
GP-2 (12') with filter		15:29	0.0	13.8	3.2	0.0	0.0				
GP-2 (16') without filter		15:32	0.0	12.7	4.5	0.0	0.0				
GP-2 (16') with filter		15:32	0.0	12.8	3.0	0.0	0.0				
GP-2 (12') without filter	5/30/2013	13:20	0.0	15.8	3.8	0.0	0.0	50s - 80s	~1.3 inch		
GP-2 (12') with filter		13:20	0.0	15.8	3.9	0.0	0.0				
GP-2 (16') without filter		13:25	0.0	13.1	5.1	0.0	0.0				
GP-2 (16') with filter		13:25	0.0	13.0	5.3	0.0	0.0				
GP-2 (12') without filter	6/6/2013	14:50	0.0	16.3	4.6	0.0	0.0	60s	0.25 inch		
GP-2 (12') with filter		14:50	0.0	16.2	4.9	0.0	0.0				
GP-2 (16') without filter		15:00	0.0	14.7	6.0	0.0	0.0				
GP-2 (16') with filter		15:00	0.0	14.7	6.2	0.0	0.0				
GP-2 (12') without filter	6/13/2013	16:05	0.0	8.2	5.4	0.0	0.0	60s - 80s	1.55 inch		
GP-2 (12') with filter		16:05	0.0	7.5	5.4	0.0	0.0				
GP-2 (16') without filter		16:10	--	5.2	6.6	0.0	0.0				
GP-2 (16') with filter		16:10	--	5.1	6.4	0.0	0.0				

Table 1

GP-2 Field Monitoring Values
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	Date:	Time	PID (ppm)	O_2 (%)	CO_2 (%)	CH_4[2] (%)	LEL (%)	Ambient Temperature (°F)	Summary of Recent Precipitation	Barometric Pressure (hPa)	Water Levels (ft BTOR)
GP-2 (12') without filter	6/20/2013	--	0.0	8.0	6.1	0.0	0.0	50s - 80s	None		
GP-2 (12') with filter		--	0.0	8.3	5.9	0.0	0.0				
GP-2 (16') without filter		--	--	5.3	6.5	0.0	0.0				
GP-2 (16') with filter		--	--	5.6	6.0	0.0	0.0				
GP-2 (12') without filter	6/27/2013	14:06	0.6	15.9	1.5	0.0	0.0	70s - 80s	Trace		
GP-2 (12') with filter		14:06	0.6	16.3	0.2	0.0	0.0				
GP-2 (16') without filter		14:11	43.6	3.7	2.6	1.6	30				
GP-2 (16') with filter		14:11	43.6	2.1	3.6	1.0	20				
GP-2 (12') without filter	7/3/2013	13:18	23.5	6.9	4.9	1.4	28	60s - 80s	Trace		
GP-2 (12') with filter		13:18	23.5	7.5	3.4	0.7	13				
GP-2 (16') without filter		13:22	59.6	1.9	7.1	5.8	>100				
GP-2 (16') with filter		13:22	59.6	1.6	6.9	1.8	36				
GP-2 (12') without filter	7/11/2013	14:45	40.4	4.0	6.5	6.5	>100	60s - 70s	None		
GP-2 (12') with filter		14:45	40.4	4.0	4.9	3.4	68				
GP-2 (16') without filter		14:51	55.6	4.6	6.2	11.2	>100				
GP-2 (16') with filter		14:51	55.6	3.9	5.0	2.2	44				
GP-2 (12') without filter	7/18/2013	14:35	20.4	17.7	1.2	0.5	10	70s - 90s	None		
GP-2 (12') with filter		14:35	20.4	17.7	1.0	0.2	5				
GP-2 (16') without filter		14:41	44.3	1.9	7.4	5.1	>100				
GP-2 (16') with filter		14:41	44.3	4.7	1.8	1.8	36				
GP-2 (12') without filter	7/25/2013	14:15	38.7	4.8	6.5	3.8	75	50s - 70s	None		
GP-2 (12') with filter		14:15	38.7	4.7	6.1	3.0	60				
GP-2 (16') without filter		14:20	48.3	4.4	7.9	4.0	80				
GP-2 (16') with filter		14:20	48.3	4.2	8.3	3.3	65				
GP-2 (12') without filter	8/1/2013	14:00	83.5	8.1	5.3	1.4	28	60s - 80s	None		
GP-2 (12') with filter		14:00	83.5	6.2	4.9	1.1	21				
GP-2 (16') without filter		14:05	89.8	4.1	7.3	2.8	55				
GP-2 (16') with filter		14:05	89.8	3.1	7.2	1.8	35				
GP-2 (12') without filter	8/6/2013	14:06	10.5	3.9	7.6	1.3	27	60s - 80s	None		
GP-2 (12') with filter		14:06	10.5	3.7	5.9	1.0	21				
GP-2 (16') without filter		14:10	31.6	4.3	7.4	2.5	51				
GP-2 (16') with filter		14:10	31.6	3.1	6.1	1.7	34				
GP-2 (12') without filter	8/15/2013	13:35	16.6	7.9	3.1	2.0	40	40s - 70s	None		
GP-2 (12') with filter		13:35	16.6	7.7	3.3	1.6	32				
GP-2 (16') without filter		13:40	20.6	1.5	6.2	2.2	44				
GP-2 (16') with filter		13:40	20.6	1.4	7.5	2.0	40				

Table 1

GP-2 Field Monitoring Values
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	Date:	Time	PID (ppm)	O_2 (%)	CO_2 (%)	CH_4[2] (%)	LEL (%)	Ambient Temperature (°F)	Summary of Recent Precipitation	Barometric Pressure (hPa)	Water Levels (ft BTOR)
GP-2 (12') without filter	8/22/2013	14:41	33.9	3.2	8.0	2.3	47	60s - 80s	Trace (0.06 in.)		
GP-2 (12') with filter		14:41	33.9	3.2	8.4	2.0	41				
GP-2 (16') without filter		14:45	55.0	1.8	8.5	4.3	87				
GP-2 (16') with filter		14:45	55.0	1.6	8.3	2.0	41				
GP-2 (12') without filter	8/27/2013	14:21	22.8	2.5	8.4	3.7	74	70s - 80s	None		
GP-2 (12') with filter		14:21	22.8	2.6	8.9	1.9	39				
GP-2 (16') without filter		14:26	39.5	2.3	8.7	7.9	>100				
GP-2 (16') with filter		14:26	39.5	2.2	9.0	6.1	>100				
GP-2 (12') without filter	9/5/2013	-	31.3	2.2	8.7	7.0	>100	50s - 80s	None		
GP-2 (12') with filter		-	31.3	2.3	6.9	3.0	58				
GP-2 (16') without filter		-	39.0	3.1	8.3	8.4	>100				
GP-2 (16') with filter		-	39.0	3.7	6.5	2.8	56				
GP-2	9/12/2013	Inaccessible due to high water/flood conditions						60s - 80s	0.29 inches		
GP-2 (12') without filter	9/20/2013		24.7	2.6	8.7	3.2	65	60s - 80s	0.6 inches	1009 - 1013	
GP-2 (12') with filter			24.7	2.1	8.1	1.8	34				
GP-2 (16') without filter			40.4	1.4	9.6	7.0	>100				
GP-2 (16') with filter			40.4	1.5	8.9	2.1	42				
GP-2 (12') without filter	9/24/2013	14:27	55.7	1.8	9.6	3.6	71	40s - 70s	None	1016 - 1018	
GP-2 (12') with filter		14:27	55.7	1.9	9.2	3.3	67				
GP-2 (16') without filter		14:33	68.4	1.5	10.0	4.3	86				
GP-2 (16') with filter		14:33	68.4	1.6	10.6	3.9	78				
GP-2 (12') without filter	10/3/2013	13:27	0.9	6.8	7.2	1.3	25	60s - 70s	0.27 inches	1015 - 1022	
GP-2 (12') with filter		13:27	0.9	6.9	5.8	1.1	17				
GP-2 (16') without filter		13:35	53.6	3.6	8.9	2.2	44				
GP-2 (16') with filter		13:35	53.6	3.3	7.5	1.4	27				
GP-2 (12') without filter	10/10/2013	13:41	18.6	0.7	10.3	1.9	38	40s - 70s	None	1020 - 1022	
GP-2 (12') with filter		13:41	18.6	0.5	10.2	1.3	27				
GP-2 (16') without filter		13:47	22.6	0.9	10.3	1.9	39				
GP-2 (16') with filter		13:47	22.6	1.7	9.0	1.2	25				
GP-2 (12') without filter	10/17/2013	14:46	22.8	1.2	10.5	1.4	28	40s - 50s	0.1 inches	1011 - 1014	MW-7: 18.56
GP-2 (12') with filter		14:46	22.8	7.5	6.8	0.8	16				MW-8: 18.70
GP-2 (16') without filter		14:50	23.1	1.3	10.6	1.5	29				MW-11: 20.31
GP-2 (16') with filter		14:50	23.1	1.5	10.1	1.2	23				MW-12: 20.39
GP-2 (12') without filter	10/24/2013	13:42	0.0	1.5	10.9	0.0	0	30s - 40s	Trace (0.02 inches)	1015 - 1025	MW-7: 18:69
GP-2 (12') with filter		13:42	0.0	1.6	10.2	0.0	0				MW-8: 18.83
GP-2 (16') without filter		13:47	5.6	4.6	9.6	0.0	0				MW-11: 20.66
GP-2 (16') with filter		13:47	5.6	4.9	8.6	0.0	0				MW-12: 20.44

Table 1

GP-2 Field Monitoring Values
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	Date:	Time	PID (ppm)	O_2 (%)	CO_2 (%)	CH_4[2] (%)	LEL (%)	Ambient Temperature (°F)	Summary of Recent Precipitation	Barometric Pressure (hPa)	Water Levels (ft BTOR)
GP-2 (12') without filter	10/31/2013	15:07	0.0	6.3	8.2	0.0	0	60s	1.25 inches	1000 - 1010	MW-7: 18.71
GP-2 (12') with filter		15:07	0.0	6.4	7.3	0.0	0				MW-8: 18.87
GP-2 (16') without filter		15:13	1.1	6.4	8.3	0.0	0				MW-11: 20.69
GP-2 (16') with filter		15:13	1.1	6.7	7.5	0.0	0				MW-12: 20.47
GP-2 (12') without filter	11/7/2013	13:45	0.0	4.6	9.5	0.0	0	40s	Trace (0.04 inches)	1020 - 1025	MW-7: 18.43
GP-2 (12') with filter		13:45	0.0	4.1	7.9	0.0	0				MW-8: 18.57
GP-2 (16') without filter		13:51	0.0	2.6	10.7	0.0	0				MW-11: 20.28
GP-2 (16') with filter		13:51	0.0	2.6	10.2	0.0	0				MW-12: 20.13
GP-2 (12') without filter	11/12/2013	13:32	0.0	5.8	9.5	0.0	0	20s - 30s	Trace (0.05 inches)	1030 - 1036	MW-7: 18.28
GP-2 (12') with filter		13:32	0.0	6.2	8.6	0.0	0				MW-8: 18.37
GP-2 (16') without filter		13:38	0.0	5.4	9.6	0.0	0				MW-11: 20.02
GP-2 (16') with filter		13:38	0.0	5.3	8.6	0.0	0				MW-12: 19.86
GP-2 (12') without filter	11/20/2013	14:10	0.0	4.5	10.1	0.0	0	20s - 40s	None	1023 - 1026	MW-7: 18.27
GP-2 (12') with filter		14:10	0.0	5.0	8.3	0.0	0				MW-8: 18.40
GP-2 (16') without filter		14:15	0.0	3.5	10.4	0.0	0				MW-11: 20.24
GP-2 (16') with filter		14:15	0.0	4.0	9.8	0.0	0				MW-12: 20.02
GP-2 (12') without filter	11/26/2013	14:35	0.0	3.4	10.4	0.1	1	30s	Trace (0.01 inches)	1013 - 1019	MW-7: 18.10
GP-2 (12') with filter		14:35	0.0	3.4	9.5	0.0	0				MW-8: 18.25
GP-2 (16') without filter		14:39	0.0	3.3	10.7	0.1	1				MW-11: 20.07
GP-2 (16') with filter		14:39	0.0	3.3	10.6	0.1	1				MW-12:19.85
GP-2 (12') without filter	12/5/2013	14:44	0.0	6.5	9.7	0.0	0	30s - 40s	0.07 inches	1013 - 1016	MW-7: 18:38
GP-2 (12') with filter		14:44	0.0	6.6	8.7	0.0	0				MW-8: 18.52
GP-2 (16') without filter		14:49	0.0	7.3	9.1	0.0	0				MW-11: 20.35
GP-2 (16') with filter		14:49	0.0	7.4	8.3	0.0	0				MW-12: 20.13
GP-2 (12') without filter	12/12/2013	15:45	0.0	9.9	8.5	0.0	0	15 - 20	None	1030 - 1036	MW-7: 18.45
GP-2 (12') with filter		15:45	0.0	9.7	8.3	0.0	0				MW-8: 18.60
GP-2 (16') without filter		15:49	0.0	7.3	10.4	0.0	0				MW-11: 20.42
GP-2 (16') with filter		15:49	0.0	6.9	9.8	0.0	0				MW-12: 20.20
GP-2 (12') without filter	12/19/2013	14:48	0.0	10.8	7.8	0.0	0	30s - 40s	None	1016 - 1018	MW-7: 18.39
GP-2 (12') with filter		14:48	0.0	11.0	6.8	0.0	0				MW-8: 18.54
GP-2 (16') without filter		14:51	0.0	9.0	8.9	0.0	0				MW-11: 20.37
GP-2 (16') with filter		14:51	0.0	9.6	7.9	0.0	0				MW-12: 20.21
GP-2 (12') without filter	12/23/2013	11:20	0.0	8.1	7.9	0.0	0	20s - 30s	Trace (0.02 inches)	1026 - 1029	MW-7: 15.63
GP-2 (12') with filter		11:20	0.0	8.1	6.9	0.0	0				MW-8: 15.72
GP-2 (16') without filter		11:27	0.0	5.8	10.4	0.0	0				MW-11: 17.45
GP-2 (16') with filter		11:27	0.0	7.6	8.7	0.0	0				MW-12: 17.32

Table 1

GP-2 Field Monitoring Values
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	Date:	Time	PID (ppm)	O_2 (%)	CO_2 (%)	CH_4[2] (%)	LEL (%)	Ambient Temperature (°F)	Summary of Recent Precipitation	Barometric Pressure (hPa)	Water Levels (ft BTOR)
GP-2 (12') without filter	1/2/2014	16:20	0.0	21.5	0.1	0.0	0	20s - 30s	5.46 inches	1012 - 1026	MW-7: 15.24
GP-2 (12') with filter		16:20	0.0	18.2	0.3	0.0	0				MW-8: 15.39
GP-2 (16') without filter		16:24	0.0	21.4	0.3	0.0	0				MW-11: 17.21
GP-2 (16') with filter		16:24	0.0	21.5	0.3	0.0	0				MW-12: 16.98
GP-2 (12') without filter	1/9/2014	14:40	0.0	13.8	6.6	0.0	0	20s - 30s	1.55 inches	1026 - 1035	MW-7: 15.17
GP-2 (12') with filter		14:40	0.0	14.0	6.0	0.0	0				MW-8: 15.28
GP-2 (16') without filter		14:45	0.0	12.0	8.2	0.0	0				MW-11: 17.11
GP-2 (16') with filter		14:45	0.0	13.1	6.7	0.0	0				MW-12: 16.98
GP-2 (12') without filter	1/16/2014	13:00	0.0	13.8	6.1	0.0	0	20s - 30s	0.97 inches	1008 - 1019	MW-7: 15.93
GP-2 (12') with filter		13:00	0.0	13.9	3.8	0.0	0				MW-8: 16.06
GP-2 (16') without filter		13:07	0.0	12.9	7.2	0.0	0				MW-11: 17.90
GP-2 (16') with filter		13:07	0.0	13.2	4.1	0.0	0				MW-12: 17.71
GP-2 (12') without filter	1/23/2014	13:00	0.0	16.8	5.1	0.0	0	5 - 15	Trace	1019 - 1038	MW-7: 15.62
GP-2 (12') with filter		13:00	0.0	16.5	4.7	0.0	0				MW-8: 15.83
GP-2 (16') without filter		13:07	0.0	15.4	6.0	0.0	0				MW-11: 17.59
GP-2 (16') with filter		13:07	0.0	15.3	4.9	0.0	0				MW-12: 17.46
GP-2 (12') without filter	1/28/2014	14:25	0.0	17.3	4.6	0.0	0	5	None	1030 - 1033	MW-7: 17.27
GP-2 (12') with filter		14:25	0.0	17.3	4.1	0.0	0				MW-8: 17.41
GP-2 (16') without filter		14:30	0.0	15.2	6.5	0.0	0				MW-11 & MW-
GP-2 (16') with filter		14:30	0.0	15.2	5.8	0.0	0				12: iced over
GP-2 (12')	2/6/2014	Inaccessible due to snow coverage from road plows						15 - 25	0.3 inches	1029 - 1032	Inaccessible
GP-2 (12') without filter	2/13/2014	15:16	0.0	17.5	4.5	0.0	0	25 - 35	None	1003 - 1018	MW-7: 17.62
GP-2 (12') with filter		15:16	0.0	17.7	3.8	0.0	0				MW-8: 17.77
GP-2 (16') without filter		15:20	0.0	19.3	2.2	0.0	0				MW-11 & MW-
GP-2 (16') with filter		15:20	0.0	19.5	0.6	0.0	0				12: iced over
GP-2 (12') without filter	2/20/2014	14:12	0.0	16.8	4.3	0.0	0	35 - 40	None	1010 - 1014	MW-7: 17:53
GP-2 (12') with filter		14:12	0.0	16.8	4.0	0.0	0				MW-8: 17.66
GP-2 (16') without filter		14:14	0.0	15.8	5.4	0.0	0				MW-11: 19:50
GP-2 (16') with filter		14:14	0.0	15.9	4.5	0.0	0				MW-12: 19.27
GP-2 (12') without filter	2/27/2014	13:10	0.1	19.3	2..3	0.0	0	15 - 25	Trace	1008 - 1024	MW-7: 15.64
GP-2 (12') with filter		13:10	0.1	19.4	1.7	0.0	0				MW-8: 15.78
GP-2 (16') without filter		13:17	0.0	17.2	4.8	0.1	0				MW-11: 17.59
GP-2 (16') with filter		13:17	0.0	17.4	4.1	0.0	0				MW-12: 17.41
GP-2 (12') without filter	3/6/2014	14:21	0.0	17.8	4.3	0.0	0	35 - 45	None	1020 - 1029	MW-7: na
GP-2 (12') with filter		14:21	0.0	17.7	4.1	0.0	0				MW-8: na
GP-2 (16') without filter			0.0	16.8	5.2	0.0	0				MW-11: na
GP-2 (16') with filter			0.0	16.7	5.1	0.0	0				MW-12: na

Table 1

GP-2 Field Monitoring Values
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	Date:	Time	PID (ppm)	O_2 (%)	CO_2 (%)	CH_4[2] (%)	LEL (%)	Ambient Temperature (°F)	Summary of Recent Precipitation	Barometric Pressure (hPa)	Water Levels (ft BTOR)
GP-2 (12') without filter	4/2/2014	11:57	0.0	18.1	3.5	0.0	0	50s	Trace (0.15 inches)	1020	MW-7: 14.12
GP-2 (12') with filter		11:57	0.0	18.0	3.7	0.0	0				MW-8: 14.32
GP-2 (16') without filter			0.0	17.3	4.4	0.0	0				MW-11: 16.06
GP-2 (16') with filter			0.0	17.3	4.5	0.0	0				MW-12: 15.91
GP-2 (12') without filter	5/8/2014 [3]	15:18	0.2	16.3	3.0	0.0	0	75-85	None	1013-1017	MW-7: 16.84
GP-2 (12') with filter		15:18	0.2	16.4	2.5	0.0	0				MW-8: 16.70
GP-2 (16') without filter		15:22	0.5	20.3	0.0	0.0	0				MW-11: 18.68
GP-2 (16') with filter		15:22	0.5	20.0	1.6	0.0	0				MW-12: 18.46

Table 1

GP-2 Field Monitoring Values
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	Date:	Time	PID (ppm)	O_2 (%)	CO_2 (%)	CH_4[2] (%)	LEL (%)	Ambient Temperature (°F)	Summary of Recent Precipitation	Barometric Pressure (hPa)	Water Levels (ft BTOR)
GP-2 (12') without filter	6/3/2014	15:40	0.0	12.6	4.1	0.0	0	75-85	Trace	1011-1014	MW-7: na
GP-2 (12') with filter		15:40	0.0	12.6	3.7	0.0	0				MW-8: na
GP-2 (16') without filter		15:45	0.1	11.6	4.4	0.0	0				MW-11: na
GP-2 (16') with filter		15:45	0.1	11.7	4.4	0.0	0				MW-12: na
GP-2 (12') without filter	7/17/2014	15:17	0.0	2.2	6.7	0.0	0	70-75	None	1016-1020	MW-7: 17.37
GP-2 (12') with filter		15:17	0.0	2.1	6.4	0.0	0				MW-8: 17.51
GP-2 (16') without filter		15:23	15.0	1.7	6.7	1.7	35				MW-11: 19.36
GP-2 (16') with filter		15:23	15.0	1.7	6.2	1.1	23				MW-12: 19.13
GP-2 (12') without filter	8/14/2014	14:40	13.3	2.2	7.4	1.6	33	70-80	None	1014-1017	MW-7: 18.33
GP-2 (12') with filter		14:40	13.3	2.3	6.4	1.4	29				MW-8: 18.19
GP-2 (16') without filter		14:46	45.8	1.3	8.2	5.8	>100				MW-11: 20.17
GP-2 (16') with filter		14:46	45.8	1.3	7.6	2.4	49				MW-12: 19.94
GP-2 (12') without filter	8/21/2014	15:51	25.6	0.9	8.5	2.7	55	75-79	1.14 Inches	1014-1018	MW-7: na
GP-2 (12') with filter		15:51	25.6	0.9	8.2	1.8	36				MW-8: na
GP-2 (16') without filter		14:45	7.2	0.8	9.2	6.0	>100				MW-11: na
GP-2 (16') with filter		14:45	7.2	0.8	8.2	2.4	48				MW-12: na
GP-2 (12') without filter	8/28/2014	11:40	35.4	0.7	9.2	4.5	90	75--80	None	1016-1019	MW-7: 18.11
GP-2 (12') with filter		11:40	35.4	0.7	7.4	2.4	48				MW-8: 18.25
GP-2 (16') without filter		11:43	40.0	1.7	9.5	5.9	>100				MW-11: 20.10
GP-2 (16') with filter		11:43	40.0	1.6	8.3	2.2	45				MW-12: 19.87
GP-2 (12') without filter	9/4/2014	14:40	26.5	3.8	7.6	2.3	46	85-90	None	1016-1019	MW-7: na
GP-2 (12') with filter		14:40	26.5	3.9	7.9	2.1	41				MW-8: na
GP-2 (16') without filter		14:45	38.2	6.1	7.1	3.3	66				MW-11: na
GP-2 (16') with filter		14:45	38.2	6.1	7.3	3.0	60				MW-12: na
GP-2 (12') without filter	10/9/2014	13:34	0.0	4.8	9.0	0.0	0	50s	0.3 Inches	1017-1021	MW-7: na
GP-2 (12') with filter		13:34	0.0	5.2	9.3	0.0	0				MW-8: na
GP-2 (16') without filter		13:40	0.0	3.5	10.4	0.0	0				MW-11: na
GP-2 (16') with filter		13:40	0.0	3.6	10.2	0.0	0				MW-12: na
GP-2 (12') without filter	11/26/2014	13:43	0.0	14.6	4.1	0.0	0	30-35	None	1018-1023	MW-7: na
GP-2 (12') with filter		13:43	0.0	15.0	1.6	0.0	0				MW-8: na
GP-2 (16') without filter		13:46	0.0	13.6	4.6	0.0	0				MW-11: na
GP-2 (16') with filter		13:46	0.0	13.4	2.3	0.0	0				MW-12: na
GP-2 (12') without filter	2/6/2015	16:00	0.0	20.6	0.0	0.0	0	25-35	None	1022 - 1030	MW-7: 17.85
GP-2 (12') with filter		16:00	0.0	20.7	0.0	0.0	0				MW-8: 17.98
GP-2 (16') without filter		16:04	0.0	14.7	5.9	0.0	0				MW-11: 19.81
GP-2 (16') with filter		16:04	0.0	14.8	5.2	0.0	0				MW-12: 19.59

Table 1

GP-2 Field Monitoring Values
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	Date:	Time	PID (ppm)	O_2 (%)	CO_2 (%)	CH_4[2] (%)	LEL (%)	Ambient Temperature (°F)	Summary of Recent Precipitation	Barometric Pressure (hPa)	Water Levels (ft BTOR)
GP-2 (12') without filter	5/20/2015	16:09	0.0	9.5	4.2	0.0	0	50-60	None	1016 - 1022	MW-7: 17.45
GP-2 (12') with filter		16:09	0.0	9.8	3.4	0.0	0				MW-8: 17.60
GP-2 (16') without filter		16:11	0.0	7.1	5.2	0.0	0				MW-11: 19.43
GP-2 (16') with filter		16:11	0.0	7.0	4.9	0.0	0				MW-12: 19.21
GP-2 (12') without filter	8/20/2015	14:00	0.0	4.4	9.0	0.0	0	65-70	trace	1009 - 1017	MW-7: 17.75
GP-2 (12') with filter		14:00	0.0	4.4	8.4	0.0	0				MW-8: 17.56
GP-2 (16') without filter		14:04	1.2	2.3	9.8	0.1	3				MW-11: 19.54
GP-2 (16') with filter		14:04	1.2	2.5	9.6	0.1	2				MW-12: 19.30
GP-2 (12') without filter	11/5/2015	14:22	0.0	2.2	9.7	0.0	0	60-70	trace	1019 - 1021	MW-7: 18.60
GP-2 (12') with filter		14:22	0.0	2.3	7.5	0.0	0				MW-8: 18.46
GP-2 (16') without filter		14:25	0.0	1.2	10.5	0.0	0				MW-11: 20.43
GP-2 (16') with filter		14:25	0.0	1.2	8.7	0.0	0				MW-12: 20.20
GP-2 (12') without filter	1/28/2016	14:42	0.0	14.2	6.2	0.0	0	35-45	trace	1005 - 1012	MW-7: 17.54
GP-2 (12') with filter		14:42	0.0	14.5	4.9	0.0	0				MW-8: 17.40
GP-2 (16') without filter		14:47	0.0	12.0	7.9	0.0	0				MW-11: 19.37
GP-2 (16') with filter		14:47	0.0	12.1	7.4	0.0	0				MW-12: 19.15
GP-2 (12') without filter	7/21/2016	14:26	74.9	1.5	7.5	13.5	>100	88-91	None	1019 - 1020	MW-7: 18.77
GP-2 (12') with filter		14:26	74.9	1.3	7.4	4.5	87				MW-8: 18.65
GP-2 (16') without filter		14:32	98.1	1.3	7.8	34.6	>100				MW-11: 20.61
GP-2 (16') with filter		14:32	98.1	1.4	7.5	5.0	>100				MW-12: 20.37
GP-2 (12') without filter	7/29/2016[4]	11:06	68.4	0.5	7.5	13.7	>100	85-86	None	1010 - 1014	MW-7: 19.08
GP-2 (12') with filter		11:06	68.4	10.1	3.4	2.1	42				MW-8: 18.86
GP-2 (16') without filter		11:17	83.5	0.7	7.7	39.2	>100				MW-11: 20.58
GP-2 (16') with filter		11:17	83.5	9.8	3.7	2.6	52				MW-12: 20.68
GP-2 (12') without filter	8/5/2016	17:08	30.4	0.1	7.7	12.3	>100	87 - 91	None	1012 - 1014	MW-7: 19.20
GP-2 (12') with filter		17:08	30.4	0.1	7.6	4.5	91				MW-8: 19.05
GP-2 (16') without filter		17:12	63.0	0.2	7.9	37.8	>100				MW-11:21.03
GP-2 (16') with filter		17:12	63.0	0.9	7.4	5.1	>100				MW-12:20.78

Notes:

[1] The explosive gas monitor baseline reading was 1 percent LEL. The meter did not zero for LEL readings and the corresponding methane readings were 0 percent; therefore, the readings of 1 percent are anomalous.

[2] The Landtec GEM 2000 combustible gas monitor measures explosive gases as a percent of methane by volume. The presence of other hydrocarbon gases affects methane readings.

[3] CO_2 readings started at 0.1 ppm.

[4] GHD field personnel noted the presence of a manhole (and a possible underground utility) located ~ 3 feet from GP-2 that may be contributing to elevated methane levels.

PID Photoionization Detector
O_2 Oxygen
CO_2 Carbon Dioxide
CH_4 Methane
LEL Lower Explosive Limit
NM Not measured
U Qualified as non-detect due to issues with the filter
Value Value is greater than LEL for methane (5 percent methane)