

Annex G2

## Landfill Gas Monitoring Results

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

Location	Water Level (mPD)	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
LFG1	2.19	0.0	0.1	19.3
LFG2	2.12	0.0	0.4	18.7
LFG3	2.25	0.0	1.3	17.9
LFG4	2.08	0.0	0.0	19.8
LFG5	2.39	0.0	0.1	9.5
LFG6	2.08	0.0	0.0	20.0
LFG7	2.38	0.0	0.0	20.0
LFG8	2.29	0.0	0.0	20.2
LFG9	2.23	0.0	0.1	10.8
LFG10	1.97	0.0	0.0	16.5
LFG11	2.19	0.0	0.1	8.6
LFG12	2.12	0.0	0.0	20.2
LFG13	2.11	5.1	0.1	1.8
LFG14	1.86	0.0	0.0	15.9
LFG15	2.06	0.0	0.3	16.8
LFG16	2.18	0.0	0.0	19.8
LFG17	2.25	0.1	0.5	12.1
LFG18	2.35	0.0	0.0	20.0
LFG19	2.43	0.0	0.0	20.0
LFG20	2.38	0.0	0.3	19.2
LFG21	2.53	0.0	2.1	11.0
LFG22	2.30	0.0	0.0	20.0
LFG23	12.52	0.0	1.3	18.3
LFG24	5.92	0.0	0.8	18.4
GP1	Probe bent	0.0	0.1	20.5
GP2 (shallow)	Probe bent	0.0	0.1	20.5
GP2 (deep)	Probe bent	0.0	0.0	20.5
GP3 (shallow)	Probe bent	0.0	2.1	18.9
GP3 (deep)	Probe bent	0.0	0.1	20.4
GP4 (shallow)	Probe bent	0.0	0.1	20.2
GP4 (deep)	Probe bent	0.0	0.1	20.2
GP5 (shallow)	Probe bent	0.0	0.1	20.1
GP5 (deep)	37.86	0.0	0.0	20.2
GP6	36.00	0.0	6.1	14.5
GP7	35.78	0.0	0.0	19.8
GP12	1.63	0.0	0.3	19.2
GP15	2.17	0.0	0.0	20.5
P7	2.13	0.0	0.0	20.4
P8	2.25	0.0	0.0	20.4
P9	2.13	0.0	0.0	20.5

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

Location	Water Level (mPD)	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
LFG1	3.16	0.0	0.1	19.6
LFG2	3.05	0.0	0.7	16.6
LFG3	3.19	0.0	0.0	20.1
LFG4	2.82	0.0	0.3	8.0
LFG5	2.9	0.0	0.2	3.3
LFG6	3.13	1.8	2.1	0.2
LFG7	3.29	0.0	0.0	18.8
LFG8	3.34	8.9	0.0	3.2
LFG9	3.22	1.5	0.0	13.5
LFG10	3.05	2.9	0.1	0.2
LFG11	3.61	0.8	0.0	18.7
LFG12	3.24	0.0	0.0	19.8
LFG13	3.05	0.0	0.0	19.7
LFG14	2.71	2.4	0.0	13.0
LFG15	2.86	4.1	0.0	12.3
LFG16	3.26	0.0	0.0	19.7
LFG17	2.83	15.9	0.1	0.2
LFG18	4.41	0.0	0.0	20.8
LFG19	5.02	0.0	0.0	19.9
LFG20	4.89	0.0	0.0	19.9
LFG21	4.78	0.0	0.0	20.1
LFG22	4.39	0.0	0.0	19.7
LFG23	12.9	0.0	3.0	16.2
LFG24	6.13	0.0	1.0	18.2
GP1	Probe bent	0.0	0.1	20.3
GP2 (shallow)	Probe bent	0.0	0.1	20.2
GP2 (deep)	Probe bent	0.0	0.0	20.2
GP3 (shallow)	Probe bent	0.0	2.1	15.2
GP3 (deep)	Probe bent	0.0	0.1	20.1
GP4 (shallow)	Probe bent	0.0	0.1	20.1
GP4 (deep)	Probe bent	0.0	0.4	19.4
GP5 (shallow)	Probe bent	0.0	3.8	14.9
GP5 (deep)	44.82	0.0	0.1	20.0
GP6	43.03	0.0	5.4	14.6
GP7	37.11	0.0	0.6	18.3
GP12	2.59	0.0	0.1	20.0
GP15	4.15	0.0	0.0	20.2
P7	3.08	0.0	0.0	20.1
P8	3.16	0.0	0.0	20.0
P9	3.14	0.0	0.0	20.4

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

Location	Water Level (mPD)	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
LFG1	3.37	0.0	0.3	17.3
LFG2	3.25	0.0	0.0	20.1
LFG3	3.36	0.0	0.0	20.0
LFG4	3.21	0.0	0.7	5.8
LFG5	3.47	0.0	0.2	1.0
LFG6	3.43	0.0	0.5	13.1
LFG7	3.63	0.0	0.0	19.4
LFG8	3.6	3.3	0.5	8.6
LFG9	3.46	1.0	0.0	12.9
LFG10	3.37	2.6	0.1	1.6
LFG11	3.93	0.0	0.0	18.1
LFG12	3.61	0.0	0.0	19.7
LFG13	3.24	0.0	0.0	17.3
LFG14	2.93	0.3	0.0	19.1
LFG15	3.09	1.9	0.0	15.7
LFG16	3.47	0.0	0.0	19.6
LFG17	3.38	1.3	0.0	16.5
LFG18	4.67	0.0	0.0	19.8
LFG19	5.28	0.0	0.0	19.8
LFG20	5.02	0.0	0.1	19.3
LFG21	4.99	0.0	0.0	19.9
LFG22	4.62	0.0	0.0	19.8
LFG23	13.08	0.0	4.2	13.7
LFG24	6.71	0.0	0.8	18.6
GP1	Probe bent	0.0	0.1	18.8
GP2 (shallow)	Probe bent	0.0	0.0	20.0
GP2 (deep)	Probe bent	0.0	0.2	19.9
GP3 (shallow)	Probe bent	0.0	0.1	19.8
GP3 (deep)	Probe bent	0.0	1.0	19.1
GP4 (shallow)	Probe bent	0.0	0.1	19.8
GP4 (deep)	Probe bent	0.0	0.1	19.8
GP5 (shallow)	Probe bent	0.0	3.2	13.9
GP5 (deep)	45.76	0.0	0.1	19.8
GP6	44.68	0.0	0.1	19.8
GP7	37.23	0.0	0.4	18.2
GP12	2.81	0.0	0.3	19.6
GP15	3.35	0.0	0.1	20.0
P7	3.31	0.0	0.0	20.0
P8	3.43	0.0	0.1	20.1
P9	3.31	0.0	0.1	20.0

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

Location	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
UU01	0.0	0.0	20.5
UU02	0.0	0.0	20.6
UU03	0.0	0.0	20.3
UU04	0.0	0.0	20.1
UU05	0.0	0.0	20.1
UU06	0.0	0.0	20.4
UU07	0.0	0.0	21.1
UU08	0.0	0.0	20.6
UU09	Inaccessible due to on-going construction work		
UU10	0.0	0.0	20.0
UU11	0.0	0.0	19.9
UU12	Voided due to latest site programme and on-going operation work		
UU13	0.0	0.0	20.9
UU14	0.0	0.0	21.3
UU15	0.0	0.0	20.4
UU16	0.0	0.0	19.2
UU17	Voided due to latest site programme and on-going operation work		
UU18	0.0	0.0	19.3
UU19	0.0	0.0	21.9
UU20	0.1	0.0	20.4
UU21	0.0	0.0	20.1
UU22	0.1	0.1	20.3
UU23	0.1	0.1	19.7
UU24	0.0	0.0	19.3
UU25	0.0	0.0	19.5
UU26	0.0	0.0	19.3
UU27	0.0	0.0	19.8
UU28	0.0	0.0	20.0

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

Location	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
UU01	0.0	0.0	21.0
UU02	0.0	0.0	21.0
UU03	0.1	0.0	20.4
UU04	0.0	0.0	21.0
UU05		Unmeasurable due to overflow of water	
UU06	0.0	0.0	21.1
UU07	0.1	0.0	21.1
UU08		Unmeasurable due to overflow of water	
UU09		Inaccessible due to on-going construction work	
UU10	0.0	0.0	21.1
UU11	0.0	0.1	21.1
UU12		Voided due to latest site programme and on-going operation work	
UU13	0.0	0.1	21.1
UU14	0.0	0.1	21.1
UU15	0.0	0.1	21.1
UU16	0.0	0.0	21.1
UU17		Voided due to latest site programme and on-going operation work	
UU18	0.0	0.1	21.0
UU19	0.1	0.0	21.2
UU20	0.1	0.0	20.9
UU21	0.0	0.0	20.9
UU22	0.0	0.1	20.8
UU23	0.0	0.1	20.7
UU24	0.0	0.1	21.0
UU25	0.0	0.1	21.1
UU26	0.0	0.1	21.1
UU27	0.0	0.1	20.5
UU28	0.0	0.1	21.0

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

Location	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
UU01	0.0	0.0	19.8
UU02	0.0	0.0	19.6
UU03	0.0	0.0	19.5
UU04	0.0	0.0	19.6
UU05		Unmeasurable due to overflow of water	
UU06	0.0	0.0	19.8
UU07	0.0	0.0	19.9
UU08	0.0	0.0	19.8
UU09		Inaccessible due to on-going construction work	
UU10	0.0	0.0	20.5
UU11	0.0	0.0	19.9
UU12		Voided due to latest site programme and on-going operation work	
UU13	0.0	0.0	20.1
UU14	0.0	0.0	20.2
UU15	0.0	0.0	20.4
UU16	0.0	0.0	20.4
UU17		Voided due to latest site programme and on-going operation work	
UU18	0.0	0.0	20.4
UU19	0.0	0.0	20.1
UU20	0.0	0.0	20.1
UU21	0.0	0.0	19.8
UU22	0.0	0.0	19.8
UU23	0.0	0.0	19.8
UU24	0.0	0.0	20.0
UU25	0.0	0.0	20.0
UU26	0.0	0.0	20.3
UU27	0.0	0.0	20.0
UU28	0.0	0.0	20.0

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

Parameters	LFG12	LFG24
Methane (% (v/v))	0.415	<0.020
Carbon Dioxide (% (v/v))	0.038	1.03
Oxygen (% (v/v))	19.9	19.6
Nitrogen (% (v/v))	78.7	79.0
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)
10:55	22°16'33"	114°16'17"	Fine	26.4	040	4.5	3
11:12	22°16'16"	114°27'78"	Fine	27.5	300	2.7	6
11:28	22°16'15"	114°16'33"	Fine	25.8	317	3.1	12
11:36	22°16'14"	114°16'28"	Fine	26.9	275	2.5	8
11:50	22°16'23"	114°16'26"	Fine	29.3	309	1.1	8
11:58	22°16'30"	114°16'26"	Fine	28.5	316	1.1	21
12:13	22°16'37"	114°16'27"	Fine	29.7	313	1.5	15
12:30	22°16'37"	114°16'31"	Fine	27.2	305	0.6	12