

Foxglove Cottage, Cwm Risca Lane,
Tondur, Bridgend. CF32 0EH

tel +44(0) 1656 723666
mob +44(0) 7415 353 463
e-mail rob.griffiths@spectrumgeo.co.uk
web www.spectrumgeo.co.uk



Life Properties

c/o CB3 Consult Ltd
Consulting Civil & Structural Engineers
7 St James Crescent,
Swansea,
SA1 6DP
FAO Mr Dylan Gravell

21057/Offlet/RG

04 November 2021

Dear Sirs,

Re: Bryngelli Estate, Hirwaun - Note on Combustibility Concerns

1.0 Introduction

Life Properties have requested a letter report commenting on the potential of combustibility of soils at the site, with reference to the trial pit logs presented as part of report SGS/20105 of January 2021.

2.0 Assessment of Data Within SGS/20105

As part of the ground investigation 7 Trial Pits and 7 Window Sample holes were undertaken. The details of the strata succession should read from within that report.

The as dug locations are included in this letter.

Made Ground with proportion of colliery coal spoil were noted as shown in Table 1.

Position	Depth Noted (m)
TP02	0.10 – 0.80
TP06	0.00 – 0.10
WS01	0.20 – 0.80
WS02	0.30 – 0.60
WS03	0.20 – 0.70

Table 1: Depths Where Colliery Spoil was noted

The photographs of each of these exploratory holes are attached to this report. No visual evidence of coal is noted, though during the on site logging some gravel of coal was evidenced.

It is noted that with the exception of TP06, all evidence of coal fragments were noted in the are underneath the concrete slab, in the north of the site. (WS01, WS02, WS03 and TP02). At TP06 there was a veneer at surface, which it is anticipated will end up being removed as part of the topsoil strip.

3.0 Summary of Findings

The original logs and photographs have been inspected.

The positions in the northern area which have been noted as containing colliery spoil/coal fragments do not appear to be visually of high proportions, though no testing was undertaken to quantify this.

Thus, they are not considered to be a risk to the development.

We trust that we have correctly interpreted your requirements, and that the above is acceptable. Should you require further clarification or information please do not hesitate to contact us.

Yours faithfully

For and on Behalf of Spectrum Geo Services

Please Respond to:

Rob Griffiths

BSc (Hons), MSc, FGS, CGeol

Encs: Logs TP02, 06, WS01, 02, 03.
Exploratory Hole Location Plan
Exploratory Hole Photos

Face Sketch (Indicate stratum boundaries, codes and Face(s) sketched, use additional sheets as required)

Groundwater Observations Fast inflow at 0.80m	Strike of Face A		deg	
	Length of Face A	2.00	m	
	Width of Face B	0.80	m	
	Remarks			
Method/plant	Tracked excavator			
Stability	Unstable			
Shoring	None			
Weather	Showers			
Sample Type:				
U Undisturbed, P Piston, D Disturbed, B Bulk, W Water				
ES Environmental Soil Sample				
EW Environmental Water Sample				
PL				

Face Sketch (Indicate stratum boundaries, codes and Face(s) sketched, use additional sheets as required)

The diagram shows a large rectangular area divided into four vertical columns by three vertical lines. The leftmost and rightmost columns have short horizontal tick marks along their outer vertical edges, indicating measurement points or boundaries. The entire area is intended for a 'Face Sketch' as indicated by the text above it.

Groundwater Observations Inflow at 1.50m. Collapse from surface.	Strike of Face A		deg	
	Length of Face A	2.00	m	
	Width of Face B	0.80	m	
	Remarks			
Method/plant	Tracked excavator			
Stability	Unstable			
Shoring	None			
Weather	Showers			
Sample Type:				
U Undisturbed, P Piston, D Disturbed, B Bulk, W Water				
ES Environmental Soil Sample				
EW Environmental Water Sample				
PL				

Window Sampling Hole Journal

Inspection Pit Dimensions						Hand Vane: Raw Data						
Equipment or Rig Type Dart						Type	Geonor		Pilcon		Impact	
						Size (mm)	16		19		19	
							20		33		33	
						25		Tick one box				
Window Sampling: Tube Driving Data												
Tube dia (mm)	Depth		Recovery (m)	Time (min:sec)	Casing depth (windowless)	Depth	Peak			Remoulded		
	From	To					1	2	3	1	2	3
102	GL	1.00	0.80									
90	1.00	2.00	0.65									
80	2.00	3.00	0.45									
70	3.00	4.00	0.50									
						Pocket Penetrometer: Raw Data						
						Depth	1	2	3	4	5	6
All depths are m below ground level						Use GDMS data entry to input raw data to HoleBASE						
Samples			Strata						Installation Details			
Type	No.	Depth	Depth	Description								
ES		0.50		GL - 0.10: Strong grey reinforced CONCRETE.								
ES		1.50										
ES		2.60		0.10 - 0.20: MADE GROUND: Grey slightly clayey sandy angular to subangular fine to coarse GRAVEL of limestone. Sub-base								
ES		3.60		0.20 - 0.80: MADE GROUND: Black and red silty SAND AND GRAVEL. Sand is fine to coarse. Gravel is subangular to sub - rounded fine to coarse of slag,coke,coal,siltstone and sandstone Colliery spoil/Furnace material.								
				0.80 - 2.50: Firm to stiff grey slightly sandy slightly gravelly CLAY with low cobble content of subrounded sandstone. Gravel is subrounded fine to coarse of sandstone. GLACIAL TILL.								
				2.50 - 4.00: Medium dense grey and brown clayey SAND AND GRAVEL with low cobble content of subrounded sandstone. Sand is fine medium. Gravel is subrounded fine to coarse of sandstone. GLACIAL TILL.								
									Backfill Details (if no installation)			
Key to soil samples:						B = bulk D = tub L = liner ES = environmental soil						
Groundwater Strike		If Yes			Project				Project No			
Yes / No		Depth of strike	After 20 mins	Depth sealed	Bryngelli				20105			
Remarks					Operator		Date		Hole No.			
Monitoring pipe installed					SGT		02.12.2020		WS01			
					Logger PL		Date					

Window Sampling Hole Journal

Inspection Pit Dimensions						Hand Vane: Raw Data						
Equipment or Rig Type Dart						Type	Geonor		Pilcon		Impact	
						16		19		19		
						Size (mm)	20		33		33	
Window Sampling: Tube Driving Data						25		Tick one box				
Tube dia (mm)	Depth		Recovery (m)	Time (min:sec)	Casing depth (windowless)	Depth	Peak			Remoulded		
	From	To					1	2	3	1	2	3
102	GL	1.00	0.40									
90	1.00	1.80	0.40									
						Pocket Penetrometer: Raw Data						
						Depth	1	2	3	4	5	6
All depths are m below ground level						Use GDMS data entry to input raw data to HoleBASE						
Samples			Strata						Installation Details			
Type	No.	Depth	Depth	Description								
ES		0.50		GL - 0.30: Strong grey reinforced CONCRETE.								
ES		0.60 - 0.75		0.30 - 0.60: MADE GROUND: Black silty SAND AND GRAVEL.								
ES		1.30		Sand is fine to medium. Gravel is subangular to subrounded								
ES		1.50 - 1.80		fine to coarse of slag,coke,coal,siltstone and sanstone. Colliery spoil/furnace material.								
				0.60 - 0.75: Light grey and purple clayey SAND AND GRAVEL with low cobble content of subrounded sandstone. Sand is fine to medium. Gravel is subrounded fine to coarse of sandstone. Possible Made Ground.								
				0.75 - 1.50: Firm to stiff grey brown and orange slightly sandy slightly gravelly CLAY with low cobble content of subrounded sandstone. Gravel is subrounded fine to coarse of sandstone. GLACIAL TILL.								
				1.50 - 1.80: Dense becoming very dense grey brown and orange clayey SAND AND GRAVEL with low cobble content of subrounded sandtone. Sand is fine to medium. Gravel is sub - rounded fine to coarse of sandstone. GLACIAL TILL.								
									Backfill Details (if no installation)			
Key to soil samples: B = bulk D = tub L = liner ES = environmental soil												
Groundwater Strike		If Yes			Project				Project No			
Yes / No		Depth of strike	After 20 mins	Depth sealed	Bryngelli				20105			
Remarks					Operator		Date		Hole No.			
					SGT		02.12.2020		WS02			
					Logger PL		Date					

Window Sampling Hole Journal

Inspection Pit Dimensions						Hand Vane: Raw Data									
Equipment or Rig Type Dart						Type		Geonor		Pilcon		Impact			
						16		19		19					
						20		33		33					
Window Sampling: Tube Driving Data						Size (mm)		25		Tick one box					
Tube dia (mm)		Depth		Recovery (m)	Time (min:sec)	Casing depth (windowless)	Depth	Peak			Remoulded				
		From	To					1	2	3	1	2	3		
102		GL		1.00	0.80										
90		1.00		2.00	0.70										
80		2.00		3.00	0.80										
70		3.00		3.50	NR										
						Pocket Penetrometer: Raw Data									
						Depth		1	2	3	4	5	6		
All depths are m below ground level						Use GDMS data entry to input raw data to HoleBASE									
Samples			Strata					Installation Details							
Type	No.	Depth	Depth	Description											
ES		0.50		GL - 0.20: Strong grey reinforced CONCRETE.											
ES		1.50		0.20 - 0.70: MADE GROUND: Black silty SAND AND GRAVEL. Sand is fine to medium. Gravel is subangular to subrounded fine to coarse of slag,coke,coal,siltstone and sanstone. Colliery spoil/furnace material.											
ES		2.50		0.70 - 1.80: Firm becoming stiff with depth grey brown and orange slightly sandy slightly gravelly CLAY with low cobble content of sub - rounded sandstone. Gravel is subrounded fine to coarse of sand - stone. GLACIAL TILL.											
				1.80 - 3.50: Dense becoming very dense grey and brown clayey SAND AND GRAVEL with low cobble content of subrounded sand - stone. Sand is fine to medium. Gravel is subrounded fine to coarse of sandstone. GLACIAL TILL.											
								Backfill Details (if no installation)							
Key to soil samples: B = bulk D = tub L = liner ES = environmental soil															
Groundwater Strike		If Yes			Project			Project No							
Yes / No		Depth of strike	After 20 mins	Depth sealed	Bryngelli			20105							
Remarks					Operator		Date		Hole No.						
					SGT		02.12.2020		WS03						
					Logger PL		Date								





Trial Pit – TP02



Trial Pit – TP06



Window Sample - WS01



Window Sample - WS02



Window Sample - WS03