

March 7, 2023

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

Re: DNR BRRTS Activity #02-33-582970
Landfill Gas Monitoring, Darlington City Historic Landfill
149 Wells Street, Darlington, WI
Monitoring Results, February 2023

Dear Ms. Koepke:

Ayres Associates Inc (Ayres), on behalf of the City of Darlington (City), is providing the results of the February 2023 landfill gas monitoring conducted at 149 Wells Street. This is the second round of quarterly monitoring requested by the Wisconsin Department of Natural Resources (WDNR) in email correspondence dated October 10, 2022.

Results Discussion

Landfill gas monitoring was conducted on February 28, 2023, at 11 sampling locations using a calibrated Landtec GEM 2000 landfill gas meter. Six of the locations are gas extraction wells designated with the GW identifier. The other five locations are soil gas probes designated with the identifier of GP. Because of snow and ice, three of the gas extraction wells, GW-13R, GW-14R, and GW-20R, could not be located for sampling. This round of monitoring generally indicated low concentrations of methane, less than 0.3%. Extraction well GW-22R, along with gas probes GP-104 and GP-106, were the only locations with methane concentrations greater than 0.3%. The methane measured at these locations was below the lower explosive limit (LEL) of 5%. The attached data sheet summarizes the results of the February 28, 2023, gas monitoring.

Indoor Air Alarms

The three alarms located within the Piggly Wiggly grocery were tested for an audible alert. All three alarms were operating properly when tested. Another alarm located in an office on the northeast end of the strip mall building could not be tested as the space was unoccupied and could not be accessed. To date, no audible alarms have been noted within the building from tenants or the landlord.

Next Sampling Round

The next round of quarterly landfill gas monitoring will be conducted prior to July 1, 2023.

Cindy Koepke
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Sincerely,

Ayres Associates Inc



Thomas P. Gaieck, PG
Hydrogeologist

TPG:amc

Enclosure

cc: Jeremy Williams – City of Darlington



Darlington
28-Feb-23

Table 1: Methane Gas Monitoring Results

ID	Sampler	Time	CH4 %	CO2 %	O2 %	Balance Gas	Barometric Pressure (inHg)	Barometric Trend	Relative Humidity	Wind Speed / Direction	Air Temp. (°F)	Cloud Cover	Precipitation	Valve Open (%)	Comments
GW-9R	TG	12:59	0.2	0.1	20.4	79.3	29.91	Steady	65%	5 mph/S	42	90%	0.0	100%	
GW-13R	TG	Not sampled - under snow and ice						Steady	65%	5 mph/S	42	90%	0.0	100%	
GW-14R	TG	Not sampled - under snow and ice						Steady	65%	5 mph/S	42	90%	0.0	100%	
GW-106R	TG	12:54	0.2	0.3	14.4	85.1	29.91	Steady	65%	5 mph/S	42	90%	0.0	100%	
GW-20R	TG	Not sampled - under snow and ice						Steady	65%	5 mph/S	42	90%	0.0	100%	
GW-22R	TG	11:45	0.8	1.1	18.5	79.6	19.91	Steady	65%	5 mph/S	42	90%	0.0	100%	
GP-101	TG	12:00	0.2	0.4	20.4	79.9	29.91	Steady	65%	5 mph/S	42	90%	0.0	100%	
GP-104	TG	11:43	1.9	0.4	19.8	77.9	29.91	Steady	65%	5 mph/S	42	90%	0.0	100%	
GP-105	TG	11:32	0.2	1.9	19.1	78.8	29.91	Steady	65%	5 mph/S	42	90%	0.0	100%	
GP-106	TG	11:25	2.1	0.5	13.0	84.4	29.91	Steady	65%	5 mph/S	42	90%	0.0	100%	
GP-108	TG	12:06	0.2	0.8	18	81.0	29.91	Steady	65%	5 mph/S	42	90%	0.0	100%	
BLOWER Port	TG	12:11	0.2	0.2	20.1	78.4	29.91	Steady	65%	5 mph/S	42	90%	0.0	N/A	