

14560/AG

15 September 2026

Knox & Wells Limited
Creswell House
Fieldway
Cardiff
CF14 4UH

For the attention of Owain MacMillan

YGG Treges, Neath Abbey – Supplementary Contamination Assessment Report

We have now completed the supplementary contamination assessment at the above site and can report as follows.

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1.0 Introduction

Knox & Wells Limited is proposing to redevelop the existing YGG Treges site at Neath Abbey for continued educational use. The site location is shown in Figure 1. A site plan is shown in Figure 2.

The proposed development layout is presented on Cambria Drawing No. CC2970-CAM-XX-XX-DR-C-0610, Rev P01, dated 25 March 2026, reproduced as Figure 3.

Intégral Géotechnique (Wales) Limited previously completed the following reports for the site:

- Desk Study Report Ref. 14560/LP/26/DS, dated February 2026.
- Site Investigation Report Ref. 14560/AG/26/SI/RevA, dated June 2026.

The previous intrusive investigation was undertaken during March 2026. At that time the school building proposed for demolition remained in place and the underlying ground could not be directly investigated. The previous Site Investigation Report therefore recommended further contamination assessment following demolition.

Following review of the previous reports, the Local Authority Environmental Health Officer (EHO) provided consultation comments dated 29 July 2026 and requested additional investigation and clarification in respect of a number of geoenvironmental matters.

2.0 Environmental Health Comments and Supplementary Scope

The principal matters raised by the EHO related to:

- The density of soil sampling across the site, particularly within the existing playing field.
- Further assessment of arsenic concentrations within the playing field.
- Arsenic bioaccessibility testing.
- Additional targeted investigation adjacent to the railway embankment forming the northern site boundary.
- Investigation beneath the footprint of the former school building.
- Clarification of the location of the former boiler/plant room and associated soil sampling.
- Further consideration of the potential presence of asbestos within made ground.

The EHO also queried the previous discussion regarding regional background arsenic concentrations and the dataset adopted for assessment of the playing field.

A supplementary investigation was therefore undertaken comprising post-demolition trial pitting beneath the former school building, targeted investigation of the former plant room and northern site boundary, additional topsoil sampling across the playing field and further laboratory chemical testing, including arsenic bioaccessibility testing.

The supplementary works were undertaken to complement the previous investigation and the combined findings have been considered within the contamination assessment presented below.

3.0 Previous Investigation

The relevant exploratory hole logs, laboratory chemical test results and contamination summary sheets from the previous investigation are reproduced in Appendix A.

The previous site investigation identified made ground beneath the developed western part of the site, generally comprising variable limestone, tarmac, concrete, brick and other anthropogenic materials overlying natural glacial deposits.

Laboratory testing identified elevated concentrations of arsenic and selected polycyclic aromatic hydrocarbons (PAHs) within the made ground. The highest arsenic concentration was 160mg/kg in HDP02. This result related to made ground within the developed western part of the site and not to topsoil within the playing field.

Within the playing field, topsoil was encountered over natural glacial deposits. Arsenic concentrations of 84mg/kg and 110mg/kg were recorded within two topsoil samples, compared with an initial generic screening criterion of 40mg/kg.

A refined quantitative human health risk assessment was subsequently undertaken using the CLEA model, adopting exposure assumptions representative of a primary school/playing field end use. The assessment derived an arsenic Site-Specific Target Level (SSTL) of 200mg/kg. The maximum playing field topsoil concentration of 110mg/kg did not exceed the derived SSTL.

The previous Conceptual Site Model also identified the adjacent railway embankment as a potential off-site contaminant source and petroleum hydrocarbons associated with the former boiler/plant room as a potential on-site source.

The supplementary investigation was therefore targeted towards these matters together with the previously inaccessible ground beneath the demolished school building.

4.0 *Supplementary Fieldworks*

Supplementary investigation works were undertaken during August 2026 and comprised:

- 5 No. machine-excavated trial pits (TP101 to TP105) beneath the footprint of the former school building. TP101 was positioned to target the former plant room.
- 3 No. machine-excavated trial pits (TP106 to TP108) along the northern site boundary adjacent to the railway embankment.
- 10 No. additional topsoil samples (TS1 to TS10) distributed across the existing playing field.

TP101 to TP105 were advanced to depths of approximately 0.80m to 0.90m below ground level (bgl).

TP106 to TP108 were advanced to depths of approximately 1.10m to 1.40m bgl.

The topsoil samples were recovered from approximately 0.10m bgl.

The supplementary investigation locations, together with the previous investigation positions, are shown in Figure 2.

The supplementary trial pit logs are presented in Appendix B.

5.0 *Supplementary Laboratory Chemical Testing*

Representative samples of made ground recovered from TP101 to TP108 were submitted for laboratory chemical testing for a range of inorganic and organic contaminants, including metals, PAHs and petroleum hydrocarbons.

All made ground samples were also screened for asbestos, with quantification undertaken where asbestos was identified.

The 10 No. playing field topsoil samples, TS1 to TS10, were tested for total and bioaccessible arsenic.

The supplementary laboratory chemical test results, including the arsenic bioaccessibility results, are presented in Appendix C.

6.0 *Ground Conditions*

6.1 Former School Building Footprint

TP101 to TP105 encountered approximately 0.16m of reinforced concrete over made ground extending to approximately 0.70m to 0.80m bgl.

The made ground generally comprised brick, concrete, slag and sandstone. Visible fragments of suspected asbestos cement were noted within the made ground at TP102 and TP105.

The natural soils generally comprised firm light grey mottled orangish brown silty slightly gravelly clay.

6.2 Northern Site Boundary

TP106 to TP108 encountered approximately 0.20m of topsoil over variable made ground.

At TP106 and TP107, the made ground was principally associated with localised backfilled trench features and comprised sandy clayey gravel containing sandstone, concrete and slag.

At TP108, made ground extended to approximately 0.90m bgl and comprised gravelly sand and clay containing coal, sandstone and slag.

Natural glacial soils were encountered beneath the made ground at depths ranging from approximately 0.20m to 0.90m bgl and generally comprised firm silty slightly gravelly clay.

7.0 Contamination Screening

The laboratory chemical test results have initially been assessed against published generic screening criteria for a residential end use without homegrown produce, as a conservative first-tier assessment.

Where exceedances of the adopted generic screening criteria have been identified, these are considered further within the Human Health Risk Assessment presented in Section 8.0.

7.1 Western Developed Area / Former School Building Footprint – Made Ground

The majority of contaminants within the supplementary made ground samples were recorded at concentrations below the adopted generic screening criteria.

A beryllium concentration of 1.8mg/kg was recorded at TP103, marginally exceeding the adopted screening value of 1.7mg/kg.

Chrysotile asbestos was identified within the made ground at TP103 at a concentration of <0.001%. Suspected asbestos containing material was also observed within the made ground at TP102 and TP105.

No other exceedances of the adopted generic screening criteria were identified.

TP101 was positioned to target the former boiler/plant room. The laboratory chemical testing did not identify elevated petroleum hydrocarbon concentrations or other evidence of contamination associated with this former use.

7.2 Northern Site Boundary / Adjacent to Railway Embankment – Localised Made Ground

Arsenic concentrations of 75mg/kg and 70mg/kg were recorded within localised made ground at TP106 and TP107 respectively, exceeding the adopted generic screening criterion of 40mg/kg.

No other exceedances of the adopted generic screening criteria were identified, and asbestos was not detected within the samples tested.

7.3 Playing Field – Topsoil

Arsenic concentrations within the 10 No. supplementary playing field topsoil samples ranged from 58mg/kg to 160mg/kg.

All of the supplementary samples exceeded the adopted generic screening criterion of 40mg/kg.

8.0 Updated Human Health Risk Assessment

The contamination screening has identified a number of potential contaminant linkages requiring further consideration in relation to the proposed educational end use.

Within the western developed area, the previous and supplementary investigations have identified localised contamination within the made ground, including arsenic, PAHs and asbestos containing materials. These findings require appropriate remediation and management to prevent direct exposure.

Elevated arsenic concentrations have also been identified within localised made ground adjacent to the northern railway embankment and within the playing field topsoil. These arsenic concentrations have been subject to further site-specific quantitative assessment, as discussed below.

8.1 Western Developed Area / Former School Building Footprint

The previous Site Investigation identified elevated concentrations of arsenic and selected PAHs within made ground across the western developed area. The PAH exceedances were associated with localised, bituminous and tarmac-rich made ground.

The supplementary investigation beneath the former school building footprint has additionally confirmed the presence of asbestos within the made ground. Chrysotile asbestos was identified at TP103 at a concentration of <0.001%, with suspected asbestos containing materials also observed within TP102 and TP105. A marginal beryllium exceedance was also recorded at TP103, which is considered isolated and does not require specific remediation.

The combined findings confirm the presence of variable made ground across the western developed area containing localised chemical contamination and asbestos containing materials.

The majority of this area will be covered by the proposed buildings, pavements and car parking. These will break the direct exposure pathway and prevent contact with the underlying made ground.

Within proposed landscaped areas, the made ground will require either:

- A minimum 600mm thickness of clean topsoil and subsoil over an appropriate geotextile / anti-dig separation membrane; or
- Complete removal of the made ground to expose uncontaminated natural soils.

These measures are consistent with the remediation approach recommended within the previous Site Investigation Report.

Due to the presence of asbestos, all exposed made ground should be inspected during the earthworks. Any visible or suspected asbestos containing materials should be hand-picked, segregated and removed from site to an appropriately licensed waste facility as hazardous waste. Appropriate waste documentation should be retained.

The detailed remediation and validation requirements are presented in Section 9.0.

8.2 Arsenic Site-Specific Assessment

Arsenic concentrations within the localised northern boundary made ground and playing field topsoil exceed the adopted generic screening criterion of 40mg/kg and therefore require further assessment.

As part of the previous Site Investigation, a refined quantitative human health risk assessment was undertaken using the Environment Agency CLEA model. The assessment adopted exposure assumptions representative of the proposed primary school / playing field end use, including a female child receptor aged 3 to 11 years, term-time attendance of 190 days per year and representative indoor and outdoor exposure during the school day.

This assessment derived a Site-Specific Target Level for arsenic of 200mg/kg. For the purposes of this supplementary assessment, this criterion is referred to as SSTL1.

SSTL1 was derived using exposure assumptions representative of the proposed primary school / playing field end use and on a total arsenic basis, without adjustment for site-specific arsenic bioaccessibility

The CLEA model settings and results used to derive SSTL1 are presented in Appendix G.

Following review of the previous Site Investigation Report, the Local Authority Environmental Health Officer requested additional sampling across the playing field together with arsenic bioaccessibility testing to provide further confidence in the assessment of potential risks to future site users.

As part of the supplementary investigation, 10 No. additional playing field topsoil samples were analysed for both total and bioaccessible arsenic.

A summary of the results is presented below in Table 1.

Table 1: Summary of Bioaccessible Arsenic Laboratory Test Results			
Location	Total Arsenic (mg/kg)	Stomach Phase (%)	Stomach + Intestine Phase (%)
TS1	98	12.9	13.3
TS2	94	21.0	19.9
TS3	84	14.8	13.5
TS4	94	14.8	15.6
TS5	100	15.2	14.7
TS6	58	14.0	15.5
TS7	89	18.6	16.8
TS8	68	15.4	14.2
TS9	69	17.5	18.8
TS10	160	12.5	12.1

The results indicate that only a proportion of the total arsenic present within the playing field topsoil was bioaccessible under the laboratory test conditions.

A further CLEA assessment has therefore been undertaken using the measured bioaccessibility data. For this assessment, the exposure assumptions were not adjusted to reflect the proposed primary school / playing field end use. Instead, the conservative exposure assumptions for a residential end use without homegrown produce were retained, with only the arsenic bioavailable fraction amended to reflect the site-specific bioaccessibility data.

The maximum measured bioaccessible fraction of 21.0% was adopted within the assessment, providing a conservative representation of the bioaccessibility dataset.

This further assessment derived a Site-Specific Target Level for arsenic of 181mg/kg, referred to within this report as SSTL2.

The CLEA model settings and results used to derive SSTL2 are presented in Appendix H.

- SSTL1 – 200mg/kg: Derived within the previous Site Investigation using exposure assumptions representative of the proposed primary school / playing field end use and on a total arsenic basis.
- SSTL2 – 181mg/kg: Derived as part of the supplementary assessment using the conservative residential without homegrown produce exposure scenario, with only the arsenic bioavailable fraction amended using the maximum measured site-specific bioaccessible fraction of 21.0%.

SSTL1 is applicable to the assessment of total arsenic concentrations within both the localised northern boundary made ground and the playing field topsoil. SSTL2 incorporates the site-specific bioaccessibility data obtained from the playing field topsoil and is therefore applicable specifically to that material.

8.3 Northern Site Boundary / Adjacent to Railway Embankment

Arsenic concentrations of 75mg/kg and 70mg/kg were recorded within localised made ground / reworked ground at TP106 and TP107 adjacent to the northern site boundary.

Both concentrations are below SSTL1 of 200mg/kg and are therefore not considered to represent an unacceptable risk to human health for the proposed educational end use.

Bioaccessibility testing was not undertaken on this material and SSTL2 is therefore not applicable.

8.4 Playing Field Topsoil

Arsenic concentrations within the 10 No. supplementary playing field topsoil samples ranged from 58mg/kg to 160mg/kg. When considered together with the three playing field topsoil samples tested during the previous Site Investigation, the assessment is now based on a total dataset of 13 No. samples.

The combined dataset of 13 No. samples provides coverage across the playing field on a grid spacing of approximately 20m or less. This density of coverage is considered sufficient to characterise arsenic concentrations across the playing field for the purposes of this assessment

The maximum arsenic concentration within the combined dataset is 160mg/kg, which is below SSTL1 of 200mg/kg.

The supplementary playing field dataset has also been assessed against SSTL2 of 181mg/kg, derived using the conservative residential without homegrown produce exposure scenario and the maximum measured arsenic bioaccessible fraction of 21.0%.

The maximum recorded arsenic concentration of 160mg/kg is therefore below both SSTL1 and SSTL2.

The playing field topsoil therefore satisfies both the site-specific assessment based on the proposed educational end use and the supplementary assessment retaining the conservative residential without homegrown produce exposure assumptions.

On this basis, the arsenic concentrations within the playing field topsoil are not considered to represent an unacceptable risk to human health for the proposed educational end use.

Specific remediation of the playing field topsoil in respect of arsenic is therefore not required.

The conclusions of this assessment do not rely upon an assumption that the recorded arsenic concentrations represent regional background conditions. They are based on the site-specific soil dataset and the quantitative assessments against SSTL1 and SSTL2.

9.0 Remediation Recommendations

The updated human health risk assessment has confirmed that specific remediation is required within the western developed area where made ground could remain accessible within the completed development.

No specific remediation is required in respect of arsenic within the localised made ground adjacent to the northern railway embankment or within the playing field topsoil.

9.1 Western Developed Area / Former School Building Footprint

The majority of the western developed area will be covered by the proposed buildings, pavements and car parking. In these areas, the permanent hardstanding will break the direct exposure pathway.

Within proposed landscaped areas underlain by made ground, one of the following remedial options should be adopted:

- Option 1: A minimum 600mm thickness of clean topsoil and subsoil should be placed over an appropriate geotextile separation membrane.
- Option 2: The made ground should be completely removed from beneath the proposed landscaped areas to expose uncontaminated natural soils.

Where a clean cover system is adopted, the imported soils should be demonstrated to be chemically suitable for the proposed end use. The thickness and installation of the clean cover and separation membrane should be validated by photographic records and verification measurements.

Where made ground is removed, the exposed natural formation should be inspected and, where appropriate, validation samples should be taken to confirm satisfactory removal of the made ground.

Due to the presence of asbestos within the made ground, all exposed made ground should be inspected during the earthworks. Any visible or suspected asbestos containing materials should be hand-picked, segregated and removed from site to an appropriately licensed waste facility as hazardous waste. Appropriate waste consignment documentation should be retained.

The extent of the western made ground requiring these measures is shown on Figure 4.

9.2 Northern Site Boundary / Adjacent to Railway Embankment

The arsenic concentrations recorded within the localised made ground / reworked ground adjacent to the northern site boundary are below SSTL1 and are not considered to represent an unacceptable risk to human health for the proposed educational end use.

Specific remediation in respect of arsenic is therefore not required.

9.3 Playing Field Topsoil

The arsenic concentrations within the playing field topsoil are below both SSTL1 and SSTL2 and are not considered to represent an unacceptable risk to human health for the proposed educational end use.

Specific remediation of the existing playing field topsoil in respect of arsenic is therefore not required.

Following completion of the remedial works within the western developed area, a Validation Report should be prepared incorporating the relevant photographic records, laboratory results for imported clean soils, cover thickness records, waste documentation and any other evidence required to demonstrate satisfactory completion of the remediation works.

9.4 Dealing with Potential Unidentified Contamination

Any visually or olfactorily unusual materials, or indications of previously unidentified contamination, should be reported to site management and assessed by a suitably qualified environmental consultant.

Particular attention should be given to any suspected asbestos containing materials or hydrocarbon impacted soils encountered during the remaining earthworks.

Where previously unidentified contamination is encountered, works within the affected area should cease until the material has been appropriately assessed.

Where necessary, additional investigation and laboratory testing should be undertaken to determine the nature and extent of the contamination and any additional remedial measures required.

Any additional remedial measures should be agreed with the Local Authority where appropriate and suitable validation evidence should be retained for inclusion within the final Validation Report.

We trust the above and enclosed are to your satisfaction. However, if you have any queries or require any further information, please do not hesitate to contact us.

Yours faithfully,



Jack Jones BSc (Hons), MSc, ARSM, FGS

Director

Intégral Géotechnique (Wales) Limited

Encl.

Appendix A – Relevant Previous Site Investigation Data (March 2026 Investigation)

Appendix B – Supplementary Trial Pit Logs

Appendix C – Supplementary Laboratory Chemical Test Results

Appendix D – Summary of Laboratory Chemical Test Results (Former Building Footprint)

Appendix E – Summary of Laboratory Chemical Test Results (Northern Site Boundary)

Appendix F – Summary of Laboratory Chemical Test Results (Playing Field Topsoil)

Appendix G – CLEA Model Settings and Results – Arsenic SSTL1

Appendix H – CLEA Model Settings and Results – Arsenic SSTL2

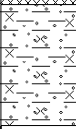
Figures

Appendix A

Relevant Previous Site Investigation Data (March 2026 Investigation)

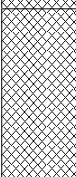
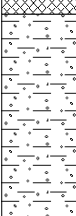
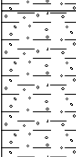
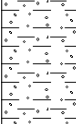
Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: YGG Tregelles, St John's Terrace			Project No.: 14560		Trial Pit No.: SA01 Sheet 1 of 1		
Location: Neath Abbey			Client: Knox & Wells Limited			Logged By: AG		Scale 1:25		
Equipment: 5 Tonne Tracked Excavator			Coordinates:			Dimensions 2.00m				
Date Excavated: 05/03/2026			Level:			Depth : 2.00m 0.70m				
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description				
Depth (m)	Type	Results								
			0.20			Grass over soft dark brown silty CLAY with roots and rootlets (TOPSOIL).				
						Firm light grey mottled orangish brown silty slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.				
			1.50			(Medium dense) brown sandy slightly clayey GRAVEL with a low cobble content. Gravel is fine to coarse sub-rounded to rounded of sandstone. Cobbles are sub-rounded to rounded of sandstone (DEVENSIAN TILL).				
			2.00			End of Trialpit at 2.00 m				
Remarks:			Groundwater:			Moderate groundwater inflows noted below 1.5m depth.			Key:	
Terminated at 2.0m bgl. Soil infiltration test undertaken.			Stability:			Generally stable in the short term.			D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample	
										

 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: YGG Tregelles, St John's Terrace			Project No.: 14560		Trial Pit No.: SA02 Sheet 1 of 1	
Location: Neath Abbey			Client: Knox & Wells Limited			Logged By: AG		Scale 1:25	
Equipment: 5 Tonne Tracked Excavator			Coordinates:			Dimensions 2.30m			
Date Excavated: 05/03/2026			Level:			Depth : 2.10m 0.70m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.20	ES		0.30			Grass over soft dark brown silty slightly gravelly CLAY with roots and rootlets (TOPSOIL).			
						Firm light grey mottled orangish brown silty slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.			
						Firm brown silty slightly sandy gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.			
						(Medium dense) brown sandy slightly clayey GRAVEL with a low cobble content. Gravel is fine to coarse sub-rounded to rounded of sandstone. Cobbles are sub-rounded to rounded of sandstone (DEVENSIAN TILL).			
			2.10			End of Trialpit at 2.10 m			
Remarks: Terminated at 2.1m bgl. Soil infiltration test undertaken. Running sand conditions encountered.			Groundwater: Minor groundwater inflows noted below 1.7m depth.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: Minor pit wall instability noted below 1.7m depth.						

 Integral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: YGG Tregales, St John's Terrace			Project No.: 14560		Trial Pit No.: HDP01 Sheet 1 of 1	
Location: Neath Abbey			Client: Knox & Wells Limited			Logged By: AG		Scale 1:25	
Equipment: Hand Excavated			Coordinates:			Dimensions Depth : 1.00m 0.30m			
Date Excavated: 06/03/2026			Level:						
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.20	ES		0.09			BITUMINOUS MATERIAL			
			0.30			(Loose) dark grey silty sandy fine to coarse GRAVEL of angular limestone chippings and tarmac fragments (MADE GROUND).			
0.70	ES		0.60			Soft dark brown slightly sandy gravelly CLAY. Gravel is fine to coarse angular to sub-angular of concrete, bituminous material, sandstone and rare brick (MADE GROUND).			
			1.00			Firm light grey mottled orangish brown silty slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.			
						End of Trialpit at 1.00 m			
						1			
						2			
						3			
						4			
						5			
Remarks: Terminated at 1.0m bgl. Soil infiltration test undertaken.			Groundwater: No groundwater encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: Generally stable in the short term.						

Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: YGG Tregales, St John's Terrace			Project No.: 14560		Trial Pit No.: HDP02 Sheet 1 of 1	
Location: Neath Abbey			Client: Knox & Wells Limited			Logged By: AG		Scale 1:25	
Equipment: Hand Excavated			Coordinates:			Dimensions0.30m			
Date Excavated: 06/03/2026			Level:			Depth : 1.10m0.30m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.20	ES		0.09			BITUMINOUS MATERIAL			1
					(Loose) dark grey silty sandy fine to coarse GRAVEL of angular limestone chippings and tarmac fragments (MADE GROUND).				
			0.30			Soft dark brown slightly sandy gravelly CLAY. Gravel is fine to coarse angular to sub-angular of concrete, bituminous material, sandstone and rare brick. Minor organic odour noted (MADE GROUND).			
			0.50			Firm light grey mottled orangish brown silty slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.			
			1.10			End of Trialpit at 1.10 m			5
Remarks: Terminated at 1.1m bgl. Soil infiltration test undertaken.			Groundwater: Minor groundwater seepages noted below 0.8m depth.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: Generally stable in the short term.						

Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: YGG Tregeles, St John's Terrace			Project No.: 14560		Trial Pit No.: HDP03 Sheet 1 of 1	
Location: Neath Abbey			Client: Knox & Wells Limited			Logged By: AG		Scale 1:25	
Equipment: Hand Excavated			Coordinates:			Dimensions 0.30m			
Date Excavated: 06/03/2026			Level:			Depth : 0.30m 0.30m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.10	ES		0.20			Grass over soft dark brown silty CLAY with roots and rootlets (TOPSOIL).			
			0.30			Firm light grey mottled orangish brown silty slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.			
						End of Trialpit at 0.30 m			
						1			
						2			
						3			
						4			
						5			
Remarks: Terminated at 0.3m bgl.			Groundwater: No groundwater encountered. Moderate surface water inflows noted.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: Generally stable in the short term.						

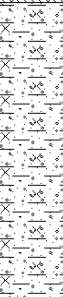
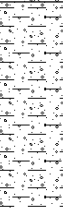
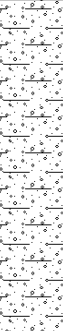
Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: YGG Tregeles, St John's Terrace			Project No.: 14560		Borehole No.: WS01 Sheet 1 of 1		
Location: Neath Abbey			Client: Knox & Wells Limited			Coordinates:		Hole Type: WLS	
Equipment: DART 554			Diameter of Casing:			Level:		Scale 1:25	
Diameter of Boring: 101+86+76+66mm			Depth of Casing:			Dates 06/03/2026 -		Logged By: AG	
Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.09			BITUMINOUS MATERIAL	
					0.30			(Loose) dark grey silty sandy fine to coarse GRAVEL of angular limestone chippings and tarmac fragments (MADE GROUND).	
		0.50	ES					Firm brown slightly sandy gravelly CLAY with a low cobble content. Gravel is fine to coarse angular to sub-angular of concrete, bituminous material, sandstone and rare brick. Cobbles are sub-angular of concrete. Minor organic odour noted (MADE GROUND).	
		1.00	S	N=10 (1,2/2,2,3,3)	0.90			Firm light grey mottled orangish brown slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.	
		1.20	D						
					1.60			Firm grey slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.	
		2.00	S	N=14 (2,3/4,3,3,4)				Becomes very gravelly below 2.1m depth.	
					2.50			Firm becoming stiff brown sandy slightly gravelly SILT. Gravel is fine to sub-angular to rounded of sandstone.	
		3.00	S	N=16 (1,1/2,3,5,6)					
		3.80	S	50 (8,11/50 for 200mm)	3.80			End of Borehole at 3.80 m	
Remarks: Refusal at 3.8m bgl. Groundwater standing at 1.9m bgl. Gas monitoring well installed.						Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone) W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation			



Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: YGG Tregales, St John's Terrace		Project No.: 14560		Borehole No.: WS02 Sheet 1 of 1			
Location: Neath Abbey		Client: Knox & Wells Limited		Coordinates:		Hole Type: WLS			
Equipment: DART 554		Diameter of Casing:		Level:		Scale 1:25			
Diameter of Boring: 101+86+76+66mm		Depth of Casing:		Dates 06/03/2026 -		Logged By: AG			
Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.10			BITUMINOUS MATERIAL	
					0.30			(Loose) dark grey silty sandy fine to coarse GRAVEL of angular limestone chippings and tarmac fragments (MADE GROUND).	
					0.60			Firm dark brown slightly sandy gravelly CLAY. Gravel is fine to coarse angular to sub-angular of concrete, bituminous material, sandstone and rare brick (MADE GROUND).	
		1.00	D					Firm light grey mottled orangish brown silty slightly gravelly CLAY, Gravel is fine to coarse sub-angular to rounded of sandstone.	1
		1.00	S	N=9 (1,1/2,2,2,3)					
					1.70			Firm grey slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.	2
		2.00	S	N=13 (1,4/5,4,2,2)					
					2.50			Firm brown very sandy slightly gravelly SILT. Gravel is fine to coarse sub-angular to rounded of sandstone.	3
		3.00	S	N=14 (2,3/3,3,4,4)					
					3.20			Medium dense brown slightly gravelly fine to coarse SAND. Gravel is fine to coarse sub-angular to rounded of sandstone.	
					3.50			Firm greyish brown slightly sandy SILT.	
		3.70	S	50 (50 for 60mm/50 for 0mm)	3.70			End of Borehole at 3.70 m	4
Remarks: Refusal at 3.7m bgl. Groundwater standing at 1.65m bgl. Gas monitoring well installed.								Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone) W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation	
									

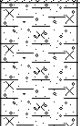
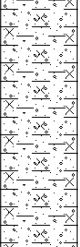
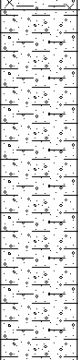
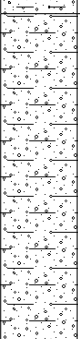


		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: YGG Tregales, St John's Terrace		Project No.: 14560		Borehole No.: WS03 Sheet 1 of 1	
Location: Neath Abbey				Client: Knox & Wells Limited		Coordinates:		Hole Type: WLS	
Equipment: DART 554				Diameter of Casing:		Level:		Scale 1:25	
Diameter of Boring: 101+86+76mm				Depth of Casing:		Dates 06/03/2026 -		Logged By: AG	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.20			Grass over soft dark brown silty CLAY with roots and rootlets (TOPSOIL).	
								Firm light grey mottled orangish brown silty slightly sandy slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.	1
		1.00	S	N=14 (3,3/3,4,3,4)	1.20			Firm brown mottled light grey slightly sandy gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.	
		1.30	D						
		2.00	S	N=9 (2,2/2,2,2,3)	1.90			Medium dense becoming dense brown very sandy clayey GRAVEL. Gravel is fine to coarse sub-angular to rounded of sandstone.	2
		3.00	S	50 (7,13/50 for 220mm)	3.00			End of Borehole at 3.00 m	3
									4
									5

Remarks: Refusal at 3.0m bgl. Groundwater standing at 1.1m bgl.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: YGG Tregales, St John's Terrace		Project No.: 14560		Borehole No.: WS04 Sheet 1 of 1	
Location: Neath Abbey				Client: Knox & Wells Limited		Coordinates:		Hole Type: WLS	
Equipment: DART 554				Diameter of Casing:		Level:		Scale 1:25	
Diameter of Boring: 101+86+76+66mm				Depth of Casing:		Dates 06/03/2026 -		Logged By: AG	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10	ES		0.25		Grass over soft dark brown silty CLAY with roots and rootlets (TOPSOIL).		
								Firm becoming stiff light grey mottled orangish brown silty slightly sandy slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.	
		0.70	ES						
	1.00	1.00	S	N=21 (2,2/3,6,6,6)	1.50			Stiff brown slightly sandy gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone (DEVANSIAN TILL).	1
		2.00	S	N=21 (5,7/6,6,5,4)	2.70			Medium dense brown sandy slightly clayey GRAVEL. Gravel is fine to coarse sub-angular to rounded of sandstone (DEVANSIAN TILL).	2
		3.00	S	N=25 (3,3/4,4,6,11)	3.80			Medium dense becoming dense brown fine to coarse SAND.	3
		4.00	S	N=50 (10,13/50 for 230mm)	4.00		End of Borehole at 4.00 m		4
									5

Remarks: Refusal at 4.0m bgl. Groundwater standing at 1.0m bgl. Gas monitoring well installed.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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Analytical Report Number : 26-012144

Project / Site name:	YGG Tregelles Neath Abbey	Samples received on:	10/03/2026
Your job number:	14560	Samples instructed on/ Analysis started on:	10/03/2026
Your order number:	14560 AG	Analysis completed by:	19/03/2026
Report Issue Number:	1	Report issued on:	19/03/2026
Samples Analysed:	11 soil samples - 2 leachate samples		



Signed:

Anna Goc
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting
air	- once the analysis is complete

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Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 26-012144
Project / Site name: YGG Treges Neath Abbey
Your Order No: 14560 AG

Lab Sample Number	853901	853902	853903	853904	853905
Sample Reference	SA02	HDP01	HDP01	HDP02	HDP03
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.20	0.20	0.70	0.20	0.10
Date Sampled	06/03/2026	06/03/2026	06/03/2026	06/03/2026	06/03/2026
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	17	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	36	14	26	31	34
Total mass of sample received	kg	0.1	NONE	1	0.9	2	2	1.3

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	-
Asbestos Analyst ID	N/A	N/A	N/A	CZJ	CZJ	CZJ	CZJ	-
Analysis completed	N/A	N/A	N/A	18/03/2026	18/03/2026	18/03/2026	18/03/2026	-

General Inorganics

pH (L005B)	pH Units	N/A	MCERTS	-	-	6.9	7.6	-
pH (L099)	pH Units	N/A	MCERTS	6.6	7.8	6.3	6.6	-
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Total Sulphate as SO ₄	mg/kg	50	MCERTS	770	500	280	850	-
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	43	79	25	140	-
Sulphide	mg/kg	1	MCERTS	< 1.0	2.9	4.6	5.8	-
Elemental Sulphur	mg/kg	5	MCERTS	< 5.0	< 5.0	37	53	-
Ammoniacal Nitrogen as N	mg/kg	0.5	MCERTS	-	-	-	-	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	5.3	4	3.4	6.6	-
Loss on Ignition @ 450°C	%	0.2	MCERTS	12	8.9	5.8	18	-
Acid Neutralisation Capacity	±/- mmol/kg	-9999	NONE	-	-	-0.91	5.6	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.16	0.35	< 0.05	0.46	-
Acenaphthylene	mg/kg	0.05	MCERTS	0.1	3.8	< 0.05	0.97	-
Acenaphthene	mg/kg	0.05	MCERTS	0.05	0.59	< 0.05	0.15	-
Fluorene	mg/kg	0.05	MCERTS	0.09	2.8	< 0.05	0.63	-
Phenanthrene	mg/kg	0.05	MCERTS	1.4	47	0.14	11	-
Anthracene	mg/kg	0.05	MCERTS	0.24	11	< 0.05	1.8	-
Fluoranthene	mg/kg	0.05	MCERTS	2.2	55	0.25	22	-
Pyrene	mg/kg	0.05	MCERTS	1.7	43	0.19	17	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.1	27	0.13	11	-
Chrysene	mg/kg	0.05	MCERTS	1.5	23	0.17	12	-
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.7	28	0.15	15	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.63	13	0.09	6.5	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.1	23	0.13	12	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.59	11	0.06	5.7	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.17	3.1	< 0.05	1.3	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.65	9.8	< 0.05	5.8	-
Coronene	mg/kg	0.05	NONE	-	-	< 0.05	1.4	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	13.5	300	1.31	124	-
Total WAC-17 PAHs	mg/kg	0.85	NONE	-	-	1.31	125	-

Analytical Report Number: 26-012144
Project / Site name: YGG Treges Neath Abbey
Your Order No: 14560 AG

Lab Sample Number	853901	853902	853903	853904	853905
Sample Reference	SA02	HDP01	HDP01	HDP02	HDP03
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.20	0.20	0.70	0.20	0.10
Date Sampled	06/03/2026	06/03/2026	06/03/2026	06/03/2026	06/03/2026
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	110	39	13	160	-
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.55	0.96	0.51	1.5	-
Boron (total)	mg/kg	1	MCERTS	2.1	4.7	1.8	4	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	2.1	0.9	0.3	2.8	-
Chromium (hexavalent)	mg/kg	1.8	MCERTS	U/S ^{U/S g}	< 1.8	< 1.8	U/S ^{U/S g}	-
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	< 1.80	-	-	< 1.80	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	12	18	11	20	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	260	160	17	540	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	180	130	12	200	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	23	27	7.6	31	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.4	< 1.0	1.2	3.1	-
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	25	30	13	32	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	230	160	46	320	-

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.01	MCERTS	-	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.01	MCERTS	-	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.01	MCERTS	-	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	MCERTS	-	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	-	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC16 - EC35 _{EH_CU_1D_AL}	mg/kg	10	MCERTS	-	34	< 10	< 10	< 10
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	-	34	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC35 - EC44 _{EH_CU_1D_AL}	mg/kg	8.4	NONE	-	60	< 8.4	< 8.4	< 8.4
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	-	34	< 10	< 10	< 10
TPHCWG - Aliphatic >EC5 - EC44 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	-	95	< 10	< 10	< 10

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	MCERTS	-	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	MCERTS	-	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.02	MCERTS	-	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	MCERTS	-	< 1.0	< 1.0	1.4	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	MCERTS	-	10	< 2.0	4.3	< 2.0
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	-	130	< 10	66	< 10
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	-	200	< 10	120	< 10
TPHCWG - Aromatic >EC35 - EC40 _{EH_CU_1D_AR}	mg/kg	10	NONE	-	75	< 10	23	< 10
TPHCWG - Aromatic >EC35 - EC44 _{EH_CU_1D_AR}	mg/kg	8.4	NONE	-	130	< 8.4	44	< 8.4
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	-	340	< 10	190	< 10
TPHCWG - Aromatic >EC5 - EC44 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	-	470	< 10	230	< 10

TPH Total >EC5 - EC44 _{EH_CU+HS_1D_TOTAL}	mg/kg	10	NONE	-	560	< 10	230	< 10
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Mineral Oil (EC10 - EC40) _{EH_CU_1D_AL}	mg/kg	10	NONE	-	-	< 10	< 10	-
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Analytical Report Number: 26-012144
 Project / Site name: YGG Treges Neath Abbey
 Your Order No: 14560 AG

Lab Sample Number	853901	853902	853903	853904	853905
Sample Reference	SA02	HDP01	HDP01	HDP02	HDP03
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.20	0.20	0.70	0.20	0.10
Date Sampled	06/03/2026	06/03/2026	06/03/2026	06/03/2026	06/03/2026
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

VOCs

Benzene	µg/kg	5	MCERTS	-	-	< 5.0	< 5.0	-
Toluene	µg/kg	5	MCERTS	-	-	< 5.0	< 5.0	-
Ethylbenzene	µg/kg	5	MCERTS	-	-	< 5.0	< 5.0	-
p & m-Xylene	µg/kg	8	MCERTS	-	-	< 8.0	< 8.0	-
o-Xylene	µg/kg	5	MCERTS	-	-	< 5.0	< 5.0	-
Total BTEX	µg/kg	10	MCERTS	-	-	< 10	< 10	-

PCBs by GC-MS

PCB Congener 28	mg/kg	0.001	MCERTS	-	-	< 0.001	< 0.001	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	< 0.001	< 0.001	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	< 0.001	< 0.001	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	< 0.001	< 0.001	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	< 0.001	< 0.001	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	< 0.001	< 0.001	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	< 0.001	< 0.001	-
Total PCBs	mg/kg	0.007	MCERTS	-	-	< 0.007	< 0.007	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 26-012144
Project / Site name: YGG Treges Neath Abbey
Your Order No: 14560 AG

Lab Sample Number	853906	853907	853908	853909	853910
Sample Reference	WS01	WS04	WS04	WS01	WS02
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.50	0.70	0.10	1.20	1.00
Date Sampled	06/03/2026	06/03/2026	06/03/2026	06/03/2026	06/03/2026
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	13.8	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	23	18	35	19	18
Total mass of sample received	kg	0.1	NONE	0.8	1.2	1.1	1.1	1.2

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	-	-
Asbestos Analyst ID	N/A	N/A	N/A	CZJ	CZJ	CZJ	-	-
Analysis completed	N/A	N/A	N/A	18/03/2026	18/03/2026	18/03/2026	-	-

General Inorganics

pH (L005B)	pH Units	N/A	MCERTS	-	-	-	-	-
pH (L099)	pH Units	N/A	MCERTS	7.3	7.1	7.2	6.6	6.3
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Total Sulphate as SO ₄	mg/kg	50	MCERTS	530	110	540	-	-
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	50	17	32	240	55
Sulphide	mg/kg	1	MCERTS	1.2	< 1.0	2.3	-	-
Elemental Sulphur	mg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	-	-
Ammoniacal Nitrogen as N	mg/kg	0.5	MCERTS	-	< 0.5	-	-	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	5.4	0.5	4.9	-	-
Loss on Ignition @ 450°C	%	0.2	MCERTS	13	2	9	-	-
Acid Neutralisation Capacity	±/- mmol/kg	-9999	NONE	-	-	-	-	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	1.2	< 1.0	< 1.0	-	-
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.28	< 0.05	0.14	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	5.5	< 0.05	< 0.05	-	-
Acenaphthene	mg/kg	0.05	MCERTS	0.61	< 0.05	0.05	-	-
Fluorene	mg/kg	0.05	MCERTS	2.7	< 0.05	0.08	-	-
Phenanthrene	mg/kg	0.05	MCERTS	40	< 0.05	0.79	-	-
Anthracene	mg/kg	0.05	MCERTS	9.2	< 0.05	0.17	-	-
Fluoranthene	mg/kg	0.05	MCERTS	60	< 0.05	0.89	-	-
Pyrene	mg/kg	0.05	MCERTS	48	< 0.05	0.72	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	36	< 0.05	0.46	-	-
Chrysene	mg/kg	0.05	MCERTS	31	< 0.05	0.51	-	-
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	40	< 0.05	0.51	-	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	19	< 0.05	0.25	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	34	< 0.05	0.42	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	16	< 0.05	0.2	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	4.6	< 0.05	< 0.05	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	15	< 0.05	0.19	-	-
Coronene	mg/kg	0.05	NONE	-	-	-	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	362	< 0.80	5.38	-	-
Total WAC-17 PAHs	mg/kg	0.85	NONE	-	-	-	-	-

Analytical Report Number: 26-012144
Project / Site name: YGG Treges Neath Abbey
Your Order No: 14560 AG

Lab Sample Number	853906	853907	853908	853909	853910
Sample Reference	WS01	WS04	WS04	WS01	WS02
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.50	0.70	0.10	1.20	1.00
Date Sampled	06/03/2026	06/03/2026	06/03/2026	06/03/2026	06/03/2026
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	89	3.8	84	-	-
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1	0.53	0.45	-	-
Boron (total)	mg/kg	1	MCERTS	3.8	2.6	2.4	-	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	1.7	< 0.2	1.7	-	-
Chromium (hexavalent)	mg/kg	1.8	MCERTS	U/S ^{U/S g}	< 1.8	U/S ^{U/S g}	-	-
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	< 1.80	-	< 1.80	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	16	19	11	-	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	310	8.5	190	-	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	140	12	74	-	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.3	< 0.3	< 0.3	-	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	25	20	13	-	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.1	< 1.0	1.4	-	-
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	27	21	18	-	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	260	65	180	-	-

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	1.9	-	-	-	-
TPHCWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	7.1	-	-	-	-
TPHCWG - Aliphatic >EC16 - EC21 EH_CU_1D_AL	mg/kg	8	MCERTS	21	-	-	-	-
TPHCWG - Aliphatic >EC16 - EC35 EH_CU_1D_AL	mg/kg	10	MCERTS	63	-	-	-	-
TPHCWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	MCERTS	42	-	-	-	-
TPHCWG - Aliphatic >EC35 - EC44 EH_CU_1D_AL	mg/kg	8.4	NONE	28	-	-	-	-
TPHCWG - Aliphatic >EC5 - EC35 EH_CU+HS_1D_AL	mg/kg	10	NONE	72	-	-	-	-
TPHCWG - Aliphatic >EC5 - EC44 EH_CU+HS_1D_AL	mg/kg	10	NONE	100	-	-	-	-

TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.02	MCERTS	< 0.020	-	-	-	-
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	-	-	-	-
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	19	-	-	-	-
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	200	-	-	-	-
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	330	-	-	-	-
TPHCWG - Aromatic >EC35 - EC40 EH_CU_1D_AR	mg/kg	10	NONE	65	-	-	-	-
TPHCWG - Aromatic >EC35 - EC44 EH_CU_1D_AR	mg/kg	8.4	NONE	120	-	-	-	-
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	550	-	-	-	-
TPHCWG - Aromatic >EC5 - EC44 EH_CU+HS_1D_AR	mg/kg	10	NONE	670	-	-	-	-

TPH Total >EC5 - EC44 EH_CU+HS_1D_TOTAL	mg/kg	10	NONE	770	-	-	-	-
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Mineral Oil (EC10 - EC40) EH_CU_1D_AL	mg/kg	10	NONE	-	-	-	-	-
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Analytical Report Number: 26-012144
 Project / Site name: YGG Treges Neath Abbey
 Your Order No: 14560 AG

Lab Sample Number	853906	853907	853908	853909	853910
Sample Reference	WS01	WS04	WS04	WS01	WS02
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.50	0.70	0.10	1.20	1.00
Date Sampled	06/03/2026	06/03/2026	06/03/2026	06/03/2026	06/03/2026
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

VOCs

Benzene	µg/kg	5	MCERTS	-	-	-	-	-
Toluene	µg/kg	5	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	5	MCERTS	-	-	-	-	-
p & m-Xylene	µg/kg	8	MCERTS	-	-	-	-	-
o-Xylene	µg/kg	5	MCERTS	-	-	-	-	-
Total BTEX	µg/kg	10	MCERTS	-	-	-	-	-

PCBs by GC-MS

PCB Congener 28	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	-	-	-
Total PCBs	mg/kg	0.007	MCERTS	-	-	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 26-012144
Project / Site name: YGG Treges Neath Abbey
Your Order No: 14560 AG

Lab Sample Number	853911			
Sample Reference	WS03			
Sample Number	None Supplied			
Water Matrix	N/A			
Depth (m)	1.30			
Date Sampled	06/03/2026			
Time Taken	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	

Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	10
Total mass of sample received	kg	0.1	NONE	1.1

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	-
Asbestos Analyst ID	N/A	N/A	N/A	-
Analysis completed	N/A	N/A	N/A	-

General Inorganics

pH (L005B)	pH Units	N/A	MCERTS	-
pH (L099)	pH Units	N/A	MCERTS	6
Total Cyanide	mg/kg	1	MCERTS	-
Total Sulphate as SO ₄	mg/kg	50	MCERTS	-
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	33
Sulphide	mg/kg	1	MCERTS	-
Elemental Sulphur	mg/kg	5	MCERTS	-
Ammoniacal Nitrogen as N	mg/kg	0.5	MCERTS	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	-
Loss on Ignition @ 450°C	%	0.2	MCERTS	-
Acid Neutralisation Capacity	±/- mmol/kg	-9999	NONE	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	-
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-
Acenaphthylene	mg/kg	0.05	MCERTS	-
Acenaphthene	mg/kg	0.05	MCERTS	-
Fluorene	mg/kg	0.05	MCERTS	-
Phenanthrene	mg/kg	0.05	MCERTS	-
Anthracene	mg/kg	0.05	MCERTS	-
Fluoranthene	mg/kg	0.05	MCERTS	-
Pyrene	mg/kg	0.05	MCERTS	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-
Chrysene	mg/kg	0.05	MCERTS	-
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-
Coronene	mg/kg	0.05	NONE	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	-
Total WAC-17 PAHs	mg/kg	0.85	NONE	-

Analytical Report Number: 26-012144
Project / Site name: YGG Treges Neath Abbey
Your Order No: 14560 AG

Lab Sample Number	853911			
Sample Reference	WS03			
Sample Number	None Supplied			
Water Matrix	N/A			
Depth (m)	1.30			
Date Sampled	06/03/2026			
Time Taken	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	-
Boron (total)	mg/kg	1	MCERTS	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-
Chromium (hexavalent)	mg/kg	1.8	MCERTS	-
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.01	MCERTS	-
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.01	MCERTS	-
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.01	MCERTS	-
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	MCERTS	-
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	MCERTS	-
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	-
TPHCWG - Aliphatic >EC16 - EC35 _{EH_CU_1D_AL}	mg/kg	10	MCERTS	-
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	-
TPHCWG - Aliphatic >EC35 - EC44 _{EH_CU_1D_AL}	mg/kg	8.4	NONE	-
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	-
TPHCWG - Aliphatic >EC5 - EC44 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	-

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	MCERTS	-
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	MCERTS	-
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.02	MCERTS	-
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	MCERTS	-
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	MCERTS	-
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	-
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	-
TPHCWG - Aromatic >EC35 - EC40 _{EH_CU_1D_AR}	mg/kg	10	NONE	-
TPHCWG - Aromatic >EC35 - EC44 _{EH_CU_1D_AR}	mg/kg	8.4	NONE	-
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	-
TPHCWG - Aromatic >EC5 - EC44 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	-

TPH Total >EC5 - EC44 _{EH_CU+HS_1D_TOTAL}	mg/kg	10	NONE	-
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Mineral Oil (EC10 - EC40) _{EH_CU_1D_AL}	mg/kg	10	NONE	-
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Analytical Report Number: 26-012144
 Project / Site name: YGG Treges Neath Abbey
 Your Order No: 14560 AG

Lab Sample Number	853911			
Sample Reference	WS03			
Sample Number	None Supplied			
Water Matrix	N/A			
Depth (m)	1.30			
Date Sampled	06/03/2026			
Time Taken	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	

VOCs

Benzene	µg/kg	5	MCERTS	-
Toluene	µg/kg	5	MCERTS	-
Ethylbenzene	µg/kg	5	MCERTS	-
p & m-Xylene	µg/kg	8	MCERTS	-
o-Xylene	µg/kg	5	MCERTS	-
Total BTEX	µg/kg	10	MCERTS	-

PCBs by GC-MS

PCB Congener 28	mg/kg	0.001	MCERTS	-
PCB Congener 52	mg/kg	0.001	MCERTS	-
PCB Congener 101	mg/kg	0.001	MCERTS	-
PCB Congener 118	mg/kg	0.001	MCERTS	-
PCB Congener 138	mg/kg	0.001	MCERTS	-
PCB Congener 153	mg/kg	0.001	MCERTS	-
PCB Congener 180	mg/kg	0.001	MCERTS	-
Total PCBs	mg/kg	0.007	MCERTS	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 26-012144
Project / Site name: YGG Treges Neath Abbey

Your Order No: 14560 AG

Lab Sample Number	853903	853904
Sample Reference	HDP01	HDP02
Sample Number	None Supplied	None Supplied
Water Matrix	N/A	N/A
Depth (m)	0.70	0.20
Date Sampled	06/03/2026	06/03/2026
Time Taken	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	Units	Test Limit of detection
		Test Accreditation Status

10:1 WAC Leachate

Arsenic	mg/l	0.001	ISO 17025	< 0.00100	0.0108
Barium	mg/l	0.00005	ISO 17025	0.0209	0.0239
Cadmium	mg/l	0.0001	ISO 17025	< 0.000100	< 0.000100
Chromium	mg/l	0.0004	ISO 17025	0.0017	0.001
Copper	mg/l	0.0007	ISO 17025	< 0.00070	0.009
Mercury	mg/l	0.0005	ISO 17025	< 0.000500	< 0.000500
Molybdenum	mg/l	0.0004	ISO 17025	< 0.000400	0.00517
Nickel	mg/l	0.0003	ISO 17025	0.0011	0.0022
Lead	mg/l	0.001	ISO 17025	0.0016	< 0.0010
Antimony	mg/l	0.0017	ISO 17025	< 0.0017	0.0022
Selenium	mg/l	0.004	ISO 17025	< 0.0040	< 0.0040
Zinc	mg/l	0.0004	ISO 17025	0.0039	0.031
Chloride	mg/l	0.15	ISO 17025	0.87	1.9
Fluoride	mg/l	0.05	ISO 17025	0.4	0.46
Sulphate	mg/l	0.045	ISO 17025	7.2	14
Total dissolved solids	mg/l	6	ISO 17025	21	54
Total monohydric phenols	mg/l	0.01	ISO 17025	< 0.010	< 0.010
Dissolved organic carbon	mg/l	0.1	NONE	9.37	8.89

10:1 WAC Leachate

Arsenic	mg/kg	0.01	NONE	< 0.0100	0.108
Barium	mg/kg	0.0005	NONE	0.209	0.239
Cadmium	mg/kg	0.001	NONE	< 0.00100	< 0.00100
Chromium	mg/kg	0.004	NONE	0.017	0.01
Copper	mg/kg	0.007	NONE	< 0.0070	0.09
Mercury	mg/kg	0.005	NONE	< 0.00500	< 0.00500
Molybdenum	mg/kg	0.004	NONE	< 0.00400	0.0517
Nickel	mg/kg	0.003	NONE	0.011	0.022
Lead	mg/kg	0.01	NONE	0.016	< 0.010
Antimony	mg/kg	0.017	NONE	< 0.017	0.022
Selenium	mg/kg	0.04	NONE	< 0.040	< 0.040
Zinc	mg/kg	0.004	NONE	0.039	0.31
Chloride	mg/kg	1.5	NONE	8.7	19
Fluoride	mg/kg	0.5	NONE	4	4.6
Sulphate	mg/kg	0.45	NONE	72	140
Total dissolved solids	mg/kg	60	NONE	210	540
Total monohydric phenols	mg/kg	0.1	NONE	< 0.10	< 0.10
Dissolved organic carbon	mg/kg	1	NONE	93.7	88.9

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

i2 Analytical

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Waste Acceptance Criteria Analytical Results

Waste Acceptance Criteria Analysis Results				26-012144						
Report No:										
						Client: Integral Geotechnique				
Location				YGG Tregelles Neath Abbey						
Lab Reference (Sample Number)				853903		Landfill Waste Acceptance Criteria				
						Limits				
Sampling Date				06/03/2026		Inert Waste Landfill	Stable Non- reactive HAZARDOUS waste in non- hazardous Landfill	Hazardous Waste Landfill		
Sample ID										
Depth (m)				0.70						
Solid Waste Analysis										
TOC (%)**				3.4		3%	5%	6%		
Loss on Ignition (%) **				5.8		--	--	10%		
BTEX (µg/kg) **				< 10		6000	--	--		
Sum of PCBs (mg/kg) **				< 0.007		1	--	--		
Mineral Oil (mg/kg) EH, 10, CU, AL				< 10		500	--	--		
Total PAH (WAC-17) (mg/kg)				1.31		100	--	--		
pH (units)**				6.9		--	>6	--		
Acid Neutralisation Capacity (mmol / kg)				-0.91		--	To be evaluated	To be evaluated		
Eluate Analysis (BS EN 12457 - 2 preparation utilising end over end leaching procedure)				10:1		Limit values for compliance leaching test				
				mg/l		10:1		using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *				< 0.00100	< 0.0100	0.5	2	25		
Barium *				0.0209	0.209	20	100	300		
Cadmium *				< 0.000100	< 0.00100	0.04	1	5		
Chromium *				0.0017	0.017	0.5	10	70		
Copper *				< 0.00070	< 0.0070	2	50	100		
Mercury *				< 0.000500	< 0.00500	0.01	0.2	2		
Molybdenum *				< 0.000400	< 0.00400	0.5	10	30		
Nickel *				0.0011	0.011	0.4	10	40		
Lead *				0.0016	0.016	0.5	10	50		
Antimony *				< 0.0017	< 0.017	0.06	0.7	5		
Selenium *				< 0.0040	< 0.040	0.1	0.5	7		
Zinc *				0.0039	0.039	4	50	200		
Chloride *				0.87	8.7	800	15000	25000		
Fluoride*				0.4	4	10	150	500		
Sulphate *				7.2	72	1000	20000	50000		
TDS*				21	210	4000	60000	100000		
Phenol Index (Monohydric Phenols) *				< 0.010	< 0.10	1	-	-		
DOC				9.37	93.7	500	800	1000		
Leach Test Information										
Stone Content (%)				< 0.1						
Sample Mass (kg)				2						
Dry Matter (%)				74						
Moisture (%)				26						

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3. This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

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Waste Acceptance Criteria Analytical Results

Waste Acceptance Criteria Analysis Results				26-012144					
Report No:									
						Client: Integral Geotechnique			
Location				YGG Tregelles Neath Abbey					
Lab Reference (Sample Number)				853904		Landfill Waste Acceptance Criteria			
						Limits			
Sampling Date				06/03/2026		Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	
Sample ID				HDP02					
Depth (m)				0.20					
Solid Waste Analysis									
TOC (%)**				6.6			3%	5%	6%
Loss on Ignition (%) **				18			--	--	10%
BTEX (µg/kg) **				< 10			6000	--	--
Sum of PCBs (mg/kg) **				< 0.007			1	--	--
Mineral Oil (mg/kg) EH, 10, CU, AL				< 10			500	--	--
Total PAH (WAC-17) (mg/kg)				125			100	--	--
pH (units)**				7.6			--	>6	--
Acid Neutralisation Capacity (mmol / kg)				5.6			--	To be evaluated	To be evaluated
Eluate Analysis (BS EN 12457 - 2 preparation utilising end over end leaching procedure)				10:1		10:1	Limit values for compliance leaching test		
				mg/l			using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *				0.0108		0.108	0.5	2	25
Barium *				0.0239		0.239	20	100	300
Cadmium *				< 0.000100		< 0.00100	0.04	1	5
Chromium *				0.001		0.01	0.5	10	70
Copper *				0.009		0.09	2	50	100
Mercury *				< 0.000500		< 0.00500	0.01	0.2	2
Molybdenum *				0.00517		0.0517	0.5	10	30
Nickel *				0.0022		0.022	0.4	10	40
Lead *				< 0.0010		< 0.010	0.5	10	50
Antimony *				0.0022		0.022	0.06	0.7	5
Selenium *				< 0.0040		< 0.040	0.1	0.5	7
Zinc *				0.031		0.31	4	50	200
Chloride *				1.9		19	800	15000	25000
Fluoride*				0.46		4.6	10	150	500
Sulphate *				14		140	1000	20000	50000
TDS*				54		540	4000	60000	100000
Phenol Index (Monohydric Phenols) *				< 0.010		< 0.10	1	-	-
DOC				8.89		88.9	500	800	1000
Leach Test Information									
Stone Content (%)				< 0.1					
Sample Mass (kg)				2					
Dry Matter (%)				69					
Moisture (%)				31					
					</				

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3. This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Analytical Report Number : 26-012144

Project / Site name: YGG Treges Neath Abbey

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
853901	SA02	None Supplied	0.2	Brown clay and loam with gravel and vegetation
853902	HDP01	None Supplied	0.2	Brown clay and sand with gravel and stones
853903	HDP01	None Supplied	0.7	Brown clay with gravel
853904	HDP02	None Supplied	0.2	Brown loam and clay with gravel and vegetation
853905	HDP03	None Supplied	0.1	Brown clay and loam with gravel and vegetation
853906	WS01	None Supplied	0.5	Brown clay and sand with gravel and stones
853907	WS04	None Supplied	0.7	Brown clay and sand
853908	WS04	None Supplied	0.1	Brown clay and sand with fibrous material and vegetation
853909	WS01	None Supplied	1.2	Brown clay
853910	WS02	None Supplied	1	Brown clay
853911	WS03	None Supplied	1.3	Brown clay and sand with gravel

Analytical Report Number : 26-012144

Project / Site name: YGG Treges Neath Abbey

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode	In-house method	L010-PL	D	MCERTS
Moisture Content (Wet Weight)	Moisture content (% wet weight), determined gravimetrically (up to 30°C)	In-house-procedure based on BS EN 12880:2000	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Elemental sulphur in soil	Determination of elemental sulphur in soil by extraction in acetonitrile followed by HPLC	In-house method: Sample is extracted in acetonitrile prior to analysis by HPLC	L021B	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Hexavalent chromium in soil by Ion Chromatography	Determination of hexavalent chromium in alkaline soil extract by use of ion chromatography with spectrophotometric detection	In-house method	L130B	W	NONE
Loss on ignition of soil @ 450°C	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	In-house method	L047-PL	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080-PL	W	MCERTS
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS

Analytical Report Number : 26-012144

Project / Site name: YGG Treges Neath Abbey

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE
Total petroleum hydrocarbons with carbon banding by GC-FID in soil	Determination of total petroleum hydrocarbons in soil by GC-FID with carbon banding aliphatic and aromatic	In-house method	L076B	D	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil (Summed Bands)	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic (Summed Bands).	Calculation	L076B/L088-PL	D/W	NONE
Total petroleum hydrocarbons with carbon banding by HS-GC/MS in soil	Determination of total petroleum hydrocarbons in soil by HS-GC/MS with carbon banding aliphatic and aromatic	In-house method	L088-PL	W	MCERTS
pH at 20°C in soil	Determination of pH in soil by addition of water followed by electrometric measurement	In-house method	L005B	W	MCERTS
PCB's By GC-MS in soil	Determination of PCB by extraction with hexane followed by GC-MS	In-house method based on USEPA 8082	L027B	D	MCERTS
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by electrometric measurement	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L031B	W	ISO 17025
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination	L033B	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR Analyser	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	W	NONE
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025
One stage WAC 10:1 leachate preparation	One stage batch test at a liquid to solid ratio of 10 L/kg	BS EN 12457-2-2002	L043B	W	ISO 17025
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe	In-house method based on Guidance on Sampling and Testing of Wastes to Meet Landfill Waste Acceptance	L046B	W	NONE
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons by GC-FID in soil	Determination of total petroleum hydrocarbons in soil by GC-FID	In-house method	L076B	D	NONE
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser	In-house based on MEWAM Method ISBN 0117516260	L082B	W	ISO 17025

Analytical Report Number : 26-012144

Project / Site name: YGG Treges Neath Abbey

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Ammoniacal Nitrogen as N in soil	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the discrete analyser (colorimetric) salicylate/nitroprusside method,10:1 water extraction.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082B	W	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution

*U/S g- Unsuitable for analysis due to high colour intensity.

SUMMARY OF LABORATORY SOIL TEST RESULTS

METALS AND SEMI-METALS

Job No.: 14560
 Site: YGG Tregelles, St John's Terrace, Neath Abbey
 Soil Type: Made Ground
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Arsenic (mg/kg)	Boron (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (Elemental) (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
2	HDP01	0.20	39	4.7	0.96	0.9	18	< 1.8	160	130	< 0.3	27	< 1.0	30	160
4	HDP02	0.20	160	4	1.5	2.8	20	< 1.80	540	200	< 0.3	31	3.1	32	320
6	WS01	0.50	89	3.8	1	1.7	16	< 1.80	310	140	0.3	25	1.1	27	260
Screening Criteria Value			40.0	11000.0	1.7	85.0	-	6.0	7100.0	310.0	1.2	180.0	430.0	1200.0	40000.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	-	S4UL	S4UL	C4SL	S4UL	S4UL	S4UL	S4UL	S4UL

SUMMARY OF LABORATORY SOIL TEST RESULTS

Job No.: 14560
 Site: YGG Tregesles, St John's Terrace, Neath Abbey
 Soil Type: Made Ground
 Soil Organic Matter: 1%

INORGANIC CHEMICALS & OTHERS

No.	Location	Depth (m)	Cyanide (mg/kg)	Loss on ignition, dried solids (%)	Moisture content at 30 C (%)	Phenol (mg/kg)	pH (pH units)	Water Soluble Sulphate (mg/l)	Sulphate Total as SO4 (mg/kg)	Sulphide (mg/kg)	Total Sulphur (mg/kg)	TOC by Ignition in O2 (%)	Equivalent SOM (%)	Asbestos in Soil	Asbestos Quantification (%)
2	HDP01	0.20	< 1.0	8.90	14.00	< 1.0	7.80	39.500	500.00	2.90	-	4.00	6.88	Not-detected	#N/A
4	HDP02	0.20	< 1.0	18.00	31.00	< 1.0	6.60	70.000	850.00	5.80	-	6.60	11.35	Not-detected	#N/A
6	WS01	0.50	< 1.0	13.00	23.00	1.20	7.30	25.000	530.00	1.20	-	5.40	9.29	Not-detected	#N/A
Screening Criteria Value			34.0	-	-	440.0	-	-	-	-	-	-	-	-	0.001
Source of Screening Criteria Value			ATRISK	-	-	S4UL	-	-	-	-	-	-	-	-	IOM

SUMMARY OF LABORATORY SOIL TEST RESULTS

POLYAROMATIC HYDROCARBONS (PAH)

Job No.: 14560
Site: YGG Tregeles, St John's Terrace, Neath Abbey
Soil Type: Made Ground
Soil Organic Matter: 1%

No.	Location	Depth (m)	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo(a)anthracene (mg/kg)	Benzo(a)pyrene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(ghi)perylene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(ah)anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(123cd)pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
2	HDP01	0.20	0.59	3.8	11	27	23	28	9.8	13	23	3.1	55	2.8	11	0.35	47	43
4	HDP02	0.20	0.15	0.97	1.8	11	12	15	5.8	6.5	12	1.3	22	0.63	5.7	0.46	11	17
6	WS01	0.50	0.61	5.5	9.2	36	34	40	15	19	31	4.6	60	2.7	16	0.28	40	48
Screening Criteria Value			3000.0	2900.0	31000.0	11.0	3.2	3.9	360.0	110.0	30.0	0.31	1500.0	2800.0	45.0	2.3	1300.0	3700.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

SUMMARY OF LABORATORY SOIL TEST RESULTS

PETROLEUM HYDROCARBONS

Job No.: 14560
Site: YGG Tregesles, St John's Terrace, Neath Abbey
Soil Type: Made Ground
Soil Organic Matter: 1%

No.	Location	Depth (m)	Aliphatic C5-C6 (mg/kg)	Aliphatic C6-C8 (mg/kg)	Aliphatic C8-C10 (mg/kg)	Aliphatic C10- C12 EPH (mg/kg)	Aliphatic C12- C16 EPH (mg/kg)	Aliphatic C16- C35 EPH (mg/kg)	Aliphatic C35- C44 EPH (mg/kg)	Aromatic C5-C7 (mg/kg)	Aromatic C7-C8 (mg/kg)	Aromatic C8- C10 (mg/kg)	Aromatic C10- C12 EPH (mg/kg)	Aromatic C12- C16 EPH (mg/kg)	Aromatic C16- C21 EPH (mg/kg)	Aromatic C21- C35 EPH (mg/kg)	Aromatic C35- C40 EPH (mg/kg)
2	HDP01	0.20	< 0.010	< 0.010	< 0.010	< 1.0	< 2.0	34	60	< 0.010	< 0.010	< 0.020	< 1.0	10	130	200	75
4	HDP02	0.20	< 0.010	< 0.010	< 0.010	< 1.0	< 2.0	< 10	< 8.4	< 0.010	< 0.010	< 0.020	1.4	4.3	66	120	23
6	WS01	0.50	< 0.010	< 0.010	< 0.010	1.9	7.1	63	28	< 0.010	< 0.010	< 0.020	< 1.0	19	200	330	65
Screening Criteria Value			42.0	100.0	27.0	130.0	1100.0	65000.0	65000.0	0.4	880.0	47.0	250.0	1800.0	1900.0	1900.0	1900.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

SUMMARY OF LABORATORY SOIL TEST RESULTS

METALS AND SEMI-METALS

Job No.: 14560
 Site: YGG Tregales, St John's Terrace, Neath Abbey
 Soil Type: Topsoil
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Arsenic (mg/kg)	Boron (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (Elemental) (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
1	SA02	0.20	110	2.1	0.55	2.1	12	< 1.80	260	180	< 0.3	23	1.4	25	230
5	HDP03	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-
8	WS04	0.10	84	2.4	0.45	1.7	11	< 1.80	190	74	< 0.3	13	1.4	18	180
Screening Criteria Value			40.0	11000.0	1.7	85.0	-	6.0	7100.0	310.0	1.2	180.0	430.0	1200.0	40000.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	-	S4UL	S4UL	C4SL	S4UL	S4UL	S4UL	S4UL	S4UL

SUMMARY OF LABORATORY SOIL TEST RESULTS

Job No.: 14560
 Site: YGG Treges, St John's Terrace, Neath Abbey
 Soil Type: Topsoil
 Soil Organic Matter: 1%

INORGANIC CHEMICALS & OTHERS

No.	Location	Depth (m)	Cyanide (mg/kg)	Loss on ignition, dried solids (%)	Moisture content at 30 C (%)	Phenol (mg/kg)	pH (pH units)	Water Soluble Sulphate (mg/l)	Sulphate Total as SO4 (mg/kg)	Sulphide (mg/kg)	Total Sulphur (mg/kg)	TOC by Ignition in O2 (%)	Equivalent SOM (%)	Asbestos in Soil	Asbestos Quantification (%)
1	SA02	0.20	< 1.0	12.00	36.00	< 1.0	6.60	21.500	770.00	< 1.0	-	5.30	9.12	Not-detected	#N/A
5	HDP03	0.10	-	-	34.00	-	-	-	-	-	-	-	<0.1	-	#N/A
8	WS04	0.10	< 1.0	9.00	35.00	< 1.0	7.20	16.000	540.00	2.30	-	4.90	8.43	Not-detected	#N/A
Screening Criteria Value			-	-	-	440.0	-	-	-	-	-	-	-	-	0.001
Source of Screening Criteria Value			ATRISK	-	-	S4UL	-	-	-	-	-	-	-	-	IOM

SUMMARY OF LABORATORY SOIL TEST RESULTS

POLYAROMATIC HYDROCARBONS (PAH)

Job No.: 14560
Site: YGG Treges, St John's Terrace, Neath Abbey
Soil Type: Topsoil
Soil Organic Matter: 1%

No.	Location	Depth (m)	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo(a)anthracene (mg/kg)	Benzo(a)pyrene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(ghi)perylene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(ah)anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(123cd)pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
1	SA02	0.20	0.05	0.1	0.24	1.1	1.1	1.7	0.65	0.63	1.5	0.17	2.2	0.09	0.59	0.16	1.4	1.7
5	HDP03	0.10																
8	WS04	0.10	0.05	< 0.05	0.17	0.46	0.42	0.51	0.19	0.25	0.51	< 0.05	0.89	0.08	0.2	0.14	0.79	0.72
Screening Criteria Value			3000.0	2900.0	31000.0	11.0	3.2	3.9	360.0	110.0	30.0	0.31	1500.0	2800.0	45.0	2.3	1300.0	3700.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

SUMMARY OF LABORATORY SOIL TEST RESULTS

PETROLEUM HYDROCARBONS

Job No.: 14560
Site: YGG Tregesles, St John's Terrace, Neath Abbey
Soil Type: Topsoil
Soil Organic Matter: 1%

No.	Location	Depth (m)	Aliphatic C5-C6 (mg/kg)	Aliphatic C6-C8 (mg/kg)	Aliphatic C8-C10 (mg/kg)	Aliphatic C10- C12 EPH (mg/kg)	Aliphatic C12- C16 EPH (mg/kg)	Aliphatic C16- C35 EPH (mg/kg)	Aliphatic C35- C44 EPH (mg/kg)	Aromatic C5-C7 (mg/kg)	Aromatic C7-C8 (mg/kg)	Aromatic C8- C10 (mg/kg)	Aromatic C10- C12 EPH (mg/kg)	Aromatic C12- C16 EPH (mg/kg)	Aromatic C16- C21 EPH (mg/kg)	Aromatic C21- C35 EPH (mg/kg)	Aromatic C35- C40 EPH (mg/kg)
1	SA02	0.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	HDP03	0.10	< 0.010	< 0.010	< 0.010	< 1.0	< 2.0	< 10	< 8.4	< 0.010	< 0.010	< 0.020	< 1.0	< 2.0	< 10	< 10	< 10
8	WS04	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Screening Criteria Value			42.0	100.0	27.0	130.0	1100.0	65000.0	65000.0	0.4	880.0	47.0	250.0	1800.0	1900.0	1900.0	1900.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

SUMMARY OF LABORATORY SOIL TEST RESULTS

METALS AND SEMI-METALS

Job No.: 14560
 Site: YGG Treges, St John's Terrace, Neath Abbey
 Soil Type: Natural Soils / Glacial Till
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Arsenic (mg/kg)	Boron (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (Elemental) (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
3	HDP01	0.70	13	1.8	0.51	0.3	11	< 1.8	17	12	< 0.3	7.6	1.2	13	46
7	WS04	0.70	3.8	2.6	0.53	< 0.2	19	< 1.8	8.5	12	< 0.3	20	< 1.0	21	65
Screening Criteria Value			40.0	11000.0	1.7	85.0	-	6.0	7100.0	310.0	1.2	180.0	430.0	1200.0	40000.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	-	S4UL	S4UL	C4SL	S4UL	S4UL	S4UL	S4UL	S4UL

SUMMARY OF LABORATORY SOIL TEST RESULTS

Job No.: 14560
 Site: YGG Treges, St John's Terrace, Neath Abbey
 Soil Type: Natural Soils / Glacial Till
 Soil Organic Matter: 1%

INORGANIC CHEMICALS & OTHERS

No.	Location	Depth (m)	Cyanide (mg/kg)	Loss on ignition, dried solids (%)	Moisture content at 30 C (%)	Phenol (mg/kg)	pH (pH units)	Water Soluble Sulphate (mg/l)	Sulphate Total as SO4 (mg/kg)	Sulphide (mg/kg)	Total Sulphur (mg/kg)	TOC by Ignition in O2 (%)	Equivalent SOM (%)	Asbestos in Soil	Asbestos Quantification (%)
3	HDP01	0.70	< 1.0	5.80	26.00	< 1.0	6.30	12.500	280.00	4.60	-	3.40	5.85	Not-detected	#N/A
7	WS04	0.70	< 1.0	2.00	18.00	< 1.0	7.10	8.500	110.00	< 1.0	-	0.50	0.86	Not-detected	#N/A
Screening Criteria Value			34.0	-	-	440.0	-	-	-	-	-	-	-	-	0.001
Source of Screening Criteria Value			ATRISK	-	-	S4UL	-	-	-	-	-	-	-	-	IOM

SUMMARY OF LABORATORY SOIL TEST RESULTS

POLYAROMATIC HYDROCARBONS (PAH)

Job No.: 14560
Site: YGG Tregesles, St John's Terrace, Neath Abbey
Soil Type: Natural Soils / Glacial Till
Soil Organic Matter: 1%

No.	Location	Depth (m)	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo(a)anthracene (mg/kg)	Benzo(a)pyrene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(ghi)perylene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(ah)anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(123cd)pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
3	HDP01	0.70	< 0.05	< 0.05	< 0.05	0.13	0.13	0.15	< 0.05	0.09	0.17	< 0.05	0.25	< 0.05	0.06	< 0.05	0.14	0.19
7	WS04	0.70	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Screening Criteria Value			3000.0	2900.0	31000.0	11.0	3.2	3.9	360.0	110.0	30.0	0.31	1500.0	2800.0	45.0	2.3	1300.0	3700.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL



SUMMARY OF LABORATORY SOIL TEST RESULTS

PETROLEUM HYDROCARBONS

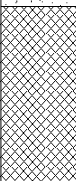
Job No.: 14560
Site: YGG Tregeles, St John's Terrace, Neath Abbey
Soil Type: Natural Soils / Glacial Till
Soil Organic Matter: 1%

No.	Location	Depth (m)	Aliphatic C5-C6 (mg/kg)	Aliphatic C6-C8 (mg/kg)	Aliphatic C8-C10 (mg/kg)	Aliphatic C10- C12 EPH (mg/kg)	Aliphatic C12- C16 EPH (mg/kg)	Aliphatic C16- C35 EPH (mg/kg)	Aliphatic C35- C44 EPH (mg/kg)	Aromatic C5-C7 (mg/kg)	Aromatic C7-C8 (mg/kg)	Aromatic C8- C10 (mg/kg)	Aromatic C10- C12 EPH (mg/kg)	Aromatic C12- C16 EPH (mg/kg)	Aromatic C16- C21 EPH (mg/kg)	Aromatic C21- C35 EPH (mg/kg)	Aromatic C35- C40 EPH (mg/kg)
3	HDP01	0.70	< 0.010	< 0.010	< 0.010	< 1.0	< 2.0	< 10	< 8.4	< 0.010	< 0.010	< 0.020	< 1.0	< 2.0	< 10	< 10	< 10
7	WS04	0.70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Screening Criteria Value			42.0	100.0	27.0	130.0	1100.0	65000.0	65000.0	0.4	880.0	47.0	250.0	1800.0	1900.0	1900.0	1900.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

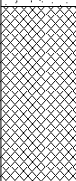
Appendix B

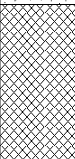
Supplementary Trial Pit Logs

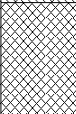
Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: YGG Tregales, St John's Terrace			Project No.: 14560		Trial Pit No.: TP101 Sheet 1 of 1	
Location: Neath Abbey			Client: Knox & Wells Limited			Logged By: AG		Scale 1:25	
Equipment: 1 Tonne Tracked Excavator			Coordinates:			Dimensions 1.00m			
Date Excavated: 17/08/2026			Level:			Depth : 0.90m 1.00m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.40	ES		0.16			Reinforced CONCRETE			
					(Dense) brownish grey slightly gravelly slightly sandy COBBLES and BOULDERS. Gravel is fine to coarse angular to sub-angular of brick, concrete, slag and sandstone. Cobbles and boulders are sub-angular of brick and concrete (MADE GROUND).				
					CONCRETE				
					Firm light grey mottled orangish brown silty slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.				
			0.80			End of Trialpit at 0.90 m			
			0.85						
			0.90						
Remarks:			Groundwater:			Key:			
Terminated at 0.90m bgl.			No groundwater encountered.			D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability:			Generally stable in the short term.			

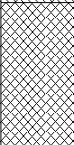
 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: YGG Tregales, St John's Terrace			Project No.: 14560		Trial Pit No.: TP102 Sheet 1 of 1	
Location: Neath Abbey			Client: Knox & Wells Limited			Logged By: AG		Scale 1:25	
Equipment: 1 Tonne Tracked Excavator			Coordinates:			Dimensions 1.00m			
Date Excavated: 17/08/2026			Level:			Depth : 0.85m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.50	ES		0.16			Reinforced CONCRETE			
					(Dense) brownish grey slightly gravelly slightly sandy COBBLES and BOULDERS. Gravel is fine to coarse angular to sub-angular of brick, concrete, slag and sandstone. Cobbles and boulders are sub-angular of brick and concrete. Contains inclusions of asbestos (MADE GROUND).				
					CONCRETE				
					Firm light grey mottled orangish brown silty slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.				
					End of Trialpit at 0.85 m				
			0.75						
			0.80						
			0.85						
Remarks: Terminated at 0.85m bgl.			Groundwater: No groundwater encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: Generally stable in the short term.						

Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: YGG Tregales, St John's Terrace			Project No.: 14560		Trial Pit No.: TP103 Sheet 1 of 1	
Location: Neath Abbey			Client: Knox & Wells Limited			Logged By: AG		Scale 1:25	
Equipment: 1 Tonne Tracked Excavator			Coordinates:			Dimensions 1.00m			
Date Excavated: 17/08/2026			Level:			Depth : 0.85m 1.00m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.30	ES		0.16			Reinforced CONCRETE			
					(Dense) brownish grey slightly gravelly slightly sandy COBBLES and BOULDERS. Gravel is fine to coarse angular to sub-angular of brick, concrete, slag and sandstone. Cobbles and boulders are sub-angular of brick and concrete (MADE GROUND).				
			0.70			CONCRETE			
			0.75			Firm light grey mottled orangish brown silty slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.			
			0.85			sub-angular to rounded of sandstone.			
						End of Trialpit at 0.85 m			
Remarks: Terminated at 0.85m bgl.			Groundwater: No groundwater encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: Generally stable in the short term.						

 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: YGG Tregales, St John's Terrace			Project No.: 14560		Trial Pit No.: TP104 Sheet 1 of 1	
Location: Neath Abbey			Client: Knox & Wells Limited			Logged By: AG		Scale 1:25	
Equipment: 1 Tonne Tracked Excavator			Coordinates:			Dimensions 1.00m			
Date Excavated: 07/08/2026			Level:			Depth : 0.85m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.20	ES		0.16			Reinforced CONCRETE			
						(Dense) brownish grey slightly gravelly slightly sandy COBBLES and BOULDERS. Gravel is fine to coarse angular to sub-angular of brick, concrete, slag and sandstone. Cobbles and boulders are sub-angular of brick and concrete (MADE GROUND).			
			0.75			CONCRETE			
			0.80 0.85			Firm light grey mottled orangish brown silty slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.			
						End of Trialpit at 0.85 m			
Remarks: Terminated at 0.85m bgl.			Groundwater: No groundwater encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: Generally stable in the short term.						

Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: YGG Tregales, St John's Terrace			Project No.: 14560		Trial Pit No.: TP105 Sheet 1 of 1	
Location: Neath Abbey			Client: Knox & Wells Limited			Logged By: AG		Scale 1:25	
Equipment: 1 Tonne Tracked Excavator			Coordinates:			Dimensions 1.00m			
Date Excavated: 17/08/2026			Level:			Depth : 0.80m 1.00m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.40	ES		0.16			Reinforced CONCRETE			
					(Dense) brownish grey slightly gravelly slightly sandy COBBLES and BOULDERS. Gravel is fine to coarse angular to sub-angular of brick, concrete, slag and sandstone. Cobbles and boulders are sub-angular of brick and concrete. Contains inclusions of asbestos (MADE GROUND).				
					CONCRETE				
					Firm light grey mottled orangish brown silty slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.				
						End of Trialpit at 0.80 m			
Remarks: Terminated at 0.80m bgl.			Groundwater: No groundwater encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: Generally stable in the short term.						

 Integral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: YGG Tregales, St John's Terrace			Project No.: 14560		Trial Pit No.: TP106 Sheet 1 of 1	
Location: Neath Abbey			Client: Knox & Wells Limited			Logged By: AG		Scale 1:25	
Equipment: 5 Tonne Tracked Excavator			Coordinates:			Dimensions 1.90m			
Date Excavated: 17/08/2026			Level:			Depth : 1.10m 0.90m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.30	ES		0.20		 Grass over soft dark brown slightly gravelly CLAY with roots and rootlets. Gravel is fine to coarse angular to sub-rounded of sandstone (TOPSOIL).	1 2 3 4 5			
				 (Medium dense) dark brown sandy clayey GRAVEL with a low cobble and boulder content. Gravel is fine to coarse sub-angular to rounded of sandstone, concrete and slay. Cobbles are sub-angular to rounded of sandstone and slag (MADE GROUND).					
			0.60	 Note: Made ground encountered within backfilled trench through the centre of the pit. Environmental sample acquired from made ground.					
			1.10	 Firm light grey mottled orangish brown silty slightly gravelly CLAY. gravel is fine to coarse sub-angular to rounded of sandstone. Note: Natural soils encountered from 0.20m depth at northern and southern sides of the trial pit.					
End of Trialpit at 1.10 m									
Remarks: Terminated at 1.10m bgl.			Groundwater: No groundwater encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: Generally stable in the short term.						

Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: YGG Tregelles, St John's Terrace			Project No.: 14560		Trial Pit No.: TP107 Sheet 1 of 1		
Location: Neath Abbey			Client: Knox & Wells Limited			Logged By: AG		Scale 1:25		
Equipment: 5 Tonne Tracked Excavator			Coordinates:			Dimensions 1.80m				
Date Excavated: 17/08/2026			Level:			Depth : 1.30m 0.90m				
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description				
Depth (m)	Type	Results								
0.40	ES		0.20			Grass over soft dark brown slightly gravelly CLAY with roots and rootlets. Gravel is fine to coarse angular to sub-rounded of sandstone (TOPSOIL).			1	
						(Medium dense) dark brown sandy clayey GRAVEL with a low cobble and boulder content. Gravel is fine to coarse sub-angular to rounded of sandstone, concrete and slay. Cobbles are sub-angular to rounded of sandstone and slag (MADE GROUND). Note: Made ground encountered within backfilled trench through the centre of the pit. Environmental sample acquired from made ground.				
						Firm light grey mottled orangish brown silty slightly gravelly CLAY. gravel is fine to coarse sub-angular to rounded of sandstone. Note: Natural soils encountered from 0.20m depth at northern and southern sides of the trial pit.				
			1.30		End of Trialpit at 1.30 m					5
Remarks: Terminated at 1.30m bgl.			Groundwater: No groundwater encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample				
			Stability: Generally stable in the short term.							

 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: YGG Tregales, St John's Terrace			Project No.: 14560		Trial Pit No.: TP108 Sheet 1 of 1	
Location: Neath Abbey			Client: Knox & Wells Limited			Logged By: AG		Scale 1:25	
Equipment: 5 Tonne Tracked Excavator			Coordinates:			Dimensions Depth : 1.40m 0.90m 2.00m			
Date Excavated: 17/08/2026			Level:						
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.60	ES		0.20			Grass over soft dark brown slightly gravelly CLAY with roots and rootlets. Gravel is fine to coarse angular to sub-rounded of sandstone (TOPSOIL).			
			0.50			(Loose to medium dense) dark greyish brown slightly gravelly SAND. Gravel is fine to coarse sub-angular to sub-rounded of coal, sandstone and slag (MADE GROUND).			
			0.90			Soft black gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone and coal (MADE GROUND).			
			1.40			Firm light grey mottled orangish brown silty slightly gravelly CLAY. gravel is fine to coarse sub-angular to rounded of sandstone.			1
						End of Trialpit at 1.40 m			
									2
									3
									4
									5
Remarks: Terminated at 1.40m bgl.			Groundwater: No groundwater encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: Generally stable in the short term.						

Appendix C

Supplementary Laboratory Chemical Test Results

Integral Geotechnique
Integral House
7 Beddau Way
Castlegate Business Park
CF83 2AX

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

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e: Aidan@integralgeotec.com

t: 01923 225404

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Analytical Report Number : 26-045504

Project / Site name:	YGG Tregesles, Neath Abbey	Samples received on:	19/08/2026
Your job number:	14560	Samples instructed on/ Analysis started on:	19/08/2026
Your order number:	14560/AG	Analysis completed by:	30/08/2026
Report Issue Number:	1	Report issued on:	31/08/2026
Samples Analysed:	8 soil samples		



Signed:

Anna Goc
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting
air	- once the analysis is complete

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Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 26-045504

Project / Site name: YGG Treges, Neath Abbey

Your Order No: 14560/AG

Lab Sample Number	1021405	1021406	1021407	1021408	1021409
Sample Reference	TP101	TP102	TP103	TP104	TP105
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.40	0.50	0.30	0.20	0.40
Date Sampled	17/08/2026	17/08/2026	17/08/2026	17/08/2026	17/08/2026
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Mass of stone >10mm	%	0.1	NONE	69.1	70.1	60.2	61.7	< 0.1
Moisture Content	%	0.01	NONE	3.3	3.3	3.4	4.4	6.8
Total mass of sample received	kg	0.1	NONE	0.9	1.1	1	1.1	0.9
Whole Sample Crushed	N/A	N/A	NONE	Crushed	Crushed	Crushed	Crushed	-

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	KMC	KMC	KMC	KMC	CAD
Analysis completed	N/A	N/A	N/A	25/08/2026	25/08/2026	25/08/2026	25/08/2026	25/08/2026
Actinolite detected	Type	N/A	ISO 17025	-	-	Not-detected	-	-
Amosite detected	Type	N/A	ISO 17025	-	-	Not-detected	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	-	Not-detected	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	-	Detected	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	-	Not-detected	-	-
Tremolite detected	Type	N/A	ISO 17025	-	-	Not-detected	-	-

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	< 0.001	-	-
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	Loose Fibres	-	-
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General Inorganics

pH (L099)	pH Units	N/A	MCERTS	10.3	8.9	10.9	10.5	10.6
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	3.3	< 1.0	< 1.0
Total Sulphate as SO ₄	mg/kg	50	MCERTS	2800	720	3700	5900	33000
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	2000	510	2000	3800	4000
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	993	257	995	1900	1980
Sulphide	mg/kg	1	MCERTS	2.5	< 1.0	3.6	9.5	16
Elemental Sulphur	mg/kg	5	MCERTS	10	5.9	29	22	20
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1.5	1.1	1.5	1.1	1.9
Total Organic Carbon (TOC) - Manual	%	0.1	MCERTS	-	-	-	-	-
Loss on Ignition @ 450°C	%	0.2	MCERTS	4.7	3.5	5.1	4.2	7

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Analytical Report Number: 26-045504

Project / Site name: YGG Treges, Neath Abbey

Your Order No: 14560/AG

Lab Sample Number				1021405	1021406	1021407	1021408	1021409
Sample Reference				TP101	TP102	TP103	TP104	TP105
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.40	0.50	0.30	0.20	0.40
Date Sampled				17/08/2026	17/08/2026	17/08/2026	17/08/2026	17/08/2026
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.61	0.13	0.29	0.33	0.25
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.1	0.14	0.07
Acenaphthene	mg/kg	0.05	MCERTS	0.08	< 0.05	0.07	0.07	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.07	< 0.05	0.11	0.13	0.07
Phenanthrene	mg/kg	0.05	MCERTS	2.2	0.43	1.3	1.5	0.73
Anthracene	mg/kg	0.05	MCERTS	0.39	< 0.05	0.32	0.3	0.16
Fluoranthene	mg/kg	0.05	MCERTS	2.8	0.23	1.5	1.9	1.3
Pyrene	mg/kg	0.05	MCERTS	2.4	0.2	1.5	1.6	1.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.4	< 0.05	0.96	1	0.89
Chrysene	mg/kg	0.05	MCERTS	1.3	0.18	1.1	0.97	1.1
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.7	0.18	0.9	1.3	1.2
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.56	< 0.05	0.38	0.38	0.56
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.2	< 0.05	0.62	0.88	0.85
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.66	< 0.05	0.35	0.45	0.5
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.12	< 0.05	< 0.05	0.09	0.18
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.8	< 0.05	0.36	0.52	0.58

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	16.3	1.33	9.79	11.5	9.78
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	10	12	14	13	22
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.4	1.1	1.8	1.1	1.2
Boron (total)	mg/kg	1	MCERTS	7.8	3.1	15	14	26
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	-	-	-	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	16	19	14	13
Copper (aqua regia extractable)	mg/kg	1	MCERTS	290	22	54	26	99
Lead (aqua regia extractable)	mg/kg	1	MCERTS	19	17	73	81	130
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	0.9
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	39	38	50	31	25
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	30	17	27	18	23
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	130	87	160	78	180

Analytical Report Number: 26-045504

Project / Site name: YGG Tregelles, Neath Abbey

Your Order No: 14560/AG

Lab Sample Number	1021405	1021406	1021407	1021408	1021409
Sample Reference	TP101	TP102	TP103	TP104	TP105
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.40	0.50	0.30	0.20	0.40
Date Sampled	17/08/2026	17/08/2026	17/08/2026	17/08/2026	17/08/2026
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	MCERTS	< 1.0	< 1.0	1.4	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	MCERTS	2.5	< 2.0	7.7	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	10	< 8.0	< 8.0
TPHCWG - Aliphatic >EC16 - EC35 _{EH_CU_1D_AL}	mg/kg	10	MCERTS	29	< 10	26	< 10	< 10
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	29	< 8.0	16	< 8.0	< 8.0
TPHCWG - Aliphatic >EC35 - EC44 _{EH_CU_1D_AL}	mg/kg	8.4	NONE	19	< 8.4	8.6	< 8.4	< 8.4
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	32	< 10	36	< 10	< 10
TPHCWG - Aliphatic >EC5 - EC44 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	50	< 10	44	< 10	< 10

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.02	MCERTS	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	MCERTS	7.2	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	14	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	32	< 10	< 10	< 10	18
TPHCWG - Aromatic >EC35 - EC40 _{EH_CU_1D_AR}	mg/kg	10	NONE	13	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC35 - EC44 _{EH_CU_1D_AR}	mg/kg	8.4	NONE	28	< 8.4	< 8.4	< 8.4	11
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	53	< 10	< 10	< 10	18
TPHCWG - Aromatic >EC5 - EC44 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	81	< 10	< 10	< 10	28

TPH Total >EC5 - EC44 _{EH_CU+HS_1D_TOTAL}	mg/kg	10	NONE	130	< 10	44	< 10	28
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U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 26-045504

Project / Site name: YGG Tregelles, Neath Abbey

Your Order No: 14560/AG

Lab Sample Number	1021410	1021411	1021412
Sample Reference	TP106	TP107	TP108
Sample Number	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A
Depth (m)	0.30	0.40	0.60
Date Sampled	17/08/2026	17/08/2026	17/08/2026
Time Taken	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status

Mass of stone >10mm	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	20	10	39
Total mass of sample received	kg	0.1	NONE	1	0.9	0.9
Whole Sample Crushed	N/A	N/A	NONE	-	-	-

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	CAD	CAD	CAD
Analysis completed	N/A	N/A	N/A	25/08/2026	25/08/2026	25/08/2026
Actinolite detected	Type	N/A	ISO 17025	-	-	-
Amosite detected	Type	N/A	ISO 17025	-	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	-	-
Tremolite detected	Type	N/A	ISO 17025	-	-	-

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	-
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	-
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General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.3	7.3	5.9
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	mg/kg	50	MCERTS	360	580	600
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	72	100	98
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	35.9	51.1	49.1
Sulphide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Elemental Sulphur	mg/kg	5	MCERTS	8.6	8.1	33
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	2.1	3.5	-
Total Organic Carbon (TOC) - Manual	%	0.1	MCERTS	-	-	9.8
Loss on Ignition @ 450°C	%	0.2	MCERTS	4	9.1	25

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
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Analytical Report Number: 26-045504

Project / Site name: YGG Treges, Neath Abbey

Your Order No: 14560/AG

Lab Sample Number	1021410	1021411	1021412
Sample Reference	TP106	TP107	TP108
Sample Number	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A
Depth (m)	0.30	0.40	0.60
Date Sampled	17/08/2026	17/08/2026	17/08/2026
Time Taken	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	0.22	0.28
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.24
Phenanthrene	mg/kg	0.05	MCERTS	0.2	0.74	1.1
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.26	0.5	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.22	0.36	0.11
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.14	0.19	0.06
Chrysene	mg/kg	0.05	MCERTS	0.2	0.31	0.46
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.24	0.35	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.06	0.1	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.13	0.17	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.08	0.11	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.1	0.12	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	1.61	3.18	2.21
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	75	70	6.5
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.1	0.67	0.91
Boron (total)	mg/kg	1	MCERTS	4.8	4.1	5.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.9	1.2	0.4
Chromium (hexavalent)	mg/kg	1.8	MCERTS	U/S ^{U/S} g	U/S ^{U/S} g	U/S ^{U/S} g
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	< 1.80	< 1.80	< 1.80
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	12	14
Copper (aqua regia extractable)	mg/kg	1	MCERTS	180	160	48
Lead (aqua regia extractable)	mg/kg	1	MCERTS	260	110	67
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	40	21	21
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	1.1	3
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	34	18	15
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	580	180	53

Analytical Report Number: 26-045504

Project / Site name: YGG Tregelles, Neath Abbey

Your Order No: 14560/AG

Lab Sample Number	1021410	1021411	1021412
Sample Reference	TP106	TP107	TP108
Sample Number	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A
Depth (m)	0.30	0.40	0.60
Date Sampled	17/08/2026	17/08/2026	17/08/2026
Time Taken	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC16 - EC35 _{EH_CU_1D_AL}	mg/kg	10	MCERTS	< 10	< 10	13
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	13
TPHCWG - Aliphatic >EC35 - EC44 _{EH_CU_1D_AL}	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	< 10	< 10	13
TPHCWG - Aliphatic >EC5 - EC44 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	< 10	< 10	13

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.02	MCERTS	< 0.020	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	MCERTS	< 2.0	< 2.0	3.6
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10	< 10	19
TPHCWG - Aromatic >EC35 - EC40 _{EH_CU_1D_AR}	mg/kg	10	NONE	< 10	< 10	< 10
TPHCWG - Aromatic >EC35 - EC44 _{EH_CU_1D_AR}	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	< 10	< 10	22
TPHCWG - Aromatic >EC5 - EC44 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	< 10	< 10	22

TPH Total >EC5 - EC44 _{EH_CU+HS_1D_TOTAL}	mg/kg	10	NONE	< 10	< 10	35
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U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



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Analytical Report Number: **26-045504**
Project / Site name: **YGG Treges, Neath Abbey**
Your Order No: **14560/AG**

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample	Analysis completed	Analyst ID
1021407	TP103	0.3	176	Loose Fibres	Chrysotile	< 0.001	< 0.001	27/08/2026	KMC

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Analytical Report Number : 26-045504

Project / Site name: YGG Tregeles, Neath Abbey

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1021405	TP101	None Supplied	0.4	Brown sand with stones and clinker
1021406	TP102	None Supplied	0.5	Brown sand with gravel and stones
1021407	TP103	None Supplied	0.3	Brown sand with clinker and stones
1021408	TP104	None Supplied	0.2	Brown sand with stones and clinker
1021409	TP105	None Supplied	0.4	Brown sand with gravel and clinker
1021410	TP106	None Supplied	0.3	Brown clay and sand with gravel and vegetation
1021411	TP107	None Supplied	0.4	Brown loam and sand with gravel and vegetation
1021412	TP108	None Supplied	0.6	Brown clay and sand

Analytical Report Number : 26-045504

Project / Site name: YGG Treges, Neath Abbey

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Whole Sample Crushed	Either: Client specific preparation instructions - sample(s) crushed whole prior to analysis OR Sample unsuitable for standard preparation and therefore crushed whole prior to analysis	In house method, applicable to dry samples only	L019B	D	NONE
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode	In-house method	L010-PL	D	MCERTS
Moisture Content (Wet Weight)	Moisture content (% wet weight), determined gravimetrically (up to 30°C)	In-house-procedure based on BS EN 12880:2000	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Elemental sulphur in soil	Determination of elemental sulphur in soil by extraction in acetonitrile followed by HPLC	In-house method: Sample is extracted in acetonitrile prior to analysis by HPLC	L021B	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Loss on ignition of soil @ 450°C	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	In-house method	L047-PL	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID in soil	Determination of total petroleum hydrocarbons in soil by GC-FID with carbon banding aliphatic and aromatic	In-house method	L076B	D	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil (Summed Bands)	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic (Summed Bands).	Calculation	L076B/L088-PL	D/W	NONE
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080-PL	W	MCERTS
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS

Analytical Report Number : 26-045504

Project / Site name: YGG Tregesles, Neath Abbey

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS
Total petroleum hydrocarbons with carbon banding by HS-GC/MS in soil	Determination of total petroleum hydrocarbons in soil by HS-GC/MS with carbon banding aliphatic and aromatic	In-house method	L088-PL	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references	HSE Report No: 83/1996, HSG 248 (2021), HSG 264 (2012) & SCA Blue Book (draft)	A006B	D	ISO 17025
Hexavalent chromium in soil by Ion Chromatography	Determination of hexavalent chromium in alkaline soil extract by use of ion chromatography with spectrophotometric detection	In-house method	L130B	W	NONE
Total organic carbon in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L023B	D	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Where coal tar is reported as "indicative/not indicative", PAH source attribution has been assessed using the ratio of parent PAHs to alkylated PAHs to indicate a likely pyrogenic (coal tar-related) or petrogenic (bitumen-related) origin. This assessment is independent of total residue and/or benzo(a)pyrene concentrations and is provided for indicative purposes only; it represents a single line of evidence and does not, in isolation, constitute confirmation or classification as hazardous under WM3 guidance.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution

*U/S g- Unsuitable for analysis due to high colour intensity.

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Analytical Report Number : 26-045505

Project / Site name:	YGG Tregesles, Neath Abbey	Samples received on:	19/08/2026
Your job number:	14560	Samples instructed on/ Analysis started on:	19/08/2026
Your order number:	14560/AG	Analysis completed by:	31/08/2026
Report Issue Number:	1	Report issued on:	31/08/2026
Samples Analysed:	10 soil samples		



Signed:

Anna Goc
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting
air	- once the analysis is complete

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Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 26-045505

Project / Site name: YGG Treges, Neath Abbey

Your Order No: 14560/AG

Lab Sample Number	1021421				1021422	1021423	1021424	1021425
Sample Reference	TS1				TS2	TS3	TS4	TS5
Sample Number	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A				N/A	N/A	N/A	N/A
Depth (m)	0.10				0.10	0.10	0.10	0.10
Date Sampled	17/08/2026				17/08/2026	17/08/2026	17/08/2026	17/08/2026
Time Taken	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					

Mass of stone >10mm	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Mass of stone > 0.25mm	%	0.1	NONE	71.3	36.7	58.4	68.9	64.6
Moisture Content	%	0.01	NONE	13	11	17	13	21
Total mass of sample received	kg	0.1	NONE	0.6	0.5	0.6	0.6	0.7

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	98	94	84	94	100
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Stomach Phase

Arsenic (Bioaccessible)	mg/kg	0.1	NONE	12.6	19.7	12.4	13.8	15.7
Arsenic Bioaccessible Fraction	%	-	NONE	12.9	21.0	14.8	14.8	15.2

Stomach and Intestine Phase

Arsenic (Bioaccessible)	mg/kg	0.1	NONE	13.0	18.7	11.4	14.6	15.2
Arsenic Bioaccessible Fraction	%	-	NONE	13.3	19.9	13.54	15.64	14.73

Bioaccessibility Summary Data (Maximum value) Stomach Phase (S) or Stomach and Intestine Phase (SI)

Arsenic Bioaccessible Fraction	%	-	NONE	13.3 % (SI)	21 % (S)	14.8 % (S)	15.6 % (SI)	15.2 % (S)
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U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 26-045505

Project / Site name: YGG Treges, Neath Abbey

Your Order No: 14560/AG

Lab Sample Number	1021426	1021427	1021428	1021429	1021430
Sample Reference	TS6	TS7	TS8	TS9	TS10
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.10	0.10	0.10	0.10	0.10
Date Sampled	17/08/2026	17/08/2026	17/08/2026	17/08/2026	17/08/2026
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Mass of stone >10mm	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Mass of stone > 0.25mm	%	0.1	NONE	66.6	73.2	71.6	58.8	61.9
Moisture Content	%	0.01	NONE	12	17	9.5	19	9.8
Total mass of sample received	kg	0.1	NONE	0.6	0.7	0.6	0.6	0.6

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	58	89	68	69	160
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Stomach Phase

Arsenic (Bioaccessible)	mg/kg	0.1	NONE	8.1	16.5	10.4	12.0	20.0
Arsenic Bioaccessible Fraction	%	-	NONE	14.0	18.6	15.4	17.5	12.5

Stomach and Intestine Phase

Arsenic (Bioaccessible)	mg/kg	0.1	NONE	9.0	14.9	9.6	12.9	19.3
Arsenic Bioaccessible Fraction	%	-	NONE	15.54	16.80	14.23	18.83	12.07

Bioaccessibility Summary Data (Maximum value) Stomach Phase (S) or Stomach a

Arsenic Bioaccessible Fraction	%	-	NONE	15.5 % (SI)	18.6 % (S)	15.4 % (S)	18.8 % (SI)	12.5 % (S)
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U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 26-045505

Project / Site name: YGG Tregeles, Neath Abbey

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1021421	TS1	None Supplied	0.1	Brown loam and sand with gravel and vegetation
1021422	TS2	None Supplied	0.1	Brown loam and sand with vegetation
1021423	TS3	None Supplied	0.1	Brown loam and sand with vegetation
1021424	TS4	None Supplied	0.1	Brown loam and sand with gravel and vegetation
1021425	TS5	None Supplied	0.1	Brown loam and sand with vegetation
1021426	TS6	None Supplied	0.1	Brown loam and sand with vegetation
1021427	TS7	None Supplied	0.1	Brown loam and sand with gravel and vegetation
1021428	TS8	None Supplied	0.1	Brown loam and sand with gravel and vegetation
1021429	TS9	None Supplied	0.1	Brown loam and sand with gravel and vegetation
1021430	TS10	None Supplied	0.1	Brown loam and sand with vegetation

Analytical Report Number : 26-045505

Project / Site name: YGG Treges, Neath Abbey

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content (Wet Weight)	Moisture content (% wet weight), determined gravimetrically (up to 30°C)	In-house-procedure based on BS EN 12880:2000	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
UBM Method Required		In-house method	L019B	D	NONE
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Where coal tar is reported as "indicative/not indicative", PAH source attribution has been assessed using the ratio of parent PAHs to alkylated PAHs to indicate a likely pyrogenic (coal tar-related) or petrogenic (bitumen-related) origin. This assessment is independent of total residue and/or benzo(a)pyrene concentrations and is provided for indicative purposes only; it represents a single line of evidence and does not, in isolation, constitute confirmation or classification as hazardous under WM3 guidance.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution

Appendix D

Summary of Laboratory Chemical Test Results (Former Building Footprint)

SUMMARY OF LABORATORY SOIL TEST RESULTS

METALS AND SEMI-METALS

Job No.: 14560
 Site: YGG Tregesles, Neath Abbey
 Soil Type: Made Ground - Former Building Footprint
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Arsenic (mg/kg)	Boron (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (Inorganic) (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
1	TP101	0.40	10	7.8	1.4	< 0.2	20	< 1.8	290	19	< 0.3	39	< 1.0	30	130
2	TP102	0.50	12	3.1	1.1	< 0.2	16	< 1.8	22	17	< 0.3	38	< 1.0	17	87
3	TP103	0.30	14	15	1.8	< 0.2	19	< 1.8	54	73	< 0.3	50	< 1.0	27	160
4	TP104	0.20	13	14	1.1	< 0.2	14	< 1.8	26	81	< 0.3	31	< 1.0	18	78
5	TP105	0.40	22	26	1.2	0.2	13	< 1.8	99	130	0.9	25	< 1.0	23	180
Screening Criteria Value			40.0	-	1.7	85.0	-	6.0	7100.0	310.0	56.0	180.0	430.0	1200.0	40000.0
Source of Screening Criteria Value			S4UL	-	S4UL	S4UL	-	S4UL	S4UL	C4SL	S4UL	S4UL	S4UL	S4UL	S4UL

SUMMARY OF LABORATORY SOIL TEST RESULTS

INORGANIC CHEMICALS & OTHERS

Job No.: 14560
 Site: YGG Tregesles, Neath Abbey
 Soil Type: Made Ground - Former Building Footprint
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Cyanide (mg/kg)	Loss on ignition, dried solids (%)	Moisture content at 30 C (%)	Phenol (mg/kg)	pH (pH units)	Water Soluble Sulphate (g/l)	Sulphate Total as SO4 (mg/kg)	Sulphide (mg/kg)	Total Sulphur (mg/kg)	TOC by Ignition in O2 (%)	Equivalent SOM (%)	Asbestos in Soil	Asbestos Quantification (%)
1	TP101	0.40	< 1.0	4.70	3.30	< 1.0	10.30	0.993	2800.00	2.50	10.00	1.50	2.58	Not-detected	#N/A
2	TP102	0.50	< 1.0	3.50	3.30	< 1.0	8.90	0.257	720.00	< 1.0	5.90	1.10	1.89	Not-detected	#N/A
3	TP103	0.30	3.30	5.10	3.40	< 1.0	10.90	0.995	3700.00	3.60	29.00	1.50	2.58	Detected	< 0.001
4	TP104	0.20	< 1.0	4.20	4.40	< 1.0	10.50	1.900	5900.00	9.50	22.00	1.10	1.89	Not-detected	#N/A
5	TP105	0.40	< 1.0	7.00	6.80	< 1.0	10.60	1.980	33000.00	16.00	20.00	1.90	3.27	Not-detected	#N/A
Screening Criteria Value			34.0	-	-	440.0	-	-	-	-	-	-	-	-	0.001
Source of Screening Criteria Value			ATRISK	-	-	S4UL	-	-	-	-	-	-	-	-	IOM

SUMMARY OF LABORATORY SOIL TEST RESULTS

POLYAROMATIC HYDROCARBONS (PAH)

Job No.: 14560
Site: YGG Tregeles, Neath Abbey
Soil Type: Made Ground - Former Building Footprint
Soil Organic Matter: 1%

No.	Location	Depth (m)	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo(a)anthracene (mg/kg)	Benzo(a)pyrene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(ghi)perylene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(ah)anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(123cd)pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
1	TP101	0.40	0.08	< 0.05	0.39	1.4	1.2	1.7	0.8	0.56	1.3	0.12	2.8	0.07	0.66	0.61	2.2	2.4
2	TP102	0.50	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.18	< 0.05	< 0.05	0.18	< 0.05	0.23	< 0.05	< 0.05	0.13	0.43	0.2
3	TP103	0.30	0.07	0.1	0.32	0.96	0.62	0.9	0.36	0.38	1.1	< 0.05	1.5	0.11	0.35	0.29	1.3	1.5
4	TP104	0.20	0.07	0.14	0.3	1	0.88	1.3	0.52	0.38	0.97	0.09	1.9	0.13	0.45	0.33	1.5	1.6
5	TP105	0.40	< 0.05	0.07	0.16	0.89	0.85	1.2	0.58	0.56	1.1	0.18	1.3	0.07	0.5	0.25	0.73	1.3
Screening Criteria Value			3000.0	2900.0	31000.0	11.0	3.2	3.9	360.0	110.0	30.0	0.31	1500.0	2800.0	45.0	2.3	1300.0	3700.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

SUMMARY OF LABORATORY SOIL TEST RESULTS

PETROLEUM HYDROCARBONS

Job No.: 14560
Site: YGG Tregesles, Neath Abbey
Soil Type: Made Ground - Former Building Footprint
Soil Organic Matter: 1%

No.	Location	Depth (m)	Aliphatic C5-C6 (mg/kg)	Aliphatic C6-C8 (mg/kg)	Aliphatic C8-C10 (mg/kg)	Aliphatic C10- C12 EPH (mg/kg)	Aliphatic C12- C16 EPH (mg/kg)	Aliphatic C16- C35 EPH (mg/kg)	Aliphatic C35- C44 EPH (mg/kg)	Aromatic C5-C7 (mg/kg)	Aromatic C7-C8 (mg/kg)	Aromatic C8- C10 (mg/kg)	Aromatic C10- C12 EPH (mg/kg)	Aromatic C12- C16 EPH (mg/kg)	Aromatic C16- C21 EPH (mg/kg)	Aromatic C21- C35 EPH (mg/kg)	Aromatic C35- C40 EPH (mg/kg)
1	TP101	0.40	< 0.010	< 0.010	< 0.010	< 1.0	2.5	29	19	< 0.010	< 0.010	< 0.020	< 1.0	7.2	14	32	13
2	TP102	0.50	< 0.010	< 0.010	< 0.010	< 1.0	< 2.0	< 10	< 8.4	< 0.010	< 0.010	< 0.020	< 1.0	< 2.0	< 10	< 10	< 10
3	TP103	0.30	< 0.010	< 0.010	< 0.010	1.4	7.7	26	8.6	< 0.010	< 0.010	< 0.020	< 1.0	< 2.0	< 10	< 10	< 10
4	TP104	0.20	< 0.010	< 0.010	< 0.010	< 1.0	< 2.0	< 10	< 8.4	< 0.010	< 0.010	< 0.020	< 1.0	< 2.0	< 10	< 10	< 10
5	TP105	0.40	< 0.010	< 0.010	< 0.010	< 1.0	< 2.0	< 10	< 8.4	< 0.010	< 0.010	< 0.020	< 1.0	< 2.0	< 10	18	< 10
Screening Criteria Value			42.0	100.0	27.0	130.0	1100.0	65000.0	65000.0	0.4	880.0	47.0	250.0	1800.0	1900.0	1900.0	1900.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

Appendix E

Summary of Laboratory Chemical Test Results (Northern Site Boundary)

SUMMARY OF LABORATORY SOIL TEST RESULTS

METALS AND SEMI-METALS

Job No.: 14560
 Site: YGG Tregesles, Neath Abbey
 Soil Type: Localised Made Ground - Northern Site Boundary
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Arsenic (mg/kg)	Boron (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (Inorganic) (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
1	TP106	0.30	75	4.8	1.1	0.9	20	< 1.8	180	260	< 0.3	40	< 1.0	34	580
2	TP107	0.40	70	4.1	0.67	1.2	12	< 1.8	160	110	< 0.3	21	1.1	18	180
3	TP108	0.60	6.5	5.5	0.91	0.4	14	< 1.8	48	67	< 0.3	21	3	15	53
Screening Criteria Value			40.0	-	1.7	85.0	-	6.0	7100.0	310.0	56.0	180.0	430.0	1200.0	40000.0
Source of Screening Criteria Value			S4UL	-	S4UL	S4UL	-	S4UL	S4UL	C4SL	S4UL	S4UL	S4UL	S4UL	S4UL

SUMMARY OF LABORATORY SOIL TEST RESULTS

INORGANIC CHEMICALS & OTHERS

Job No.: 14560
 Site: YGG Tregesles, Neath Abbey
 Soil Type: Localised Made Ground - Northern Site Boundary
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Cyanide (mg/kg)	Loss on ignition, dried solids (%)	Moisture content at 30 C (%)	Phenol (mg/kg)	pH (pH units)	Water Soluble Sulphate (g/l)	Sulphate Total as SO4 (mg/kg)	Sulphide (mg/kg)	Total Sulphur (mg/kg)	TOC by Ignition in O2 (%)	Equivalent SOM (%)	Asbestos in Soil	Asbestos Quantification (%)
1	TP106	0.30	< 1.0	4.00	20.00	< 1.0	7.30	0.036	360.00	< 1.0	8.60	2.10	3.61	Not-detected	#N/A
2	TP107	0.40	< 1.0	9.10	10.00	< 1.0	7.30	0.051	580.00	< 1.0	8.10	3.50	6.02	Not-detected	#N/A
3	TP108	0.60	< 1.0	25.00	39.00	< 1.0	5.90	0.049	600.00	< 1.0	33.00	-	<0.1	Not-detected	#N/A
Screening Criteria Value			34.0	-	-	440.0	-	-	-	-	-	-	-	-	0.001
Source of Screening Criteria Value			ATRISK	-	-	S4UL	-	-	-	-	-	-	-	-	IOM

SUMMARY OF LABORATORY SOIL TEST RESULTS

POLYAROMATIC HYDROCARBONS (PAH)

Job No.: 14560
Site: YGG Tregesles, Neath Abbey
Soil Type: Localised Made Ground - Northern Site Boundary
Soil Organic Matter: 1%

No.	Location	Depth (m)	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo(a)anthracene (mg/kg)	Benzo(a)pyrene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(ghi)perylene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(ah)anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(123cd)pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
1	TP106	0.30	< 0.05	< 0.05	< 0.05	0.14	0.13	0.24	0.1	0.06	0.2	< 0.05	0.26	< 0.05	0.08	< 0.05	0.2	0.22
2	TP107	0.40	< 0.05	< 0.05	< 0.05	0.19	0.17	0.35	0.12	0.1	0.31	< 0.05	0.5	< 0.05	0.11	0.22	0.74	0.36
3	TP108	0.60	< 0.05	< 0.05	< 0.05	0.06	< 0.05	< 0.05	< 0.05	< 0.05	0.46	< 0.05	< 0.05	0.24	< 0.05	0.28	1.1	0.11
Screening Criteria Value			3000.0	2900.0	31000.0	11.0	3.2	3.9	360.0	110.0	30.0	0.31	1500.0	2800.0	45.0	2.3	1300.0	3700.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL



SUMMARY OF LABORATORY SOIL TEST RESULTS

PETROLEUM HYDROCARBONS

Job No.: 14560
Site: YGG Tregesles, Neath Abbey
Soil Type: Localised Made Ground - Northern Site Boundary
Soil Organic Matter: 1%

No.	Location	Depth (m)	Aliphatic C5-C6 (mg/kg)	Aliphatic C6-C8 (mg/kg)	Aliphatic C8-C10 (mg/kg)	Aliphatic C10- C12 EPH (mg/kg)	Aliphatic C12- C16 EPH (mg/kg)	Aliphatic C16- C35 EPH (mg/kg)	Aliphatic C35- C44 EPH (mg/kg)	Aromatic C5-C7 (mg/kg)	Aromatic C7-C8 (mg/kg)	Aromatic C8- C10 (mg/kg)	Aromatic C10- C12 EPH (mg/kg)	Aromatic C12- C16 EPH (mg/kg)	Aromatic C16- C21 EPH (mg/kg)	Aromatic C21- C35 EPH (mg/kg)	Aromatic C35- C40 EPH (mg/kg)
1	TP106	0.30	< 0.010	< 0.010	< 0.010	< 1.0	< 2.0	< 10	< 8.4	< 0.010	< 0.010	< 0.020	< 1.0	< 2.0	< 10	< 10	< 10
2	TP107	0.40	< 0.010	< 0.010	< 0.010	< 1.0	< 2.0	< 10	< 8.4	< 0.010	< 0.010	< 0.020	< 1.0	< 2.0	< 10	< 10	< 10
3	TP108	0.60	< 0.010	< 0.010	< 0.010	< 1.0	< 2.0	13	< 8.4	< 0.010	< 0.010	< 0.020	< 1.0	3.6	< 10	19	< 10
Screening Criteria Value			42.0	100.0	27.0	130.0	1100.0	65000.0	65000.0	0.4	880.0	47.0	250.0	1800.0	1900.0	1900.0	1900.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

Appendix F

Summary of Laboratory Chemical Test Results (Playing Field Topsoil)

SUMMARY OF LABORATORY SOIL TEST RESULTS

METALS AND SEMI-METALS

Job No.: 14560
 Site: YGG Treges, Neath Abbey
 Soil Type: Playing Field Topsoil - Total Arsenic
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Arsenic (mg/kg)	Boron (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (Inorganic) (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
1	TS1	0.10	98	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
2	TS2	0.10	94	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
3	TS3	0.10	84	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
4	TS4	0.10	94	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5	TS5	0.10	100	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
6	TS6	0.10	58	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
7	TS7	0.10	89	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
8	TS8	0.10	68	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
9	TS9	0.10	69	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
10	TS10	0.10	160	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Screening Criteria Value			40.0	-	1.7	85.0	-	6.0	7100.0	310.0	56.0	180.0	430.0	1200.0	40000.0
Source of Screening Criteria Value			S4UL	-	S4UL	S4UL	-	S4UL	S4UL	C4SL	S4UL	S4UL	S4UL	S4UL	S4UL

Appendix G

CLEA Model Settings and Results – Arsenic SSTL1

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01-Apr-26

Report title

YGG Tregelles - Arsenic SSTL1

Created by

Jack Jones at Integral Geotechnique (Wales) Limited



RESULTS

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	Average Daily Exposure ($\text{mg kg}^{-1} \text{ bw day}^{-1}$)	Distribution by Pathway (%)
	Direct soil ingestion Consumption of homegrown produce and attached soil Dermal contact with soil and dust Inhalation of dust Inhalation of vapour Background (oral) Background (inhalation)	Direct soil ingestion Consumption of homegrown produce and attached soil Dermal contact with soil and dust Inhalation of dust Inhalation of vapour (indoor) Inhalation of vapour (outdoor) Background (oral) Background (inhalation)
1 Arsenic (C4SL child)	2.91E-04 0.00E+00 9.28E-06 5.98E-07 0.00E+00 0.00E+00 0.00E+00	96.91 0.00 3.09 0.00 0.00 0.00 0.00
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Environment Agency

	Oral Health Criteria Value ($\mu\text{g kg}^{-1} \text{ BW day}^{-1}$)	Inhalation Health Criteria Value ($\mu\text{g kg}^{-1} \text{ BW day}^{-1}$)	Oral Mean Daily Intake ($\mu\text{g day}^{-1}$)	Inhalation Mean Daily Intake ($\mu\text{g day}^{-1}$)	Air-water partition coefficient (K_{aw}) ($\text{cm}^3 \text{ cm}^{-3}$)	Coefficient of Diffusion in Air ($\text{m}^2 \text{ s}^{-1}$)	Coefficient of Diffusion in Water ($\text{m}^2 \text{ s}^{-1}$)	$\log K_{oc}$ ($\text{cm}^3 \text{ g}^{-1}$)	$\log K_{ow}$ (dimensionless)	Dermal Absorption Fraction (dimensionless)	Soil-to-dust transport factor ($\text{g g}^{-1} \text{ DW}$)	Sub-surface soil to indoor air correction factor (dimensionless)	Relative bioavailability via soil ingestion (unitless)	Relative bioavailability via dust inhalation (unitless)
21														
22														
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Report generated 01/04/2026

Report title YGG Tregelles - Arsenic SSTL1

Created by Jack Jones at Integral Geotechnique (Wales) Limited

BASIC SETTINGS

Land Use Public Open Space (res C4SL)

Building Office (post 1970)

Receptor Female (res C4SL)

Start age class 4

End age class 11

Exposure Duration 8 years

Soil Sandy loam

Exposure Pathways

Direct soil and dust ingestion



Consumption of homegrown produce



Soil attached to homegrown produce



Dermal contact with indoor dust



Dermal contact with soil



Inhalation of indoor dust



Inhalation of soil dust



Inhalation of indoor vapour



Inhalation of outdoor vapour





Land Use Public Open Space (res C4SL)

Receptor Female (res C4SL)

Age Class	Exposure Frequencies (days yr ⁻¹)						Occupation Periods (hr day ⁻¹)		Soil to skin adherence factors (mg cm ²)		Direct soil ingestion rate (g day ⁻¹)	Body weight (kg)	Body height (m)	Inhalation rate (m ³ day ⁻¹)	Max exposed skin factor		Total skin area (m ²)
	Direct soil ingestion	Consumption of homegrown produce	Dermal contact with indoor dust	Dermal contact with soil	Inhalation of dust and vapour, indoor	Inhalation of dust and vapour, outdoor	Indoors	Outdoors	Indoor	Outdoor					Indoor (m ² m ⁻²)	Outdoor (m ² m ⁻²)	
1	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	5.60	0.7	5.4	0.32	0.26	3.43E-01
2	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	9.80	0.8	8.0	0.33	0.26	4.84E-01
3	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	12.70	0.9	8.9	0.32	0.25	5.82E-01
4	190	0	190	190	190	190	5.0	2.0	0.06	0.10	0.08	15.10	0.9	10.1	0.35	0.28	6.36E-01
5	190	0	190	190	190	190	5.0	2.0	0.06	0.10	0.08	16.90	1.0	10.1	0.35	0.28	7.04E-01
6	190	0	190	190	190	190	5.0	2.0	0.06	0.10	0.08	19.70	1.1	10.1	0.33	0.26	7.94E-01
7	190	0	190	190	190	190	5.0	2.0	0.06	0.10	0.08	22.10	1.2	12.0	0.22	0.15	8.73E-01
8	190	0	190	190	190	190	5.0	2.0	0.06	0.10	0.08	25.30	1.2	12.0	0.22	0.15	9.36E-01
9	190	0	190	190	190	190	5.0	2.0	0.06	0.10	0.08	27.50	1.3	12.0	0.22	0.15	1.01E+00
10	190	0	190	190	190	190	5.0	2.0	0.00	0.00	0.00	31.40	1.3	12.0	0.22	0.15	1.08E+00
11	190	0	190	190	190	190	5.0	2.0	0.00	0.00	0.00	35.70	1.4	12.0	0.22	0.14	1.19E+00
12	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	41.30	1.4	15.2	0.22	0.14	1.29E+00
13	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	47.20	1.5	15.2	0.22	0.14	1.42E+00
14	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	51.20	1.6	15.2	0.22	0.14	1.52E+00
15	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	56.70	1.6	15.2	0.21	0.14	1.60E+00
16	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	59.00	1.6	15.2	0.21	0.14	1.63E+00
17	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	70.00	1.6	15.7	0.33	0.27	1.78E+00
18	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	70.90	1.6	13.6	0.33	0.27	1.80E+00

Consumption Rates



Age Class	Consumption rates (α FW kg^{-1} bodyweight day^{-1}) by Produce Group											
	MEAN RATES						90TH PERCENTILE RATES					
	Green veg	Root veg	Tuber veg	Herb. Fruit	Shrub fruit	Tree fruit	Green veg	Root veg	Tuber veg	Herb. Fruit	Shrub fruit	Tree fruit
1	3.47E+00	5.22E+00	9.22E+00	8.90E-01	1.07E+00	1.87E+00	7.12E+00	1.07E+01	1.60E+01	1.83E+00	2.23E+00	3.82E+00
2	3.34E+00	1.61E+00	3.14E+00	1.93E+00	2.60E-01	5.84E+00	5.87E+00	2.83E+00	6.60E+00	3.39E+00	4.60E-01	1.03E+01
3	3.34E+00	1.61E+00	3.14E+00	1.93E+00	2.60E-01	5.84E+00	5.87E+00	2.83E+00	6.60E+00	3.39E+00	4.60E-01	1.03E+01
4	3.34E+00	1.61E+00	3.14E+00	1.93E+00	2.60E-01	5.84E+00	5.87E+00	2.83E+00	6.60E+00	3.39E+00	4.60E-01	1.03E+01
5	2.54E+00	1.20E+00	2.65E+00	1.25E+00	1.10E-01	2.89E+00	4.53E+00	2.14E+00	4.95E+00	2.24E+00	1.90E-01	5.16E+00
6	2.54E+00	1.20E+00	2.65E+00	1.25E+00	1.10E-01	2.89E+00	4.53E+00	2.14E+00	4.95E+00	2.24E+00	1.90E-01	5.16E+00
7	2.54E+00	1.20E+00	2.65E+00	1.25E+00	1.10E-01	2.89E+00	4.53E+00	2.14E+00	4.95E+00	2.24E+00	1.90E-01	5.16E+00
8	2.54E+00	1.20E+00	2.65E+00	1.25E+00	1.10E-01	2.89E+00	4.53E+00	2.14E+00	4.95E+00	2.24E+00	1.90E-01	5.16E+00
9	2.54E+00	1.20E+00	2.65E+00	1.25E+00	1.10E-01	2.89E+00	4.53E+00	2.14E+00	4.95E+00	2.24E+00	1.90E-01	5.16E+00
10	2.54E+00	1.20E+00	2.65E+00	1.25E+00	1.10E-01	2.89E+00	4.53E+00	2.14E+00	4.95E+00	2.24E+00	1.90E-01	5.16E+00
11	2.54E+00	1.20E+00	2.65E+00	1.25E+00	1.10E-01	2.89E+00	4.53E+00	2.14E+00	4.95E+00	2.24E+00	1.90E-01	5.16E+00
12	1.03E+00	4.90E-01	1.60E+00	5.10E-01	4.00E-02	1.18E+00	1.87E+00	8.90E-01	3.05E+00	9.30E-01	8.00E-02	2.13E+00
13	1.03E+00	4.90E-01	1.60E+00	5.10E-01	4.00E-02	1.18E+00	1.87E+00	8.90E-01	3.05E+00	9.30E-01	8.00E-02	2.13E+00
14	1.03E+00	4.90E-01	1.60E+00	5.10E-01	4.00E-02	1.18E+00	1.87E+00	8.90E-01	3.05E+00	9.30E-01	8.00E-02	2.13E+00
15	1.03E+00	4.90E-01	1.60E+00	5.10E-01	4.00E-02	1.18E+00	1.87E+00	8.90E-01	3.05E+00	9.30E-01	8.00E-02	2.13E+00
16	1.03E+00	4.90E-01	1.60E+00	5.10E-01	4.00E-02	1.18E+00	1.87E+00	8.90E-01	3.05E+00	9.30E-01	8.00E-02	2.13E+00
17	1.26E+00	6.00E-01	1.18E+00	6.90E-01	9.00E-02	1.27E+00	2.36E+00	1.12E+00	2.35E+00	1.29E+00	1.80E-01	2.38E+00
18	1.35E+00	6.40E-01	1.25E+00	7.40E-01	1.00E-01	1.36E+00	2.34E+00	1.12E+00	2.36E+00	1.28E+00	1.80E-01	2.37E+00

Top 2 applied? Yes

Where top 2 method is applied, two produce categories use 90th percentile rates, while the remainder use the mean. Produce categories vary on a chemical-by-chemical basis. Where top 2 method is not used, all produce categories for all chemicals assume 90th percentile rates.

Building Office (post 1970)**Soil** Sandy loam

Building footprint (m ²)	6.10E+02
Living space air exchange rate (hr ⁻¹)	1.00E+00
Living space height (above ground, m)	1.28E+01
Living space height (below ground, m)	0.00E+00
Pressure difference (soil to enclosed space, Pa)	5.10E+00
Foundation thickness (m)	1.50E-01
Floor crack area (cm ²)	1.98E+03
Dust loading factor (µg m ⁻³)	1.00E+02

Porosity, Total (cm ³ cm ⁻³)	5.30E-01
Porosity, Air-Filled (cm ³ cm ⁻³)	2.00E-01
Porosity, Water-Filled (cm ³ cm ⁻³)	3.30E-01
Residual soil water content (cm ³ cm ⁻³)	1.20E-01
Saturated hydraulic conductivity (cm s ⁻¹)	3.56E-03
van Genuchten shape parameter <i>m</i> (dimensionless)	3.20E-01
Bulk density (g cm ⁻³)	1.21E+00
Threshold value of wind speed at 10m (m s ⁻¹)	7.20E+00
Empirical function (F _x) for dust model (dimensionless)	1.22E+00
Ambient soil temperature (K)	2.83E+02
Soil pH	7.00E+00
Soil Organic Matter content (%)	6.00E+00
Fraction of organic carbon (g g ⁻¹)	3.48E-02
Effective total fluid saturation (unitless)	5.12E-01
Intrinsic soil permeability (cm ²)	4.75E-08
Relative soil air permeability (unitless)	6.42E-01
Effective air permeability (cm ²)	3.05E-08

Soil - Vapour Model

Depth to top of source (no building) (cm)	0
Depth to top of source (beneath building) (cm)	65
Default soil gas ingress rate?	Yes
Soil gas ingress rate ($\text{cm}^3 \text{s}^{-1}$)	1.50E+02
Building ventilation rate ($\text{cm}^3 \text{s}^{-1}$)	2.17E+06
Averaging time surface emissions (yr)	8
Finite vapour source model?	No
Thickness of contaminated layer (cm)	200

Air Dispersion Model

Mean annual windspeed at 10m (m s^{-1})	5.00
Air dispersion factor at height of 0.8m *	500.00
Air dispersion factor at height of 1.6m *	2000.00
Fraction of site cover ($\text{m}^2 \text{m}^{-2}$)	0.5

* Air dispersion factor in $\text{g m}^{-2} \text{s}^{-1}$ per kg m^{-3}

Soil - Plant Model

	Dry weight conversion factor	Homegrown fraction		Soil loading factor	Preparation correction factor
	g DW g^{-1} FW	Average	High		
		dimensionless		g g^{-1} DW	dimensionless
Green vegetables	0.096	0.05	0.33	1.00E-03	2.00E-01
Root vegetables	0.103	0.06	0.40	1.00E-03	1.00E+00
Tuber vegetables	0.210	0.02	0.13	1.00E-03	1.00E+00
Herbaceous fruit	0.058	0.06	0.40	1.00E-03	6.00E-01
Shrub fruit	0.166	0.09	0.60	1.00E-03	6.00E-01
Tree fruit	0.157	0.04	0.27	1.00E-03	6.00E-01

Gardener type None

Appendix H

CLEA Model Settings and Results – Arsenic SSTL2

CLEA Software Version 1.071

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Report generated 15-Sep-26

Report title YGG Treges - Arsenic SSTL2

Created by RH at Integral Geotechnique



RESULTS

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	Average Daily Exposure ($\text{mg kg}^{-1} \text{bw day}^{-1}$)	Distribution by Pathway (%)
	Direct soil ingestion Consumption of homegrown produce and attached soil Dermal contact with soil and dust Inhalation of dust Inhalation of vapour Background (oral) Background (inhalation)	Direct soil ingestion Consumption of homegrown produce and attached soil Dermal contact with soil and dust Inhalation of dust Inhalation of vapour (indoor) Inhalation of vapour (outdoor) Background (oral) Background (inhalation)
1 Arsenic (C4SL child)	2.82E-04 0.00E+00 1.80E-05 2.99E-06 0.00E+00 0.00E+00 0.00E+00	94.01 0.00 5.99 0.00 0.00 0.00 0.00 0.00
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CLEA Software Version 1.071

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Report generated 15/09/2026

Report title YGG Tregesles - Arsenic SSTL2

Created by RH at Integral Geotechnique

BASIC SETTINGS

Land Use Residential without produce (C4SL)

Building Detached house

Receptor Female (res C4SL)

Start age class 1

End age class 6

Exposure Duration 6 years

Soil Sandy loam

Exposure Pathways

Direct soil and dust ingestion

✓
✗
✗

Dermal contact with indoor dust

✓
✓

Dermal contact with soil

Inhalation of indoor dust

✓
✓

Inhalation of soil dust

Inhalation of indoor vapour

✓
✓

Inhalation of outdoor vapour



Land Use Residential without produce (C4SL)

Receptor Female (res C4SL)

Age Class	Exposure Frequencies (days yr ⁻¹)						Occupation Periods (hr day ⁻¹)		Soil to skin adherence factors (mg cm ²)		Direct soil ingestion rate (g day ⁻¹)	Body weight (kg)	Body height (m)	Inhalation rate (m ³ day ⁻¹)	Max exposed skin factor		
	Direct soil ingestion	Consumption of homegrown produce	Dermal contact with indoor dust	Dermal contact with soil	Inhalation of dust and vapour, indoor	Inhalation of dust and vapour, outdoor	Indoors	Outdoors	Indoor	Outdoor					Indoor (m ² m ⁻²)	Outdoor (m ² m ⁻²)	Total skin area (m ²)
1	180	0	180	170	365	365	23.0	1.0	0.06	0.10	0.10	5.60	0.7	5.4	0.32	0.26	3.43E-01
2	365	0	365	170	365	365	23.0	1.0	0.06	0.10	0.10	9.80	0.8	8.0	0.33	0.26	4.84E-01
3	365	0	365	170	365	365	23.0	1.0	0.06	0.10	0.10	12.70	0.9	8.9	0.32	0.25	5.82E-01
4	365	0	365	170	365	365	23.0	1.0	0.06	0.10	0.10	15.10	0.9	10.1	0.35	0.28	6.36E-01
5	365	0	365	170	365	365	19.0	1.0	0.06	0.10	0.10	16.90	1.0	10.1	0.35	0.28	7.04E-01
6	365	0	365	170	365	365	19.0	1.0	0.06	0.10	0.10	19.70	1.1	10.1	0.33	0.26	7.94E-01
7	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	22.10	1.2	12.0	0.22	0.15	8.73E-01
8	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	25.30	1.2	12.0	0.22	0.15	9.36E-01
9	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	27.50	1.3	12.0	0.22	0.15	1.01E+00
10	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	31.40	1.3	12.0	0.22	0.15	1.08E+00
11	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	35.70	1.4	12.0	0.22	0.14	1.19E+00
12	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	41.30	1.4	15.2	0.22	0.14	1.29E+00
13	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	47.20	1.5	15.2	0.22	0.14	1.42E+00
14	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	51.20	1.6	15.2	0.22	0.14	1.52E+00
15	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	56.70	1.6	15.2	0.21	0.14	1.60E+00
16	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	59.00	1.6	15.2	0.21	0.14	1.63E+00
17	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	70.00	1.6	15.7	0.33	0.27	1.78E+00
18	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	70.90	1.6	13.6	0.33	0.27	1.80E+00

Consumption Rates



Age Class	Consumption rates (α FW kg^{-1} bodyweight day^{-1}) by Produce Group											
	MEAN RATES						90TH PERCENTILE RATES					
	Green veg	Root veg	Tuber veg	Herb. Fruit	Shrub fruit	Tree fruit	Green veg	Root veg	Tuber veg	Herb. Fruit	Shrub fruit	Tree fruit
1	3.47E+00	5.22E+00	9.22E+00	8.90E-01	1.07E+00	1.87E+00	7.12E+00	1.07E+01	1.60E+01	1.83E+00	2.23E+00	3.82E+00
2	3.34E+00	1.61E+00	3.14E+00	1.93E+00	2.60E-01	5.84E+00	5.87E+00	2.83E+00	6.60E+00	3.39E+00	4.60E-01	1.03E+01
3	3.34E+00	1.61E+00	3.14E+00	1.93E+00	2.60E-01	5.84E+00	5.87E+00	2.83E+00	6.60E+00	3.39E+00	4.60E-01	1.03E+01
4	3.34E+00	1.61E+00	3.14E+00	1.93E+00	2.60E-01	5.84E+00	5.87E+00	2.83E+00	6.60E+00	3.39E+00	4.60E-01	1.03E+01
5	2.54E+00	1.20E+00	2.65E+00	1.25E+00	1.10E-01	2.89E+00	4.53E+00	2.14E+00	4.95E+00	2.24E+00	1.90E-01	5.16E+00
6	2.54E+00	1.20E+00	2.65E+00	1.25E+00	1.10E-01	2.89E+00	4.53E+00	2.14E+00	4.95E+00	2.24E+00	1.90E-01	5.16E+00
7	2.54E+00	1.20E+00	2.65E+00	1.25E+00	1.10E-01	2.89E+00	4.53E+00	2.14E+00	4.95E+00	2.24E+00	1.90E-01	5.16E+00
8	2.54E+00	1.20E+00	2.65E+00	1.25E+00	1.10E-01	2.89E+00	4.53E+00	2.14E+00	4.95E+00	2.24E+00	1.90E-01	5.16E+00
9	2.54E+00	1.20E+00	2.65E+00	1.25E+00	1.10E-01	2.89E+00	4.53E+00	2.14E+00	4.95E+00	2.24E+00	1.90E-01	5.16E+00
10	2.54E+00	1.20E+00	2.65E+00	1.25E+00	1.10E-01	2.89E+00	4.53E+00	2.14E+00	4.95E+00	2.24E+00	1.90E-01	5.16E+00
11	2.54E+00	1.20E+00	2.65E+00	1.25E+00	1.10E-01	2.89E+00	4.53E+00	2.14E+00	4.95E+00	2.24E+00	1.90E-01	5.16E+00
12	1.03E+00	4.90E-01	1.60E+00	5.10E-01	4.00E-02	1.18E+00	1.87E+00	8.90E-01	3.05E+00	9.30E-01	8.00E-02	2.13E+00
13	1.03E+00	4.90E-01	1.60E+00	5.10E-01	4.00E-02	1.18E+00	1.87E+00	8.90E-01	3.05E+00	9.30E-01	8.00E-02	2.13E+00
14	1.03E+00	4.90E-01	1.60E+00	5.10E-01	4.00E-02	1.18E+00	1.87E+00	8.90E-01	3.05E+00	9.30E-01	8.00E-02	2.13E+00
15	1.03E+00	4.90E-01	1.60E+00	5.10E-01	4.00E-02	1.18E+00	1.87E+00	8.90E-01	3.05E+00	9.30E-01	8.00E-02	2.13E+00
16	1.03E+00	4.90E-01	1.60E+00	5.10E-01	4.00E-02	1.18E+00	1.87E+00	8.90E-01	3.05E+00	9.30E-01	8.00E-02	2.13E+00
17	1.26E+00	6.00E-01	1.18E+00	6.90E-01	9.00E-02	1.27E+00	2.36E+00	1.12E+00	2.35E+00	1.29E+00	1.80E-01	2.38E+00
18	1.35E+00	6.40E-01	1.25E+00	7.40E-01	1.00E-01	1.36E+00	2.34E+00	1.12E+00	2.36E+00	1.28E+00	1.80E-01	2.37E+00

Top 2 applied? Yes

Where top 2 method is applied, two produce categories use 90th percentile rates, while the remainder use the mean. Produce categories vary on a chemical-by-chemical basis. Where top 2 method is not used, all produce categories for all chemicals assume 90th percentile rates.

Building Detached house**Soil** Sandy loam

Building footprint (m ²)	6.80E+01
Living space air exchange rate (hr ⁻¹)	5.00E-01
Living space height (above ground, m)	4.80E+00
Living space height (below ground, m)	0.00E+00
Pressure difference (soil to enclosed space, Pa)	3.10E+00
Foundation thickness (m)	1.50E-01
Floor crack area (cm ²)	6.60E+02
Dust loading factor (µg m ⁻³)	5.00E+01

Porosity, Total (cm ³ cm ⁻³)	5.30E-01
Porosity, Air-Filled (cm ³ cm ⁻³)	2.00E-01
Porosity, Water-Filled (cm ³ cm ⁻³)	3.30E-01
Residual soil water content (cm ³ cm ⁻³)	1.20E-01
Saturated hydraulic conductivity (cm s ⁻¹)	3.56E-03
van Genuchten shape parameter <i>m</i> (dimensionless)	3.20E-01
Bulk density (g cm ⁻³)	1.21E+00
Threshold value of wind speed at 10m (m s ⁻¹)	7.20E+00
Empirical function (F _x) for dust model (dimensionless)	1.22E+00
Ambient soil temperature (K)	2.83E+02
Soil pH	7.00E+00
Soil Organic Matter content (%)	6.00E+00
Fraction of organic carbon (g g ⁻¹)	3.48E-02
Effective total fluid saturation (unitless)	5.12E-01
Intrinsic soil permeability (cm ²)	4.75E-08
Relative soil air permeability (unitless)	6.42E-01
Effective air permeability (cm ²)	3.05E-08

Soil - Vapour Model

Depth to top of source (no building) (cm)	0
Depth to top of source (beneath building) (cm)	65
Default soil gas ingress rate?	Yes
Soil gas ingress rate ($\text{cm}^3 \text{s}^{-1}$)	2.50E+01
Building ventilation rate ($\text{cm}^3 \text{s}^{-1}$)	4.53E+04
Averaging time surface emissions (yr)	6
Finite vapour source model?	No
Thickness of contaminated layer (cm)	200

Air Dispersion Model

Mean annual windspeed at 10m (m s^{-1})	5.00
Air dispersion factor at height of 0.8m *	2400.00
Air dispersion factor at height of 1.6m *	0.00
Fraction of site cover ($\text{m}^2 \text{m}^{-2}$)	0.75

* Air dispersion factor in $\text{g m}^{-2} \text{s}^{-1}$ per kg m^{-3}

Soil - Plant Model

	Dry weight conversion factor	Homegrown fraction		Soil loading factor	Preparation correction factor
	g DW g^{-1} FW	Average	High		
		dimensionless		g g^{-1} DW	dimensionless
Green vegetables	0.096	0.05	0.33	1.00E-03	2.00E-01
Root vegetables	0.103	0.06	0.40	1.00E-03	1.00E+00
Tuber vegetables	0.210	0.02	0.13	1.00E-03	1.00E+00
Herbaceous fruit	0.058	0.06	0.40	1.00E-03	6.00E-01
Shrub fruit	0.166	0.09	0.60	1.00E-03	6.00E-01
Tree fruit	0.157	0.04	0.27	1.00E-03	6.00E-01

Gardener type None

Figures



Site Location

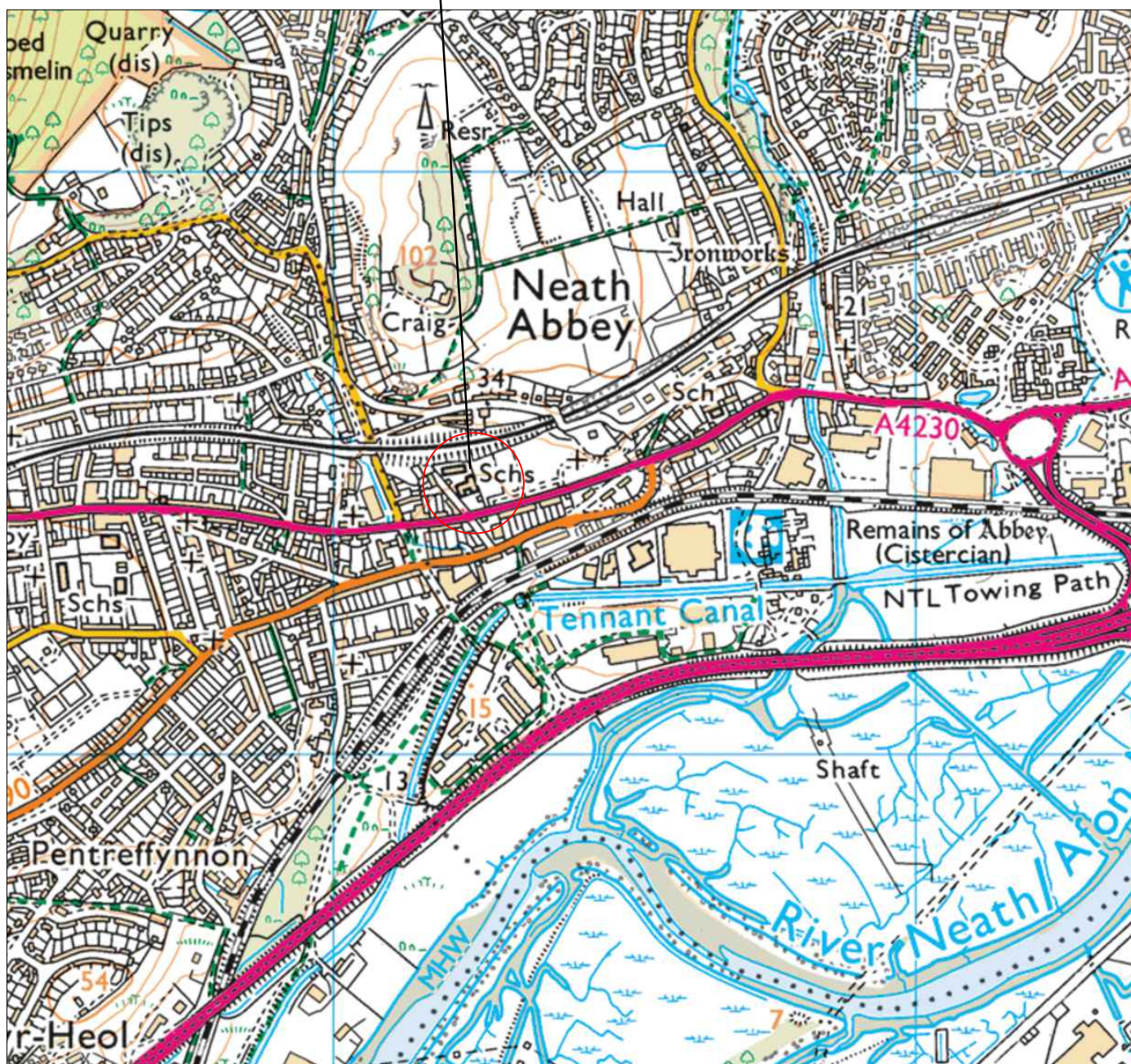


Figure 1: Site Location

Project: YGG Treges, Neath Abbey

Job no.: 14560

Client: Knox & Wells Limited

Scale: NTS

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Caerphilly,
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Legend (Supplemental Investigation Works)

-  Approximate supplemental trial pit location and soil sample (beneath former building footprint)
-  Approximate supplemental trial pit location and soil sample (adjacent to railway embankment)
-  Approximate supplemental topsoil sample location (playing field)

Legend (Previous Investigation Works)

-  Approximate Trial Pit Locations
-  Approximate Windowless Sample Borehole Locations
-  Approximate Hand Excavated Trial Pit Locations
-  Approximate Site Boundary

Figure 2: Existing Site Plan / Exploratory Hole Location Plan

Project: YGG Tregales, St Johns Terrace, Neath Abbey

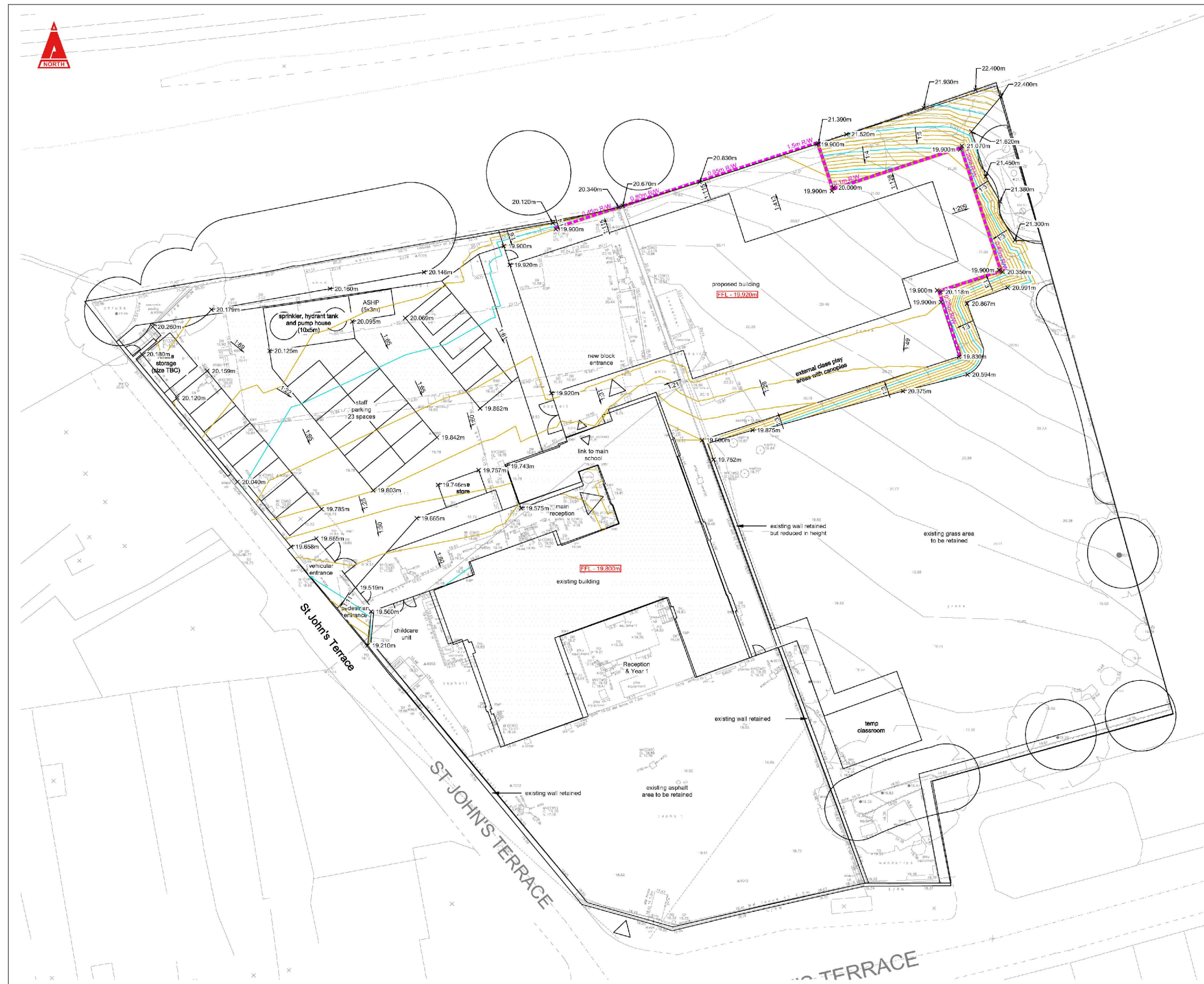
Client: Knox & Wells Limited

Job No.: 14560

Scale: 1:500 at A3

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KEY

- MINOR CONTOUR (0.1m)
- MAJOR CONTOUR (0.5m)
- FINISHED FLOOR LEVEL
- SPOT ELEVATION
- RETAINING STRUCTURE
- PROPOSED FALL
- PROPOSED BATTER

P01	FIRST ISSUE - RIBA 2	CU	LM
Rev	1 Issued	By	CUK

Client:
KNOX & WELLS

Project:
YGG TREGELES

Drawing Title:
PROPOSED LEVELS & CONTOURS PLAN

Drawing No:
CC2970 CAM XX XX DR C 0610

Project	Originator	Function	Special	Form	Date	Number
S1	PRELIMINARY					

Scale: 1:200
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Figure 3: Proposed Development Layout Plan

Project: YGG Tregelles, St Johns Terrace, Neath Abbey

Client: Knox & Wells Limited

Job No.: 14560

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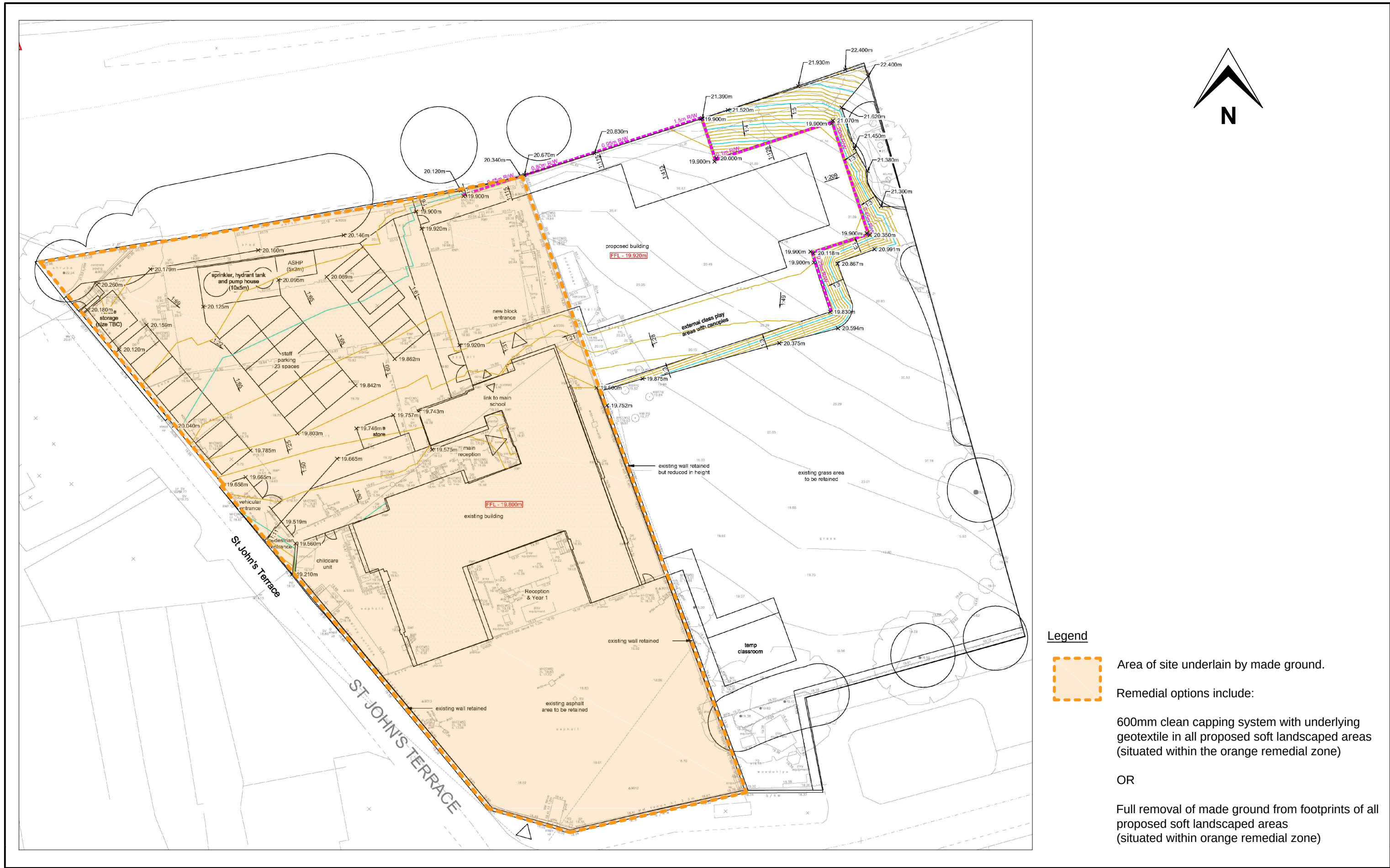


Figure 4: Remedial Zone Plan

Project: YGG Tregales, St Johns Terrace, Neath Abbey

Client: Knox & Wells Limited

Job No.: 14560

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