

PROPOSED COMMERCIAL DEVELOPMENT
TY MAWR, PONTARDAWE
Results of Hazardous Gas and Groundwater Monitoring
(Spot Monitoring)
Project Ref. 8293.02



Monitoring Event

1

Date:	16/12/2022	Atmospheric Pressure (start):	1,012 mb	Trend:	Steady
Time:	9:00	Atmospheric Pressure (end):	1,012 mb		
Engineer:	JA	Site Status:	Developed		
Weather:	Dry, cold	Ground Conditions:	Grass surface.		
Instrument:	Gas Data LMSxi G3.18e meter	Next Calibration Due Date:	26/07/2023		
Instrument:	Phoccheck 2000+ PID	Next Calibration Due Date:	15/07/2023		

Well ID:	WS201	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:		Made Ground		
		Well depth (m):	1.25			Groundwater depth (m):		Dry		
Monitored Variables		dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)
Immediate Reading		0.0	0.0	79.6	0.0	0.0	20.4	0.0	0.0	0.3
After 30 Seconds		0.0	0.0	79.3	0.8	0.0	19.9	0.0	0.0	0.5
After 1 Minute		0.0	0.0	79.3	0.8	0.0	19.9	0.0	0.0	0.4
After 2 Minutes		0.0	0.0	79.4	0.8	0.0	19.8	0.0	0.0	0.5
Steady State		0.0	0.0	79.4	0.8	0.0	19.8	0.0	0.0	0.5
min		0.0	0.0	79.3	0.0	0.0	19.8	0.0	0.0	0.3
max		0.0	0.0	79.6	0.8	0.0	20.4	0.0	0.0	0.5
Borehole Hazardous Gas Flow Rates Q _{vg} (max gas conc)					Methane:	0 L/hr		Carbon Dioxide	0.00 L/hr	
Borehole Hazardous Gas Flow Rates Q _{vg} (steady state gas conc)					Methane:	0.00 L/hr		Carbon Dioxide	0 L/hr	
Comments:										

Well ID:	WS202	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:		Made Ground		
		Well depth (m):	1.80			Groundwater depth (m):		Dry		
Monitored Variables		dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)
Immediate Reading		0.0	0.0	79.8	0.0	0.0	20.2	0.0	0.0	0.0
After 30 Seconds		0.0	0.0	79.3	0.9	0.0	19.8	0.0	0.0	0.0
After 1 Minute		0.0	0.0	79.4	0.9	0.0	19.7	0.0	0.0	0.0
After 2 Minutes		0.0	0.0	79.4	0.9	0.0	19.7	0.0	0.0	0.0
Steady State		0.0	0.0	79.4	0.9	0.0	19.7	0.0	0.0	0.0
min		0.0	0.0	79.3	0.0	0.0	19.7	0.0	0.0	0.0
max		0.0	0.0	79.8	0.9	0.0	20.2	0.0	0.0	0.0
Borehole Hazardous Gas Flow Rates Q _{vg} (max gas conc)					Methane:	0 L/hr		Carbon Dioxide	0.00 L/hr	
Borehole Hazardous Gas Flow Rates Q _{vg} (steady state gas conc)					Methane:	0.00 L/hr		Carbon Dioxide	0 L/hr	
Comments:										

Well ID:	WS203	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:	Made Ground			
		Well depth (m):	1.40			Groundwater depth (m):	Dry			
Monitored Variables		dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)
Immediate Reading		0.0	0.0	79.9	0.0	0.0	20.1	0.0	0.1	0.0
After 30 Seconds		0.0	0.0	79.5	0.9	0.0	19.6	0.0	0.1	0.0
After 1 Minute		0.0	0.0	79.6	0.9	0.0	19.5	0.0	0.1	0.0
After 2 Minutes		0.0	0.0	79.6	0.9	0.0	19.5	0.0	0.1	0.0
Steady State		0.0	0.0	79.6	0.9	0.0	19.5	0.0	0.1	0.0
min		0.0	0.0	79.5	0.0	0.0	19.5	0.0	0.1	0.0
max		0.0	0.0	79.9	0.9	0.0	20.1	0.0	0.1	0.0
Borehole Hazardous Gas Flow Rates Q _{vg} (max gas conc)					Methane:	0 L/hr	Carbon Dioxide	0.00 L/hr		
Borehole Hazardous Gas Flow Rates Q _{vg} (steady state gas conc)					Methane:	0.00 L/hr	Carbon Dioxide	0.0009 L/hr		
Comments:										

Key:

dP - differential pressure (well-atmosphere)	CH ₄ - methane
LEL - Lower Explosive Limit (methane)	O ₂ - oxygen
N ₂ - nitrogen	H ₂ S - Hydrogen sulphide
CO ₂ - carbon dioxide	PID - measure of volatile organic compounds

PROPOSED COMMERCIAL DEVELOPMENT
TY MAWR, PONTARDAWE
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Monitoring Event **2**

Date:	11/01/2023	Atmospheric Pressure (start):	1.003 mb	Trend:	falling
Time:	15:00	Atmospheric Pressure (end):	1.002 mb		
Engineer:	JA	Site Status:	Developed		
Weather:	Wet, cold	Ground Conditions:	Grass surface.		
Instrument:	Gas Data LMSxi G3.18e meter	Next Calibration Due Date:	26/07/2023		
Instrument:	Phocheck 2000+ PID	Next Calibration Due Date:	15/07/2023		

Well ID:	WS201	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:		Made Ground		
		Well depth (m):	1.24			Groundwater depth (m):		Dry		
Monitored Variables		dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)
Immediate Reading		-1.0	0.0	79.9	0.0	0.0	20.1	0.0	-3.0	0.0
After 30 Seconds		-8.0	0.0	79.6	0.1	0.0	20.3	0.0	-1.5	0.0
After 1 Minute		-5.0	0.0	79.7	0.1	0.0	20.2	0.0	-2.4	0.0
After 2 Minutes		0.0	0.0	79.7	0.1	0.0	20.2	0.0	0.0	0.0
Steady State		-1.0	0.0	79.7	0.1	0.0	20.2	0.0	-0.1	0.0
	min	-8.0	0.0	79.6	0.0	0.0	20.1	0.0	-3.0	0.0
	max	0.0	0.0	79.9	0.1	0.0	20.3	0.0	0.0	0.0
Borehole Hazardous Gas Flow Rates Q ₁₀ (max gas conc)				Methane:		0 L/hr		Carbon Dioxide	0.00 L/hr	
Borehole Hazardous Gas Flow Rates Q ₁₀ (steady state gas conc)				Methane:		0.00 L/hr		Carbon Dioxide	-0.0001 L/hr	
Comments:										

Well ID:	WS202	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:	Made Ground		
		Well depth (m):	1.78			Groundwater depth (m):	Dry		
Monitored Variables	dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)
Immediate Reading	-3.0	0.0	79.7	0.0	0.0	20.3	0.0	-0.7	0.0
After 30 Seconds	0.0	0.0	79.4	0.6	0.0	20.0	0.0	0.0	0.0
After 1 Minute	0.0	0.0	79.5	0.6	0.0	19.9	0.0	0.0	0.0
After 2 Minutes	0.0	0.0	79.5	0.6	0.0	19.9	0.0	0.0	0.0
Steady State	0.0	0.0	79.5	0.6	0.0	19.9	0.0	0.0	0.0
min	-3.0	0.0	79.4	0.0	0.0	19.9	0.0	0.0	0.0
max	0.0	0.0	79.7	0.6	0.0	20.3	0.0	0.0	0.0
Borehole Hazardous Gas Flow Rates Q ₁₀ (max gas conc)				Methane:	0 L/hr	Carbon Dioxide	0.00 L/hr		
Borehole Hazardous Gas Flow Rates Q ₁₀ (steady state gas conc)				Methane:	0.00 L/hr	Carbon Dioxide	0 L/hr		
Comments:									

Well ID:	WS203	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:	Made Ground		
		Well depth (m):	1.38			Groundwater depth (m):	Dry		
Monitored Variables	dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)
Immediate Reading	2.0	0.0	79.7	0.0	0.0	20.3	0.0	0.5	0.0
After 30 Seconds	2.0	0.0	79.5	0.7	0.0	19.8	0.0	0.4	0.0
After 1 Minute	0.0	0.0	79.5	0.7	0.0	19.8	0.0	-0.1	0.0
After 2 Minutes	2.0	0.0	79.6	0.7	0.0	19.7	0.0	0.4	0.0
Steady State	2.0	0.0	79.6	0.7	0.0	19.7	0.0	0.4	0.0
min	0.0	0.0	79.5	0.0	0.0	19.7	0.0	-0.1	0.0
max	2.0	0.0	79.7	0.7	0.0	20.3	0.0	0.5	0.0
Borehole Hazardous Gas Flow Rates Q ₁₀ (max gas conc)				Methane:	0 L/hr	Carbon Dioxide	0.00 L/hr		
Borehole Hazardous Gas Flow Rates Q ₁₀ (steady state gas conc)				Methane:	0.00 L/hr	Carbon Dioxide	0.0028 L/hr		
Comments:									

Key:

dP - differential pressure (well-atmosphere)

LEL - Lower Explosive Limit (methane)

N₂ - nitrogen

CO₂ - carbon dioxide

CH₄ - methane

O₂ - oxygen

H₂S - Hydrogen sulphide

PID - measure of volatile organic compounds

PROPOSED COMMERCIAL DEVELOPMENT
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Monitoring Event 3

Date:	27/01/2023	Atmospheric Pressure (start):	1.030 mb	Trend:	Falling
Time:	11:00	Atmospheric Pressure (end):	1.027 mb		
Engineer:	JA	Site Status:	Developed		
Weather:	Dry, cold	Ground Conditions:	Grass surface.		
Instrument:	Gas Data LMSxi G3.18e meter	Next Calibration Due Date:	26/07/2023		
Instrument:	Phocheck 2000+ PID	Next Calibration Due Date:	15/07/2023		

Well ID:	WS201	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:		Made Ground		
		Well depth (m):	1.25			Groundwater depth (m):		Dry		
Monitored Variables	dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)	
Immediate Reading	0.0	0.0	79.7	0.0	0.0	20.3	0.0	0.1	0.0	
After 30 Seconds	0.0	0.0	79.4	0.6	0.0	20.0	0.0	0.0	0.0	
After 1 Minute	0.0	0.0	79.4	0.6	0.0	20.0	0.0	0.1	0.0	
After 2 Minutes	0.0	0.0	79.4	0.6	0.0	20.0	0.0	0.1	0.0	
Steady State	0.0	0.0	79.4	0.6	0.0	20.0	0.0	0.1	0.0	
min	0.0	0.0	79.4	0.0	0.0	20.0	0.0	0.0	0.0	
max	0.0	0.0	79.7	0.6	0.0	20.3	0.0	0.1	0.0	
Borehole Hazardous Gas Flow Rates Q ₉₀ (max gas conc)				Methane:	0 L/hr		Carbon Dioxide	0.00 L/hr		
Borehole Hazardous Gas Flow Rates Q ₉₀ (steady state gas conc)				Methane:	0.00 L/hr		Carbon Dioxide	0.0006 L/hr		
Comments:										

Well ID:	WS202	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:	Made Ground		
		Well depth (m):	1.79			Groundwater depth (m):	Dry		
Monitored Variables	dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)
Immediate Reading	0.0	0.0	79.5	0.0	0.1	20.4	0.0	0.0	0.0
After 30 Seconds	0.0	0.0	79.3	0.7	0.1	19.9	0.0	0.0	0.1
After 1 Minute	0.0	0.0	79.3	0.7	0.1	19.9	0.0	0.0	0.0
After 2 Minutes	0.0	0.0	79.3	0.7	0.1	19.9	0.0	0.0	0.1
Steady State	0.0	0.0	79.3	0.7	0.1	19.9	0.0	0.0	0.1
min	0.0	0.0	79.3	0.0	0.1	19.9	0.0	0.0	0.0
max	0.0	0.0	79.5	0.7	0.1	20.4	0.0	0.0	0.1
Borehole Hazardous Gas Flow Rates Q ₉₀ (max gas conc)				Methane:	0 L/hr		Carbon Dioxide	0.00 L/hr	
Borehole Hazardous Gas Flow Rates Q ₉₀ (steady state gas conc)				Methane:	0.00 L/hr		Carbon Dioxide	0 L/hr	
Comments:									

Well ID:	WS203	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:	Made Ground		
		Well depth (m):	1.39			Groundwater depth (m):	Dry		
Monitored Variables	dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)
Immediate Reading	-2.0	0.0	79.5	0.0	0.1	20.4	0.0	-0.4	0.0
After 30 Seconds	-11.0	0.0	79.2	0.7	0.1	20.0	0.0	-2.1	0.0
After 1 Minute	0.0	0.0	79.2	0.7	0.1	20.0	0.0	0.0	0.0
After 2 Minutes	0.0	0.0	79.2	0.7	0.1	20.0	0.0	0.0	0.0
Steady State	0.0	0.0	79.2	0.7	0.1	20.0	0.0	0.0	0.0
min	-11.0	0.0	79.2	0.0	0.1	20.0	0.0	-2.1	0.0
max	0.0	0.0	79.5	0.7	0.1	20.4	0.0	0.0	0.0
Borehole Hazardous Gas Flow Rates Q ₉₀ (max gas conc)				Methane:	0 L/hr		Carbon Dioxide	0.00 L/hr	
Borehole Hazardous Gas Flow Rates Q ₉₀ (steady state gas conc)				Methane:	0.00 L/hr		Carbon Dioxide	0 L/hr	
Comments:		Between 0 and 60 seconds; dP ranged from -2 to -11 and flow, -0.4 to -2.1. Both values to zero at around 45 seconds and then increased to their minimum value							

Key:
dP - differential pressure (well-atmosphere)
LEL - Lower Explosive Limit (methane)
N₂ - nitrogen
CO₂ - carbon dioxide
CH₄ - methane
O₂ - oxygen
H₂S - Hydrogen sulphide
PID - measure of volatile organic compounds

PROPOSED COMMERCIAL DEVELOPMENT
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Monitoring Event 4

Date:	21/02/2023	Atmospheric Pressure (start):	1.011 mb	Trend:	Falling
Time:	15:00	Atmospheric Pressure (end):	1.010 mb		
Engineer:	JA	Site Status:	Developed		
Weather:	Dry, cold	Ground Conditions:	Grass surface.		
Instrument:	Gas Data LMSxi G3.18e meter	Next Calibration Due Date:	26/07/2023		
Instrument:	Phocheck 2000+ PID	Next Calibration Due Date:	15/07/2023		

Well ID:	WS201	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:		Made Ground		
		Well depth (m):	1.25			Groundwater depth (m):		Dry		
Monitored Variables	dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)	
Immediate Reading	0.0	0.0	79.3	0.0	0.0	20.7	0.0	0.0	0.0	
After 30 Seconds	0.0	0.0	79.3	0.1	0.0	20.6	0.0	0.0	0.0	
After 1 Minute	0.0	0.0	79.1	0.3	0.0	20.6	0.0	0.0	0.0	
After 2 Minutes	0.0	0.0	79.0	0.4	0.0	20.6	0.0	0.0	0.0	
Steady State	0.0	0.0	79.0	0.4	0.0	20.6	0.0	0.0	0.0	
min	0.0	0.0	79.0	0.0	0.0	20.6	0.0	0.0	0.0	
max	0.0	0.0	79.3	0.4	0.0	20.7	0.0	0.0	0.0	
Borehole Hazardous Gas Flow Rates Q ₁₀ (max gas conc)				Methane:	0 L/hr		Carbon Dioxide	0.00 L/hr		
Borehole Hazardous Gas Flow Rates Q ₁₀ (steady state gas conc)				Methane:	0.00 L/hr		Carbon Dioxide	0 L/hr		
Comments:										

Well ID:	WS202	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:	Made Ground		
		Well depth (m):	1.79			Groundwater depth (m):	Dry		
Monitored Variables	dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)
Immediate Reading	0.0	0.0	79.2	0.0	0.0	20.8	0.0	0.0	0.0
After 30 Seconds	0.0	0.0	79.0	0.6	0.0	20.4	0.0	0.0	0.0
After 1 Minute	0.0	0.0	79.1	0.6	0.0	20.3	0.0	0.0	0.0
After 2 Minutes	0.0	0.0	79.1	0.6	0.0	20.3	0.0	0.0	0.0
Steady State	0.0	0.0	79.1	0.6	0.0	20.3	0.0	0.0	0.0
min	0.0	0.0	79.0	0.0	0.0	20.3	0.0	0.0	0.0
max	0.0	0.0	79.2	0.6	0.0	20.8	0.0	0.0	0.0
Borehole Hazardous Gas Flow Rates Q ₁₀ (max gas conc)				Methane:	0 L/hr		Carbon Dioxide	0.00 L/hr	
Borehole Hazardous Gas Flow Rates Q ₁₀ (steady state gas conc)				Methane:	0.00 L/hr		Carbon Dioxide	0 L/hr	
Comments:									

Well ID:	WS203	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:	Made Ground		
		Well depth (m):	1.39			Groundwater depth (m):	Dry		
Monitored Variables	dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)
Immediate Reading	0.0	0.0	79.2	0.0	0.0	20.8	0.0	0.0	0.0
After 30 Seconds	0.0	0.0	79.0	0.6	0.0	20.4	0.0	0.0	0.0
After 1 Minute	0.0	0.0	79.1	0.6	0.0	20.3	0.0	0.0	0.0
After 2 Minutes	0.0	0.0	79.1	0.6	0.0	20.3	0.0	0.0	0.0
Steady State	0.0	0.0	79.1	0.6	0.0	20.3	0.0	0.0	0.0
min	0.0	0.0	79.0	0.0	0.0	20.3	0.0	0.0	0.0
max	0.0	0.0	79.2	0.6	0.0	20.8	0.0	0.0	0.0
Borehole Hazardous Gas Flow Rates Q ₁₀ (max gas conc)				Methane:	0 L/hr		Carbon Dioxide	0.00 L/hr	
Borehole Hazardous Gas Flow Rates Q ₁₀ (steady state gas conc)				Methane:	0.00 L/hr		Carbon Dioxide	0 L/hr	
Comments:									

Key:
dP - differential pressure (well-atmosphere)
LEL - Lower Explosive Limit (methane)
N₂ - nitrogen
CO₂ - carbon dioxide
CH₄ - methane
O₂ - oxygen
H₂S - Hydrogen sulphide
PID - measure of volatile organic compounds

PROPOSED COMMERCIAL DEVELOPMENT
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Monitoring Event 5

Date:	20/03/2023	Atmospheric Pressure (start):	1.011 mb	Trend:	Steady
Time:	11:00	Atmospheric Pressure (end):	1.010 mb		
Engineer:	JA	Site Status:	Developed		
Weather:	Wet, cold	Ground Conditions:	Grass surface.		
Instrument:	Gas Data LMSxi G3.18e meter	Next Calibration Due Date:	26/07/2023		
Instrument:	Phoscheck 2000+ PID	Next Calibration Due Date:	15/07/2023		

Well ID:	WS201	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:		Made Ground	
		Well depth (m):	1.25			Groundwater depth (m):		Dry	
Monitored Variables	dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)
Immediate Reading	1.0	0.0	79.2	0.0	0.0	20.8	0.0	0.1	0.1
After 30 Seconds	1.0	0.0	79.0	0.2	0.0	20.8	0.0	0.3	0.1
After 1 Minute	1.0	0.0	79.1	0.2	0.0	20.7	0.0	0.3	0.1
After 2 Minutes	1.0	0.0	79.1	0.1	0.0	20.8	0.0	0.3	0.1
Steady State	1.0	0.0	79.1	0.1	0.0	20.8	0.0	0.3	0.1
min	1.0	0.0	79.0	0.0	0.0	20.7	0.0	0.1	0.1
max	1.0	0.0	79.2	0.2	0.0	20.8	0.0	0.3	0.1
Borehole Hazardous Gas Flow Rates Q ₁₀ (max gas conc)				Methane:	0 L/hr		Carbon Dioxide	0.00 L/hr	
Borehole Hazardous Gas Flow Rates Q ₁₀ (steady state gas conc)				Methane:	0.00 L/hr		Carbon Dioxide	0.0003 L/hr	
Comments:									

Well ID:	WS202	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:	Made Ground		
		Well depth (m):	1.79			Groundwater depth (m):	Dry		
Monitored Variables	dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)
Immediate Reading	0.0	0.0	79.2	0.0	0.0	20.8	0.0	0.0	0.1
After 30 Seconds	0.0	0.0	79.1	0.6	0.0	20.3	0.0	0.0	0.2
After 1 Minute	0.0	0.0	79.1	0.6	0.0	20.3	0.0	0.0	0.1
After 2 Minutes	0.0	0.0	79.1	0.6	0.0	20.3	0.0	0.0	0.1
Steady State	0.0	0.0	79.1	0.6	0.0	20.3	0.0	0.0	0.1
min	0.0	0.0	79.1	0.0	0.0	20.3	0.0	0.0	0.1
max	0.0	0.0	79.2	0.6	0.0	20.8	0.0	0.0	0.2
Borehole Hazardous Gas Flow Rates Q ₁₀ (max gas conc)				Methane:	0 L/hr		Carbon Dioxide	0.00 L/hr	
Borehole Hazardous Gas Flow Rates Q ₁₀ (steady state gas conc)				Methane:	0.00 L/hr		Carbon Dioxide	0 L/hr	
Comments:									

Well ID:	WS203	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:	Made Ground		
		Well depth (m):	1.37			Groundwater depth (m):	Dry		
Monitored Variables	dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)
Immediate Reading	0.0	0.0	79.1	0.1	0.0	20.8	0.0	0.0	0.1
After 30 Seconds	0.0	0.0	79.1	0.6	0.0	20.3	0.0	0.0	0.2
After 1 Minute	0.0	0.0	79.1	0.6	0.0	20.3	0.0	0.0	0.1
After 2 Minutes	0.0	0.0	79.2	0.6	0.0	20.2	0.0	0.0	0.1
Steady State	0.0	0.0	79.2	0.6	0.0	20.2	0.0	0.0	0.1
min	0.0	0.0	79.1	0.1	0.0	20.2	0.0	0.0	0.1
max	0.0	0.0	79.2	0.6	0.0	20.8	0.0	0.0	0.2
Borehole Hazardous Gas Flow Rates Q ₁₀ (max gas conc)				Methane:	0 L/hr	Carbon Dioxide		0.00 L/hr	
Borehole Hazardous Gas Flow Rates Q ₁₀ (steady state gas conc)				Methane:	0.00 L/hr	Carbon Dioxide		0 L/hr	
Comments:									

Key:
dP - differential pressure (well-atmosphere)
LEL - Lower Explosive Limit (methane)
N₂ - nitrogen
CO₂ - carbon dioxide
CH₄ - methane
O₂ - oxygen
H₂S - Hydrogen sulphide
PID - measure of volatile organic compounds

**PROPOSED COMMERCIAL DEVELOPMENT
TY MAWR, PONTARDAWE**
**Results of Hazardous Gas and Groundwater Monitoring
(Spot Monitoring)**
Project Ref. 8293.02



Monitoring Event 6

Date:	12/04/2023	Atmospheric Pressure (start):	982 mb	Trend:	Falling
Time:	14:00	Atmospheric Pressure (end):	983 mb		
Engineer:	JA	Site Status:	Developed		
Weather:	Dry, cold	Ground Conditions:	Grass surface.		
Instrument:	Gas Data LMSxi G3.18e meter	Next Calibration Due Date:	26/07/2023		
Instrument:	Phocheck 2000+ PID	Next Calibration Due Date:	15/07/2023		

Well ID:	WS201	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:	Made Ground		
		Well depth (m):	1.25			Groundwater depth (m):	Dry		
Monitored Variables	dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)
Immediate Reading	-15.0	0.0	79.3	0.0	0.0	20.7	0.0	-2.8	0.0
After 30 Seconds	2.0	0.0	79.3	0.0	0.0	20.7	0.0	0.4	0.0
After 1 Minute	0.0	0.0	79.3	0.0	0.0	20.7	0.0	0.0	0.0
After 2 Minutes	0.0	0.0	79.2	0.0	0.0	20.8	0.0	0.0	0.0
Steady State	0.0	0.0	79.2	0.0	0.0	20.8	0.0	0.0	0.0
min	-15.0	0.0	79.2	0.0	0.0	20.7	0.0	-2.8	0.0
max	2.0	0.0	79.3	0.0	0.0	20.8	0.0	0.4	0.0
Borehole Hazardous Gas Flow Rates Q ₁₀ (max gas conc)				Methane:	0 L/hr	Carbon Dioxide	0.00 L/hr		
Borehole Hazardous Gas Flow Rates Q ₁₀ (steady state gas conc)				Methane:	0.00 L/hr	Carbon Dioxide	0 L/hr		
Comments:									

Well ID:	WS202	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:	Made Ground		
		Well depth (m):	1.78			Groundwater depth (m):	Dry		
Monitored Variables	dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)
Immediate Reading	1.0	0.0	79.3	0.0	0.0	20.7	0.0	0.1	0.0
After 30 Seconds	0.0	0.0	79.1	0.1	0.0	20.8	0.0	0.0	0.0
After 1 Minute	0.0	0.0	79.2	0.2	0.0	20.6	0.0	0.0	0.0
After 2 Minutes	0.0	0.0	79.2	0.2	0.0	20.6	0.0	0.0	0.0
Steady State	0.0	0.0	79.2	0.2	0.0	20.6	0.0	0.0	0.0
min	0.0	0.0	79.1	0.0	0.0	20.6	0.0	0.0	0.0
max	1.0	0.0	79.3	0.2	0.0	20.8	0.0	0.1	0.0
Borehole Hazardous Gas Flow Rates Q ₁₀ (max gas conc)				Methane:	0 L/hr		Carbon Dioxide	0.00 L/hr	
Borehole Hazardous Gas Flow Rates Q ₁₀ (steady state gas conc)				Methane:	0.00 L/hr		Carbon Dioxide	0 L/hr	
Comments:									

Well ID:	WS203	Well dia.(mm):	50	Date installed:	01/12/2022	Response stratum:	Made Ground		
		Well depth (m):	1.37			Groundwater depth (m):	Dry		
Monitored Variables	dP (Pa)	LEL (%)	N ₂ (%)	CO ₂ (%)	CH ₄ (%)	O ₂ (%)	H ₂ S (ppm)	Flow (L/hr)	PID (ppm)
Immediate Reading	0.0	0.0	79.3	0.0	0.0	20.7	0.0	0.0	0.1
After 30 Seconds	0.0	0.0	79.7	0.3	0.0	20.0	0.0	0.0	0.2
After 1 Minute	0.0	0.0	79.3	0.6	0.0	20.1	0.0	0.0	0.2
After 2 Minutes	0.0	0.0	79.3	0.7	0.0	20.0	0.0	0.0	0.2
Steady State	0.0	0.0	79.3	0.7	0.0	20.0	0.0	0.0	0.2
min	0.0	0.0	79.3	0.0	0.0	20.0	0.0	0.0	0.1
max	0.0	0.0	79.7	0.7	0.0	20.7	0.0	0.0	0.2
Borehole Hazardous Gas Flow Rates Q ₁₀ (max gas conc)				Methane:	0 L/hr		Carbon Dioxide	0.00 L/hr	
Borehole Hazardous Gas Flow Rates Q ₁₀ (steady state gas conc)				Methane:	0.00 L/hr		Carbon Dioxide	0 L/hr	
Comments:									

Key:

dP - differential pressure (well-atmosphere)
LEL - Lower Explosive Limit (methane)
N₂ - nitrogen
CO₂ - carbon dioxide

CH₄ - methane
O₂ - oxygen
H₂S - Hydrogen sulphide
PID - measure of volatile organic compounds