

15 June 2016

Kier Construction
Maple Lodge Close
Maple Cross
Rickmansworth
Hertfordshire
WD3 9SN

For the attention of Mr Richard Banks

16-73745/L01

Dear Sirs

Wren School, Bath Road / Southcote Lane, Reading, Berkshire, RG30 2BB

Introduction

Following issue of the ACS Testing Ltd (ACS) report 15-67805/SI&T1CAR/BG for the above site dated 09/02/16 we have completed the gas monitoring programme at the site and write to document our findings and confirm remedial recommendations prior to the commencement of construction.

Proposals

Nine rounds of gas monitoring were initially proposed over a period of six months in order to correctly characterise the ground gas regime. At least two rounds were to be monitored in falling barometric pressure, characterising the 'worst case conditions' of the site.

Initial Report

The initial Report documented the findings of the ground investigations and included a preliminary conclusion of the on-site ground gas regime. At the time of writing the report five rounds of gas monitoring had been completed with a further four to be completed. Two rounds completed from the AP Geotechnics investigation were taken into consideration during the initial characterisation of the site.

Findings of the initial investigation characterised the site as Characteristic Situation 2 due to a carbon dioxide reading of 5.3%, above the 5% threshold.

Additional Monitoring

Since issue of the report a further four rounds of gas monitoring have been completed. The results from the additional monitoring are enclosed.

The highest recorded methane (CH₄) value over the nine rounds of monitoring was recorded as 0.2% recorded in PEP WS3. The highest recorded carbon dioxide value (CO₂) was recorded as

4.7% in PEP WS3 and the highest flow rate was recorded as 0.2l/hr in APG BH3. Maximum results are summarised below.

Max Values	PEP WS1	PEP WS3	ACS BH4	ACS BH5	APG BH1	APG BH3
Flow (l/h)	0.1	0.1	0.1	0.1	0.0	0.2
Methane (%)	0.1	0.2	0.1	0.1	0.1	0.1
Carbon Dioxide (%)	4.5	4.7	4.2	4.4	2.2	3.8
VOC (ppm)	0.0	0.0	0.0	0.3	0	0.0
Carbon Monoxide (ppm)	0	0	0	0	0	0
Hydrogen Sulphide (ppm)	0	0	0	0	0	0

Table 1. Maximum gas concentrations and flows recorded. Highest values are highlighted red.

Using the methodology outlined in CIRIA 665, gas screening values (GSV) have been derived for methane and carbon dioxide using the highest recorded flow and maximum concentration of gas to model a worst case scenario.

The calculated GSV for methane is 0.0004l/hr and carbon dioxide is 0.0094 l/hr. Using the Modified Wilson and Card Classification, this would correspond to Characteristic Situation CS1.

The original report initially recommended Characteristic Situation 2 due to carbon dioxide being recorded at 5.3% in the original AP Geotechnics investigation. However it is considered that the gas monitoring program completed by ACS is robust with monitoring rounds completed during worst case scenarios (low and falling pressure) and is considered to represent the site in relation to ground gas risk. With no carbon dioxide recorded above 5% in any borehole over the nine rounds completed it is considered that there is minimal risk to the proposed development from carbon dioxide.

Conclusion

Following a robust gas monitoring regime it is considered the site is classified as Characteristic Situation 1 for the current proposals and therefore no ground gas protection measures are required in the proposed buildings.

Further gas monitoring would however be required if any future buildings are proposed to be developed in the landfilled waste area.

Should you require any further information please do not hesitate to contact me.

Yours faithfully



Brent Graham

ACS Testing Limited.

encs 9 x rounds of gas monitoring results – 20/11/15 - 09/06/16



ACS Testing Ltd
 Tel: 01202 622858
 testing@acstesting.co.uk
 www.acstesting.co.uk

GAS MONITORING OVERVIEW SHEET

Job Reference :	16-73745	Site Name :	Wren School
Client :	Kier Construction	Site Location :	Bath Road / Southcote Lane, Reading

Date	Pressure During Monitoring	Monitoring Duration	Daily Pressure Recordings			Trend
			Midnight	Noon	Midnight	
03/12/2015	1017	09:24-10:21	1023	1020	1012	
15/12/2015	1013	09:27-10:23	1016	1016	1015	
07/01/2016	976	09:20-10:15	990	986	1000	
29/01/2016	1012	09:09-09:52	1023	1018	1013	
22/02/2016	1004	11:40-12:22	1008	1010	1013	
21/04/2016	1019	09:11-10:03	1027	1023	1023	
13/05/2016	1005	13:33-14:16	1005	1010	1016	
09/06/2016	1018	09:27-10:10	1024	1022	1018	

Landfill Gas Monitoring Site Sheet



Lab Reference	15-68945
Site Name	Wren School
Date	03/12/2015
Monitoring Conducted by	MS
Instrument	GA5000 + MINIRAE 3000

BH No.	PEP WS1	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		4.3	4.3	4.3	4.3	4.3	4.3
Oxygen %		16.4	16.3	16.3	16.3	16.4	16.4
Balance Gases %		79.2	79.3	79.3	79.3	79.2	79.3
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1017
Depth to groundwater (m)	4.94
Base (m)	5.07
VOC (ppm)	0.0

Time:	09:33
Remarks:	

BH No.	PEP WS3	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		4.4	4.4	4.4	4.4	4.4	4.4
Oxygen %		16.1	15.8	15.7	15.7	15.7	16.1
Balance Gases %		79.5	79.7	79.8	79.8	79.8	79.8
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.1	0.1

Barometric Pressure (mb)	1017
Depth to groundwater (m)	4.32
Base (m)	5.01
VOC (ppm)	0.0

Time:	09:24
Remarks:	

Atmospheric Pressure mb	1019
Atmospheric Temperature °C	12.5
Relative Humidity %	81
Wind Speed kmph	3.2
Wind Direction	South
Weather Conditions	Overcast

Falling ☒ Steady ☐ Rising ☐

Landfill Gas Monitoring Site Sheet



Lab Reference	15-68945
Site Name	Wren School
Date	03/12/2015
Monitoring Conducted by	MS
Instrument	GA5000 + MINIRAE 3000

BH No.	APG BH1	30	60	90	120	180	Max
Methane %		0.1	0.1	0.0	0.0	0.0	0.1
Carbon Dioxide %		1.4	1.6	1.4	1.7	1.4	1.7
Oxygen %		20.1	19.9	20.1	19.9	20.1	20.1
Balance Gases %		78.4	78.5	78.4	78.4	78.5	78.5
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1017
Depth to groundwater (m)	3.96
Base (m)	4.06
VOC (ppm)	0.0

Time:	09:52
Remarks:	

BH No.	APG BH3	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		3.1	3.1	3.1	3.1	3.1	3.1
Oxygen %		18.7	18.6	18.6	18.6	18.6	18.7
Balance Gases %		78.2	78.3	78.3	78.3	78.3	78.3
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1016
Depth to groundwater (m)	Dry
Base (m)	3.94
VOC (ppm)	0.0

Time:	10:13
Remarks:	

Atmospheric Pressure mb	1019
Atmospheric Temperature °C	12.5
Relative Humidity %	81
Wind Speed kmph	3.2
Wind Direction	South
Weather Conditions	Overcast

Falling ☒ Steady ☐ Rising ☐

Landfill Gas Monitoring Site Sheet



Lab Reference	15-68945
Site Name	Wren School
Date	03/12/2015
Monitoring Conducted by	MS
Instrument	GA5000 + MINIRAE 3000

BH No.	ACS BH4	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		2.8	2.8	2.8	2.8	3.0	3.0
Oxygen %		19.0	18.9	18.9	18.9	18.7	19.0
Balance Gases %		78.2	78.2	78.2	78.2	78.2	78.2
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1017
Depth to groundwater (m)	Dry
Base (m)	4.08
VOC (ppm)	0.0

Time:	10:21
Remarks:	

BH No.	ACS BH5	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		2.7	2.8	2.9	2.9	3.1	3.1
Oxygen %		19.1	18.9	18.9	18.8	18.7	19.1
Balance Gases %		78.2	78.2	78.2	78.2	78.2	78.2
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1017
Depth to groundwater (m)	Dry
Base (m)	1.76
VOC (ppm)	0.0

Time:	10:01
Remarks:	

Atmospheric Pressure mb	1019
Atmospheric Temperature °C	12.5
Relative Humidity %	81
Wind Speed kmph	3.2
Wind Direction	South
Weather Conditions	Overcast

Falling ☒ Steady ☐ Rising ☐

Landfill Gas Monitoring Site Sheet



Lab Reference	15-67805
Site Name	Wren School
Date	20/11/2015
Monitoring Conducted by	AD
Instrument	GA5000 + MINIRAE 3000

BH No.	PEP WS1	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		3.7	4.4	4.5	4.5	4.5	4.5
Oxygen %		17.4	16.7	16.6	16.5	16.5	17.4
Balance Gases %		78.8	79	79	79	79	79
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.1	0.1	0.1

Barometric Pressure (mb)	1002
Depth to groundwater (m)	4.81
Base (m)	5.04
VOC (ppm)	0.0

Time:	09:20
Remarks:	

BH No.	PEP WS3	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		4.7	4.7	4.7	4.7	4.7	4.7
Oxygen %		15.6	15.5	15.5	15.5	15.4	15.6
Balance Gases %		79.7	79.8	79.8	79.8	79.8	79.8
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.1	0.0	0.0

Barometric Pressure (mb)	1002
Depth to groundwater (m)	4.33
Base (m)	5.03
VOC (ppm)	0.0

Time:	09:35
Remarks:	

Atmospheric Pressure mb	1010
Atmospheric Temperature °C	8.0
Relative Humidity %	81
Wind Speed kmph	11
Wind Direction	W
Weather Conditions	Clear

Falling ☒ Steady ☐ Rising ☐

Landfill Gas Monitoring Site Sheet



Lab Reference	15-67805
Site Name	Wren School
Date	20/11/2015
Monitoring Conducted by	AD
Instrument	GA5000 + MINIRAE 3000

BH No.	APG BH1	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		2.2	2.2	2.2	2.2	2.2	2.2
Oxygen %		20	20.0	20	20	2.0	20
Balance Gases %		77.7	77.8	77.8	77.8	77.8	77.8
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm			0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	-0.1	0.0

Barometric Pressure (mb)	1001
Depth to groundwater (m)	3.96
Base (m)	4.05
VOC (ppm)	0.0

Time:	10:30
Remarks:	

BH No.	APG BH3	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		3.4	3.4	3.41	3.4	3.4	3.4
Oxygen %		18.9	18.8	18.8	18.8	18.8	18.9
Balance Gases %		77.7	77.8	77.8	77.8	77.8	77.8
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.1	0.0	0.0

Barometric Pressure (mb)	1001
Depth to groundwater (m)	n/a
Base (m)	n/a
VOC (ppm)	0.0

Time:	10:06
Remarks:	Unable to dip borehole as bung could not be removed

Atmospheric Pressure mb	1010
Atmospheric Temperature °C	8.0
Relative Humidity %	81
Wind Speed kmph	11
Wind Direction	W
Weather Conditions	Clear

Falling ☒ Steady ☐ Rising ☐

Landfill Gas Monitoring Site Sheet



Lab Reference	15-67805
Site Name	Wren School
Date	20/11/2015
Monitoring Conducted by	AD
Instrument	GA5000 + MINIRAE 3000

BH No.	ACS BH4	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		3.6	3.6	3.6	3.6	3.6	3.6
Oxygen %		18.7	18.6	18.6	18.6	18.5	18.7
Balance Gases %		77.7	77.8	77.8	77.8	77.8	77.8
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1002
Depth to groundwater (m)	Dry
Base (m)	4.09
VOC (ppm)	0.0

Time:	09:55
Remarks:	

BH No.	ACS BH5	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		2.9	2.9	3.0	3.0	3.0	3.0
Oxygen %		19.5	19.3	19.2	19.2	19.2	19.5
Balance Gases %		77.6	77.8	77.8	77.8	77.8	77.8
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.1	0.0

Barometric Pressure (mb)	1001
Depth to groundwater (m)	Dry
Base (m)	1.76
VOC (ppm)	0.0

Time:	10:15
Remarks:	

Atmospheric Pressure mb	1010
Atmospheric Temperature °C	8.0
Relative Humidity %	81
Wind Speed kmph	11
Wind Direction	W
Weather Conditions	Clear

Falling ☒ Steady ☐ Rising ☐

Landfill Gas Monitoring Site Sheet



Lab Reference	15-69319
Site Name	Wren School
Date	15/12/2015
Monitoring Conducted by	MS
Instrument	GA5000 + MINIRAE 3000

BH No.	PEP WS1	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		4.0	4.0	4.0	4.0	4.0	4.0
Oxygen %		18.0	17.9	17.9	17.9	17.9	18.0
Balance Gases %		77.9	78.0	78.0	78.0	78.0	78.0
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1013
Depth to groundwater (m)	5.03
Base (m)	5.09
VOC (ppm)	0.0

Time:	09:45
Remarks:	

BH No.	PEP WS3	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		4.0	4.0	4.0	4.0	4.0	4.0
Oxygen %		16.8	16.8	16.8	16.8	16.7	16.8
Balance Gases %		79.1	79.1	79.1	79.1	79.2	79.2
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1011
Depth to groundwater (m)	4.32
Base (m)	5.03
VOC (ppm)	0.0

Time:	09:37
Remarks:	

Atmospheric Pressure mb	1017
Atmospheric Temperature °C	11.0
Relative Humidity %	97
Wind Speed kmph	13
Wind Direction	SSE
Weather Conditions	Overcast

Falling ☐ Steady ☒ Rising ☐

Landfill Gas Monitoring Site Sheet



Lab Reference	15-69319
Site Name	Wren School
Date	15/12/2015
Monitoring Conducted by	MS
Instrument	GA5000 + MINIRAE 3000

BH No.	APG BH1	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		0.2	0.9	1.0	1.2	1.6	1.6
Oxygen %		21.3	20.6	20.5	20.4	20.0	21.3
Balance Gases %		78.5	78.5	78.5	78.4	78.4	78.5
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1012
Depth to groundwater (m)	3.94
Base (m)	4.06
VOC (ppm)	0.0

Time:	10.00
Remarks:	

BH No.	APG BH3	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		3.0	3.0	3.0	3.0	3.0	3.0
Oxygen %		19.0	18.9	18.9	18.9	18.9	19.0
Balance Gases %		78.0	78.1	78.1	78.1	78.1	78.1
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0	0.1	0.1

Barometric Pressure (mb)	1012
Depth to groundwater (m)	Dry
Base (m)	3.98
VOC (ppm)	0.0

Time:	10:14
Remarks:	

Atmospheric Pressure mb	1017
Atmospheric Temperature °C	11.0
Relative Humidity %	97
Wind Speed kmph	13
Wind Direction	SSE
Weather Conditions	Overcast

Falling ☐ Steady ☒ Rising ☐

Landfill Gas Monitoring Site Sheet



Lab Reference	15-69319
Site Name	Wren School
Date	15/12/2015
Monitoring Conducted by	MS
Instrument	GA5000 + MINIRAE 3000

BH No.	ACS BH4	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		2.4	2.6	2.6	2.6	2.7	2.7
Oxygen %		19.7	19.4	19.4	19.4	19.3	19.7
Balance Gases %		77.9	78.0	78.0	78.0	78.0	78.0
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0	0.1	0.1

Barometric Pressure (mb)	1012
Depth to groundwater (m)	Dry
Base (m)	4.09
VOC (ppm)	0.0

Time:	10:23
Remarks:	

BH No.	ACS BH5	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		2.8	2.9	3.0	3.1	3.1	3.1
Oxygen %		19.2	19.0	18.9	18.9	18.8	19.2
Balance Gases %		78.0	78.1	78.1	78.0	78.1	78.1
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1012
Depth to groundwater (m)	Dry
Base (m)	1.76
VOC (ppm)	0.0

Time:	10:06
Remarks:	

Atmospheric Pressure mb	1017
Atmospheric Temperature °C	11.0
Relative Humidity %	97
Wind Speed kmph	13
Wind Direction	SSE
Weather Conditions	Overcast

Falling ☐ Steady ☒ Rising ☐

Landfill Gas Monitoring Site Sheet



Lab Reference	16-69584
Site Name	Wren School
Date	07/01/2016
Monitoring Conducted by	MS
Instrument	GA5000 + MINIRAE 3000

BH No.	PEP WS1	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		3.5	3.5	3.5	3.5	3.5	3.5
Oxygen %		19.3	19.2	19.2	19.2	19.3	19.3
Balance Gases %		77.1	77.2	77.2	77.2	77.1	77.2
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	976
Depth to groundwater (m)	5.02
Base (m)	5.07
VOC (ppm)	0.0

Time:	09:30
Remarks:	

BH No.	PEP WS3	30	60	90	120	180	Max
Methane %		0.2	0.2	0.2	0.2	0.2	0.2
Carbon Dioxide %		4.1	4.2	4.2	4.2	4.2	4.2
Oxygen %		19.1	19.0	19.0	19.0	18.9	19.1
Balance Gases %		76.6	76.6	76.6	76.6	76.7	76.7
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	-0.1

Barometric Pressure (mb)	975
Depth to groundwater (m)	4.18
Base (m)	5.03
VOC (ppm)	0.0

Time:	09:20
Remarks:	

Atmospheric Pressure mb	981
Atmospheric Temperature °C	10.0
Relative Humidity %	96
Wind Speed kmph	7.4
Wind Direction	WSW
Weather Conditions	Scattered Clouds

Falling ☐ Steady ☐ Rising ☒

Landfill Gas Monitoring Site Sheet



Lab Reference	16-69584
Site Name	Wren School
Date	07/01/2016
Monitoring Conducted by	MS
Instrument	GA5000 + MINIRAE 3000

BH No.	APG BH1	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		0.1	0.1	0.1	0.1	0.3	0.3
Oxygen %		21.3	21.4	21.4	21.4	21.2	21.4
Balance Gases %		78.5	78.4	78.4	78.4	78.4	78.5
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	976
Depth to groundwater (m)	3.80
Base (m)	4.06
VOC (ppm)	0.0

Time:	09:45
Remarks:	

BH No.	APG BH3	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		3.5	3.5	3.5	3.5	3.5	3.5
Oxygen %		18.6	18.5	18.4	18.4	18.4	18.6
Balance Gases %		77.8	77.9	78.0	78.0	78.0	78.0
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0	0	0

Barometric Pressure (mb)	976
Depth to groundwater (m)	Dry
Base (m)	3.98
VOC (ppm)	0.0

Time:	10:00
Remarks:	

Atmospheric Pressure mb	981
Atmospheric Temperature °C	10.0
Relative Humidity %	96
Wind Speed kmph	7.4
Wind Direction	WSW
Weather Conditions	Scattered Clouds

Falling ☐ Steady ☐ Rising ☒

Landfill Gas Monitoring Site Sheet



Lab Reference	16-69584
Site Name	Wren School
Date	07/01/2016
Monitoring Conducted by	MS
Instrument	GA5000 + MINIRAE 3000

BH No.	ACS BH4	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		4.1	4.2	4.2	4.2	4.1	4.2
Oxygen %		17.9	17.7	17.7	17.8	18.0	18.0
Balance Gases %		77.9	78.0	78.0	77.9	77.8	78.0
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0	0	0

Barometric Pressure (mb)	977
Depth to groundwater (m)	Dry
Base (m)	4.10
VOC (ppm)	0.0

Time:	10:15
Remarks:	

BH No.	ACS BH5	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		3.6	3.6	3.6	3.7	3.8	3.8
Oxygen %		18.0	17.8	17.0	17.8	17.7	18.0
Balance Gases %		78.3	78.5	79.3	78.4	78.4	78.5
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	976
Depth to groundwater (m)	Dry
Base (m)	1.76
VOC (ppm)	0.0

Time:	09:55
Remarks:	

Atmospheric Pressure mb	981
Atmospheric Temperature °C	10.0
Relative Humidity %	96
Wind Speed kmph	7.4
Wind Direction	WSW
Weather Conditions	Scattered Clouds

Falling ☐ Steady ☐ Rising ☒

Landfill Gas Monitoring Site Sheet



Lab Reference	16-70169
Site Name	Wren School
Date	29/01/2016
Monitoring Conducted by	MS
Instrument	GA5000

BH No.	PEP WS1	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		2.9	3.0	3.0	3.0	3.0	3.0
Oxygen %		19.6	19.4	19.4	19.4	19.4	19.4
Balance Gases %		77.4	77.5	77.5	77.5	77.5	77.5
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1012
Depth to groundwater (m)	5.01
Base (m)	5.05
VOC (ppm)	0.0

Time:	09.18
Remarks:	

BH No.	PEP WS3	30	60	90	120	180	Max
Methane %		0.2	0.2	0.2	0.2	0.2	0.2
Carbon Dioxide %		3.5	3.5	3.5	3.5	3.5	3.5
Oxygen %		19.2	19.0	19.0	19.0	19.0	19.2
Balance Gases %		77.1	77.3	77.3	77.3	77.3	77.3
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	-0.1	0.0

Barometric Pressure (mb)	1012
Depth to groundwater (m)	4.13
Base (m)	5.01
VOC (ppm)	0.0

Time:	09.09
Remarks:	

Atmospheric Pressure mb	1019
Atmospheric Temperature °C	10.0
Relative Humidity %	77
Wind Speed kmph	40.7
Wind Direction	WSW
Weather Conditions	Scattered Clouds

Falling ☒ Steady ☐ Rising ☐

Landfill Gas Monitoring Site Sheet



Lab Reference	16-70169
Site Name	Wren School
Date	29/01/2016
Monitoring Conducted by	MS
Instrument	GA5000

BH No.	APG BH1	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		0.5	0.4	0.7	1.0	1.1	1.1
Oxygen %		21.0	21.0	20.8	20.5	20.3	21.0
Balance Gases %		78.4	78.5	78.4	78.4	78.5	78.5
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1013
Depth to groundwater (m)	3.82
Base (m)	4.05
VOC (ppm)	0.0

Time:	9.29
Remarks:	

BH No.	APG BH3	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		3.3	3.3	3.3	3.3	3.3	3.3
Oxygen %		18.7	18.6	18.6	18.6	18.6	18.6
Balance Gases %		77.9	78.0	78.0	78.0	78.0	78.0
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0	0.1	0.1

Barometric Pressure (mb)	1013
Depth to groundwater (m)	Dry
Base (m)	3.99
VOC (ppm)	0.0

Time:	9.44
Remarks:	

Atmospheric Pressure mb	1019
Atmospheric Temperature °C	10.0
Relative Humidity %	77
Wind Speed kmph	40.7
Wind Direction	WSW
Weather Conditions	Scattered Clouds

Falling ☒ Steady ☐ Rising ☐

Landfill Gas Monitoring Site Sheet



Lab Reference	16-70169
Site Name	Wren School
Date	29/01/2016
Monitoring Conducted by	MS
Instrument	GA5000

BH No.	ACS BH4	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		2.9	3.7	3.8	3.8	3.9	3.9
Oxygen %		18.9	17.9	17.9	17.8	17.8	18.9
Balance Gases %		78.1	78.3	78.2	78.3	78.2	78.3
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0	0	-0.1

Barometric Pressure (mb)	1012
Depth to groundwater (m)	Dry
Base (m)	3.99
VOC (ppm)	0.0

Time:	09.52
Remarks:	

BH No.	ACS BH5	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		3.6	3.7	3.7	3.7	3.7	3.7
Oxygen %		18.1	17.7	17.6	17.6	17.6	18.1
Balance Gases %		78.2	78.5	78.6	78.6	78.6	78.6
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1012
Depth to groundwater (m)	Dry
Base (m)	1.77
VOC (ppm)	0.0

Time:	09.37
Remarks:	

Atmospheric Pressure mb	1019
Atmospheric Temperature °C	10.0
Relative Humidity %	77
Wind Speed kmph	40
Wind Direction	WSW
Weather Conditions	Scattered Clouds

Falling ☒ Steady ☐ Rising ☐

Landfill Gas Monitoring Site Sheet



Lab Reference	16-70769
Site Name	Wren School
Date	22/02/2016
Monitoring Conducted by	MS
Instrument	GA5000

BH No.	PEP WS1	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		2.9	2.9	2.9	2.9	2.9	2.9
Oxygen %		19.3	19.2	19.2	19.2	19.2	19.2
Balance Gases %		77.7	77.8	77.8	77.8	77.8	77.8
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1004
Depth to groundwater (m)	4.95
Base (m)	5.07
VOC (ppm)	0.0

Time:	11.49
Remarks:	

BH No.	PEP WS3	30	60	90	120	180	Max
Methane %		0.2	0.2	0.2	0.2	0.2	0.2
Carbon Dioxide %		3.2	3.2	3.2	3.2	3.2	3.2
Oxygen %		19.2	19.0	19.0	19.0	18.9	19.2
Balance Gases %		77.4	77.6	77.6	77.6	77.7	77.7
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1004
Depth to groundwater (m)	4.29
Base (m)	5
VOC (ppm)	0.0

Time:	11.40
Remarks:	

Atmospheric Pressure mb	1010
Atmospheric Temperature °C	6.0
Relative Humidity %	93
Wind Speed kmph	9.3
Wind Direction	WNW
Weather Conditions	Light Cloud

Falling ☐ Steady ☐ Rising ☒

Landfill Gas Monitoring Site Sheet



Lab Reference	16-70769
Site Name	Wren School
Date	22/02/2016
Monitoring Conducted by	MS
Instrument	GA5000

BH No.	APG BH1	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		0.2	0.2	0.4	0.6	1.2	1.2
Oxygen %		21.2	21.2	21.1	20.9	20.6	21.2
Balance Gases %		78.5	78.5	78.4	78.4	78.1	78.5
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1004
Depth to groundwater (m)	3.82
Base (m)	4.07
VOC (ppm)	0.0

Time:	12.00
Remarks:	

BH No.	APG BH3	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		3.1	3.1	3.0	3.0	3.1	3.1
Oxygen %		18.6	18.2	18.2	18.2	18.2	18.6
Balance Gases %		78.2	78.6	78.7	78.7	78.6	78.7
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.1	0.1	0.2

Barometric Pressure (mb)	1004
Depth to groundwater (m)	Dry
Base (m)	3.99
VOC (ppm)	0.0

Time:	12.14
Remarks:	

Atmospheric Pressure mb	1019
Atmospheric Temperature °C	10.0
Relative Humidity %	77
Wind Speed kmph	40.7
Wind Direction	WSW
Weather Conditions	Scattered Clouds

Falling ☐ Steady ☐ Rising ☒

Landfill Gas Monitoring Site Sheet



Lab Reference	16-70769
Site Name	Wren School
Date	22/02/2016
Monitoring Conducted by	MS
Instrument	GA5000

BH No.	ACS BH4	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		3.1	3.1	3.0	3.0	3.1	3.1
Oxygen %		19.0	19.0	19.0	19.0	18.9	19.0
Balance Gases %		77.8	77.8	77.9	77.9	77.9	77.9
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.1	0.1	0.2

Barometric Pressure (mb)	1004
Depth to groundwater (m)	Dry
Base (m)	4.1
VOC (ppm)	0.0

Time:	12.22
Remarks:	

BH No.	ACS BH5	30	60	90	120	180	Max
Methane %		0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide %		3.8	3.8	3.9	3.9	3.9	3.9
Oxygen %		18.0	17.7	17.6	17.6	17.6	18.0
Balance Gases %		78.1	78.4	78.4	78.4	78.4	78.4
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	-0.1

Barometric Pressure (mb)	1004
Depth to groundwater (m)	Dry
Base (m)	1.76
VOC (ppm)	0.0

Time:	12.07
Remarks:	

Atmospheric Pressure mb	1010
Atmospheric Temperature °C	6.0
Relative Humidity %	93
Wind Speed kmph	9.3
Wind Direction	WNW
Weather Conditions	Light Cloud

Falling ☐ Steady ☐ Rising ☒

Landfill Gas Monitoring Site Sheet



Lab Reference	16-72375
Site Name	Wren School
Date	21/04/2016
Monitoring Conducted by	MS
Instrument	GA5000

BH No.	PEP WS1	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		3.2	3.2	3.2	3.2	3.3	3.3
Oxygen %		18.8	18.6	18.6	18.6	18.6	18.8
Balance Gases %		78.0	78.2	78.2	78.2	78.1	78.2
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1019
Depth to groundwater (m)	Silted
Base (m)	5.05
VOC (ppm)	n/a

Time:	09:23
Remarks:	

BH No.	PEP WS3	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		3.2	3.2	3.2	3.2	3.2	3.2
Oxygen %		18.7	18.6	18.5	18.5	18.5	18.7
Balance Gases %		78.1	78.2	78.3	78.3	78.3	78.3
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1019
Depth to groundwater (m)	4.20
Base (m)	5.01
VOC (ppm)	n/a

Time:	09:11
Remarks:	

Atmospheric Pressure mb	
Atmospheric Temperature °C	
Relative Humidity %	
Wind Speed kmph	
Wind Direction	
Weather Conditions	

Falling ☒ Steady ☐ Rising ☐

Landfill Gas Monitoring Site Sheet



Lab Reference	16-72375
Site Name	Wren School
Date	21/04/2016
Monitoring Conducted by	MS
Instrument	GA5000

BH No.	APG BH1	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		0.1	0.1	0.2	0.2	0.3	0.3
Oxygen %		21.3	21.3	21.3	21.4	21.2	21.2
Balance Gases %		78.6	78.6	78.5	78.4	78.5	78.6
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1004
Depth to groundwater (m)	3.87
Base (m)	4.09
VOC (ppm)	

Time:	09:30
Remarks:	

BH No.	APG BH3	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		3.5	3.8	3.8	3.8	3.8	3.8
Oxygen %		17.7	17.4	17.4	17.4	17.3	18.6
Balance Gases %		78.8	78.8	78.8	78.8	78.9	78.9
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0	0	0

Barometric Pressure (mb)	1019
Depth to groundwater (m)	Dry
Base (m)	3.9
VOC (ppm)	

Time:	09:54
Remarks:	

Atmospheric Pressure mb	
Atmospheric Temperature °C	
Relative Humidity %	
Wind Speed kmph	
Wind Direction	
Weather Conditions	

Falling ☒ Steady ☐ Rising ☐

Landfill Gas Monitoring Site Sheet



Lab Reference	16-72375
Site Name	Wren School
Date	21/04/2016
Monitoring Conducted by	MS
Instrument	GA5000

BH No.	ACS BH4	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		4.2	4.2	4.2	4.2	4.1	4.2
Oxygen %		17.6	17.5	17.5	17.5	17.6	19.0
Balance Gases %		78.2	78.3	78.3	78.3	78.3	78.3
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0	0	0

Barometric Pressure (mb)	1019
Depth to groundwater (m)	Dry
Base (m)	4.09
VOC (ppm)	n/a

Time:	10:03
Remarks:	

BH No.	ACS BH5	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		4.1	4.1	4.2	4.2	4.4	4.4
Oxygen %		17.5	17.2	17.2	17.1	17.0	17.5
Balance Gases %		78.4	78.7	78.6	78.7	78.6	78.7
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1019
Depth to groundwater (m)	Dry
Base (m)	1.76
VOC (ppm)	n/a

Time:	09:46
Remarks:	

Atmospheric Pressure mb	
Atmospheric Temperature °C	
Relative Humidity %	
Wind Speed kmph	
Wind Direction	
Weather Conditions	

Falling ☒ Steady ☐ Rising ☐

Landfill Gas Monitoring Site Sheet



Lab Reference	16-72981
Site Name	Wren School
Date	13/05/2016
Monitoring Conducted by	MS
Instrument	GA5000

BH No.	PEP WS1	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		3.5	3.6	3.5	3.5	3.5	3.6
Oxygen %		17.1	17.0	16.9	16.9	16.9	17.1
Balance Gases %		79.4	79.4	79.6	79.6	79.6	78.2
Hydrogen Sulphide ppm		0	0	0	0	1	1
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1005
Depth to groundwater (m)	Silted
Base (m)	5.07
VOC (ppm)	n/a

Time:	13:46
Remarks:	

BH No.	PEP WS3	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		3.7	3.7	3.7	3.7	3.7	3.7
Oxygen %		16.9	16.7	16.7	16.7	16.7	16.9
Balance Gases %		79.4	79.6	79.6	79.6	79.6	78.3
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1005
Depth to groundwater (m)	3.86
Base (m)	5.03
VOC (ppm)	n/a

Time:	13:33
Remarks:	

Atmospheric Pressure mb	1010
Atmospheric Temperature °C	18.0
Relative Humidity %	54
Wind Speed kmph	17
Wind Direction	NNE
Weather Conditions	Sunny / Clear

Falling ☐ Steady ☐ Rising ☒

Landfill Gas Monitoring Site Sheet



Lab Reference	16-72981
Site Name	Wren School
Date	13/05/2016
Monitoring Conducted by	MS
Instrument	GA5000

BH No.	APG BH1	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		0.1	0.1	0.1	0.1	0.1	0.1
Oxygen %		20.1	20.2	20.2	20.2	20.2	20.2
Balance Gases %		79.8	79.7	79.7	79.7	79.7	79.8
Hydrogen Sulphide ppm		1	1	1	1	1	1
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1006
Depth to groundwater (m)	3.90
Base (m)	4.06
VOC (ppm)	n/a

Time:	13:56
Remarks:	

BH No.	APG BH3	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		2.9	3.0	3.1	3.1	3.1	3.1
Oxygen %		17.8	17.7	17.6	17.6	17.6	17.8
Balance Gases %		79.3	79.3	79.3	79.3	79.3	79.3
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0	0.1	0.1

Barometric Pressure (mb)	1007
Depth to groundwater (m)	n/a
Base (m)	n/a
VOC (ppm)	n/a

Time:	14:12
Remarks:	Bung Stuck

Atmospheric Pressure mb	1010
Atmospheric Temperature °C	18.0
Relative Humidity %	54
Wind Speed kmph	17
Wind Direction	NNE
Weather Conditions	Sunny / Clear

Falling ☐ Steady ☐ Rising ☒

Landfill Gas Monitoring Site Sheet



Lab Reference	16-72981
Site Name	Wren School
Date	13/05/2016
Monitoring Conducted by	MS
Instrument	GA5000

BH No.	ACS BH4	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		3.1	3.1	3.1	3.0	3.0	3.1
Oxygen %		18.2	18.2	18.2	18.2	18.3	19.0
Balance Gases %		78.7	78.7	78.7	78.8	78.7	78.8
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0	0	0

Barometric Pressure (mb)	1007
Depth to groundwater (m)	Dry
Base (m)	4.09
VOC (ppm)	n/a

Time:	14:19
Remarks:	

BH No.	ACS BH5	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		3.2	3.2	3.2	3.2	3.3	3.3
Oxygen %		17.7	17.6	17.7	17.7	17.7	17.7
Balance Gases %		79.2	79.2	79.1	79.1	79.0	79.2
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1007
Depth to groundwater (m)	Dry
Base (m)	1.78
VOC (ppm)	n/a

Time:	14:06
Remarks:	

Atmospheric Pressure mb	1010
Atmospheric Temperature °C	18.0
Relative Humidity %	54
Wind Speed kmph	17
Wind Direction	NNE
Weather Conditions	Sunny / Clear

Falling ☐ Steady ☐ Rising ☒

Landfill Gas Monitoring Site Sheet



Lab Reference	16-73745
Site Name	Wren School
Date	09/06/2016
Monitoring Conducted by	MS
Instrument	GA5000

BH No.	PEP WS1	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		3.6	3.6	3.6	3.6	3.6	3.6
Oxygen %		16.4	16.3	16.3	16.3	16.3	16.3
Balance Gases %		80.0	80.1	80.1	80.1	80.1	78.2
Hydrogen Sulphide ppm		0	0	0	0	1	1
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1019
Depth to groundwater (m)	4.76
Base (m)	5.07
VOC (ppm)	0.0

Time:	09:27
Remarks:	

BH No.	PEP WS3	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		3.8	3.8	3.8	3.8	3.8	3.8
Oxygen %		16.3	16.2	16.1	16.1	16.1	16.3
Balance Gases %		79.9	80.0	80.1	80.1	80.1	78.3
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	-0.1	0.0	0.0

Barometric Pressure (mb)	1017
Depth to groundwater (m)	4.34
Base (m)	5.04
VOC (ppm)	0.0

Time:	09:17
Remarks:	

Atmospheric Pressure mb	1023
Atmospheric Temperature °C	15.0
Relative Humidity %	73
Wind Speed kmph	9
Wind Direction	ENE
Weather Conditions	Scattered Clouds

Falling ☒ Steady ☐ Rising ☐

Landfill Gas Monitoring Site Sheet



Lab Reference	16-73745
Site Name	Wren School
Date	09/06/2016
Monitoring Conducted by	MS
Instrument	GA5000

BH No.	APG BH1	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		0.5	0.6	0.7	0.8	1.2	1.2
Oxygen %		20.2	20.2	20.1	20.0	19.8	20.2
Balance Gases %		79.3	79.2	79.2	79.2	79.0	79.8
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1019
Depth to groundwater (m)	3.95
Base (m)	4.09
VOC (ppm)	0.0

Time:	09:40
Remarks:	

BH No.	APG BH3	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		2.4	2.4	2.4	2.5	2.5	2.5
Oxygen %		19.2	19.2	19.2	19.2	19.2	19.2
Balance Gases %		78.4	78.4	78.4	78.3	78.3	79.3
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0	0	0

Barometric Pressure (mb)	1019
Depth to groundwater (m)	n/a
Base (m)	n/a
VOC (ppm)	0.0

Time:	10:00
Remarks:	Bung Stuck

Atmospheric Pressure mb	1023
Atmospheric Temperature °C	15.0
Relative Humidity %	73
Wind Speed kmph	9
Wind Direction	ENE
Weather Conditions	Scattered Clouds

Falling ☒ Steady ☐ Rising ☐

Landfill Gas Monitoring Site Sheet



Lab Reference	16-73745
Site Name	Wren School
Date	09/06/2016
Monitoring Conducted by	MS
Instrument	GA5000

BH No.	ACS BH4	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		3.2	3.3	3.3	3.4	3.6	3.6
Oxygen %		18.2	18.2	18.1	18.0	17.8	18.2
Balance Gases %		78.6	78.5	78.6	78.6	78.6	78.8
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0	0	0

Barometric Pressure (mb)	1018
Depth to groundwater (m)	Dry
Base (m)	4.09
VOC (ppm)	0.0

Time:	10:10
Remarks:	

BH No.	ACS BH5	30	60	90	120	180	Max
Methane %		0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide %		1.9	2.0	2.1	2.1	2.2	2.2
Oxygen %		19.3	19.2	19.2	19.2	19.1	19.3
Balance Gases %		79.2	79.2	79.1	79.1	79.0	79.2
Hydrogen Sulphide ppm		0	0	0	0	0	0
Carbon Monoxide ppm		0	0	0	0	0	0

	0	30	60
Gas Flow (l/hr)	0.0	0.0	0.0

Barometric Pressure (mb)	1019
Depth to groundwater (m)	Dry
Base (m)	1.75
VOC (ppm)	0.3

Time:	09:50
Remarks:	

Atmospheric Pressure mb	1023
Atmospheric Temperature °C	15.0
Relative Humidity %	73
Wind Speed kmph	9
Wind Direction	ENE
Weather Conditions	Scattered Clouds

Falling ☒ Steady ☐ Rising ☐