

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

VOLUME III APPENDICES

Appendix 10-3 Ground Gas Monitoring Results



Project Ref: 10117216

Project Title: Cleeves Riverside Quarter EIAR

Project Site: Cleeves, Limerick.

Client: Limerick City and County Council, in partnership with Limerick Twenty Thirty DAC

Appendix 10-3 Ground Gas Monitoring Results

BH NO.	Date	Flow (l/h)	CH4 %	CH4 Screening Value (l/hr)	CO2 %	CO2 Screening Value (l/hr)	O2 %	Balance %	CO (ppm)	H2S (ppm)	CH4 lel %	CH4 peak %	Barometric pressure (mb)
BH305	07/08/2025	0.0	0.1	0.00000	3.2	0.00000	16.8	80	0	0	1	0.1	1012
BH306	07/08/2025	0.0	0.1	0.00000	3.3	0.00000	18.1	78.6	1	0	1	0.1	1012
BH307	07/08/2025	0.0	0.1	0.00000	5.8	0.00000	13.6	80.5	1	0	1	0.1	1012
BH308	07/08/2025	0.0	0.1	0.00000	2.7	0.00000	17.7	79.5	1	0	1	0.1	1012
BH312	07/08/2025	0.0	0.1	0.00000	2.2	0.00000	17.5	80.2	0	0	1	0.1	1013
BH305	15/08/2025	0.0	0.1	0.00000	3.2	0.00000	17.5	79.2	0	0	1	0.1	1007
BH306	15/08/2025	0.0	0.1	0.00000	2.5	0.00000	18.6	78.8	1	0	1	0.1	1007
BH307	15/08/2025	0.0	0.1	0.00000	5.3	0.00000	14.5	80.1	1	0	1	0.1	1007
BH308	15/08/2025	0.0	0.1	0.00000	1.5	0.00000	18.2	80.2	1	0	1	0.1	1007
BH312	15/08/2025	0.0	0.1	0.00000	1.9	0.00000	16.7	81.3	0	0	1	0.1	1007
BH305	26/08/2025	0.0	0.1	0.00000	3.3	0.00000	18.5	78.1	0	0	1	0.1	1008
BH306	26/08/2025	0.0	0.1	0.00000	1.8	0.00000	19.5	78.6	1	0	1	0.1	1008
BH307	26/08/2025	0.0	0.1	0.00000	4.9	0.00000	17.9	77.1	1	0	1	0.1	1008
BH308	26/08/2025	0.0	0.1	0.00000	1.2	0.00000	19.5	79.2	0	0	1	0.1	1008
BH312	26/08/2025	0.0	0.1	0.00000	2.2	0.00000	16.8	80.9	0	0	1	0.1	1008
BH305	01/09/2025	0.0	0.1	0.00000	3.3	0.00000	18.5	78.1	0	0	1	0.1	1000
BH306	01/09/2025	0.0	0.1	0.00000	1.8	0.00000	19.5	78.6	1	0	1	0.1	1000
BH307	01/09/2025	0.0	0.1	0.00000	4.9	0.00000	17.9	77.1	1	0	1	0.1	1000
BH308	01/09/2025	0.0	0.1	0.00000	1.2	0.00000	19.5	79.2	0	0	1	0.1	1000
BH312	01/09/2025	0.0	0.1	0.00000	1.6	0.00000	16.1	82.2	0	0	1	0.1	1000
BH305	16/09/2025	0.0	0.1	0.00000	1.8	0.00000	19.1	79	0	0	1	0.1	1020
BH306	16/09/2025	0.0	0.1	0.00000	2.2	0.00000	18.5	79.2	1	0	1	0.1	1020
BH307	16/09/2025	0.0	0.1	0.00000	5.8	0.00000	14.8	79.3	1	0	1	0.1	1020
BH308	16/09/2025	0.0	0.1	0.00000	2.7	0.00000	18.1	79.1	1	0	1	0.1	1020
BH312	16/09/2025	0.0	0.1	0.00000	1.1	0.00000	17	81.8	1	0	1	0.1	1020
BH305	22/09/2025	0.0	0.1	0.00000	2.5	0.00000	18.9	78.5	0	0	1	0.1	1028
BH306	22/09/2025	0.0	0.1	0.00000	1.9	0.00000	18.8	79.2	1	0	1	0.1	1028
BH307	22/09/2025	0.0	0.1	0.00000	5.3	0.00000	15.2	79.4	1	0	1	0.1	1028
BH308	22/09/2025	0.0	0.1	0.00000	2.4	0.00000	18.6	78.9	1	0	1	0.1	1028
BH312	22/09/2025	0.0	0.1	0.00000	1.4	0.00000	16.8	81.7	1	0	1	0.1	1028

Gas screening value: litres of gas/hour is calculated by multiplying the gas concentration (/100) by the measured borehole flow rate (l/h)

Screening Criteria (as per CIRIA C665 documentation "Assessing risks posed by hazardous ground gases to Buildings"):

- CS 1 (Very Low Risk) = Screening value for CO2 / CH4. <0.07l/hr, and CO2 <5% CH4 <1%. Exceedances denoted in grey shading

- CS 2 (Low Risk) = Screening value for CO2 / CH4 <0.7l/hr, and borehole flow rate <70l/hr. No exceedances

Characteristic Situation CS 1 (Very Low Risk) - Monitoring Location IDs highlighted green

Characteristic Situation CS 2 (Low Risk) - Monitoring Location IDs highlighted light green