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April 16, 2020

Ms. Cindy Koepke
Hydrogeologist
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg, WI 53711

Subject: Refuse Hideaway Landfill
April 2020 Landfill Gas Monitoring Results

Dear Cindy:

TRC completed the monthly gas probe monitoring at the Refuse Hideaway Landfill in Middleton, WI on April 7, 2020. Attached are the monitoring results for April 2019. Pressure, methane, carbon dioxide, oxygen, and methane (% LEL) are measured during the monthly event.

The next monthly gas probe monitoring event will take place in May 2020.

If you have any questions, please contact me at kvater@trccompanies.com or 608-826-3663.

Sincerely,

TRC

A handwritten signature in black ink that reads "Katherine Vater".

Katherine Vater, PE
Project Manager

Attachments

**REFUSE HIDEAWAY LANDFILL
GAS PROBE MONITORING FORM**

TECHNICIAN(S): J. Roelke _____

DATE: 4/7/2020 _____
START TIME: 7:01 AM _____
END TIME: 1:00 PM _____

GAS/INSTRUMENT TYPE: **GEM 2000** _____

SERIAL NO.: 11668 _____

WEATHER CONDITIONS: Cloudy _____

DATE LAST CALIBRATED: 4/7/2020 _____

TEMPERATURE: 50°F _____

METHOD: Standard Calibration Gases _____

BAROMETRIC PRESSURE & TREND: 28.86 in Hg, Falling _____

PRESS INSTRUMENT : Manometer _____

GROUND CONDITIONS: Wet _____

GAS PROBE NAME	Time	PRESSURE (in. WC)	METHANE (% LEL)	METHANE (%, by vol.)	CARBON DIOXIDE (%, by vol.)	OXYGEN (%, by vol.)	COMMENTS
GP-1D	7:41	0.0	0.0	0.0	2.9	17.2	(2)
GP-1S	7:43	0.0	0.0	0.0	4.8	14.2	(2)
GP-2D	7:46	0.14	>5	5.9	6.2	12.3	(1)
GP-2S	7:48	0.0	>5	16	17.9	0.1	(1) Stable reading @ 2 min purge
GP-3	7:53	0.0	>5	62.5	25.9	0.1	(1)
GP-4	7:59	0.0	0.0	0.0	0.5	20.4	(1)
GP-5	8:03	0.0	0.0	0.0	1.1	19.9	(2)
GP-6	8:10	0.0	0.0	0.0	0.0	20.9	(1)
GP-7	8:18	0.09	0.0	0.0	0.5	20.5	(2) H ₂ O in line, 5 sec purge
GP-8	8:25	0.0	2.0	0.1	3.9	12.8	(2) Stable reading @ 90 sec purge
GP-9	8:36	0.0	0.0	0.0	2.4	18.0	(1)
GP-10	8:39	0.0	0.0	0.0	1.5	18.3	(1)
GP-11D	8:43	0.0	0.0	0.0	2.0	17.9	(2)
GP-11S	8:45	0.0	0.0	0.0	3.6	15.7	(2)
GP-12D	8:49	0.0	>5	16.7	16.5	7.5	(1) Stable readings @ 3 min purge
GP-12S	8:53	0.0	0.0	0.0	3.4	16.6	(1)
GP-13D	9:01	0.0	0.0	0.0	1.9	17.5	(2)
GP-13S	9:03	0.0	0.0	0.0	2.0	15.8	(2)

GAS PROBE NAME	Time	PRESSURE (in. WC)	METHANE (% LEL)	METHANE (%, by vol.)	CARBON DIOXIDE (%, by vol.)	OXYGEN (%, by vol.)	COMMENTS
GP-16D	9:23	0.0	76	3.8	5.2	13.4	(2)
GP-16M	NM	NM	NM	NM	NM	NM	Cracked Probe, No Measurements Taken
GP-16S	9:25	0.0	>5	19.7	17.9	0.1	(2)
GP-17D	9:15	0.09	33	1.6	2.9	15.8	(1)
GP-17M	9:17	0.0	60	3.0	4.3	13.4	(1) Stable readings @ 90 sec purge
GP-17S	9:20	0.0	>5	16.5	17.4	0.1	(1)
GP-18D	9:31	18.0	6	0.3	3.4	15.3	(3)
GP-18M	9:33	0.0	>5	6.7	10.4	7.5	(3) Stable readings @ 90 sec purge
GP-18S	9:36	0.0	97	4.8	7.9	3.5	(3) Stable readings @ 2 min purge
GP-19 ⁸⁵⁻¹⁰⁰	10:20	0.0	0.0	0.0	4.2	15	(1)
GP-19 ⁵⁰⁻⁷⁰	10:22	0.0	0.0	0.0	3.0	17.6	(1)
GP-19 ²⁵⁻⁴⁰	10:24	0.0	0.0	0.0	2.0	19.3	(1)
GP19 ²⁻¹⁵	10:26	0.0	0.0	0.0	0.3	20.7	(1)
GP-20 ⁸⁵⁻¹⁰⁰	10:11	0.0	0.0	0.0	1.5	18.3	(2)
GP-20 ⁵⁰⁻⁷⁰	10:13	0.0	0.0	0.0	1.1	19.8	(2)
GP-20 ²⁵⁻⁴⁰	10:15	0.0	0.0	0.0	1.2	19.6	(2)
GP-20 ²⁻¹⁵	10:17	0	0.0	0.0	2.1	18.9	(2)
GP-21 ⁸⁵⁻¹⁰⁰	10:02	0.0	0.0	0.0	0.7	19.7	(2)
GP-21 ⁵⁰⁻⁷⁰	10:04	0.21	0.0	0.0	0.9	19.5	(2)
GP-21 ²⁵⁻⁴⁰	10:06	0.11	0.0	0.0	2.5	16.5	(2)
GP-21 ²⁻¹⁵	10:08	0.0	0.0	0.0	0.9	19.7	(2)
GP-22 ⁸⁵⁻¹⁰⁰	10:33	0.16	0.0	0.0	2.6	17.5	(2)
GP-22 ⁵⁰⁻⁷⁰	10:35	0.18	0.0	0.0	3.1	16.2	(2)
GP-22 ²⁵⁻⁴⁰	10:37	0.0	0.0	0.0	1.4	19.7	(2)
GP-22 ²⁻¹⁵	10:39	0.0	0.0	0.0	2.6	18.7	(2)

GAS PROBE NAME	Time	PRESSURE (in. WC)	METHANE (% LEL)	METHANE (% by vol.)	CARBON DIOXIDE (% by vol.)	OXYGEN (% by vol.)	COMMENTS
GP-23 ⁸⁵⁻¹⁰⁰	10:45	0.00	25	1.2	6.9	10.3	(2) Stable readings @ 90 sec purge
GP-23 ⁵⁰⁻⁷⁰	10:48	0.12	27	1.3	8.5	7.0	(2)
GP-23 ²⁵⁻⁴⁰	10:50	0.0	0.0	0.0	11.2	10.2	(2)
GP-23 ²⁻¹⁵	10:52	0.0	0.0	0.0	11.3	9.1	(2)
GP-24 ⁸⁵⁻¹⁰⁰	10:56	0.32	11	0.6	16.1	0.1	(2)
GP-24 ⁵⁰⁻⁷⁰	10:58	0.12	0.0	0.0	2.4	18.2	(2)
GP-24 ²⁵⁻⁴⁰	11:00	0.0	0.0	0.0	11.3	10.0	(2)
GP-24 ²⁻¹⁵	11:02	0.0	0.0	0.0	7.9	10.9	(2)
GPW-1D	12:41	1.43	0.0	0.0	1.5	18.4	(1)
GPW-1M	12:43	1.41	0.0	0.0	1.3	18.3	(1)
GPW-1S	12:45	0.0	0.0	0.0	1.4	19.0	(1)
G-1D	7:16	0.0	>5	17.7	21.8	0.3	(1)
G-1S	7:18	0.0	>5	33.4	24.9	0.1	(1)
G-2D	9:07	0.0	0.0	0	2.9	8.9	(1)
G-2S	9:09	0.0	>5	11.2	19.5	0.2	(1)
G-5	8:31	0.0	0.0	0.0	2.8	18.5	(1)
G-6	7:25	0.0	0.0	0.0	0.1	20.9	(1)
G-8	9:56	0.0	0.0	0.0	0.1	18.0	(1)
G-9	9:46	0.0	0.0	0.0	0.9	16.3	(1)
G-10	11:11	1.5	0.0	0.0	0.1	20.9	(1)
Speedway Office	7:39	open to ATM	0.0	0.0	0	20.9	Open to ATM

NOTES:

- (1); Locked probe casing.
- (2); Probe is above casing and cannot be locked.
- (3); No cap for probe casing and cannot be locked.

Key:

Shallow or 2'-15'
Medium or 25'-40'
Deep or 50'-70'
85'-100'

Entered by: L. Hoernig 4/14/2020
Checked by: K. Vater 4/14/2020