The Potteries
Pottery Street
Cas leford
West Yorkshire

[redacted]

26th April 2021

Our reference: 350283/L03/jh

Harworth Group
Advantage House
Poplar Way
Rotherham
South Yorkshire
S60 5TR

[redacted]

[redacted]

HAY GREEN LANE, BIRDWELL – GROUND GAS RISK ASSESSMENT

This letter is to provide information and interpretation pertaining to the risk posed by ground gases to the proposed development.

PROJECT BACKGROUND

RSK Environment Limited (RSK) was commissioned by Harworth Group to carry out a Geoenvironmental Site Investigation of land off Hay Green Lane, Birdwell. The project was carried out to an agreed brief as set out in RSK's proposal (Ref. 350282/TL02/la, dated 29th November 2019). This letter report is an addendum to the Geoevironmental Site Investigation Report, Ref 350283 R2 (00) dated September 2020, presenting the findings of the completed programme of ground gas monitoring at the site (a total of 12 rounds of gas monitoring). The site in question is being considered for development for residential use.

GROUND GAS CONCEPTUAL SITE MODEL

In accordance with the guidance provided in BS8576, NHBC guidance and CIRIA report C665, RSK have developed a Conceptual Site Model (CSM) for ground gas at the site. The CSM has been informed by the PRA and intrusive works. Where pertinent, information from these assessments is summarised in the following sections. However, for detailed information the original documents should be referenced.

Sources of Ground Gas

Given the presence of Coal Measures strata including shallow coal seams beneath site and adjacent opencast coal workings, the risk associated with ground gas is considered moderate to very high in accordance with BS8576.

Pathways for Ground Gas Migration

Credible preferential pathways potentially connecting the source and receptor are:

- migration of soil gas via permeable shallow geology
- migration of soil gas through construction joints and cracks within building structure
- migration of soil gas via utility routes and service penetrations into buildings

Sensitive receptors and linking pathways

Sensitive receptors identified at or in the vicinity of the site that could be affected by the potential ground gas sources identified above comprise:

- future/adjacent site users – residential users [migration and ingress of ground gases into buildings, build-up in confined spaces and explosion/ asphyxiation]
- future buildings and services [migration and ingress of ground gases into buildings, build-up in confined spaces and explosion].

The assessment has identified receptors to include building structures and proposed end-users.

GROUND GAS MONITORING

Gas Monitoring Installations

RSK installed ground gas monitoring standpipes during intrusive works; an exploratory hole location plan is appended as Figure 1. Details of the response zones are provided in Table 1 below.

Table 1. Monitoring Well Construction

Exploratory hole location	Response zones (m)	Response zone strata/ Probable source(s) of ground gas
WS101 and WS107	0.5m to 1.5m	Installed in shallow weathered coal measure and shallow coal seam.
WS102, WS110 and WS11	0.5m to 1.5m	Installed in shallow weathered coal measures
WS105, BH102, BH105, BH106, BH107 AND BH110	Vary between 1.0m to 9.0m	Installed in deeper weathered coal measures and sandstone/mudstone bedrock

Ground Gas Monitoring Events

12 rounds of gas monitoring across all borehole locations have undertaken by RSK to provide data to support refining of the CSM. The number of monitoring rounds undertaken is in general accordance with the decision matrix presented as Figure 6 of BS8576. An infrared gas meter was used to measure gas flow, concentrations of carbon dioxide (CO_2), methane (CH_4) and oxygen (O_2) in percentage by volume, while hydrogen sulphide (H_2S) and carbon monoxide (CO) were recorded in parts per million. Initial and

steady state concentrations were recorded. The atmospheric pressure before and during monitoring, together with the weather conditions, were recorded. The monitoring included periods of falling atmospheric pressures and after/during rainfall. Atmospheric pressures recorded during the monitoring events ranged between 960mb and 1028mb, spanning both rising and falling pressure events.

Ground Gas Concentrations

Consistently negligible concentrations of methane (all <0.1%v/v) have been recorded across the site during the ground gas monitoring events.

Some minor concentrations of carbon dioxide have been recorded, typically between 2% and 4%, though a maximum 6% was recorded on one occasion. The one time maximum of 6% was recorded in BH107 which has the deepest installation between 1m and 9m, it is considered that this single elevated carbon dioxide reading is not representative of the gas regime at the site, which is typically between 2% and 4%.

No gas flow rates have been recorded within any of the boreholes.

GENERIC QUANTITATIVE RISK ASSESSMENT FOR GROUND GAS

Appropriate guidance

The risks to development from ground gases have been assessed in accordance with BS8485:2015, which provides guidance on ground gas (methane and carbon dioxide) characterisation and hazard assessment, as well as a framework for the prescription of protection measures within new buildings.

The process involves characterising the gas hazard from combining the qualitative assessment of risk (using the conceptual site model) with ground investigation data so that a 'characteristic situation' (CS) can be derived for the site. Characteristic situations range from CS1 to CS6, the higher the CS the higher the hazard potential. Protection measures within new buildings can be prescribed using a point scoring system, taking into consideration the CS and the proposed building type.

BS8485 indicates that the gas hazard can be characterised using the following methods:

- an empirical semi-quantitative approach using gas monitoring data to determine the 'characteristic situation' of the site (or zones of the site) and subsequent protective measures (Wilson and Card approach)
- an empirical semi-quantitative approach using TOC data to determine the 'characteristic situation' of the site (or zones of the site) and subsequent protective measures (CL:AIRE RB17 approach)
- detailed quantitative assessment methodologies

For the purpose of this assessment, the first approach listed above has been used to characterise the gas hazard and provide advice on the protective measures likely to be required within new buildings at the site.

Empirical semi-quantitative approach using borehole monitoring data (Wilson and Card approach)

The empirical semi quantitative approach using gas monitoring data is based on calculations of the gas screening value (GSV). BS8485 defines the GSV as the *'flow rate (l/hr) of a specific hazardous gas*

representative of a site or zone, derived from assessment of borehole concentration and flow rate measurements and taking account of all other influencing factors, in accordance with a conceptual site model'.

Once derived for both methane and carbon dioxide the GSVs are compared to the thresholds presented in Table 2 of BS8485, so that a CS can be determined for the site, or a zone. It is important to note that the GSV thresholds are guideline values and not absolute. The GSV thresholds may be exceeded in certain circumstances, if the site conceptual model indicates it is safe to do so. Similarly, consideration of additional factors such as very high concentrations of methane, should lead to consideration of the need to adopt a higher risk classification than the GSV threshold indicates.

BS8485 suggests that the GSV should be derived by multiplying the worse credible (worst case) recorded flow value in any standpipe in that strata or zone with the maximum gas concentration in any other standpipe in that strata or zone. Further guidance is given in BS8485 section 6.3.

A spreadsheet showing the calculated hazardous gas flow rates per borehole is provided in Appendix B. Considering the assessment of the gas monitoring results the following maximum GSVs have been derived for the site.

- Methane GSV = no methane recorded therefore GSV equal 0l/hr
- Carbon Dioxide GSV (0.06 l/hr) = carbon dioxide concentration (6% v/v)/100 x flow rate (<0.1 l/hr).

Based on the GSVs derived and the method for determining the CS presented within Table 2 of BS8485, the site has been characterised as CS1 (Very low risk – GSV <0.07).

CONCLUSIONS AND RECOMMENDATIONS

Based on the current understanding of the conceptual site model and the assessment undertaken, the site has been classified as CS1. This means that no gas protection measures are required on site.

Under NHBC traffic light system the site would be classed as green, with no methane and the typical carbon dioxide below 5%.

We trust that this is adequate information for your needs at the present time. However, if you require any further information please do not hesitate to contact the undersigned.

Yours sincerely

For RSK Environment Limited

[redacted]

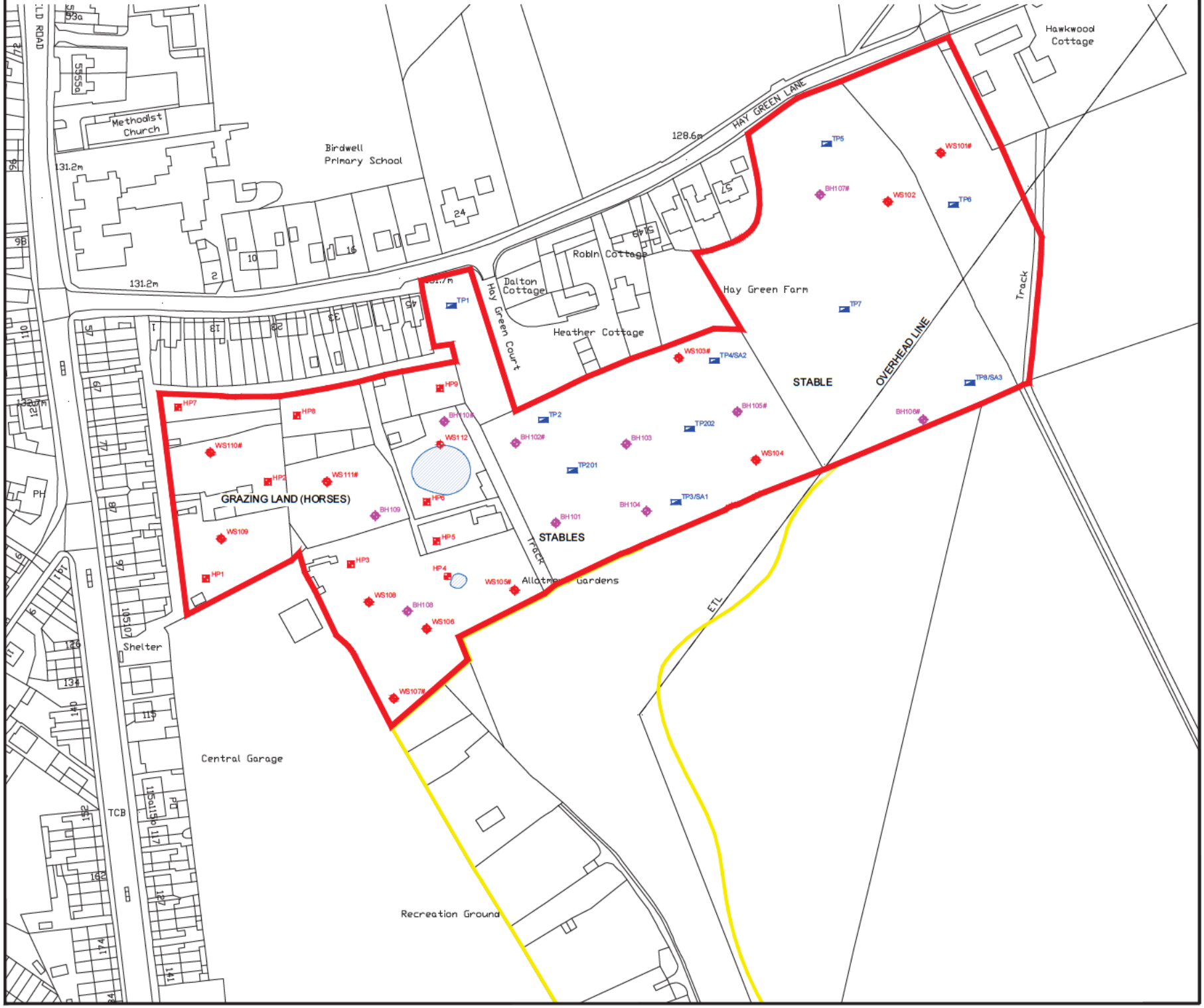
John Harrison

Principal Geo-Environmental Engineer

Enc. Figure 1 – Exploratory Hole Location Plan

Appendix A – Gas Monitoring Data and Wilson and Card Classification Calculation Sheet

FIGURES



LEGEND:

- Site boundary
- Asbestos fragments
- Trial pit (SA - Soakaway test)
- Window sample borehole
- Rotary open hole
- Hand dug trial pit
- # Gas well installed

Notes

Base plan from Gladman Development, Drawing No. 001, Dated 17.10.17

REV.	DATE	DESCRIPTION	BY	CHD.	APR.
A	21.08.20	FIRST ISSUE	NP	LA	LA

Dimensions	Projection	Scale	Orig Size
m		1:1500	A3

RSK
The Potteries
Pottery Street
Castleford
West Yorkshire
WF10 1NJ
Tel: 44 (0)1977 552255
Web: www.rsk.co.uk

CLIENT: HARWORTH GROUP

PROJECT: BIRDWELL

TITLE: EXPLORATORY HOLE PLAN

JOB No.:	DRAWING FILE:
350283	350283-R01(00)-FIG 4

BY:	DATE:	CONTRACT NO.		REV:
HD	21.08.20		FIGURE 4	A

Scale 1 : 1500

0 15 30 45 60 75m

APPENDIX A
GAS MONITORING DATA SHEETS AND WILSON AND CARD CLASSIFICATION CALCULATION SPREADSHEET

Job Number:
Client:
Site:

Revised Wilson and Card Classification Ground Gas Risk Assessment

Job No.:	350283
Client:	Harworth Group
Site:	Birdwell

For low-rise residential developments without a clear ventilated sub-floor void, flats and commercial / industrial site

Characteristic Situation	Risk	GSV
1	Very Low	0.07
2	Low	0.7
3	Moderate	3.5
4	Moderate to High	15
5	High	70
6	Very High	>70

From CIRIA Report 659 (2006) Assessing Risks Posed By Hazardous Ground Gases To Buildings , Wilson et al.

KEY:
GSV Gas Screening Value

- GSV cannot be calculated on a site-specific basis
- GSV indicates very low risk
- GSV indicates low to moderate risk
- GSV indicates moderate or greater risk; Concentrations of CH4 ≥20%V/V; CO2 ≥30%V/V
- Oxygen concentration≤10%v/v
- Total ground gas concentrations >100%v/v

BH NO.	DATE	CH4 I %v/v	CH4 SS %v/v	CO2 I %v/v	CO2 SS %v/v	O2 I %v/v	O2 SS %v/v	Flow l/hr	Baro mbar	BH Press mbar	I SUM %v/v	SS SUM %v/v	GSV CH4	GSV CO2	CS No.
WS101	22.7.20	<0.1	<0.1	<0.1	3.3	21.2	14.8	0	1007	0	21.2	18.1	0.00	0.00	CS1
	05.8.20	<0.1	<0.1	0.1	3.7	20.7	16.4	0	994	0	20.8	20.1	0.00	0.00	CS1
	17.8.20	<0.1	<0.1	<0.1	<0.1	21.3	20.7	0	994	0	21.3	20.7	0.00	0.00	CS1
	24.9.20	<0.1	<0.1	0.1	1.5	20.1	18.9	0	1001	0	20.2	20.4	0.00	0.00	CS1
	12.11.20	<0.1	<0.1	<0.1	3.9	20.0	11.2	0	997	0	20.0	15.1	0.00	0.00	CS1
	03.12.20	<0.1	<0.1	0.9	3.9	17.7	2.7	0	971	0	18.6	6.6	0.00	0.00	CS1
BH102	22.7.20	<0.1	<0.1	0.1	2.0	20.7	18.6	0	1007	0	20.8	20.6	0.00	0.00	CS1
	05.8.20	<0.1	<0.1	<0.1	2.0	21.4	19.8	0	992	0	21.4	21.8	0.00	0.00	CS1
	17.8.20	<0.1	<0.1	<0.1	<0.1	21.4	20.7	0	992	0	21.4	20.7	0.00	0.00	CS1
	24.9.20	<0.1	<0.1	<0.1	0.8	20.6	19.0	0	1000	0	20.6	19.8	0.00	0.00	CS1
	12.11.20	<0.1	<0.1	0.3	2.1	20.3	17.8	0	992	0	20.6	19.9	0.00	0.00	CS1
	03.12.20	<0.1	<0.1	0.8	2.5	19.6	16.8	0	970	0	20.4	19.3	0.00	0.00	CS1
BH107	22.7.20	<0.1	<0.1	0.1	1.1	21.1	19.5	0	1007	0	21.2	20.6	0.00	0.00	CS1
	05.8.20	<0.1	<0.1	<0.1	3.3	21.2	18.7	0	993	0	21.2	22.0	0.00	0.00	CS1
	17.8.20	<0.1	<0.1	<0.1	<0.1	21.1	20.6	0	993	0	21.1	20.6	0.00	0.00	CS1
	24.9.20	<0.1	<0.1	0.1	0.8	20.8	18.9	0	1001	0	20.9	19.7	0.00	0.00	CS1
	12.11.20	<0.1	<0.1	0.1	5.4	19.8	12.3	0	994	0	19.9	17.7	0.00	0.00	CS1
	03.12.20	<0.1	<0.1	0.1	4.8	18.5	15.5	0	971	0	18.6	20.3	0.00	0.00	CS1
BH105	22.7.20	<0.1	<0.1	<0.1	3.5	21.2	17.6	0	1007	0	21.2	21.1	0.00	0.00	CS1
	05.8.20	<0.1	<0.1	0.1	3.0	21.1	19.0	0	993	0	21.2	22.0	0.00	0.00	CS1
	17.8.20	<0.1	<0.1	<0.1	<0.1	21.0	20.6	0	992	0	21.0	20.6	0.00	0.00	CS1
	24.9.20	<0.1	<0.1	0.1	0.3	20.9	19.3	0	1000	0	21.0	19.6	0.00	0.00	CS1
	12.11.20	<0.1	<0.1	0.1	2.5	20.2	17.1	0	993	0	20.3	19.6	0.00	0.00	CS1
	03.12.20	<0.1	<0.1	0.2	2.5	19.3	17.3	0	970	0	19.5	19.8	0.00	0.00	CS1
WS110	22.7.20	<0.1	<0.1	0.1	1.8	20.9	19.0	0	1007	0	21.0	20.8	0.00	0.00	CS1
	05.8.20	<0.1	<0.1	0.1	0.5	20.8	19.2	0	991	0	20.9	19.7	0.00	0.00	CS1
	17.8.20	<0.1	<0.1	<0.1	<0.1	21.2	20.9	0	994	0	21.2	20.9	0.00	0.00	CS1
	24.9.20	FLOODED													
	12.11.20	<0.1	<0.1	0.6	0.7	20.0	19.0	0	993	0	20.6	19.7	0.00	0.00	CS1
	03.12.20	<0.1	<0.1	0.2	1.8	19.6	17.4	0	969	0	19.8	19.2	0.00	0.00	CS1
BH106	22.7.20	<0.1	<0.1	0.1	2.6	21.2	18.6	0	1007	0	21.3	21.2	0.00	0.00	CS1
	05.8.20	<0.1	<0.1	0.1	2.7	21.0	18.6	0	993	0	21.1	21.3	0.00	0.00	CS1
	17.8.20	<0.1	<0.1	<0.1	<0.1	21.3	20.7	0	992	0	21.3	20.7	0.00	0.00	CS1
	24.9.20	<0.1	<0.1	<0.1	0.3	20.9	19.6	0	1001	0	20.9	19.9	0.00	0.00	CS1
	12.11.20	<0.1	<0.1	0.1	1.5	19.9	19.5	0	993	0	20.0	21.0	0.00	0.00	CS1
	03.12.20	<0.1	<0.1	0.2	3.5	19.8	14.3	0	971	0	20.0	17.8	0.00	0.00	CS1
BH110	22.7.20	<0.1	<0.1	0.1	2.1	21.3	18.8	0	1007	0	21.4	20.9	0.00	0.00	CS1
	05.8.20	<0.1	<0.1	0.1	2.3	21.3	19.0	0	992	0	21.4	21.3	0.00	0.00	CS1
	17.8.20	<0.1	<0.1	<0.1	<0.1	21.1	20.7	0	993	0	21.1	20.7	0.00	0.00	CS1
	24.9.20	<0.1	<0.1	<0.1	1.8	21.0	18.6	0	1001	0	21.0	20.4	0.00	0.00	CS1
	12.11.20	<0.1	<0.1	0.5	3.2	19.8	14.7	0	992	0	20.3	17.9	0.00	0.00	CS1
	03.12.20	<0.1	<0.1	0.2	4.1	19.5	11.2	0	969	0	19.7	15.3	0.00	0.00	CS1
WS103	22.7.20	<0.1	<0.1	0.1	1.6	21.1	19.0	0	1007	0	21.2	20.6	0.00	0.00	CS1
	05.8.20	<0.1	<0.1	0.1	2.2	21.2	19.8	0	992	0	21.3	22.0	0.00	0.00	CS1
	17.8.20	<0.1	<0.1	<0.1	<0.1	21.4	20.7	0	992	0	21.4	20.7	0.00	0.00	CS1
	24.9.20	<0.1	<0.1	0.1	0.6	20.5	18.9	0	1000	0	20.6	19.5	0.00	0.00	CS1
	12.11.20	<0.1	<0.1	0.5	1.5	20.3	18.6	0	993	0	20.8	20.1	0.00	0.00	CS1
	03.12.20	<0.1	<0.1	0.2	1.4	19.7	18.3	0	970	0	19.9	19.7	0.00	0.00	CS1

WORST-CASE VALUES PER BOREHOLE

		Maximum CH4		Maximum CO2		Minimum O2		Max Flow	Not Applicable		Maximum Total		Maximum GSVs		CS No
WS101		<0.1	<0.1	0.9	3.9	17.7	2.7	<0.1			18.6	6.6	0.00	0.00	CS1
BH102		<0.1	<0.1	0.8	2.5	19.6	16.8	<0.1			20.4	19.3	0.00	0.00	CS1
BH107		<0.1	<0.1	0.1	5.4	18.5	12.3	<0.1			18.6	17.7	0.00	0.00	CS1
BH105		<0.1	<0.1	0.2	3.5	19.3	17.1	<0.1			19.5	20.6	0.00	0.00	CS1
WS110		<0.1	<0.1	0.6	1.8	19.6	17.4	<0.1			20.2	19.2	0.00	0.00	CS1
BH106		<0.1	<0.1	0.2	3.5	19.8	14.3	<0.1			20.0	17.8	0.00	0.00	CS1
BH110		<0.1	<0.1	0.5	4.1	19.5	11.2	<0.1			20.0	15.3	0.00	0.00	CS1
WS103		<0.1	<0.1	0.5	2.2	19.7	18.3	<0.1			20.2	20.5	0.00	0.00	CS1

Job Number:
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Site:

Revised Wilson and Card Classification Ground Gas Risk Assessment

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Client:	Harworth Group
Site:	Birdwell

For low-rise residential developments without a clear ventilated sub-floor void, flats and commercial / industrial site

Characteristic Situation	Risk	GSV
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- Oxygen concentration≤10%v/v
- Total ground gas concentrations >100%v/v

BH NO.	DATE	CH4 I %v/v	CH4 SS %v/v	CO2 I %v/v	CO2 SS %v/v	O2 I %v/v	O2 SS %v/v	Flow l/hr	Baro mbar	BH Press mbar	I SUM %v/v	SS SUM %v/v	GSV CH4	GSV CO2	CS No.
WS101	21.1.21	<0.1	<0.1	1.2	4.7	15.0	<0.1	0	962	0	16.2	4.7	0.00	0.00	CS1
	15.2.21	<0.1	<0.1	<0.1	1.7	21.0	16.0	0	1000	0	21.0	17.7	0.00	0.00	CS1
	05.3.21	<0.1	<0.1	<0.1	3.1	20.7	16.6	0	1011	0	20.7	19.7	0.00	0.00	CS1
	18.3.21	<0.1	<0.1	0.1	4.8	20.2	15.1	0	1028	0	20.3	19.9	0.00	0.00	CS1
	31.3.21	<0.1	<0.1	0.1	4.8	20.1	14.5	0	1015	0	20.2	19.3	0.00	0.00	CS1
	16.4.21	<0.1	<0.1	0.1	4.9	20.1	14.3	0	1021	0	20.2	19.2	0.00	0.00	CS1
BH102	21.1.21	<0.1	<0.1	0.4	2.2	20.2	16.9	0	960	0	20.6	19.1	0.00	0.00	CS1
	15.2.21	<0.1	<0.1	0.1	2.7	20.2	17.7	0	1000	0	20.3	20.4	0.00	0.00	CS1
	05.3.21	<0.1	<0.1	0.2	2.8	20.1	17.5	0	1011	0	20.3	20.3	0.00	0.00	CS1
	18.3.21	<0.1	<0.1	0.2	2.6	20.2	17.9	0	1028	0	20.4	20.5	0.00	0.00	CS1
	31.3.21	<0.1	<0.1	0.1	2.6	20.1	17.9	0	1015	0	20.2	20.5	0.00	0.00	CS1
	16.4.21	<0.1	<0.1	0.1	2.9	20.4	17.5	0	1021	0	20.5	20.4	0.00	0.00	CS1
BH107	21.1.21	<0.1	<0.1	<0.1	<0.1	21.9	21.9	0	960	0	21.9	21.9	0.00	0.00	CS1
	15.2.21	<0.1	<0.1	<0.1	0.2	20.9	20.5	0	1000	0	20.9	20.7	0.00	0.00	CS1
	05.3.21	<0.1	<0.1	0.1	3.0	19.2	17.0	0	1011	0	19.3	20.0	0.00	0.00	CS1
	18.3.21	<0.1	<0.1	0.1	4.2	20.1	12.4	0	1028	0	20.2	16.6	0.00	0.00	CS1
	31.3.21	<0.1	<0.1	0.2	4.7	20.2	13.9	0	1015	0	20.4	18.6	0.00	0.00	CS1
	16.4.21	<0.1	<0.1	0.1	6.0	19.1	7.1	0	1021	0	19.2	13.1	0.00	0.00	CS1
BH105	21.1.21	FLOODED													
	15.2.21	<0.1	<0.1	0.1	2.7	20.1	18.9	0	1000	0	20.2	21.6	0.00	0.00	CS1
	05.3.21	<0.1	<0.1	0.1	2.7	20.1	18.7	0	1011	0	20.2	21.4	0.00	0.00	CS1
	18.3.21	<0.1	<0.1	0.1	2.5	20.1	19.0	0	1028	0	20.2	21.5	0.00	0.00	CS1
	31.3.21	<0.1	<0.1	0.1	2.5	20.2	18.9	0	1015	0	20.3	21.4	0.00	0.00	CS1
	16.4.21	<0.1	<0.1	0.1	2.8	19.5	18.8	0	1021	0	19.6	21.6	0.00	0.00	CS1
WS110	21.1.21	FLOODED													
	15.2.21	FLOODED													
	05.3.21	<0.1	<0.1	0.1	0.3	20.2	20.1	0	1011	0	20.3	20.4	0.00	0.00	CS1
	18.3.21	<0.1	<0.1	0.1	0.2	20.2	20.2	0	1028	0	20.3	20.4	0.00	0.00	CS1
	31.3.21	<0.1	<0.1	0.1	0.2	20.1	20.3	0	1015	0	20.2	20.5	0.00	0.00	CS1
	16.4.21	<0.1	<0.1	0.1	0.3	20.8	20.6	0	1021	0	20.9	20.9	0.00	0.00	CS1
BH106	21.1.21	<0.1	<0.1	0.8	2.5	18.2	17.2	0	961	0	19.0	19.7	0.00	0.00	CS1
	15.2.21	<0.1	<0.1	<0.1	3.3	20.1	16.1	0	1000	0	20.1	19.4	0.00	0.00	CS1
	05.3.21	<0.1	<0.1	0.1	3.3	20.1	17.7	0	1011	0	20.2	21.0	0.00	0.00	CS1
	18.3.21	<0.1	<0.1	0.1	3.5	20.1	17.5	0	1028	0	20.2	21.0	0.00	0.00	CS1
	31.3.21	<0.1	<0.1	0.1	3.2	19.9	16.1	0	1015	0	20.0	19.3	0.00	0.00	CS1
	16.4.21	<0.1	<0.1	0.1	3.4	19.2	15.7	0	1021	0	19.3	19.1	0.00	0.00	CS1
BH110	21.1.21	<0.1	<0.1	<0.1	<0.1	22.0	22.0	0	960	0	22.0	22.0	0.00	0.00	CS1
	15.2.21	<0.1	<0.1	0.1	3.3	20.2	16.7	0	1000	0	20.3	20.0	0.00	0.00	CS1
	05.3.21	<0.1	<0.1	0.2	3.3	20.2	14.1	0	1011	0	20.4	17.4	0.00	0.00	CS1
	18.3.21	<0.1	<0.1	0.1	3.1	20.1	13.2	0	1028	0	20.2	16.3	0.00	0.00	CS1
	31.3.21	<0.1	<0.1	0.1	3.3	20.0	14.1	0	1015	0	20.1	17.4	0.00	0.00	CS1
	16.4.21	<0.1	<0.1	0.1	3.4	20.0	12.8	0	1021	0	20.1	16.2	0.00	0.00	CS1
WS103	21.1.21	<0.1	<0.1	<0.1	1.9	22.0	17.9	0	960	0	22.0	19.8	0.00	0.00	CS1
	15.2.21	<0.1	<0.1	0.1	1.4	20.2	18.8	0	1000	0	20.3	20.2	0.00	0.00	CS1
	05.3.21	<0.1	<0.1	0.1	1.4	20.4	18.8	0	1011	0	20.5	20.2	0.00	0.00	CS1
	18.3.21	<0.1	<0.1	0.2	1.5	20.2	18.9	0	1028	0	20.4	20.4	0.00	0.00	CS1
	31.3.21	<0.1	<0.1	0.1	1.4	20.2	18.5	0	1015	0	20.3	19.9	0.00	0.00	CS1
	16.4.21	<0.1	<0.1	0.1	1.4	20.4	18.7	0	1021		20.5	20.1	0.00	0.00	CS1

WORST-CASE VALUES PER BOREHOLE

		Maximum CH4		Maximum CO2		Minimum O2		Max Flow	Not Applicable		Maximum Total		Maximum GSVs		CS No
WS101		<0.1	<0.1	1.2	4.9	15.0	<0.1	<0.1			16.2	4.9	0.00	0.00	CS1
BH102		<0.1	<0.1	0.4	2.9	20.1	16.9	<0.1			20.5	19.8	0.00	0.00	CS1
BH107		<0.1	<0.1	0.2	6.0	19.1	7.1	<0.1			19.3	13.1	0.00	0.00	CS1
BH105		<0.1	<0.1	0.1	2.8	19.5	18.7	<0.1			19.6	21.5	0.00	0.00	CS1
WS110		<0.1	<0.1	0.1	0.3	20.1	<0.1	<0.1			20.2	0.3	0.00	0.00	CS1
BH106		<0.1	<0.1	0.8	3.5	18.2	15.7	<0.1			19.0	19.2	0.00	0.00	CS1
BH110		<0.1	<0.1	0.2	3.4	20.0	12.8	<0.1			20.2	16.2	0.00	0.00	CS1
WS103		<0.1	<0.1	0.2	1.9	20.2	17.9	<0.1			20.4	19.8	0.00	0.00	CS1

Job Number:
Client:
Site:

Revised Wilson and Card Classification Ground Gas Risk Assessment

Job No.:	350283
Client:	Harworth Group
Site:	Birdwell

For low-rise residential developments without a clear ventilated sub-floor void, flats and commercial / industrial site

Characteristic Situation	Risk	GSV
1	Very Low	0.07
2	Low	0.7
3	Moderate	3.5
4	Moderate to High	15
5	High	70
6	Very High	>70

From CIRIA Report 659 (2006) Assessing Risks Posed By Hazardous Ground Gases To Buildings , Wilson et al.

KEY:
GSV Gas Screening Value

- GSV cannot be calculated on a site-specific basis
- GSV indicates very low risk
- GSV indicates low to moderate risk
- GSV indicates moderate or greater risk; Concentrations of CH4 ≥20%V/V; CO2 ≥30%V/V
- Oxygen concentration≤10%v/v
- Total ground gas concentrations >100%v/v

BH NO.	DATE	CH4 I %v/v	CH4 SS %v/v	CO2 I %v/v	CO2 SS %v/v	O2 I %v/v	O2 SS %v/v	Flow l/hr	Baro mbar	BH Press mbar	I SUM %v/v	SS SUM %v/v	GSV CH4	GSV CO2	CS No.
WS107	22.7.20	<0.1	<0.1	<0.1	0.6	21.3	20.1	0	1007	0	21.3	20.7	0.00	0.00	CS1
	05.8.20	<0.1	<0.1	0.1	3.4	21.0	17.2	0	992	0	21.1	20.6	0.00	0.00	CS1
	17.8.20	<0.1	<0.1	<0.1	<0.1	21.3	20.9	0	993	0	21.3	20.9	0.00	0.00	CS1
	24.9.20	<0.1	<0.1	0.2	4.2	20.0	14.4	0	993	0	20.2	18.6	0.00	0.00	CS1
	12.11.20	<0.1	<0.1	0.4	4.2	20.0	14.4	0	993		20.4	18.6	0.00	0.00	CS1
	03.12.20	<0.1	<0.1	0.2	4.2	19.6	14.6	0	969	0	19.8	18.8	0.00	0.00	CS1
WS105	22.7.20	<0.1	<0.1	<0.1	1.7	21.4	18.7	0	1007	0	21.4	20.4	0.00	0.00	CS1
	05.8.20	<0.1	<0.1	<0.1	2.9	21.1	17.8	0	992	0	21.1	20.7	0.00	0.00	CS1
	17.8.20	<0.1	<0.1	<0.1	<0.1	20.3	20.8	0	992	0	20.3	20.8	0.00	0.00	CS1
	24.9.20	<0.1	<0.1	<0.1	0.5	21.0	19.6	0	1000	0	21.0	20.1	0.00	0.00	CS1
	12.11.20	<0.1	<0.1	0.2	3.3	19.9	13.4	0	993	0	20.1	16.7	0.00	0.00	CS1
	03.12.20	<0.1	<0.1	0.1	2.5	19.4	17.7	0	969	0	19.5	20.2	0.00	0.00	CS1
WS111	22.7.20	<0.1	<0.1	0.1	2.2	21.3	17.4	0	1007	0	21.4	19.6	0.00	0.00	CS1
	05.8.20	<0.1	<0.1	0.1	2.0	21.2	19.3	0	992	0	21.3	21.3	0.00	0.00	CS1
	17.8.20	<0.1	<0.1	<0.1	<0.1	21.4	20.8	0	994	0	21.4	20.8	0.00	0.00	CS1
	24.9.20	FLOODED													
	12.11.20	<0.1	<0.1	0.2	0.8	19.5	19.7	0	993	0	19.7	20.5	0.00	0.00	CS1
	03.12.20	<0.1	<0.1	0.1	0.8	19.6	19.4	0	969	0	19.7	20.2	0.00	0.00	CS1

WORST-CASE VALUES PER BOREHOLE

		Maximum CH4		Maximum CO2		Minimum O2		Max Flow	Not Applicable		Maximum Total		Maximum GSVs		CS No
WS107		<0.1	<0.1	0.4	4.2	19.6	14.4	<0.1			20.0	18.6	0.00	0.00	CS1
WS105		<0.1	<0.1	0.2	3.3	19.4	13.4	<0.1			19.6	16.7	0.00	0.00	CS1
WS111		<0.1	<0.1	0.2	2.2	19.5	17.4	<0.1			19.7	19.6	0.00	0.00	CS1

Job Number:
Client:
Site:

Revised Wilson and Card Classification Ground Gas Risk Assessment

Job No.:	350283
Client:	Harworth Group
Site:	Birdwell

For low-rise residential developments without a clear ventilated sub-floor void, flats and commercial / industrial site

Characteristic Situation	Risk	GSV
1	Very Low	0.07
2	Low	0.7
3	Moderate	3.5
4	Moderate to High	15
5	High	70
6	Very High	>70

From CIRIA Report 659 (2006) Assessing Risks Posed By Hazardous Ground Gases To Buildings , Wilson et al.

KEY:
GSV Gas Screening Value

- GSV cannot be calculated on a site-specific basis
- GSV indicates very low risk
- GSV indicates low to moderate risk
- GSV indicates moderate or greater risk; Concentrations of CH4 ≥20%V/V; CO2 ≥30%V/V
- Oxygen concentration≤10%v/v
- Total ground gas concentrations >100%v/v

BH NO.	DATE	CH4 I %v/v	CH4 SS %v/v	CO2 I %v/v	CO2 SS %v/v	O2 I %v/v	O2 SS %v/v	Flow l/hr	Baro mbar	BH Press mbar	I SUM %v/v	SS SUM %v/v	GSV CH4	GSV CO2	CS No.
WS107	21.1.21	FLOODED													
	15.2.21	FLOODED													
	05.3.21	<0.1	<0.1	0.1	2.7	20.2	18.6	0	1011	0	20.3	21.3	0.00	0.00	CS1
	18.3.21	<0.1	<0.1	0.1	2.8	20.1	18.3	0	1028	0	20.2	21.1	0.00	0.00	CS1
	31.3.21	<0.1	<0.1	0.2	2.4	20.1	18.6	0	1015	0	20.3	21.0	0.00	0.00	CS1
	16.4.21	<0.1	<0.1	0.3	2.8	19.9	18.4	0	1021	0	20.2	21.2	0.00	0.00	CS1
WS105	21.1.21	<0.1	<0.1	0.5	2.8	19.4	15.3	0	960	0	19.9	18.1	0.00	0.00	CS1
	15.2.21	<0.1	<0.1	0.1	0.4	20.2	19.6	0	1000	0	20.3	20.0	0.00	0.00	CS1
	05.3.21	<0.1	<0.1	0.2	2.4	20.1	15.5	0	1011	0	20.3	17.9	0.00	0.00	CS1
	18.3.21	<0.1	<0.1	0.1	2.3	20.1	15.9	0	1028	0	20.2	18.2	0.00	0.00	CS1
	31.3.21	<0.1	<0.1	<0.1	0.4	20.2	19.5	0	1015	0	20.2	19.9	0.00	0.00	CS1
	16.4.21	DAMAGED													
WS111	21.1.21	FLOODED													
	15.2.21	FLOODED													
	05.3.21	<0.1	<0.1	0.1	0.2	20.2	20.1	0	1011	0	20.3	20.3	0.00	0.00	CS1
	18.3.21	<0.1	<0.1	0.1	0.2	20.1	20.4	0	1028	0	20.2	20.6	0.00	0.00	CS1
	31.3.21	<0.1	<0.1	0.1	0.2	20.1	20.4	0	1015	0	20.2	20.6	0.00	0.00	CS1
	16.4.21	<0.1	<0.1	0.1	<0.1	20.2	20.8	0	1021	0	20.3	20.8	0.00	0.00	CS1

WORST-CASE VALUES PER BOREHOLE

		Maximum CH4		Maximum CO2		Minimum O2		Max Flow	Not Applicable		Maximum Total		Maximum GSVs		CS No
WS107		<0.1	<0.1	0.3	2.8	19.9	18.3	<0.1			20.2	21.1	0.00	0.00	CS1
WS105		<0.1	<0.1	0.5	2.8	19.4	15.3	<0.1			19.9	18.1	0.00	0.00	CS1
WS111		<0.1	<0.1	0.1	0.2	20.1	20.1	<0.1			20.2	20.3	0.00	0.00	CS1

BIRDWELL ROUND 1 (1)

GAS MONITORING FIELD SHEET

Monitoring Date: 22/07/20	Measurement datum: GL / Top of pipe / Other ____	Offset to GL (m)	Device	Serial Number	Daily Check
Pre-Testing Remarks:	Air Temperature: 16 °C Weather: RAIN Ground Conditions: DRY				
Exploratory Position ID: WS101	Wind: NONE / (LIGHT) / MEDIUM / STRONG		Tidal State: (if applicable) High / Low / Rising / Falling		
	Monitoring Round Number:		Test Number:		

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other ____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0.0	1007	0.0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: (SINGLE) DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.0	21.2	(0)	(0)		
:	15	0.0	3.2	16.0	2	19		
:	30	0.0	3.3	15.1	2	19		
:	60	0.0	3.3	14.8	2	19		
:	90	0.0	3.3	14.8	2	19		
:	120	0.0	3.3	14.8	2	19		
:	180	0.0	3.3	14.8	2	19		
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: DRY (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 2 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No 1.5	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No — Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

(2)

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other ____	Offset to GL (m)	Device	Serial Number	Daily Check
Pre-Testing Remarks:	Air Temperature: °C				
	Weather:				
	Ground Conditions:				
Exploratory Position ID: BH GW102	Wind: NONE / LIGHT / MEDIUM / STRONG		Tidal State: (if applicable)		
	Monitoring Round Number:		High / Low / Rising / Falling		
			Test Number:		

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other ____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE
STAGE 1 GAS FLOW Initial	:		0	1007	0	Observations:
STAGE 1 GAS FLOW Steady State	:					

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.1	20.7	0	0		
:	15	0.0	1.9	19.6	1	4		
:	30	0.0	1.9	18.8	0	3		
:	60	0.0	2.0	18.7	0	4		
:	90	0.0	2.0	18.6	0	1		
:	120	0.0	2.0	18.6	0	3		
:	180	0.0	2.0	18.6	0	3		
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 2.76 (m)	Time: :	LNAPL Top (from datum):	(m)
Depth (from datum) to well base: 4.5 (m)		DNAPL Top (from datum):	(m)
Hole Purged: Yes / No	Purge Start: :		
Purge Volume: (ltrs)	Purge End: :		

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

(3)

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: WSW BH107

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0.0	1007	0.0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: SINGLE / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	6.1	21.1	1	4		
:	15	0.0	0.4	20.8	0	3		
:	30	0.0	0.7	20.4	0	3		
:	60	0.0	0.9	20.0	0	3		
:	90	0.0	1.0	19.7	0	3		
:	120	0.0	1.1	19.5	0	3		
:	180	0.0	1.1	19.5	0	3		
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 3.18 (m)	Time: :	LNAPL Top (from datum):	(m)
Depth (from datum) to well base: 7.80 (m)		DNAPL Top (from datum):	(m)
Hole Purged: Yes / No	Purge Start: :		
Purge Volume: (ltrs)	Purge End: :		

Post Testing Remarks:

BUNG LEFT OFF

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:

Contract Ref:

Data Collected By:

Project Manager / Engineer:

Page: of

Checked:

(4)

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: BH105

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0.0	1007	0.0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: SINGLE / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.0	21.2	0	4		
:	15	0.0	3.4	18.5	0	9		
:	30	0.0	3.4	17.8	0	6		
:	60	0.0	3.5	17.7	0	8		
:	90	0.0	3.5	17.6	0	6		
:	120	0.0	3.5	17.6	0	6		
:	180	0.0	3.5	17.6	0	6		
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 2.70 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 4.90 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

(5)

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: WS110

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0	1007	0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: SINGLE / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.1	20.9	1	6		
:	15	0.0	1.5	19.8	0	4		
:	30	0.0	1.5	19.5	0	3		
:	60	0.0	1.6	19.4	0	4		
:	90	0.0	1.7	19.3	0	3		
:	120	0.0	1.8	19.0	0	3		
:	180	0.0	1.8	19.0	0	3		
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: DRY (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 1.4 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

OPEN TAP

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check
Pre-Testing Remarks:	Air Temperature: °C Weather: Ground Conditions:				
Exploratory Position ID: ~~AGS/BH~~ BH106	Wind: NONE / LIGHT / MEDIUM / STRONG		Tidal State: (if applicable)		
	Monitoring Round Number:		High / Low / Rising / Falling		
			Test Number:		

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE
STAGE 1 GAS FLOW Initial	:		0.0	1007	0.0	Observations:
STAGE 1 GAS FLOW Steady State	:					

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.1	21.2	0	1		
:	15	0.0	2.6	19.0	0	8		
:	30	0.0	2.6	18.6	0	3		
:	60	0.0	2.7	18.5	0	3		
:	90	0.0	2.7	18.6	0	3		
:	120	0.0	2.6	18.6	0	3		
:	180	0.0	2.6	18.6	0	3		
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 3.4 (m)	Time: :	LNAPL Top (from datum):	(m)
Depth (from datum) to well base: 4.8 (m)		DNAPL Top (from datum):	(m)
Hole Purged: Yes / No	Purge Start: :		
Purge Volume: (ltrs)	Purge End: :		

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: WSW BH110

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0	1007	0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: (SINGLE) / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.1	21.3	0	4		
:	15	0.0	2.1	19.0	0	4		
:	30	0.0	2.1	18.9	0	3		
:	60	0.0	2.1	18.8	0	4		
:	90	0.0	2.1	18.8	0	4		
:	120	0.0	2.1	18.8	0	4		
:	180	0.0	2.1	18.8	0	4		
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 3.7 (m)	Time: :	LNAPL Top (from datum):	(m)
Depth (from datum) to well base: 4.5 (m)		DNAPL Top (from datum):	(m)
Hole Purged: Yes / No	Purge Start: :		
Purge Volume: (ltrs)	Purge End: :		

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Exploratory Position ID: WS103

Tidal State: (if applicable) High / Low / Rising / Falling

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0.0	1007	0.0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: (SINGLE) / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.1	21.1	0	3		
:	15	0.0	1.5	19.7	0	3		
:	30	0.0	1.5	19.2	0	3		
:	60	0.0	1.5	19.1	0	4		
:	90	0.0	1.6	19.0	0	3		
:	120	0.0	1.6	19.0	0	4		
:	180	0.0	1.6	19.0	0	4		
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: WAB* (m)	Time: :	LNAPL Top (from datum):	(m)
Depth (from datum) to well base: 1.5 (m)		DNAPL Top (from datum):	(m)
Hole Purged: Yes / No	Purge Start: :		
Purge Volume: (ltrs)	Purge End: :		

Post Testing Remarks:

TAP OPEN

*WET AT BASE

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

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GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: WS107

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:				
STAGE 1 GAS FLOW Steady State	:				

Gas tap: (SINGLE) / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0·6	0·0	21·3	1	1		
:	15	0·0	0·2	21·1	0	3		
:	30	0·0	0·3	20·7	0	3		
:	60	0·0	0·5	20·1	0	1		
:	90	0·0	0·6	20·0	0	1		
:	120	0·0	0·6	20·1	0	1		
:	180	0·0	0·6	20·1	0	1		
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: DRY (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 1·4 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

TAP LEFT OPEN

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

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GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check
Pre-Testing Remarks:	Air Temperature: °C				
	Weather:				
	Ground Conditions:				
Exploratory Position ID: WS105 WS105	Wind: NONE / LIGHT / MEDIUM / STRONG		Tidal State: (if applicable)		
	Monitoring Round Number:		High / Low / Rising / Falling		
			Test Number:		

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE
STAGE 1 GAS FLOW Initial	:		0.0	1007	0.0	Observations:
STAGE 1 GAS FLOW Steady State	:					

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.0	21.4	1	1		
:	15	0.0	1.6	19.1	0	1		
:	30	0.0	1.7	18.9	0	1		
:	60	0.0	1.7	18.8	0	1		
:	90	0.0	1.8	18.7	1	3		
:	120	0.0	1.7	18.7	0	1		
:	180	0.0	1.7	18.7	0	1		
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: DRY (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 3.0 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

TAP OPEN

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type	Container
		EW / G	

RSK	Contract Name:	Contract Ref:	Data Collected By:
	Project Manager / Engineer:	Page: of	Checked:

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GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check
Pre-Testing Remarks:	Air Temperature: °C				
	Weather:				
	Ground Conditions:				
Exploratory Position ID: WS111	Wind: NONE / LIGHT / MEDIUM / STRONG		Tidal State: (if applicable)		
	Monitoring Round Number:		High / Low / Rising / Falling		
			Test Number:		

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE
STAGE 1 GAS FLOW Initial	:					Observations:
STAGE 1 GAS FLOW Steady State	:					

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.1	21.3	1	3		
:	15	0.0	2.3	17.8	0	3		
:	30	0.0	2.3	17.6	0	3		
:	60	0.0	2.3	17.5	0	3		
:	90	0.0	2.3	17.4	0	3		
:	120	0.0	2.2	17.4	0	3		
:	180	0.0	2.2	17.4	0	3		
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: DRY (m)	Time: :	LNAPL Top (from datum):	(m)
Depth (from datum) to well base: 1.50 (m)		DNAPL Top (from datum):	(m)
Hole Purged: Yes / No	Purge Start: :		
Purge Volume: (ltrs)	Purge End: :		

Post Testing Remarks:

TAP OPEN

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

BIRDWELL ROUND 2

BIRDWELL (1)

GAS MONITORING FIELD SHEET

Monitoring Date: 05/08/20	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check
Pre-Testing Remarks:	Air Temperature: 17 °C Weather: OVERCAST Ground Conditions: DRY				
Exploratory Position ID: WS101	Wind: NONE / (LIGHT) / MEDIUM / STRONG		Tidal State: (if applicable) High / Low / Rising / Falling		
	Monitoring Round Number:		Test Number:		

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE Observations:
STAGE 1 GAS FLOW Initial	:		0.0	994	0.0	
STAGE 1 GAS FLOW Steady State	:					

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.1	20.7				
:	15	0.0	3.6	16.9				
:	30	0.0	3.6	16.6				
:	60	0.0	3.6	16.4				
:	90	0.0	3.7	16.4				
:	120	0.0	3.7	16.4				
:	180	0.0	3.7	16.4				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION			
	Depth (from datum) to water: DRY (m)	Time: :	LNAPL Top (from datum): (m)
	Depth (from datum) to well base: 1.5 (m)		DNAPL Top (from datum): (m)
	Hole Purged: Yes / No	Purge Start: :	
	Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK	Contract Name:	Contract Ref:	Data Collected By:
	Project Manager / Engineer:	Page: of	Checked:

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GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:	Air Temperature: °C Weather: Ground Conditions:	Tidal State: (if applicable)
Exploratory Position ID: BH107	Wind: NONE / LIGHT / MEDIUM / STRONG	High / Low / Rising / Falling
	Monitoring Round Number:	Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE
STAGE 1 GAS FLOW Initial	:		0.0	993	0.0	Observations:
STAGE 1 GAS FLOW Steady State	:					

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.0	21.2				
:	15	0.0	3.2	18.8				
:	30	0.0	3.3	18.8				
:	60	0.0	3.3	18.7				
:	90	0.0	3.3	18.7				
:	120	0.0	3.3	18.7				
:	180	0.0	3.3	18.7				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 4 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 7.8 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No 7.7	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

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GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:	Air Temperature: °C Weather: Ground Conditions: Wind: NONE / LIGHT / MEDIUM / STRONG	Tidal State: (if applicable) High / Low / Rising / Falling
Exploratory Position ID: BH106	Monitoring Round Number:	Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE Observations:
STAGE 1 GAS FLOW Initial	:		0.0	993	0.0	
STAGE 1 GAS FLOW Steady State	:					

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.1	21.0				
:	15	0.0	2.5	18.9				
:	30	0.0	2.5	18.8				
:	60	0.0	2.6	18.7				
:	90	0.0	2.7	18.7				
:	120	0.0	2.7	18.7				
:	180	0.0	2.7	18.6				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 2.74 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 4.35 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

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GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: BH105

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0.0	993	0.0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: (SINGLE) / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.1	21.2				
:	15	0.0	2.9	19.4				
:	30	0.0	3.0	19.0				
:	60	0.0	3.0	19.0				
:	90	0.0	3.0	19.0				
:	120	0.0	3.0	19.0				
:	180	0.0	3.0	19.0				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 2.85 (m)	Time: :	LNAPL Top (from datum):	(m)
Depth (from datum) to well base: 4.9 (m)		DNAPL Top (from datum):	(m)
Hole Purged: Yes / No	Purge Start: :		
Purge Volume: (ltrs)	Purge End: :		

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

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GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check
Pre-Testing Remarks:	Air Temperature: °C				
	Weather:				
	Ground Conditions:				
Exploratory Position ID: WS103	Wind: NONE / LIGHT / MEDIUM / STRONG		Tidal State: (if applicable)		
	Monitoring Round Number:		High / Low / Rising / Falling		
			Test Number:		

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE
STAGE 1 GAS FLOW Initial	:		0.0	992	0.0	Observations:
STAGE 1 GAS FLOW Steady State	:					

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.1	21.2				
:	15	0.0	2.2	19.9				
:	30	0.0	2.2	19.8				
:	60	0.0	2.2	19.8				
:	90	0.0	2.2	19.8				
:	120	0.0	2.2	19.8				
:	180	0.0	2.2	19.8				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: DRY (m)	Time: :	LNAPL Top (from datum):	(m)
Depth (from datum) to well base: 1.5 (m)		DNAPL Top (from datum):	(m)
Hole Purged: Yes / No	Purge Start: :		
Purge Volume: (ltrs)	Purge End: :		

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type	Container
		EW / G	

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

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GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL (Top of pipe) / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: BH102

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0.0	992	0.0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: (SINGLE) / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.0	21.4				
:	15	0.0	2.0	19.9				
:	30	0.0	2.0	19.8				
:	60	0.0	2.0	19.8				
:	90	0.0	2.0	19.8				
:	120	0.0	2.0	19.8				
:	180	0.0	2.0	19.8				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 3.35 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 4.05 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

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GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: BH110

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0.0	992	0.0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: SINGLE / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.1	21.3				
:	15	0.0	2.2	19.4				
:	30	0.0	2.2	19.2				
:	60	0.0	2.3	19.1				
:	90	0.0	2.3	19.0				
:	120	0.0	2.3	19.0				
:	180	0.0	2.3	19.0				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 3.76 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 4.95 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No — Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

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GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: WS111

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0.0	992	0.0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: SINGLE / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.1	21.2				
:	15	0.0	1.9	19.7				
:	30	0.0	1.9	19.4				
:	60	0.0	1.9	19.4				
:	90	0.0	2.0	19.3				
:	120	0.0	2.0	19.3				
:	180	0.0	2.0	19.3				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 1.0 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 1.45 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

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GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: WS110

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0.0	991	0.0
Steady State	:				

Gas tap: (SINGLE) / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.1	20.8				
:	15	0.0	0.5	19.5				
:	30	0.0	0.5	19.3				
:	60	0.0	0.5	19.2				
:	90	0.0	0.5	19.2				
:	120	0.0	0.5	19.2				
:	180	0.0	0.5	19.2				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: DRY (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 1.4 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

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GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:	Air Temperature: °C Weather: Ground Conditions: Wind: NONE / LIGHT / MEDIUM / STRONG	Tidal State: (if applicable) High / Low / Rising / Falling
Exploratory Position ID: WS105	Monitoring Round Number:	Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE Observations:
STAGE 1 GAS FLOW Initial	:		0.0	992	0.0	
STAGE 1 GAS FLOW Steady State	:					

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	6.0	20.1				
:	15	0.0	2.7	18.4				
:	30	0.0	2.7	18.0				
:	60	0.0	2.8	17.0				
:	90	0.0	2.9	17.8				
:	120	0.0	2.9	17.8				
:	180	0.0	2.9	17.8				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 3.09 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 3.09 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type	Container
		EW / G	

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

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GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other ____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: WS107

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other ____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0.0	992	0.0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: (SINGLE) / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.1	21.0				
:	15	0.0	3.2	17.6		17		
:	30	0.0	3.3	17.3		4		
:	60	0.0	3.3	17.3		1		
:	90	0.0	3.4	17.2		3		
:	120	0.0	3.4	17.2		3		
:	180	0.0	3.4	17.2		3		
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: DRY (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 1.95 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No 1.45	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

BIRDWELL - ROUND 3

(1)

GAS MONITORING FIELD SHEET

Monitoring Date: 27/08/20	Measurement datum: GL / (Top of pipe) / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check
Pre-Testing Remarks:	Air Temperature: 17 °C				
	Weather: OVERCAST				
	Ground Conditions: DRY				
Exploratory Position ID: WS116	Wind: NONE / LIGHT / (MEDIUM) / STRONG		Tidal State: (if applicable)		
	Monitoring Round Number:		High / Low / Rising / Falling		
			Test Number:		

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: (SINGLE) / DOUBLE
STAGE 1 GAS FLOW Initial	:		0.0	994	0.0	Observations:
STAGE 1 GAS FLOW Steady State	:					

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.0	21.2				
:	15	0.0	0.0	21.2				
:	30	0.0	0.0	21.0				
:	60	0.0	0.0	20.9				
:	90	0.0	0.0	20.9				
:	120	0.0	0.0	20.9				
:	180	0.0	0.0	20.9				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 0.34 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 1.4 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type	Container
		EW / G	

RSK

Contract Name:		Contract Ref:	Data Collected By:
Project Manager / Engineer:		Page: of	Checked:

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: WS109 WS111

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0.0	994	0.0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: SINGLE / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.0	21.4				
:	15	0.0	0.0	20.9				
:	30	0.0	0.0	20.9				
:	60	0.0	0.0	20.9				
:	90	0.0	0.0	20.8				
:	120	0.0	0.0	20.8				
:	180	0.0	0.0	20.8				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: DRY (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 1.5 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type	Container
		EW / G	

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check
Pre-Testing Remarks:	Air Temperature: °C				
	Weather:				
	Ground Conditions:				
Exploratory Position ID: ~~WS101~~ WS107	Wind: NONE / LIGHT / MEDIUM / STRONG		Tidal State: (if applicable)		
	Monitoring Round Number:		High / Low / Rising / Falling		
			Test Number:		

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: (SINGLE) / DOUBLE
STAGE 1 GAS FLOW Initial	:		0.0	993	0.0	Observations:
STAGE 1 GAS FLOW Steady State	:					

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.0	21.3				
:	15	0.0	0.0	21.2				
:	30	0.0	0.0	21.1				
:	60	0.0	0.0	20.8				
:	90	0.0	0.0	20.8				
:	120	0.0	0.0	20.9				
:	180	0.0	0.0	20.9				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 1.0 (m)	Time: :	LNAPL Top (from datum):	(m)
Depth (from datum) to well base: N/A (m)		DNAPL Top (from datum):	(m)
Hole Purged: Yes / No 1.4m	Purge Start: :		
Purge Volume: (ltrs)	Purge End: :		

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type	Container
		EW / G	

RSK	Contract Name:	Contract Ref:	Data Collected By:
	Project Manager / Engineer:	Page: of	Checked:

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: WS108 WS105

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0.0	992	0.0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: (SINGLE) / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.0	20.3				
:	15	0.0	0.0	20.7				
:	30	0.0	0.0	20.7				
:	60	0.0	0.0	20.7				
:	90	0.0	0.0	20.7				
:	120	0.0	0.0	20.8				
:	180	0.0	0.0	20.8				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 2.8 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 3.0 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type	Container
		EW / G	

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

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GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: BH WS107

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0.0	992	0.0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: (SINGLE) / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.0	21.8	~~20.8~~			
:	15	0.0	0.0	21.4				
:	30	0.0	0.0	20.3				
:	60	0.0	0.0	20.5				
:	90	0.0	0.0	20.7				
:	120	0.0	0.0	20.7				
:	180	0.0	0.0	20.7				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 3.4 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 4.0 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type	Container
		EW / G	

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

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GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: BH106

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0.0	992	0.0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: (SINGLE) / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.0	21.3				
:	15	0.0	0.0	21.0				
:	30	0.0	0.0	20.8				
:	60	0.0	0.0	20.8				
:	90	0.0	0.0	20.7				
:	120	0.0	0.0	20.7				
:	180	0.0	0.0	20.7				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 3.10 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 4.8 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type	Container
		EW / G	

RSK	Contract Name:	Contract Ref:	Data Collected By:
	Project Manager / Engineer:	Page: of	Checked:

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check
Pre-Testing Remarks:	Air Temperature: °C				
	Weather:				
	Ground Conditions:				
Exploratory Position ID: WS103	Wind: NONE / LIGHT / MEDIUM / STRONG		Tidal State: (if applicable)		
	Monitoring Round Number:		High / Low / Rising / Falling		
			Test Number:		

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE
STAGE 1 GAS FLOW Initial	:		0.0	993	0.0	Observations:
STAGE 1 GAS FLOW Steady State	:					

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.0	21.4				
:	15	0.0	0.0	21.6				
:	30	0.0	0.0	20.7				
:	60	0.0	0.0	20.7				
:	90	0.0	0.0	20.6				
:	120	0.0	0.0	20.6				
:	180	0.0	0.0	20.7				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: DRY (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 1.5 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type	Container
		EW / G	

RSK	Contract Name:	Contract Ref:	Data Collected By:
	Project Manager / Engineer:	Page: of	Checked:

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:	Air Temperature: °C Weather: Ground Conditions:	Tidal State (if applicable) High / Low / Rising / Falling
Exploratory Position ID: BH105 BH10	Wind: NONE / LIGHT / MEDIUM / STRONG	
	Monitoring Round Number:	Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:				
STAGE 1 GAS FLOW Steady State	:				

Gas tap: SINGLE / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.0	21.0				
:	15	0.0	0.0	21.0				
:	30	0.0	0.0	20.7				
:	60	0.0	0.0	20.7				
:	90	0.0	0.0	20.7				
:	120	0.0	0.0	20.6				
:	180	0.0	0.0	20.6				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 2.8 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 6.0 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type	Container
		EW / G	

RSK	Contract Name:	Contract Ref:	Data Collected By:
	Project Manager / Engineer:	Page: of	Checked:

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GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: WS/MW BH/09

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0.6	993	0.0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: SINGLE / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.6	0.6	21.1				
:	15	0.0	0.0	20.8				
:	30	0.6	0.0	20.7				
:	60	0.0	0.0	20.6				
:	90	0.6	0.0	20.6				
:	120	0.0	0.0	20.6				
:	180	0.0	0.0	20.6				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 2.9 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 7.7 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type	Container
		EW / G	

RSK	Contract Name:	Contract Ref:	Data Collected By:
	Project Manager / Engineer:	Page: of	Checked:

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GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: WSX04 BH10

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0.0	993	0 0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: SINGLE / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.6	0.0	21.1				
:	15	0.0	0.0	20.8				
:	30	0.0	0.0	20.7				
:	60	0.0	0.0	20.6				
:	90	0.0	0.0	20.6				
:	120	0.0	0.0	20.7				
:	180	0.0	0.0	20.7				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 2.95 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 4.95 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type	Container
		EW / G	

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: °C

Weather:

Ground Conditions:

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: WS101

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0.0	994	0.0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: SINGLE / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0.0	0.0	21.3				
:	15	0.0	0.0	20.7				
:	30	0.0	0.0	20.7				
:	60	0.0	0.0	20.7				
:	90	0.0	0.0	20.7				
:	120	0.0	0.0	20.7				
:	180	0.0	0.0	20.7				
:	240	~~0.0~~						
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: DRY (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 1.48 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type	Container
		EW / G	

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

GAS MONITORING FIELD SHEET

Monitoring Date: 24/09/20	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: 9 °C

Weather: WET

Ground Conditions: WET

Wind: NONE / LIGHT / MEDIUM / STRONG

Monitoring Round Number:

Tidal State: (if applicable)

High / Low / Rising / Falling

Exploratory Position ID: WS101

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:				
STAGE 1 GAS FLOW Steady State	:				

Gas tap: SINGLE / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0	0.1	20.1				
:	15	0	0.7	19.7				
:	30	0	0.9	19.1				
:	60	0	1.8	19.0				
:	90	0	1.9	19.1				
:	120	0	1.4	18.9				
:	180	0	1.5	18.9				
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 1.62 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 1.88 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type	Container
		EW / G	

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: 8 °C

Weather: DRY

Ground Conditions: wet

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable)
High / Low / Rising / Falling

Exploratory Position ID: BH110

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE
STAGE 1 GAS FLOW Initial	:		0	1001	0	Observations:
STAGE 1 GAS FLOW Steady State	:					

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0	0	21.0	0	0		
:	15	0	0.8	20.6	0	0		
:	30	0	1.6	19.3	0	0		
:	60	0	1.8	18.9	0	0		
:	90	0	1.6	18.8	0	0		
:	120	0	1.7	18.8	0	0		
:	180	0	1.8	18.6	0	0		
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 2.85 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 3.95 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: 8 °C

Weather: DRY

Ground Conditions: Wet

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Exploratory Position ID: WS111

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Gas tap: SINGLE / DOUBLE

Observations:

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:				
STAGE 1 GAS FLOW Steady State	:				

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0							
:	15							
:	30							
:	60							
:	90							
:	120							
:	180							
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: Dry (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 1.6 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

NO GAS READINGS – sucked up water.

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check
Pre-Testing Remarks:	Air Temperature: °C				
	Weather:				
	Ground Conditions:				
Exploratory Position ID: WS110	Wind: NONE / LIGHT / MEDIUM / STRONG		Tidal State: (if applicable)		
	Monitoring Round Number:		High / Low / Rising / Falling		
			Test Number:		

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE Observations:
STAGE 1 GAS FLOW Initial	:					
STAGE 1 GAS FLOW Steady State	:					

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0							
:	15							
:	30							
:	60							
:	90							
:	120							
:	180							
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: GL (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 1.16 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Sucked up water - no readings.

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK	Contract Name:	Contract Ref:	Data Collected By:
	Project Manager / Engineer:	Page: of	Checked:

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check
Pre-Testing Remarks:	Air Temperature: °C				
	Weather:				
	Ground Conditions:				
Exploratory Position ID: WS107	Wind: NONE / LIGHT / MEDIUM / STRONG		Tidal State: (if applicable) High / Low / Rising / Falling		
	Monitoring Round Number:		Test Number:		

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE Observations:
STAGE 1 GAS FLOW Initial	:					
STAGE 1 GAS FLOW Steady State	:					

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0	0.1	20.8	0	0		
:	15	0	0.2	20.2	0	0		
:	30	0	0.6	19.6	0	1		
:	60	0	0.8	19.2	0	0		
:	90	0	0.8	19.1	0	1		
:	120	0	0.8	19.0	0	0		
:	180	0	0.8	18.9	0	0		
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 0.61 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 1.5 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked:

GAS MONITORING FIELD SHEET

Monitoring Date:	Measurement datum: GL / Top of pipe / Other _____	Offset to GL (m)	Device	Serial Number	Daily Check

Pre-Testing Remarks:

Air Temperature: 8 °C

Weather: DRY

Ground Conditions: wet

Exploratory Position ID: WS105

Wind: NONE / LIGHT / MEDIUM / STRONG

Tidal State: (if applicable) High / Low / Rising / Falling

Monitoring Round Number:

Test Number:

Install Type: SINGLE / DOUBLE | Pipe Ref: 1) Shallow 2) Deep | Pipe Diameter: 19mm / 40mm / 50mm / Other _____ (mm)

Test Sequence	Time of Monitoring hh:mm	Time of Monitoring sec	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Differential Pressure (mb)
STAGE 1 GAS FLOW Initial	:		0	1000	0
STAGE 1 GAS FLOW Steady State	:				

Gas tap: SINGLE / DOUBLE

Observations:

STAGE 2 GAS CONCENTRATION READINGS

Time of Monitoring hh:mm	Time of Monitoring sec	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	LEL (%)	PID (ppm)
:	0	0	0	21.0	0	0		
:	15	0	0.2	20.1	0	0		
:	30	0	0.4	19.8	0	1		
:	60	0	0.4	19.6	0	0		
:	90	0	0.5	19.6	0	0		
:	120	0	0.5	19.5	0	0		
:	180	0	0.5	19.6	0	0		
:	240							
:	300							
:	360							
:	420							
:	480							
:	540							
:	600							

STAGE 3 WATER LEVEL OBSERVATION

Depth (from datum) to water: 2.52 (m)	Time: :	LNAPL Top (from datum): (m)
Depth (from datum) to well base: 3.05 (m)		DNAPL Top (from datum): (m)
Hole Purged: Yes / No	Purge Start: :	
Purge Volume: (ltrs)	Purge End: :	

Post Testing Remarks:

Samples Taken: Yes / No | Gas / Water

Depth (from datum)	Sample Ref	Type EW / G	Container

RSK

Contract Name:	Contract Ref:	Data Collected By:
Project Manager / Engineer:	Page: of	Checked: