

Annex G2

## Landfill Gas Monitoring Results

**Table G2.1 Landfill Gas Monitoring Results at Perimeter LFG Monitoring Wells (July 2022)**

Location	Water Level (mPD)	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
LFG1	2.95	0.0	0.5	17.2
LFG2	2.86	0.0	0.6	17.9
LFG3	3.03	0.0	0.0	19.3
LFG4	2.97	0.0	0.2	18.7
LFG5	3.38	0.0	0.0	19.2
LFG6	2.9	0.0	0.0	19.3
LFG7	3.3	0.0	0.0	19.2
LFG8	3.19	0.0	0.0	19.4
LFG9	3.07	0.0	0.0	19.4
LFG10	2.99	0.0	0.0	19.4
LFG11	3.27	0.0	0.0	19.5
LFG12	3.16	0.0	0.0	19.5
LFG13	2.8	0.0	0.0	19.4
LFG14	2.64	0.0	0.0	19.3
LFG15	2.98	0.0	0.0	19.4
LFG16	3.07	0.0	0.0	19.3
LFG17	3.04	0.0	0.0	19.1
LFG18	3.82	0.0	0.0	19.1
LFG19	4.21	0.0	0.0	19.1
LFG20	4.03	0.0	0.0	19.0
LFG21	4.05	0.0	0.0	19.0
LFG22	3.65	0.0	0.0	19.0
LFG23	12.76	0.0	0.4	18.4
LFG24	6.65	0.0	0.0	18.8
GP1	Probe bent	0.2	3.4	12.5
GP2 (shallow)	Probe bent	0.1	0.0	19.6
GP2 (deep)	Probe bent	0.3	0.1	19.5
GP3 (shallow)	Probe bent	0.0	0.4	18.8
GP3 (deep)	Probe bent	0.0	0.5	19.5
GP4 (shallow)	Probe bent	0.0	0.5	18.7
GP4 (deep)	Probe bent	0.0	0.2	19.1
GP5 (shallow)	Probe bent	0.0	5.0	12.8
GP5 (deep)	42.78	0.0	0.1	18.9
GP6	39.99	0.0	1.5	17.3
GP7	36.95	0.0	1.4	15.7
GP12	2.38	0.0	0.0	19.4
GP15	2.97	0.0	0.0	19.6
P7	2.89	0.0	0.0	19.4
P8	3.01	0.0	0.0	19.5
P9	2.89	0.0	0.0	19.6

**Table G2.2 Landfill Gas Monitoring Results at Perimeter LFG Monitoring Wells (August 2022)**

Location	Water Level (mPD)	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
LFG1	3.36	0.0	0.4	13.9
LFG2	3.27	0.0	1.0	17.4
LFG3	3.43	0.0	0.0	19.7
LFG4	3.22	0.0	0.5	6.0
LFG5	3.48	0.0	0.2	1.3
LFG6	3.4	0.0	2.1	9.4
LFG7	3.68	0.0	0.0	17.2
LFG8	3.66	0.0	0.0	20.1
LFG9	3.52	0.2	0.0	13.3
LFG10	3.36	1.3	0.1	2.4
LFG11	3.74	0.0	0.0	19.5
LFG12	3.50	0.0	0.0	20.6
LFG13	3.14	0.0	0.0	20.5
LFG14	2.89	0.2	0.0	19.8
LFG15	3.06	3.3	0.0	13.1
LFG16	3.45	0.0	0.0	20.4
LFG17	3.38	0.0	0.0	19.3
LFG18	4.48	0.0	0.0	19.5
LFG19	3.95	0.0	0.0	19.6
LFG20	4.71	0.0	0.0	19.5
LFG21	4.63	0.0	0.0	19.9
LFG22	5.27	0.0	0.0	19.4
LFG23	12.89	0.0	2.6	15.8
LFG24	7	0.0	0.0	19.9
GP1	Probe bent	0.0	6.9	7.7
GP2 (shallow)	Probe bent	0.0	0.1	19.5
GP2 (deep)	Probe bent	0.0	0.0	19.7
GP3 (shallow)	Probe bent	0.0	0.1	19.6
GP3 (deep)	Probe bent	0.0	0.2	19.4
GP4 (shallow)	Probe bent	0.0	0.2	19.5
GP4 (deep)	Probe bent	0.0	0.1	19.6
GP5 (shallow)	Probe bent	0.0	5.0	13.2
GP5 (deep)	45.07	0.0	0.1	19.8
GP6	42.63	0.0	5.8	12.9
GP7	37.05	0.0	0.0	19.8
GP12	2.79	0.0	0.0	19.7
GP15	3.34	0.0	0.0	19.9
P7	3.31	0.0	0.0	20.0
P8	3.42	0.0	0.0	19.9
P9	3.3	0.1	0.0	20.0

**Table G2.3 Landfill Gas Monitoring Results at Perimeter LFG Monitoring Wells (September 2022)**

Location	Water Level (mPD)	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
LFG1	2.64	0.0	1.5	16.8
LFG2	2.54	0.0	2.4	16.2
LFG3	2.71	0.0	1.0	17.0
LFG4	2.65	0.0	0.0	20.4
LFG5	3.04	0.0	0.0	20.3
LFG6	2.56	0.0	0.0	20.2
LFG7	2.86	0.0	0.0	19.8
LFG8	2.76	0.0	0.0	19.5
LFG9	2.70	0.0	0.0	20.0
LFG10	2.5	0.0	0.0	20.1
LFG11	2.73	0.0	0.0	20.0
LFG12	2.64	0.0	0.0	20.0
LFG13	2.33	0.0	0.0	19.9
LFG14	2.22	0.0	0.0	19.9
LFG15	2.37	0.0	0.0	19.9
LFG16	2.66	0.0	0.0	19.8
LFG17	2.65	0.0	0.0	19.6
LFG18	3.2	0.0	0.0	19.5
LFG19	3.42	0.0	0.1	19.6
LFG20	3.52	0.0	0.2	19.1
LFG21	3.63	0.0	0.0	19.8
LFG22	3.19	0.0	0.0	19.8
LFG23	12.61	0.0	0.6	19.0
LFG24	6.58	0.0	0.0	19.7
GP1	Probe bent	0.1	8.5	7.3
GP2 (shallow)	Probe bent		Unmeasurable due to broken probe	
GP2 (deep)	Probe bent		Unmeasurable due to broken probe	
GP3 (shallow)	Probe bent	0.0	0.4	19.6
GP3 (deep)	Probe bent	0.0	0.1	20.0
GP4 (shallow)	Probe bent	0.0	0.1	19.9
GP4 (deep)	Probe bent	0.0	0.4	19.7
GP5 (shallow)	Probe bent	0.0	8.4	14.6
GP5 (deep)	39.73	0.0	0.0	20.0
GP6	38.29	0.0	6.1	12.6
GP7	36.53	0.0	0.0	19.8
GP12	2.07	0.0	0.0	20.3
GP15	2.61	0.0	0.0	20.1
P7	2.55	0.0	0.0	20.4
P8	2.70	0.0	0.0	20.2
P9	2.58	0.0	0.0	20.2

**Table G2.4 Landfill Gas Monitoring Results at Service Voids, Utilities Pits and Manholes (July 2022)**

Location	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
UU01	0.0	0.0	19.8
UU02	0.0	0.0	20.1
UU03	0.0	0.0	20.2
UU04	0.0	0.0	19.8
UU05	0.0	0.0	19.8
UU06	0.0	0.0	20.0
UU07	0.0	0.0	19.7
UU08	0.0	0.0	20.4
UU09	0.0	0.0	19.4
UU10	0.0	0.0	19.0
UU11	0.0	0.0	20.7
UU12	Voided due to latest site programme and on-going operation work		
UU13	0.0	0.0	20.9
UU14	0.0	0.0	21.0
UU15	0.0	0.0	19.5
UU16	0.0	0.0	18.5
UU17	Voided due to latest site programme and on-going operation work		
UU18	0.1	0.0	20.9
UU19	0.0	0.0	19.8
UU20	0.0	0.0	18.2
UU21	0.0	0.0	18.4
UU22	0.0	0.0	19.0
UU23	0.0	0.0	19.5
UU24	0.0	0.0	20.1
UU25	0.0	0.0	20.3
UU26	0.0	0.0	18.6
UU27	0.0	0.0	20.4
UU28	0.0	0.0	20.8

**Table G2.5 Landfill Gas Monitoring Results at Service Voids, Utilities Pits and Manholes (August 2022)**

Location	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
UU01		Unmeasurable due to overflow of water	
UU02	0.1	0.0	20.8
UU03	0.1	0.0	19.0
UU04	0.1	0.0	20.6
UU05		Unmeasurable due to overflow of water	
UU06	0.1	0.0	20.6
UU07	0.1	0.0	20.9
UU08		Unmeasurable due to overflow of water	
UU09	0.0	0.0	19.6
UU10	0.0	0.0	19.6
UU11	0.0	0.0	19.2
UU12	Voided due to latest site programme and on-going operation work		
UU13	0.0	0.0	19.1
UU14	0.0	0.0	19.2
UU15	0.0	0.0	19.9
UU16	0.0	0.0	19.8
UU17	Voided due to latest site programme and on-going operation work		
UU18	0.0	0.0	19.9
UU19	0.1	0.0	20.6
UU20	0.0	0.0	19.7

Location	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
UU21	0.0	0.0	19.3
UU22	0.0	0.0	19.5
UU23	0.0	0.0	19.8
UU24	0.0	0.0	19.6
UU25	0.0	0.0	19.8
UU26	0.0	0.0	19.4
UU27	0.0	0.0	19.4
UU28	0.0	0.0	19.5

**Table G2.6** *Landfill Gas Monitoring Results at Service Voids, Utilities Pits and Manholes (September 2022)*

Location	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
UU01	0.0	0.0	20.8
UU02	0.0	0.0	20.4
UU03	0.0	0.0	20.0
UU04	0.0	0.0	19.7
UU05	0.0	0.0	20.5
UU06	0.0	0.0	20.3
UU07	0.0	0.0	20.1
UU08	0.0	0.0	20.0
UU09	0.0	0.0	20.7
UU10	0.0	0.0	20.6
UU11	0.0	0.0	18.9
UU12	Voided due to latest site programme and on-going operation work		
UU13	0.0	0.0	20.4
UU14	0.0	0.0	20.1
UU15	0.0	0.0	20.6
UU16	0.0	0.0	18.7
UU17	Voided due to latest site programme and on-going operation work		
UU18	0.0	0.0	20.8
UU19	0.0	0.0	20.2
UU20	0.0	0.0	18.6
UU21	0.0	0.0	18.5
UU22	0.0	0.0	19.9
UU23	0.0	0.0	19.1
UU24	0.0	0.0	19.4
UU25	0.0	0.0	19.4
UU26	0.0	0.0	19.5
UU27	0.0	0.0	18.8
UU28	0.0	0.0	19.3

**Table G2.7 Landfill Gas Bulk Gas Sampling Monitoring Results**

Parameters	LFG20	LFG23
Methane (% (v/v))	<0.020	<0.020
Carbon Dioxide (% (v/v))	0.059	0.062
Oxygen (% (v/v))	20.6	20.7
Nitrogen (% (v/v))	77.5	77.3
Carbon Monoxide (% (v/v))	<0.020	<0.020
Hydrogen (% (v/v))	<0.020	<0.020
Ethane (ppmv)	<1.0	<1.0
Propane (ppmv)	<1.0	<1.0
Butane (ppmv)	<1.0	<1.0

**Table G2.8 Flammable Gas Surface Emission Monitoring Results**

Time	GPS Coordinates Latitude (N) Longitude (E)	Weather Condition	Temperature (°C)	Wind Direction (Deg)	Wind Speed (m/s)	Monitoring Results (ppm)	
14:51	22°16'31"	114°16'17"	Sunny	32.8	190	2.1	8
15:16	22°16'53"	114°16'17"	Sunny	33.6	143	0.8	5