Knox & Wells Limited

YGG Tregeles, St John's Terrace, Neath Abbey

Site Investigation Report

14560/AG/26/SI/RevA

Intégral
Géotechnique

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PROJECT:	**YGG Tregeles, St John's Terrace, Neath Abbey**
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1.0 INTRODUCTION

1.1 GENERAL

Knox & Wells Limited is proposing to redevelop a site at YGG Tregeles in Neath Abbey for continued educational use, on behalf of Neath Port Talbot County Borough Council. The site location is shown in Figure 1. An existing site layout plan is presented in Figure 2.

Cambria are the appointed Consulting Civil and Structural Engineers for the scheme.

Intégral Géotechnique (Wales) Limited have been appointed as the Geotechnical Engineers to undertake a site investigation to enable a geotechnical and geoenvironmental appraisal of the site and provide a basis for design.

This report presents the findings of the site investigation and gives recommendations for the design of foundations, floor slabs and other geotechnical and geoenvironmental aspects of the project.

A previous Phase 1 Desk Study was undertaken for the site by Intégral Géotechnique (Wales) Limited. Reference should be made to Desk Study Report Ref. 14560/LP/26/DS dated February 2026.

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1.2 PROPOSED DEVELOPMENT

The proposed development comprises the demolition of an existing single-storey school building located in the north-western part of the site, followed by the construction of a new school building within the central-northern and north-eastern areas of the site.

The proposals also include the construction of a new staff car park (23 spaces) within the north-western area of the site. A retaining structure, up to approximately 1.5m in height, is proposed to the rear of the new school building along the northern site boundary.

1.2 PROPOSED DEVELOPMENT (CONTINUED)

An existing school building located within the eastern part of the site is to be retained. In addition, the southern half of an existing playing field will remain unchanged.

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.

1.3 SCOPE OF WORKS

The previous Desk Study Report No. 14560/LP/26/DS dated February 2026 was used to make an initial assessment of the site and to design an investigation to be carried out by Intégral Géotechnique (Wales) Limited. The site investigation was designed in accordance with BS 5930:2015+A1:2020, the Code of Practice for Site Investigations, BS10175:2026, the Code of Practice for Investigation of Potentially Contaminated Sites, and 'Development of Land Affected by Contamination: A Guide for Developers' prepared by Welsh Local Government Association (WLGA)/Natural Resources Wales (NRW) Land Contamination Working Group, 2023 and the Land Contamination Risk Management (LCRM) framework published by the Environment Agency.

The site investigation was undertaken during March 2026 and comprised:

- 2 No. machine excavated trial pits,
- 3 No. hand excavated trial pits,
- Soil infiltration testing undertaken within both machine excavated and two of the hand excavated trial pits,
- 4 No. windowless sample boreholes,
- Installation of gas monitoring standpipes within selected windowless sample boreholes,
- Sampling of soils for laboratory chemical testing (including WAC analysis),
- Sampling of soils for laboratory geotechnical testing,
- Monitoring standpipes for concentrations of methane, carbon dioxide, oxygen and gas flow.

1.4 LIMITATIONS

This document is intended to be a working document for further development in discussion with all concerned including the Local Planning Authority (LPA), Natural Resources Wales (NRW), and the appointed building control authority, as appropriate.

1.4 LIMITATIONS (CONTINUED)

"Contamination" is taken throughout the report to mean the "presence of one or more potentially harmful substances as a result of human activity". The use of the term in this way does not imply that harm is being or might be caused by the contamination. It should be noted that "contamination" can have different meanings under different regulatory regimes, for example, planning, building control and Part IIA of the Environmental Protection Act 1990. Naturally elevated concentrations of potentially harmful substances may also be of concern and the significance of any that have been found is also evaluated in this report.

It is important to recognise that there may be areas of contamination that have not been found, or that contaminants are present at concentrations above those that have been found. It is also important to recognise that contamination may be localised and that no investigation, however comprehensive, is capable of finding such occurrences other than by chance.

It should also be noted that vertical and lateral changes in ground conditions may be present between exploratory hole locations.

Access constraints associated with existing buildings limited the extent of intrusive works in certain areas at the time of the investigation. In particular, no investigation was undertaken beneath the footprint of the building to be demolished.

The northern boundary of the site is defined by an existing railway embankment located on third-party land. This area was not accessible for inspection or intrusive investigation as part of the works. Accordingly, no assessment has been made of the geometry, construction, condition or stability of the railway embankment, including any consideration of global stability or the potential effects of the proposed development on the embankment.

2.0 THE SITE

2.1 SITE LOCATION AND DESCRIPTION

The site is located at YGG Tregeles in Neath Abbey at a National Grid Reference of 273240, 197470, see Figure 1.

The site is irregular in shape and occupies an area of approximately 0.72 hectares. The boundaries of the site are defined by St John's Terrace to the south and west, an existing cemetery to the east, and a densely vegetated railway embankment to the north.

A site plan is presented in Figure 2.

The site is located on ground which gently rises towards the northeast, from an approximate minimum elevation of 19m Above Ordnance Datum (AOD) within the southwest corner, to an approximate maximum elevation of 22m AOD within the northeast corner.

The railway embankment forming the northern boundary rises more steeply from the maximum site level of approximately 22m AOD to the railway line at an elevation of approximately 32m AOD.

The western half of the site is developed with the existing school which comprises two main buildings and several smaller ancillary structures. The school buildings are surrounded by areas of hardstanding that provide playground facilities.

The eastern half of the site is undeveloped and grass covered. This area has been utilised as playing fields/sports pitches for the school in the past. Access to this area is available from the school playground.

2.2 SITE OPERATIONS

The site is currently utilised as a primary school including school buildings and external play areas.

2.3 SURROUNDING LAND USE

The immediate surrounding areas are typically developed for residential use with a cemetery located to the east. Further to the south the development is mainly for commercial use within an existing business park.

2.4 AVAILABLE DESK STUDY AND SITE INVESTIGATION DATA

No previous intrusive site investigation data is available for the site to our knowledge.

A previous Phase 1 Desk Study was undertaken by Intégral Géotechnique (Wales) Limited (Ref. 14560/LP/26/DS, dated February 2026), which included a review of historical mapping, geological information and environmental data sources.

The Desk Study identified that the site has been historically used as a school, with the eastern part of the site remaining largely undeveloped. No significant on-site sources of contamination were identified, although the potential for localised made ground and associated contamination within developed areas was highlighted.

Potential off-site sources of contamination included the adjacent railway embankment and cemetery, together with the potential for ground gas migration associated with nearby historical landfill sites.

The site is not located within a Mining Remediation Authority defined high-risk development area, and the risk from shallow coal mining was assessed as low. On this basis, no specific coal mining-related intrusive investigation was considered necessary.

In addition, no credible source of mine gas was identified within the Desk Study. The potential for mine gas was therefore considered to be low.

The findings of the Desk Study were used to inform the scope and design of the intrusive site investigation described in this report.

3.0 PRELIMINARY CONCEPTUAL SITE MODEL

The preliminary conceptual site model (CSM) presented in this section is based on the findings of the Phase 1 Desk Study (Ref. 14560/LP/26/DS, dated February 2026). It has been included here for completeness and to provide a baseline against which the findings of the intrusive site investigation and the revised conceptual site model (Section 7.0) can be compared.

3.1 RISK ASSESSMENT FRAMEWORK

In order to be consistent with current UK government policies and legislation, it is necessary to identify, assess, estimate, evaluate, and take appropriate action to deal with land contamination, in accordance with the procedures specified in the Environment Agency guidance Land Contamination Risk Management (LCRM) published in October 2020. This replaces the now withdrawn 'Model Procedures for the Management of Land Contamination CLR-11' (Environment Agency 2004).

The risk assessment process is designed to provide a reasoned, structured and pragmatic mechanism for the identification of any potential human health and controlled waters risks associated with land contamination and where necessary to develop a robust remediation strategy to ensure protection of the sensitive receptors (human health of future residents, controlled waters, etc).

In accordance with LCRM, the term 'land contamination' is defined as:

- All land affected by contamination – land that might have contamination present which may, or may not, meet the statutory definition of contaminated land,
- Land determined as contaminated land under Part 2A of the Environmental Protection Act 1990.

LCRM provides a tiered approach to risk assessment, comprising a preliminary risk assessment (including the development of an initial conceptual site model), a generic quantitative risk assessment and a detailed quantitative risk assessment. For each tier of risk assessment, the following steps must be followed:

1. Identify the hazard - establish contaminant sources,
2. Assess the hazard – use a source-pathway-receptor linkage approach to determine if there is potential for unacceptable risk,
3. Estimate the risk – predict what degree of harm or pollution may result and how likely it is to occur,
4. Evaluate the risk – decide whether a risk is unacceptable.

3.1 RISK ASSESSMENT FRAMEWORK (CONTINUED)

LCRM also provides definitions of the following terms:

- Hazard – a property or situation that in particular circumstances could lead to harm or pollution,
- Risk – a combination of the probability, or frequency of occurrence of a defined hazard and the magnitude of the consequences of the occurrence,
- Risk assessment – the formal process of identifying, assessing and evaluating the health and environmental risks that may be associated with a hazard,
- Risk management – the formal process to identify, assess and determine the risks, and to select and take action to mitigate them.

The three essential elements to any risk are defined by LCRM as follows:

- A contaminant, or pollutant, that is in, on, or under the land and that has the potential to cause harm, or pollution (Source),
- A route by which a receptor is, or could be affected by a contaminant (Pathway),
- A receptor, i.e. something that could be adversely affected by a contaminant, for example a person, controlled waters, an organism, an ecosystem, or Part 2A receptors such as buildings, crops or animals (Receptor).

In order for there to be a potential risk, all three of the above elements must be present. If there is a source of contamination and a receptor (for example a resident or site user), then there is only a potential risk if there is a pathway linking the two. Such an active pathway is known as a relevant pollutant linkage. It is possible for the same contaminant to be linked to a receptor via a number of pathways, and hence it is important that all relevant pollutant linkages, to both human health and controlled waters, are separately identified on a site in order that a comprehensive conceptual model can be formed and ultimately a robust remediation strategy designed.

Current practice during Generic Quantitative Risk Assessment of land affected by contamination is to use generic soil screening values based on the appropriate proposed end use. These usually comprise risk-based Soil Guideline values (SGVs) or Generic Assessment Criteria (GACs) derived by the Environment Agency's Contaminated Land Exposure Assessment Model (CLEA). The SGVs and the supporting technical guidance were developed in order to assist in the assessment of long-term risk to human health from the exposure to contaminated soils.

3.1 RISK ASSESSMENT FRAMEWORK (CONTINUED)

Revised Statutory Guidance, published in 2012, to support Part 2A of the Environmental Protection Act 1990, introduced a new four category system for classifying land under Part 2A. Category 1 includes land where the level of risk is clearly unacceptable and Category 4 includes land where the level of risk posed is considered to be acceptably low. Under Part 2A, land would be determined as contaminated if it falls within Categories 1 or 2.

The revised Part 2A Statutory Guidance was accompanied by an Impact Assessment that identified a role for new 'Category 4 Screening Levels' (C4SLs) that would provide a simple test for determining when land is suitable for use and definitely not contaminated land. A Policy Companion Document including the C4SLs was published in March 2014 (England) and May 2014 (Wales).

The C4SLs have been based on the CLEA methodology and derived using the CLEA model, with modified toxicological and exposure parameters. To date, C4SLs have been released for six substances (arsenic, cadmium, chromium (VI), lead, benzo(a)pyrene and benzene).

The C4SLs have been derived on the assumption that where they exist, they will be used as generic screening criteria within generic quantitative risk assessment.

Following publication of the C4SLs, Land Quality Management (LQM), in conjunction with the Chartered Institute for Environmental Health (CIEH) released Suitable 4 Use Levels (S4ULs) in January 2015.

The S4ULs have been derived in accordance with UK legislation and using a modified version of the Environment Agency's CLEA software. As such, the S4ULs are based on the concept of minimal or tolerable risk as described in Human Health Toxicological Assessment of Contaminants in Soil (Science Report SR2, Environment Agency 2009a).

S4ULs have been derived for a wider number of substances.

In addition to the existing SGVs, C4SLs and S4ULs, Atkins ATRISK^{soil} also provide a set of Soil Screening Values. These are currently intended to be used in conjunction with SGVs, although they intend to update these values in line with the C4SLs in due course.

We have reviewed all sets of values and intend to use the most appropriate assessment criteria as Tier 1 screening values in the first instance. Where a published S4UL is available, and considered appropriate, this will be used in the first instance.

3.2 CONCEPTUAL MODEL FRAMEWORK

The preliminary stage of the risk assessment process is to develop and define a conceptual site model, based on the desk study and any existing site investigation data. This is used to establish any potential contaminant sources, identify existing and future receptors and assess if there are any potentially active pathways by which a potential risk may be present.

The preliminary conceptual site model will be developed and refined as site specific data is gathered, such as actual ground conditions and chemical data, resulting in a more robust conceptual understanding of the site.

3.3 CRITICAL SENSITIVE RECEPTOR – HUMAN HEALTH

The proposed redevelopment of the site is for a continued educational end use comprising a new primary school building and associated external areas. As this represents a non-standard land use within the CLEA framework, a residential without homegrown produce land use scenario has been adopted as a conservative surrogate for initial generic quantitative risk assessment (GQRA) screening purposes.

Accordingly, the critical sensitive receptor for the purposes of the initial screening assessment is a residential receptor without homegrown produce. In line with CLEA and associated guidance (including S4ULs and C4SLs where appropriate), the most sensitive receptor is considered to be a female child aged 0–6 years, representing the highest potential exposure.

The standard residential without homegrown produce conceptual model is therefore considered suitably precautionary for the purposes of initial screening of potential risks to future site users, including pupils, staff and visitors.

Where generic assessment criteria are exceeded, further assessment may be undertaken using site-specific risk assessment techniques, including derivation of site-specific target levels (SSTLs) using the CLEA model to provide a more representative assessment of the proposed end use, where appropriate.

3.4 CRITICAL SENSITIVE RECEPTOR – CONTROLLED WATERS

Based on the proposed redevelopment of the site for a continued educational end use, and the findings of the desk study, the critical sensitive receptor from a controlled water perspective is groundwater within the Secondary 'A' Aquifer of the Swansea Member.

3.4 CRITICAL SENSITIVE RECEPTOR – CONTROLLED WATERS (CONTINUED)

By considering groundwater as the critical sensitive receptor for controlled waters, the groundwater/hydrogeological risk assessment will also be protective of any nearby surface water features.

3.5 POTENTIAL CONTAMINANT SOURCES

Based on the findings of the previous Desk Study, potential sources of contamination are primarily associated with historical and current site development together with adjacent land uses.

The western part of the site has been occupied by school buildings since at least the late 19th century, with subsequent extensions and redevelopment occurring over time. Construction activities may have resulted in the placement of made ground of variable composition within developed areas. Made ground is anticipated to be present across the western part of the site but may be thin or absent within the eastern part of the site, which has historically remained undeveloped and used as a playing field.

Potential localised sources associated with building services should also be considered. These may include boiler plant/heating systems, which may have resulted in localised hydrocarbon contamination.

Consideration is also given to potential off-site sources. The railway embankment forming the northern boundary may comprise made ground or imported fill materials and may represent a potential source of contamination. In addition, the presence of the adjacent cemetery to the east may represent a potential source of contamination (possibly as a result of localised ground disturbance or encroachment at the site boundary).

An historical landfill is recorded approximately 155m to the southeast of the site. Although limited information is available regarding the nature or period of waste deposition and the area has subsequently been developed as Neath Abbey Business Park, the landfill may represent a potential source of ground gas which could migrate towards the site.

Potential contaminants of concern associated with the identified sources include:

- Metals, metalloids and other inorganic constituents within shallow made ground and near-surface soils,
- Potential for elevated arsenic concentrations associated with regional background conditions,
- Polycyclic aromatic hydrocarbons (PAH) within shallow made ground,

3.5 POTENTIAL CONTAMINANT SOURCES (CONTINUED)

- Asbestos within shallow made ground and potentially within building fabric and potential buried structures and infrastructure,
- Petroleum hydrocarbons associated with potential boiler plant,
- Metals, PAH, petroleum hydrocarbons and asbestos associated with potential made ground or imported fill within the adjacent railway embankment (representing an off-site source where migration or encroachment has occurred),
- Ammoniacal nitrogen associated with the adjacent cemetery boundary
- Ground gas (including methane and carbon dioxide) associated with the nearby historical landfill and potential migration through the ground.

These potential sources will be assessed through the proposed intrusive site investigation, including trial pitting, soil sampling, laboratory testing and ground gas monitoring.

3.6 POTENTIAL EXPOSURE PATHWAYS

Potential exposure pathways for the critical receptors (both human health and controlled waters) are listed below:

- Dermal contact with soil and/or soil derived dust,
- Ingestion of soil,
- Inhalation of soil derived dust and fibres,
- Inhalation of vapours – indoor and outdoor air,
- Leaching of contaminants from made ground to groundwater,
- Transportation of contaminants within groundwater.

In addition, the following exposure pathways have also been considered:

- Ground gas generation and migration,
- Building materials durability.

3.7 SUMMARY OF CONCEPTUAL EXPOSURE MODEL

A preliminary conceptual exposure model has been developed for the site. This is based on the findings of the desk study and historical review and includes all potential sources, pathways and receptors that may be present on site. Those that have been identified as being potentially active require further investigation in the form of sampling and testing of soils and / or groundwater and gas monitoring, followed by appropriate risk assessment.

3.7 SUMMARY OF CONCEPTUAL EXPOSURE MODEL (CONTINUED)

The preliminary conceptual exposure model is presented below in Table 1.

Table 1: Preliminary Conceptual Exposure Model

Source		Receptor	Pathway	Potentially Active Pathway?
Origin	Contaminant			
Potential made ground of unknown origin and historical land uses (on-site sources and potential encroachment from off-site sources)	Metals, semi-metals, non-metals, PAH, petroleum hydrocarbons, asbestos	School End User – human health	Dermal contact	✓
			Ingestion of soil	✓
			Inhalation of dust and fibres	✓
			Inhalation of vapours – indoor/outdoor	✓
		Groundwater quality	Leaching from soil	✓
		Surface water quality	Transportation within groundwater	✓
Existing building fabric and associated buried structures and infrastructure (e.g. pipework/ducts/ foundations)	Asbestos	School End User – human health	Inhalation of dust and fibres	✓
Ground in vicinity of potential boiler plant	Petroleum hydrocarbons	School End User – human health	Dermal Contact	✓
			Ingestion of soil	✓
			Inhalation of dust	✓
			Inhalation of vapours – indoor/outdoor	✓
		Groundwater quality	Leaching from soil	✓
		Surface water quality	Transportation within groundwater	✓
Ground in vicinity of adjacent cemetery	Metals, ammoniacal nitrogen	School End User – human health	Dermal contact	✓
			Ingestion of soil	✓
			Inhalation of dust	✓
		Groundwater quality	Leaching from soil	✓
		Surface water quality	Transportation within groundwater	✓
Made Ground of unknown origin and natural ground	pH and water-soluble sulphate	Building Materials Durability	Direct contact	✓
Ground Gas – organic, gas producing materials	Methane, carbon dioxide	Human health	Accumulation of gases in confined spaces, and/or migration onto site	✓ Off-site landfill source.

4.0 THE SITE INVESTIGATION

4.1 FIELDWORKS

A site investigation was designed in accordance with BS 5930:2015+A1:2020, the Code of Practice for Site Investigations, BS10175:2026, the Code of Practice for Investigation of Potentially Contaminated Sites, and 'Development of Land Affected by Contamination: A Guide for Developers' prepared by Welsh Local Government Association (WLGA)/Natural Resources Wales (NRW) Land Contamination Working Group, 2023.

The purpose of the investigation was to assess the ground conditions to inform foundation and drainage design, and to refine the Conceptual Site Model (CSM) for the proposed redevelopment.

The fieldworks were undertaken during March 2026 and comprised two machine excavated trial pits (SA01 and SA02) advanced to a maximum depth of 2.10m below ground level (bgl), three hand excavated trial pits (HDP01 to HDP03) advanced to a maximum depth of 1.10m bgl, and four windowless sample boreholes (WS01 to WS04) advanced to a maximum depth of 4.00m bgl.

The exploratory hole locations were positioned across accessible areas of the site, including around the existing school building and within the school playing field. The exploratory hole locations were selected to provide appropriate coverage of the site and to target potential sources and pathways identified within the preliminary conceptual site model. This included investigation of areas of proposed development, such as the footprint of the new school building and external areas, together with locations adjacent to potential off-site influences including the railway embankment and cemetery boundary. In addition, exploratory holes were positioned to facilitate installation of gas monitoring standpipes at representative locations across the site.

Standard Penetration Tests (SPTs) were undertaken within the windowless sample boreholes at regular depth intervals. Shallow ground gas and groundwater monitoring standpipes were installed within three of the windowless sample boreholes to enable subsequent monitoring.

Soil infiltration testing was carried out within trial pits SA01, SA02, HDP01 and HDP02 in order to assess the infiltration potential of the underlying soils.

4.1 FIELDWORKS (CONTINUED)

Representative soil samples were recovered from the exploratory holes for laboratory chemical and geotechnical testing and placed in appropriate sample containers suitable for the analyses required. Appropriate procedures were adopted during sampling to minimise the potential for cross-contamination.

The fieldworks were supervised by a qualified Geotechnical Engineer from Intégral Géotechnique (Wales) Limited, who logged the trial pits and windowless sample boreholes and prepared detailed engineering logs in accordance with BS 5930:2015+A1:2020. Soil and rock descriptions are provided in accordance with BS EN ISO 14688-1 (2002) and BS EN ISO 14689-1 (2003) respectively.

The approximate locations of the exploratory holes are shown in Figure 2. The engineering logs for the trial pits, hand excavated trial pits and windowless sample boreholes are presented in Appendices A, B and C respectively, and the results of the soil infiltration tests are presented in Appendix D.

4.2 FIELD OBSERVATIONS

At HDP03, positioned within the area of the existing playing fields, localised standing surface water with a suspected hydrocarbon sheen was observed. The near surface topsoil at this location was specifically sampled and scheduled for petroleum hydrocarbon testing.

No other visual or olfactory evidence of contamination was noted during the site investigation works.

4.3 LABORATORY CHEMICAL TESTING

Representative soil samples were taken from the exploratory holes across the site, stored at the appropriate temperature and dispatched to the laboratories of i2 Analytical for laboratory chemical testing within 24 hours.

The samples were tested for a range of contaminants that reflects the historical use of the site, the findings of the desk study and the preliminary conceptual site model/conceptual exposure model. A list of the soil testing carried out is given below:

Beryllium	Cadmium
Total Chromium	Hexavalent Chromium (VI)
Copper	Lead
Mercury	Nickel

4.3 LABORATORY CHEMICAL TESTING (CONTINUED)

Vanadium	Zinc
Arsenic	Boron
Selenium	Elemental Sulphur
Total Cyanide	Total Sulphate
Sulphide	Water Soluble Sulphate
pH	Monohydric Phenol
Polyaromatic Hydrocarbons (PAH)	Petroleum Hydrocarbons (VPH/EPH)

Samples were also screened for asbestos.

Additionally, a soil sample from WS04 positioned adjacent the neighbouring cemetery was also tested for ammoniacal nitrogen.

In addition to the above, two soil samples (one sample of made ground and one sample of natural soil) were also scheduled for Waste Acceptance Criteria (WAC) testing.

The results of the laboratory chemical testing are presented in Appendix E.

4.4 LABORATORY GEOTECHNICAL TESTING

Representative samples of the natural soils were taken from the exploratory holes across the site and dispatched to the UKAS accredited laboratories of GSTL and scheduled for Atterberg Limits and water content testing.

The results of the laboratory geotechnical testing as presented in Appendix F.

4.5 IN-SITU GAS MONITORING

Gas monitoring standpipes were installed in three of the windowless sample boreholes (WS01, WS02 and WS04) to assess the potential for ground gas associated with the historical landfill located to the southeast of the site. The standpipe locations were selected to target the area of the proposed new school building, representing the most sensitive development area.

The standpipes were constructed with response zones positioned within the natural soil deposits, which are considered to represent the most likely gas migration pathway beneath the site. Where possible, the response zones were installed above the recorded groundwater strikes within the respective boreholes to ensure monitoring of the unsaturated zone.

4.5 IN-SITU GAS MONITORING (CONTINUED)

The well installation details are summarised in Table 2.

Table 2: Summary of Standpipe Installations		
Standpipe Reference	Base Depth (m bgl)	Response Zone (m bgl)
WS01	1.50	0.90 to 1.70
WS02	1.60	0.60 to 1.60
WS04	1.00	0.40 to 1.00

The gas monitoring programme (comprising six monitoring rounds) commenced on 12 March 2026 and was completed on 18 June 2026, with monitoring undertaken at approximately fortnightly intervals following completion of the fieldworks.

Methane, carbon dioxide and oxygen concentrations were measured during each monitoring visit using a GA5000 Gas Analyser. Gas flow rate and atmospheric pressure at the time of monitoring were also recorded.

Monitoring has been undertaken across a range of atmospheric conditions, including at least one visit during low and/or falling atmospheric pressure, in accordance with CIRIA Report C665 guidance.

Groundwater depths were recorded during each monitoring visit.

The gas monitoring results are presented in Appendix G.

5.0 GROUND CONDITIONS

5.1 SHALLOW GROUND CONDITIONS

A summary of the typical shallow ground conditions encountered during the intrusive investigation is presented below in Table 3.

Table 3: Summary of Shallow Ground Conditions

Depth (m) From	To	Stratum
GL	0.20/0.30	TOPSOIL: Grass over soft dark brown silty CLAY with roots and rootlets. *Encountered at SA01, SA02, WS03, WS04 and HDP03 (existing playing field).*
GL	0.09/0.10	BITUMINOUS HARDSTANDING. *Encountered at WS01, WS02, HDP01 and HDP02 (around existing school buildings).*
0.09/0.10	0.30	MADE GROUND: (Loose) dark grey silty sandy fine to coarse GRAVEL of angular limestone chippings and tarmac fragments. *Encountered at WS01, WS02, HDP01 and HDP02 (around existing school buildings).*
0.30	0.60/0.90	MADE GROUND: Soft to firm dark brown or brown slightly sandy gravelly CLAY. Gravel is fine to coarse angular to sub-angular of concrete, bituminous material, sandstone and brick. *Encountered at WS01, WS02, HDP01 and HDP02 (around existing school buildings).*
0.20/0.90	1.70/>3.80	NATURAL SOILS: Typically firm, locally stiff light grey mottled orangish brown, grey, brown, greyish brown silty slightly sandy slightly gravelly locally very gravelly CLAY. Gravel was fine to coarse sub-angular to rounded of sandstone (GLACIAL TILL).
1.50/3.20	3.50/>4.00	NATURAL SOILS: Medium dense, medium dense becoming dense brown sandy slightly clayey GRAVEL or slightly gravelly fine to coarse SAND, locally with a low cobble content. Gravel was fine to coarse sub-angular to rounded of sandstone. Cobbles were sub-rounded to rounded of sandstone (GLACIAL TILL).

5.1 SHALLOW GROUND CONDITIONS (CONTINUED)

5.1.1 Topsoil

A surface layer of topsoil, typically between 0.20m and 0.30m thick, was encountered at SA01, SA02, WS03, WS04 and HDP03 across the existing playing field.

The topsoil generally comprised grass over soft dark brown silty clay with roots and rootlets.

5.1.2 Bituminous Hardstanding

A surface layer of bituminous hardstanding, up to approximately 0.10m thick, was encountered at WS01, WS02, HDP01 and HDP02 in areas surrounding the existing school buildings.

5.1.3 Made Ground

Made ground deposits were encountered beneath the surface hardstanding at WS01, WS02, HDP01 and HDP02.

The made ground was typically between approximately 0.60m and 0.90m thick and generally comprised an upper layer of loose granular material (limestone chippings with tarmac fragments) overlying a layer of soft to firm cohesive material containing of gravel concrete, brick and bituminous materials.

The made ground is considered to be associated with previous construction and surfacing works within the developed western part of the site.

No evidence of made ground was identified within the exploratory holes positioned across the existing playing field.

5.1.4 Natural Soils (Glacial Till)

Natural soils, comprising Glacial Till Deposits, were encountered beneath topsoil and/or made ground across the site.

The upper natural deposits were generally cohesive in nature, comprising firm locally stiff light grey, mottled orangish brown and grey silty slightly sandy slightly gravelly clay. These deposits were typically encountered to depths ranging from approximately 1.70m to 3.20m bgl, locally extending to approximately 3.80m bgl.

At depth, the cohesive deposits were locally underlain by granular deposits comprising medium dense becoming dense brown sandy slightly clayey gravel and slightly gravelly sand, with occasional cobbles of sandstone.

5.1 SHALLOW GROUND CONDITIONS (CONTINUED)

The granular deposits were proven to a maximum depth of approximately 4.00m bgl.

Standard Penetration Test (SPT) 'N' values within the superficial deposits ranged from approximately 9 to 25, indicating firm to stiff cohesive soils or medium dense granular soils. At the base of each borehole, SPT 'N' values of 50 were recorded, indicating very stiff or dense to very dense ground conditions.

5.2 GROUNDWATER

A summary of the groundwater observations recorded during the intrusive investigation is provided below in Table 4.

Table 4: Summary of Groundwater Observations

Location	Depth to Groundwater (m bgl)	Comment
SA01	1.50	Moderate groundwater inflows noted below 1.50m depth
SA02	1.70	Minor groundwater inflows noted below 1.70m depth
HDP02	0.80	Groundwater seepages noted below 0.80m depth
HDP03	n/a	Moderate surface water inflows noted.
WS01	1.90	Groundwater standing at 1.90m bgl.
WS02	1.65	Groundwater standing at 1.65m bgl.
WS03	1.10	Groundwater standing at 1.10m bgl.
WS04	1.00	Groundwater standing at 1.00m bgl.

In addition, areas of the school playing field were observed to be waterlogged at the ground surface at the time of the investigation, indicating shallow near-surface groundwater conditions and/or poor surface drainage.

Groundwater levels were also monitored during subsequent gas monitoring visits at standpipes WS01, WS02 and WS04. During these visits, groundwater was recorded at depths of approximately 1.00m to 1.30m bgl within WS01 and WS02, and at or close to ground level within WS04.

5.2 GROUNDWATER (CONTINUED)

It should be noted that, during installation of the gas monitoring standpipes, appropriate measures were taken to seal off groundwater inflows and isolate the response zones within the unsaturated soils. However, the groundwater levels recorded during subsequent monitoring visits indicate that groundwater is present at shallow depth across the site and may locally rise to near ground level.

Overall, the groundwater observations indicate a shallow groundwater regime across the site.

Groundwater observations represent conditions at the time of measurement only. Groundwater levels may fluctuate due to seasonal variation, rainfall events, local drainage conditions and variations in ground permeability.

5.3 SOIL INFILTRATION TEST RESULTS

Soil infiltration testing was undertaken within two machine excavated trial pits (SA01 and SA02) and two hand excavated trial pits (HDP01 and HDP02).

Within SA01 and SA02, groundwater ingress was encountered during testing, resulting in a rising water level within the excavations. As such, no infiltration rates could be derived at these locations.

Within HDP01 and HDP02, no measurable infiltration was observed over the monitoring period. As such, no infiltration rates could be derived at these locations.

The results indicate that the near-surface soils exhibit low permeability, and that shallow groundwater conditions are present across the site, which further limits infiltration potential.

Overall, the findings indicate that the ground is unlikely to be suitable for the use of infiltration-based drainage systems (e.g. soakaways).

The results are specific to the locations and depths tested.

The soil infiltration test calculation sheets are presented in Appendix D.

5.4 LABORATORY GEOTECHNICAL TEST RESULTS

A total of three representative natural soil samples were taken from the exploratory holes across the site and dispatched to the UKAS accredited laboratories of GSTL and scheduled for Atterberg Limits and water content testing.

The results of the laboratory geotechnical testing are presented in Appendix F.

A summary of the results is provided below in Table 5.

Table 5: Summary of Moisture Content and Volume Change Potential Results

Sample Reference	Depth (m bgl)	Strata	Moisture Content (%)	Plasticity Index (%)	Modified Plasticity Index (%)	Volume Change Potential
WS01	1.20	Natural Soils	27.70	35	35	Medium
WS02	1.00	Natural Soils	22.90	27	27	Medium
WS03	1.30	Natural Soils	14.30	25	22.25	Medium

The results of the laboratory testing indicate the natural soils underlying the site have a medium volume change potential.

6.0 CONTAMINATION

6.1 AVERAGING AREAS

In order to assess the laboratory test results in a robust and representative manner, the data have been grouped into defined averaging areas. An averaging area (or area of interest) represents a body of soil to which a receptor may be exposed, or which may contribute to the generation of potential pollutant linkages. This may be defined by historical land use, soil type, or proposed development layout.

For the purposes of this assessment, two principal averaging areas have been identified based on the differing ground conditions and proposed end use across the site:

- Made Ground – developed western part of the site (existing school building areas)
- Topsoil – undeveloped eastern part of the site (existing playing field)

In addition, samples of the underlying natural soils (glacial deposits) have been obtained and tested across the site to provide a complete understanding of ground conditions. These materials are not considered to represent a primary exposure layer under the proposed development but have been assessed to confirm the absence of significant contamination at depth.

6.2 SOIL CONTAMINATION

Suitable 4 Use Levels (S4ULs) published by LQM have been adopted as the primary screening criteria for the assessment of human health risks. Where S4ULs are not available, Category 4 Screening Levels (C4SLs) and other relevant Generic Assessment Criteria (GACs), including those published by CL:AIRE and Atkins ATRISKsoil, have been used where appropriate.

Given the proposed development, all results have been initially compared against criteria for a residential without homegrown produce end use, adopted as a conservative surrogate for initial screening purposes. Where exceedances are identified, their significance is considered further within the Human Health Risk Assessment (Section 8.3), including the potential derivation of site-specific target levels (SSTLs), where appropriate.

6.2.1 Made Ground (Western Site Area)

A total of three soil samples obtained from the made ground beneath the developed western part of the site have been assessed for contamination. The results are summarised in Appendix H.

6.2 SOIL CONTAMINATION (CONTINUED)

The results have been compared against the relevant screening criteria assuming 1% soil organic matter (SOM), representing a conservative assessment.

A summary of contaminants recorded at concentrations exceeding the applied generic assessment criteria is provided in Table 6.

Table 6: Made Ground Contamination Screening

Contaminant	Screening criteria (mg/kg)	No. of samples tested	No. samples exceeding screening criteria	Min concentration (mg/kg)	Max concentration (mg/kg)
Arsenic	40	3	2 (HDP02, WS01)	39	160
Benzo(a)anthracene	11	3	2 (HDP01, WS01)	11	36
Benzo(a)pyrene	3.2	3	3 (HDP01, HDP02, WS01)	12	34
Benzo(b)fluoranthene	3.9	3	3 (HDP01, HDP02, WS01)	15	40
Chrysene	30	3	1 (WS01)	12	31
Dibenzo(ah)anthracene	0.31	3	3 (HDP01, HDP02, WS01)	1.3	4.6

Elevated concentrations of polycyclic aromatic hydrocarbons (PAHs) have been identified within the made ground. These are considered to be associated with the presence of bituminous and tarmac fragments observed during the intrusive investigation. As such, the exceedances are considered to be localised and reflective of the inclusion of anthropogenic materials, rather than widespread contamination within the soil matrix.

Elevated concentrations of arsenic were also recorded within two samples. These exceedances are limited to the made ground within the developed western part of the site and are not considered to be representative of widespread natural soil conditions.

The significance of these exceedances will be considered within the Human Health Risk Assessment (Section 8.3), considering the nature and distribution of the made ground, the proposed end use and potential exposure pathways.

6.2 SOIL CONTAMINATION (CONTINUED)

No further exceedances were identified within the tested made ground samples.

Asbestos was not detected within any of the tested samples of made ground

6.2.2 Topsoil (Playing Field Area)

A total of three soil samples obtained from the topsoil within the existing playing field have been assessed for contamination. The results are summarised in Appendix I.

The results have been compared against the relevant screening criteria assuming 1% soil organic matter (SOM), representing a conservative assessment.

A summary of contaminants recorded at concentrations exceeding the applied generic assessment criteria is provided in Table 7.

Table 7: Topsoil Contamination Screening

Contaminant	Screening criteria (mg/kg)	No. of samples tested	No. samples exceeding screening criteria	Min concentration (mg/kg)	Max concentration (mg/kg)
Arsenic	40	2	2 (SA02, WS04)	84	110

Elevated concentrations of arsenic have been identified within the topsoil across the playing field area. These exceedances are considered to be representative of naturally occurring concentrations and/or regional background levels, which are known to be elevated within parts of the South Wales coalfield and surrounding valleys, including the Neath and Swansea areas, as a result of both underlying geology and historical industrial activity. No obvious anthropogenic source of arsenic was identified during the site investigation.

The recorded concentrations are consistent with values commonly encountered within near-surface soils in the region and are not considered to be indicative of a discrete contamination source.

The significance of these exceedances will be assessed further within the Human Health Risk Assessment (Section 8.3), including, where appropriate, the derivation of a site-specific target level (SSTL).

No further exceedances were identified within the tested topsoil samples.

6.2 SOIL CONTAMINATION (CONTINUED)

A sample obtained from trial pit HDP03, located within an area of localised standing surface water where a hydrocarbon sheen was observed, was also analysed for petroleum hydrocarbons. All concentrations were recorded below laboratory limits of detection, indicating no evidence of hydrocarbon contamination within the tested soils.

Asbestos was not detected within any of the tested topsoil samples.

6.2.3 Natural Soils / Glacial Till (Site Wide)

A total of two soil samples obtained from the natural glacial till deposits underlying the site have been assessed for contamination. The results are summarised in Appendix J.

The results have been compared against the relevant screening criteria assuming 1% soil organic matter (SOM), representing a conservative assessment.

The results of the laboratory testing indicate that all analysed chemical parameters are present at concentrations below the applicable screening criteria for the proposed end use. On this basis, no further contamination assessment of the natural soils is considered necessary.

In addition, a sample of the natural soils obtained from WS04, located adjacent to the neighbouring cemetery boundary, did not record any detectable concentrations of ammoniacal nitrogen. This indicates no evidence of contamination associated with potential leachate migration from the cemetery.

6.3 GROUND GASES

Ground gas was monitored on a fortnightly basis using a GA5000 Gas Analyser across six rounds completed between 12 March and 18 June 2026. The full monitoring data are presented in Appendix G. A summary of the results is given in Table 8

Table 8: Summary of Ground Gas Results

Borehole	Maximum Methane Concentration (%)	Maximum Carbon Dioxide Concentration (%)	Minimum Oxygen Concentration (%)	Gas Flow Rate (l/hr)
WS01	0.30	0.30	17.40	<0.10
WS02	0.30	1.20	17.50	<0.10
WS04	0.60	<0.50	15.60	<0.10

6.3 GROUND GASES (CONTINUED)

The results of the monitoring programme indicate a maximum methane concentration of 0.60% v/v, a maximum carbon dioxide concentration of 1.20% v/v, and gas flow rates below the instrument detection threshold of 0.10 l/hr at all locations throughout the monitoring period. Oxygen concentrations remained broadly within the range expected for near-surface ground conditions, with a site minimum of 15.60% v/v recorded at WS04 during Round 5.

During Rounds 1 and 2, the groundwater level within standpipe WS04 was at or close to ground level, rendering the response zone fully inundated and precluding representative gas monitoring. The groundwater level subsequently receded and representative readings were obtained from WS04 from Round 3 onwards. The temporary flooding of WS04 is consistent with the shallow groundwater regime identified across the site and indicates a limited thickness of unsaturated ground at this location, which would tend to restrict gas migration.

All three standpipes recorded only low concentrations of methane and carbon dioxide, with negligible gas flow rates throughout. No evidence of elevated ground gas conditions has been identified at any location.

An assessment of the monitoring results and the associated ground gas risk classification is presented in Section 8.5.

7.0 REVISED CONCEPTUAL EXPOSURE MODEL

The preliminary conceptual exposure model has been reviewed and revised to reflect the findings of the site investigation and the results of the laboratory testing of soils and gas monitoring. Pathways identified as a relevant pollutant linkage require appropriate risk assessment or mitigation measures (see Section 8).

Table 9: Revised Conceptual Exposure Model

Source		Receptor	Pathway	Preliminary Active Pathway? (see Sect. 5.7)	Relevant Pollutant Linkage	Justification/ Mitigation
Origin	Contaminant					
Potential made ground of unknown origin and historical land uses (on-site sources and potential encroachment from off-site sources)	Metals, semi-metals, non-metals, PAH, petroleum hydrocarbons, asbestos	School End User – human health	Dermal contact	✓	✓	Elevated concentration of arsenic and several PAH compounds identified – risk assess
			Ingestion of soil	✓	✓	
			Inhalation of dust and fibres	✓	✓	
			Inhalation of vapours – indoor/outdoor	✓	X	No sufficiently volatile contaminants identified
	Metals, semi-metals, non-metals, PAH, petroleum hydrocarbons	Groundwater quality	Leaching from soil	✓	✓	Elevated concentrations of arsenic and several PAH compounds identified – risk assess
		Surface water quality	Transportation within groundwater	✓	✓	
Existing building fabric and associated buried structures and infrastructure (such as pipework/ducts/ foundations)	Asbestos	School End User – human health	Inhalation of dust and fibres	✓	✓	ACM materials cannot be discounted at this stage – risk assess

7.0 REVISED CONCEPTUAL EXPOSURE MODEL (CONTINUED)

Source		Receptor	Pathway	Preliminary Active Pathway? (see Sect. 5.7)	Relevant Pollutant Linkage	Justification/ Mitigation
Origin	Contaminant					
Ground in vicinity of potential boiler plant	Petroleum hydrocarbons	School End User – human health	Dermal Contact	✓	X	No elevated petroleum hydrocarbons identified.
			Ingestion of soil	✓	X	
			Inhalation of dust	✓	X	
			Inhalation of vapours – indoor/outdoor	✓	X	
		Groundwater quality	Leaching from soil	✓	X	
		Surface water quality	Transportation within groundwater	✓	X	
Ground in vicinity of adjacent cemetery	Metals, ammoniacal nitrogen	School End User – human health	Dermal contact	✓	X	No elevated metals recorded, and ammoniacal nitrogen below limits of detection at WS04.
			Ingestion of soil	✓	X	
			Inhalation of dust	✓	X	
		Groundwater quality	Leaching from soil	✓	X	
		Surface water quality	Transportation within groundwater	✓	X	
Made Ground of unknown origin and natural ground	pH and water-soluble sulphate	Building Materials Durability	Direct contact	✓	✓	Building materials will be in contact with made ground and natural ground – risk assess
Ground Gas – organic, gas producing materials	Methane, carbon dioxide	Human health	Accumulation of gases in confined spaces, and/or migration onto site	✓ Off-site landfill source	X	No elevated concentrations

8.0 RISK ASSESSMENT

8.1 METHODOLOGY

The risk of pollution, health effects or environmental harm occurring as a result of ground contamination is dependent upon three principal factors:

- The scale of the contamination sources;
- The presence of sensitive "receptors", eg Humans: health of the general public, site occupiers, redevelopment workers. Environment: flora, fauna, etc;
- The existence of migration pathways by which contaminants can reach the sensitive receptors.

This section assesses each of these factors in order to evaluate the overall level of risk and potential harm to receptors. The receptor may be human, a water resource, an eco-system or construction materials. Pathways connecting a perceived hazard to a receptor are referred to as exposure pathways.

The sources of contamination and the links connecting the hazards to the sensitive receptors will represent the basis for the risk assessment.

8.2 SOURCE-PATHWAY-RECEPTOR MODEL

The preliminary conceptual site model was based on the findings of the desk study. This was later reviewed and refined according to the findings of the site investigation, allowing for the ground conditions encountered and the results of laboratory testing of soil and gas monitoring. Any pathways considered to be inactive were removed from the model and all remaining potentially active pathways require risk assessment.

The pathways shown as potentially active in the Revised Conceptual Site Model in Section 7.0 above have been assessed below.

8.3 HUMAN HEALTH RISK ASSESSMENT AND REMEDIAL RECOMMENDATIONS

The human health risk assessment has been undertaken with reference to the averaging areas defined in Section 6.1. These comprise:

- Made Ground – western part of the site (existing school building areas)
- Topsoil – eastern part of the site (existing playing field)

8.3 HUMAN HEALTH RISK ASSESSMENT AND REMEDIAL RECOMMENDATIONS (CONTINUED)

The assessment has also considered the proposed development layout, whereby the western part of the site will be largely occupied by the new school building, car parking and associated hardstanding, with the eastern part retained as a playing field.

This approach ensures that the assessment of risk and any remedial requirements are proportionate and directly aligned with both the ground conditions and the proposed end use.

8.3.1 Made Ground (Western Site Area)

The contamination testing has identified elevated concentrations of arsenic and polycyclic aromatic hydrocarbons (PAHs) within the shallow made ground underlying the developed western part of the site.

Potential pollutant linkages to human health have been identified via:

- Dermal contact with soil
- Ingestion of soil and soil-derived dust
- Inhalation of dust and fibres

The inhalation of vapours (indoor and outdoor) pathway is not considered to be active, as the contaminants identified are not sufficiently volatile.

Given the presence of contaminants at shallow depth within the made ground, a potential risk to human health may exist where direct contact with soils could occur.

However, it is noted that the proposed development layout will result in the majority of this area being covered by buildings, pavements and car parking. In these areas, hardstanding and floor slabs will effectively break pollutant linkages and remove the potential for direct exposure.

In areas of soft landscaping within the western part of the site, mitigation is required to prevent direct contact with the underlying made ground.

Accordingly, the following remedial options are considered appropriate:

8.3 HUMAN HEALTH RISK ASSESSMENT AND REMEDIAL RECOMMENDATIONS (CONTINUED)

- **Option 1:** Any soft landscaped areas situated within the orange zone shown in Figure 4 should be capped with 600mm of clean topsoil and subsoil (with an underlying geotextile/anti-dig separation membrane). Photographic evidence and a series of validation soil samples should be taken in order to demonstrate the satisfactory incorporation of the 600mm thick clean capping layer (and underlying geotextile membrane), and a validation report should be submitted to the Local Authority for approval.

- **Option 2:** Alternatively, the made ground materials could be fully removed from beneath the footprints of proposed soft landscaped areas situated within the orange zone shown in Figure 4, to expose the underlying uncontaminated virgin natural soils. A series of validation soil samples should be taken at the reduced formation levels in order to demonstrate satisfactory removal of the contaminated made ground, and a validation report should be submitted to the Local Authority for approval.

In addition, the following measures are recommended during demolition and site preparation works:

- Following demolition of the existing school buildings and removal of associated hardstanding, the exposed ground should be subject to inspection and, where necessary, targeted contamination testing to confirm ground conditions in previously inaccessible areas.

- All exposed formations, excavations and demolition arisings should be inspected by suitably trained personnel for the presence of asbestos containing materials (ACMs). Particular attention should be given to areas associated with former structures and services, including foundations, slabs, ducts, service trenches and buried pipework, where ACMs may be present. Any ACMs identified should be segregated, removed by a suitably licensed contractor and disposed of off-site as hazardous waste in accordance with the Control of Asbestos Regulations 2012, with appropriate documentation retained.

8.3 HUMAN HEALTH RISK ASSESSMENT AND REMEDIAL RECOMMENDATIONS (CONTINUED)

8.3.2 Topsoil (Playing Field Area)

The contamination testing has identified elevated concentrations of arsenic within the topsoil across the existing playing field area.

Initial screening of the results against generic assessment criteria for a residential without homegrown produce land use (adopted as a conservative first-tier assessment) identified exceedances.

A refined quantitative assessment has therefore been undertaken using the CLEA model to derive a site-specific target level (SSTL) for arsenic, based on exposure parameters representative of a primary school / playing field end use. A copy of the CLEA model setting and results is presented in Appendix K.

The model inputs include:

- Receptor: female child (3–11 years)
- Exposure frequency: term-time attendance (190 days per year)
- Occupancy: representative indoor and outdoor exposure (5 hours indoors and 2 hours outdoors per day)

A summary of the assessment is presented in Table 10.

Table 10: Contaminants of Concern Risk Assessment (Playing Field)

Contaminant	Max Topsoil Concentration (mg/kg)	SSTL (mg/kg)	Contaminant of Concern? (Yes/No)
Arsenic	110	200	No

The refined assessment demonstrates that the recorded arsenic concentrations are below the derived SSTL and are not considered to pose an unacceptable risk to human health under the proposed end use.

On this basis, no specific remedial measures are required within the playing field area.

8.3 HUMAN HEALTH RISK ASSESSMENT AND REMEDIAL RECOMMENDATIONS (CONTINUED)

8.3.3 Construction Workers

With future site development works involving the excavation and removal of the made ground, there would be a risk to workers from contaminants in the soils. Appropriate measures are therefore recommended for works involving the made ground materials which are known to be present beneath the site.

Normal good hygiene practices should be adequate to protect the health and safety of redevelopment workers, and should include:

- Minimum handling of materials;
- Washing of hands prior to all meal breaks, which should be taken in a designated clean area;
- The use of standard protective clothing such as boots and overalls and gloves, where considered relevant.

All excavations should be regularly checked for safe atmospheres.

In dry weather, inhalation of dust and gases should be avoided preferably by the use of dust suppression techniques to minimise fugitive emissions and minimisation of exposed materials at any particular time.

During excavation, in order to prevent cross contamination of materials, the made ground arisings should be segregated from any underlying natural soils.

Additionally, a system should be established by which any 'unusual' materials that may be encountered are reported rapidly to the site management, so that the appropriate action may be taken, following specialist advice if necessary. An unusual material may be identified on site by colour, odour or physical nature.

All site operatives are to be suitably asbestos awareness trained. Routine visual checks should be made for the presence of any asbestos containing materials (ACM). Any handpicked ACM should be disposed off-site at a suitable licensed facility as hazardous waste.

Reference should be made to the Health and Safety Executive document "Protection of Workers and the General Public during the development of contaminated land" for detailed guidance on these matters.

8.4 CONTROLLED WATERS RISK ASSESSMENT

Laboratory testing identified elevated concentrations of arsenic and polycyclic aromatic hydrocarbons (PAHs) within made ground in the western part of the site. The arsenic is considered representative of regional background conditions, whilst the PAHs are associated with bituminous and tarmac fragments and are localised in nature.

A topsoil sample from HDP03, taken in an area of standing water with a visible sheen, did not record detectable petroleum hydrocarbons, indicating no evidence of hydrocarbon contamination.

No evidence of contamination associated with off-site sources, including the adjacent railway embankment or neighbouring cemetery, has been identified.

Made ground is confined to the western part of the site and will be largely covered by the proposed building footprint and areas of hardstanding. No infiltration drainage is proposed, and the playing field area is underlain by natural soils.

The underlying superficial deposits comprise low permeability Devensian Till. Infiltration testing recorded negligible to no infiltration, indicating that vertical contaminant migration will be highly restricted. Although groundwater was encountered at shallow depth, no significant contamination sources have been identified within the natural soils.

The principal receptors comprise shallow groundwater, the underlying Secondary 'A' Aquifer and nearby surface watercourses located approximately 64m to the south and 68m to the northwest.

Given the localised nature of the contamination, low permeability ground conditions, absence of significant sources within natural soils, and the proposed development layout (including hardstanding and buildings which will break pollutant linkages), the potential for contaminant migration to controlled waters is considered to be very low.

No further assessment or specific mitigation measures are required.

8.5 GROUND GAS RISK ASSESSMENT

8.5.1 Radon

Information regarding Radon Protective Measures is provided within the Envirocheck Report as presented within the Desk Study Report ref. 14560/LP/26/DS dated February 2026. The Envirocheck Report states that the site is located within a lower probability radon area, as between less than 1% and between 1% to 3% of properties are above the Action Level. On this basis, radon protective measures are not necessary for the proposed development.

8.5.2 Ground Gas

Six rounds of gas monitoring were completed between 12 March and 18 June 2026. The results record a maximum methane concentration of 0.60% v/v, a maximum carbon dioxide concentration of 1.20% v/v, and gas flow rates below the instrument detection threshold of 0.10 l/hr at all locations throughout the monitoring period.

In accordance with CIRIA Report C665, a Gas Screening Value (GSV) of <0.0012 l/hr has been calculated. This corresponds to Characteristic Situation 1 (CS1), indicating a very low risk from ground gases. On this basis, no specific gas protection measures are required for the proposed development.

8.6 RISKS TO BUILDINGS AND MATERIALS DURABILITY

8.6.1 Concrete Classification

A summary of the laboratory chemical test results for the chemicals water soluble sulphate and pH, which may adversely affect the durability of building materials is presented in Appendix E.

Made Ground

In accordance with BRE Digest SD1:2005 and adopting the assessment procedure specified therein for brownfield sites, the laboratory chemical test results indicate a characteristic value (taking the highest of the test results) for water soluble sulphate within the made ground of 70mg/l.

Using Table C2 of BRE Digest SD1:2005, this characteristic value corresponds to Design Sulphate Class DS-1.

8.6 RISKS TO BUILDINGS AND MATERIALS DURABILITY (CONTINUED)

The groundwater regime of the site has been assessed as 'mobile' and a characteristic pH value within the made ground of 6.6 has been determined (adopting the lowest of the test results). The Design Sulphate Class has been modified to give a site ACEC class of AC-1 for concrete structures constructed within the made ground.

Natural Soils

In accordance with BRE Digest SD1:2005 and adopting the assessment procedure specified therein for brownfield sites, the laboratory chemical test results indicate a characteristic value (taking the highest of the test results) for water soluble sulphate within the natural soils of 125mg/l.

Using Table C2 of BRE Digest SD1:2005, this characteristic value corresponds to Design Sulphate Class DS-1.

The groundwater regime of the site has been assessed as 'mobile' and a characteristic pH value within the superficial deposits of 6.3 has been determined (adopting the lowest of the test results). The Design Sulphate Class has been modified to give a site ACEC class of AC-2z for concrete structures constructed within the natural soils.

8.6.2 Water Services

Water supply pipes will need to be protected from any contamination present within the ground. In particular, the presence of organic contaminants (such as PAH) should be addressed when selecting pipe materials. Measures to protect the pipes should include clean backfill to trenches and alternative material selection (such as the use of barrier pipe). Reference should be made to UKWIR Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites, document No. 10/WM/03/21. The final design and selection of the pipe and associated backfill should be agreed with the appropriate Regulator prior to installation.

In order to comply with the UKWIR guidance, specific sampling and testing along the actual line of the proposed water supply route may need to be carried out once this has been established.

8.7 WASTE DISPOSAL

Excavated materials generated during the development may be classified as waste and will be subject to waste management controls. Any re-use of materials on-site should be undertaken in accordance with current environmental legislation and may require the preparation of a Materials Management Plan (MMP) in accordance with the CL:AIRE Definition of Waste: Development Industry Code of Practice.

A sustainable development approach should be adopted, with a preference for the recovery and re-use of materials on-site where practicable, thereby minimising the requirement for off-site disposal.

Any surplus materials requiring disposal must be classified in accordance with current Environment Agency guidance (WM3). The responsibility for waste classification rests with the waste producer.

A waste classification assessment has been undertaken using HazWasteOnline for representative samples of made ground and natural soils encountered at the site. Based on the available chemical testing data, the materials are classified as non-hazardous. The waste classification outputs are presented in Appendix L.

Waste Acceptance Criteria (WAC) testing has been undertaken on one sample of made ground (HDP02 at 0.20m) and one sample of natural soil (HDP01 at 0.70m). The results are presented in Appendix E.

The WAC results for the made ground indicate that the material does not meet the criteria for disposal as inert waste, principally due to elevated total PAH and total organic carbon content. As such, disposal would be required at a suitably licensed non-hazardous landfill.

The WAC results for the natural soils indicate that the material meets the criteria for inert waste disposal, with all leachate concentrations and relevant parameters within the applicable inert waste acceptance limits.

Any asbestos containing materials (ACMs) encountered during excavation works should be classified as hazardous waste and removed by a suitably licensed contractor in accordance with the Control of Asbestos Regulations 2012.

Any waste comprising bituminous hardstanding (tarmac / asphalt) containing coal tar is likely to be considered as hazardous.

8.7 WASTE DISPOSAL (CONTINUED)

The above classifications are indicative and based on the limited number of samples tested. Additional testing may be required during construction to confirm the classification of materials prior to disposal.

To maximise opportunities for re-use and minimise disposal costs, excavated materials should be segregated and, where appropriate, subjected to further testing to enable classification into lower waste categories.

It is recommended that the results of waste classification and WAC testing are provided to the receiving waste facility in advance of disposal to confirm acceptance criteria.

8.8 UNCERTAINTIES

It is important to recognise that there may be areas of contamination within the site that have not been found or that contaminants may be present at concentrations above those that have been found. It is also important to recognise that contamination may be localised and that no investigation, however comprehensive, is capable of finding such occurrences, other than by chance.

At the time of the investigation, the existing school building remained in place and access to these areas was not possible. Consequently, the ground conditions beneath the building footprint, including any underlying made ground, have not been directly assessed. Based on the historical development of the site, the presence of made ground beneath the existing floor slabs is considered likely.

9.0 ENGINEERING CONSIDERATIONS AND RECOMMENDATIONS

9.1 DETAILS OF PROPOSED DEVELOPMENT

The proposed development comprises the demolition of an existing single-storey school building located in the north-western part of the site, followed by the construction of a new school building within the central-northern and north-eastern areas of the site.

The proposals also include the construction of a new staff car park (23 spaces) within the north-western area of the site. A retaining structure, up to approximately 1.5m in height, is proposed to the rear of the new school building along the northern site boundary.

An existing school building located within the eastern part of the site is to be retained. In addition, the southern half of an existing playing field will remain unchanged.

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.

9.2 GEOTECHNICAL CONSTRAINTS AND CONSIDERATIONS

9.2.1 Railway Embankment (Northern Boundary)

The northern boundary is defined by a third-party railway embankment. Proposed excavation and retaining works adjacent to this boundary have the potential to influence the stability of the embankment. The geometry, construction and material properties of the embankment are not known, and it was not accessible for inspection or investigation as part of this assessment. Accordingly, the stability of the embankment, including any global stability considerations, has not been assessed.

The design of the retaining structure, together with any temporary works, excavation support and construction sequencing, should be undertaken by the appointed structural engineer and temporary works designer. This should be informed by appropriate information from the rail asset owner. Consultation with the relevant rail authority (e.g. Network Rail) is advised, and any asset protection requirements and approvals must be complied with.

9.2.2 Shallow Groundwater and Excavations

Groundwater has been encountered at shallow depth within the superficial deposits. Excavations, including foundation excavations, are likely to encounter groundwater and may require continuous pumping to maintain dry and stable working conditions.

9.2 GEOTECHNICAL CONSTRAINTS AND CONSIDERATIONS (CONTINUED)

There is also the possibility of encountering historical springs close to the northern site boundary (on historical mapping up to 1918, a spring was at the northern site boundary).

9.2.3 Buried Structures and Obstructions

Part of the proposed building footprint is currently occupied by an existing school building footprint which is to be demolished. Demolition and removal of buried structures, including foundations, slabs, service ducts and drainage runs, will be required. The works may locally influence ground conditions (i.e., result in ground disturbance).

9.2.4 Made Ground (Western Site Area)

Made ground is present beneath the existing developed areas. Although generally of limited thickness, it may be variable in composition and condition. Foundations should be taken into competent natural soils.

9.3 SITE PREPARATION

9.3.1 Services

Prior to works commencing on site, any services within the proposed development area should be identified and either diverted or protected. Any diversion works should be carried out under the supervision of, and to the specification of appropriate Statutory Authorities. The resulting excavations should be backfilled with engineered granular fill material.

9.3.2 Demolition of Existing Buildings / Structures

Prior to demolition of the existing buildings / structures, strategies should be developed to ensure the safe demolition and re-use of materials. All buildings/structures to be demolished/dismantled should be subject to a 'Demolition Asbestos Survey', soft strip, and disposal of asbestos containing materials to a licensed tip.

9.3.3 Vegetation Clearance and Site Strip

Dense vegetation surrounds parts of the site and invasive plant species may be present, including Japanese Knotweed. A full vegetation survey of the site should therefore be undertaken and, where required, an appropriate scheme for the treatment and removal of any identified invasive species implemented.

All trees, stumps, root systems and brash vegetation within development areas should be cleared and removed. Allowance should be made for the protection of any trees or vegetation to be retained, and all relevant Tree Preservation Orders and ecological constraints must be adhered to.

9.3 SITE PREPARATION (CONTINUED)

All topsoil should be stripped from development areas and stockpiled on site for potential re-use or removed off-site as appropriate.

Areas of stripping should be minimised at all times and exposed surfaces protected from deterioration, particularly during periods of wet weather. Designated access routes should be maintained and suitably designed and maintained working platforms provided for construction plant.

9.3.4 Site Reclamation

All redundant slabs, services, ducts and surface hardstanding should be fully broken out and removed during site clearance. Excavated materials may be processed for reuse where suitable, typically crushed and screened to an agreed structural specification (generally <125mm maximum particle size), with removal of unsuitable materials such as timber, metal and other deleterious matter.

Bituminous hardstanding materials (tarmac / asphalt) should be stripped off and stockpiled separately for reuse or off-site disposal. It should be noted that any bituminous hardstanding waste containing coal tar is likely to be considered as hazardous. Bituminous waste containing coal tar is typically treated by crushing, grinding and screening followed by reuse within paving structures such as roads, car parking, etc. provided that it is only used in bound sub-surface layers such as sub-base, base and binder layers. Specific conditions must be satisfied to demonstrate appropriate reuse without the need for an environmental permit.

Any buried chambers, basements, service ducts or similar structures should be fully removed. Resultant excavations should be adequately benched and backfilled using structural fill placed and compacted to an agreed specification.

Due to the fine-grained nature of the near-surface soils, exposed formations will be susceptible to deterioration under trafficking and in wet weather. Careful management of earthworks operations and surface water control will therefore be required to prevent softening of exposed ground.

Following demolition and removal of hardstanding, the underlying ground should be inspected and tested for contamination in accordance with the recommendations presented in Section 8.3. The contamination risk assessment and remedial requirements should be reviewed following completion of these works.

9.3 SITE PREPARATION (CONTINUED)

9.3.5 Works Adjacent to Northern Boundary Railway Embankment

As shown in Cambria Drawing No. CC2970-CAM-XX-XX-DR-C-0610 (Rev P01, dated 25 March 2026), works are proposed in proximity to the northern site boundary, which is defined by a third-party railway embankment. The drawing indicates a proposed cut / reduction in ground level and the construction of a retaining wall (up to 1.5m high) along this boundary.

The stability of the railway embankment has not been assessed as part of this report.

Prior to the commencement of any works in this area, consultation with the relevant rail asset owner (e.g. Network Rail) is strongly recommended to confirm any asset protection requirements, constraints on excavation and construction activities, and the acceptability of the proposed development in relation to the embankment.

The design of the retaining structure, together with any associated temporary works, excavation support and construction sequencing, should be undertaken by the appointed designer(s). This design should consider the presence of the adjacent embankment and include consideration of both local and global slope stability. The design approach and any required mitigation measures should be agreed with the rail asset owner where necessary.

9.3.6 Groundwater and Dewatering

Groundwater was encountered at shallow depth across the site during the intrusive investigation, with locally waterlogged conditions observed at the surface.

Excavations, including those for foundations, services and drainage, are therefore likely to encounter groundwater. The inflow of groundwater into excavations may be significant and should not be assumed to be limited to isolated seepages. Provision should be made for continuous pumping and management of groundwater to maintain dry and stable working conditions.

Groundwater control measures should be designed and implemented by the contractor and may include continuous sump pumping or other appropriate dewatering techniques, depending on the scale and depth of excavation.

9.3 SITE PREPARATION (CONTINUED)

In addition, the potential presence of springs and existing or historic land drainage should be anticipated. Any such features encountered during the works should be appropriately managed to prevent uncontrolled flows into excavations and to avoid softening or instability of formations.

9.3.7 Unexpected Occurrences

A system should be established by which any 'unusual' materials that may be encountered are reported rapidly to the site management, so that the appropriate action may be taken, following specialist advice if necessary. An unusual material may be identified on site by colour, odour or physical nature.

All site operatives are to be suitably asbestos awareness trained. Routine visual checks should be made for the presence of any asbestos containing materials (ACM). Any handpicked ACM should be disposed off-site at a suitable licensed facility as hazardous waste.

9.4 FOUNDATIONS AND FLOOR SLABS

The following recommendations are provided for guidance in the selection of suitable foundation solutions for the proposed building and relate only to the ground conditions encountered within the proposed building footprint. These recommendations do not include any assessment of the stability of the adjacent railway embankment, nor the design of retaining structures or any associated temporary works along the northern boundary.

Following demolition and the removal of all buried structures (including former foundations, service runs etc), it is considered that conventional strip / trench fill foundations bearing onto suitably competent in-situ natural soils (Glacial Till) may be adopted for the proposed school building.

Within the area of the proposed building footprint, the recommended bearing stratum comprises firm, locally stiff light grey mottled orangish brown silty slightly sandy slightly gravelly clay, typically encountered at depths of between approximately 0.20m and 0.90m bgl

For foundations constructed within these firm cohesive soils, an allowable bearing pressure of 100kN/m² may be adopted for design purposes. At this loading, total settlements are expected to be less than 25mm, with differential settlement resulting in angular distortion not exceeding 1:750.

9.4 FOUNDATIONS AND FLOOR SLABS (CONTINUED)

Foundations should penetrate the founding strata by a minimum of 200mm and be at a minimum depth of 900mm below development level to protect against the effects of frost heave and/or thermal shrinkage.

Foundations should fully penetrate any placed fill, made ground, backfilled demolition trenches and any disturbed/soft/loose soils.

Laboratory Atterberg Limits have been determined for the natural soils underlying the site. The results indicate a medium volume change potential. Footings should be appropriately deepened in accordance with NHBC guidance for foundations constructed in medium volume change potential soils within influencing distance of trees and hedges (including those that are removed as part of the proposed site clearance works).

Given the anticipated ground disturbance associated with demolition, and the variability in near-surface conditions across the site (including the presence of made ground in the western area and natural soils in the east), it is recommended that floor slabs are designed and constructed as suspended.

9.5 EXCAVATIONS AND FORMATIONS

The following guidance relates to general excavation practices within the site. Excavation works undertaken in proximity to the northern railway embankment require specific consideration due to the potential to adversely affect the stability of the embankment and are subject to the requirements set out in Sections 9.2 and 9.3.

No assessment of the stability of the railway embankment has been undertaken as part of this report. Accordingly, excavation works in this area must only be carried out in accordance with an appropriately designed scheme that considers both local and global stability, and which is agreed with the relevant third parties where required.

Across the remainder of the site, most excavations should be achievable using conventional earthmoving plant. However, allowances should be made for the presence of buried obstructions, including remnant foundations, slabs, service ducts and chambers, which may require breaking out using heavier plant and mechanical breakers.

9.5 EXCAVATIONS AND FORMATIONS (CONTINUED)

Groundwater has been encountered at shallow depth and excavations are likely to encounter groundwater inflows. The inflow of groundwater should not be assumed to be limited to isolated seepages and may be significant in places. Provision should be made for groundwater control during excavation works. Such measures should be designed and implemented by the contractor and may include continuous sump pumping or other appropriate dewatering techniques, depending on the scale and depth of excavation.

Excavation side stability should be carefully managed. Temporary instability and localised overbreak may occur, particularly within cohesive soils in wet conditions. Excavations deeper than approximately 1.0m should be appropriately supported using trench support systems or battered back to a safe angle, typically no steeper than 30° to the horizontal, subject to ongoing assessment of ground conditions.

Exposed formations are likely to be susceptible to deterioration due to weathering and water ingress. Measures should therefore be implemented to control surface water runoff, limit trafficking and protect exposed surfaces. Where deterioration occurs, localised reworking or replacement with suitable engineered material may be required.

9.6 ACCESS ROADS AND CAR PARKING AREAS

Following site stripping, variations in formation strength are likely to be encountered. For preliminary pavement design purposes, a California Bearing Ratio (CBR) value of between 2% and 3% may be assumed for the soils underlying the site, subject to confirmation during construction.

Following proof rolling of the exposed formations, all the 'soft spots/areas' should be removed and replaced with well compacted imported granular materials. Such materials should be to the approval of the local highway authority and should be compacted in layers, in accordance with the DTp Specification for Highways Works.

Formations within cohesive deposits should be regarded as frost susceptible.

Field CBR tests should be carried out in order to confirm the above assumptions. Depending on the outcome of such field tests, the above recommendations may need to be revised.

9.7 DRAINAGE

Soil infiltration testing was undertaken within two machine excavated trial pits (SA01 and SA02) and two hand excavated trial pits (HDP01 and HDP02).

Within SA01 and SA02, groundwater ingress was encountered during testing, resulting in a rising water level within the excavations. As such, no infiltration rates could be derived at these locations.

Within HDP01 and HDP02, no measurable infiltration was observed over the monitoring period. As such, no infiltration rates could be derived at these locations.

The results indicate that the near-surface soils exhibit low permeability, and that shallow groundwater conditions are present across the site, which further limits infiltration potential.

Overall, the findings indicate that the ground is unlikely to be suitable for the use of infiltration-based drainage systems (e.g. soakaways).

The results are specific to the locations and depths tested.

The soil infiltration test calculation sheets are presented in Appendix D.

9.8 RECOMMENDED FURTHER WORKS

Following demolition of the existing buildings and removal of associated hardstanding, foundations, services and buried structures, the exposed ground should be subject to inspection and targeted contamination testing in areas that were not previously accessible. The findings should be used to verify the conclusions of the risk assessment undertaken and to confirm that remedial recommendations outlined in this report remain appropriate.

In relation to the northern site boundary, consultation with the relevant rail asset owner (e.g. Network Rail) is strongly recommended prior to the commencement of any works in proximity to the railway embankment. The design of any retaining structures, together with associated temporary works and excavation support, should be undertaken by the appointed designer(s) based on appropriate third-party information. This design should include consideration of both local and global stability of the railway embankment and surrounding ground, considering the proposed regrading and construction works. Any required approvals and asset protection measures should be implemented as necessary.

APPENDIX A

TRIAL PITS LOGS

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Project Name:	Project No.:	Trial Pit No.:
YGG Tregeles, St John's Terrace	**14560**	**SA01** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Neath Abbey	Knox & Wells Limited	AG	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				
						Grass over soft dark brown silty CLAY with roots and rootlets (TOPSOIL).
			0.20			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

1 2 3 4 5

Remarks:
Terminated at 2.0m bgl.
Soil infiltration test undertaken.

Groundwater: Moderate groundwater inflows noted below 1.5m depth.

Stability: Generally stable in the short term.

Key:
D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

AGS

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Project Name:	Project No.:	Trial Pit No.:
YGG Tregeles, St John's Terrace	**14560**	**SA02** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Neath Abbey	Knox & Wells Limited	AG	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					Grass over soft dark brown silty slightly gravelly 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.
			1.20			Firm brown silty slightly sandy gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.
			1.70			(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

1
2
3
4
5

Remarks:
Terminated at 2.1m bgl.
Soil infiltration test undertaken.
Running sand conditions encountered.

Groundwater: Minor groundwater inflows noted below 1.7m depth.

Stability: Minor pit wall instability noted below 1.7m depth.

Key:
D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

AGS

APPENDIX B

HAND EXCAVATED TRIAL PIT LOGS

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Project Name:	Project No.:	Trial Pit No.:
YGG Tregeles, St John's Terrace	**14560**	**HDP01** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Neath Abbey	Knox & Wells Limited	AG	1:25

Equipment: Hand Excavated

Coordinates:

Date Excavated: 06/03/2026

Level:

Dimensions

Depth : 1.00m

0.30m

0.30m

Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.09			BITUMINOUS MATERIAL
0.20	ES					(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 MADE GROUND).
			0.60			Firm light grey mottled orangish brown silty slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.
0.70	ES					
			1.00			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.

Stability: Generally stable in the short term.

Key:

D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

AGS

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Project Name:	Project No.:	Trial Pit No.:
YGG Tregeles, St John's Terrace	**14560**	**HDP02** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Neath Abbey	Knox & Wells Limited	AG	1:25

Equipment: Hand Excavated

Coordinates:

Dimensions 0.30m

Depth : 1.10m

0.30m

Date Excavated: 06/03/2026

Level:

Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.09			BITUMINOUS MATERIAL
0.20	ES		0.30			(Loose) dark grey silty sandy fine to coarse GRAVEL of angular limestone chippings and tarmac fragments (MADE GROUND).
			0.50			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).
			1.10			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 1.10 m

1
2
3
4
5

Remarks:
Terminated at 1.1m bgl.
Soil infiltration test undertaken.

Groundwater: Minor groundwater seepages noted below 0.8m depth.

Stability: Generally stable in the short term.

Key:
D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

AGS

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Project Name:	Project No.:	Trial Pit No.:
YGG Tregeles, St John's Terrace	**14560**	**HDP03** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Neath Abbey	Knox & Wells Limited	AG	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					Grass over soft dark brown silty CLAY with roots and rootlets (TOPSOIL).
			0.20			Firm light grey mottled orangish brown silty slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.
			0.30			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.

Stability: Generally stable in the short term.

Key:
D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

AGS

APPENDIX C

WINDOWLESS SAMPLE BOREHOLE LOGS

Intégral Géotechnique	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

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Well	Water Strikes	Samples & In situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					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					
	1.90	2.00	S	N=14 (2,3/4,3,3,4)	1.60			Firm grey slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone. *Becomes very gravelly below 2.1m depth.*
		3.00	S	N=16 (1,1/2,3,5,6)	2.50			Firm becoming stiff brown sandy slightly gravelly SILT. Gravel is fine to sub-angular to rounded of sandstone.
		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

AGS

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Project Name:	Project No.:	Borehole No.:
YGG Tregeles, St John's Terrace	**14560**	**WS02** Sheet 1 of 1

Location:	Client:	Coordinates:	Hole Type:
Neath Abbey	Knox & Wells Limited		WLS

Equipment:	Diameter of Casing:	Level:	Scale
DART 554			1:25

Diameter of Boring:	Depth of Casing:	Dates	Logged By:
101+86+76+66mm		06/03/2026 -	AG

Samples & In situ Testing: Depth (m)	Type	Results	Water Strikes	Depth (m)	Stratum Description
				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.
1.00	S	N=9 (1,1/2,2,2,3)			
			1.65	1.70	Firm grey slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.
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.
3.00	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

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

AGS

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Project Name: **YGG Tregeles, 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)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
								Grass over soft dark brown silty CLAY with roots and rootlets (TOPSOIL).
					0.20			Firm light grey mottled orangish brown silty slightly sandy slightly gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.
	1.10	1.00	S	N=14 (3,3/3,4,3,4)				
		1.30	D		1.20			Firm brown mottled light grey slightly sandy gravelly CLAY. Gravel is fine to coarse sub-angular to rounded of sandstone.
		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.
		3.00	S	50 (7,13/50 for 220mm)	3.00			End of Borehole at 3.00 m

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

AGS

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Project Name: **YGG Tregeles, 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)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
		0.10	ES					Grass over soft dark brown silty CLAY with roots and rootlets (TOPSOIL).
					0.25			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 (DEVENSIAN TILL).
		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 (DEVENSIAN TILL).
		3.00	S	N=25 (3,3/4,4,6,11)				
					3.80			Medium dense becoming dense brown fine to coarse SAND.
		4.00	S	N=50 (10,13/50 for 230mm)	4.00			End of Borehole at 4.00 m

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

AGS

APPENDIX D

SOIL INFILTRATION TEST RESULTS

BRE365 SOIL INFILTRATION RATE TEST - SA01

14560 YGG Tregeles, St John's Terrace, Neath Abbey

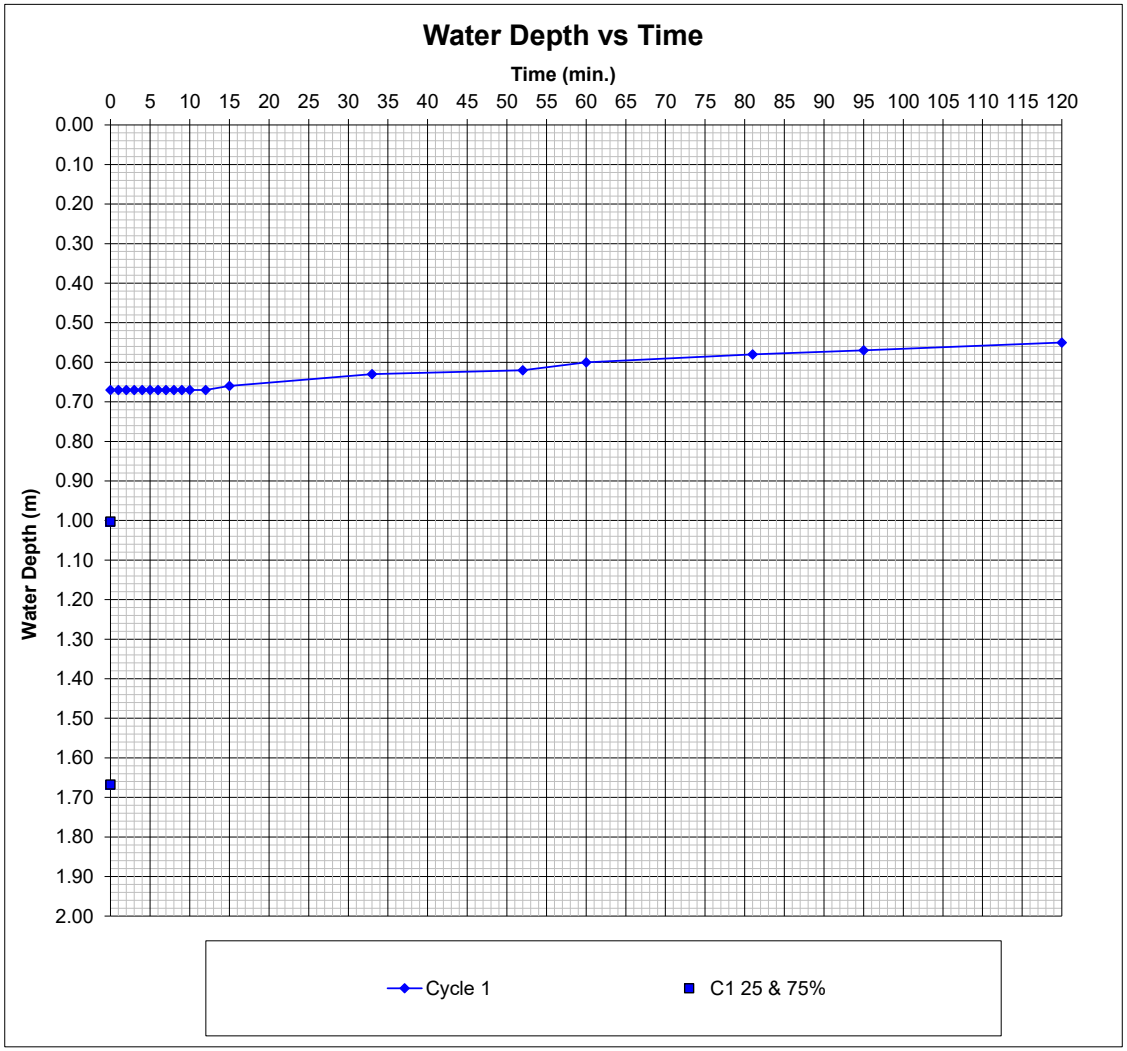
Trial Pit Information	
Length (m)	2.00
Width (m)	0.70
Depth (m)	2.00
Groundwater	1.50
Weather Conditions	Light Rain
Date	05-Mar-26

Remarks

1. Terminated at 2.00m bgl.
2. Moderate groundwater inflows noted below 1.50m depth.
3. Rise in water level noted.
4. Insufficient infiltration in order to calculate infiltration rate.

Cycle 1		Cycle 2		Cycle 3	
Time (min)	Depth (m)	Time (min)	Depth (m)	Time (min)	Depth (m)
0	0.67				
1	0.67				
2	0.67				
3	0.67				
4	0.67				
5	0.67				
6	0.67				
7	0.67				
8	0.67				
9	0.67				
10	0.67				
12	0.67				
15	0.66				
33	0.63				
52	0.62				
60	0.60				
81	0.58				
95	0.57				
120	0.55				

Final Excavation Depth (m)	Cycle 1	Cycle 2	Cycle 3
At end of testing cycle	2.00		
Water Depths (m)			
Water depth at start of test	0.67		
Water depth at end of test	0.67		
Effective depth (measured)	0.00		
% Effective storage depth	0.00		
Effective Storage Depths (m)			
Effective storage depth (100%)	1.33		
Effective storage depth (75%)	1.00		
Effective storage depth (50%)	0.67		
Effective storage depth (25%)	0.33		
Outflow Time (min)			
Time for measured outflow	120		
Time for 100% outflow	n/a		
Time for 75-25% outflow	n/a		
Volume of Outflow (m^3)			
Over measured effective depth	0.00		
Over 100% effective depth	1.86		
From 75% - 25% effective depth	0.93		
Surface Area (m^2)			
For 100% effective storage	8.58		
For 50% effective storage	4.99		
Over measured depth	1.40		
Soil Infiltration Rate (m/s)	**Cycle 1**	**Cycle 2**	**Cycle 3**
Over 100% effective depth	n/a		
Over measured depth	0.0E+00		
Over 75% - 25% effective depth	**n/a**		



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BRE365 SOIL INFILTRATION RATE TEST - SA02

14560 YGG Tregeles, St John's Terrace, Neath Abbey

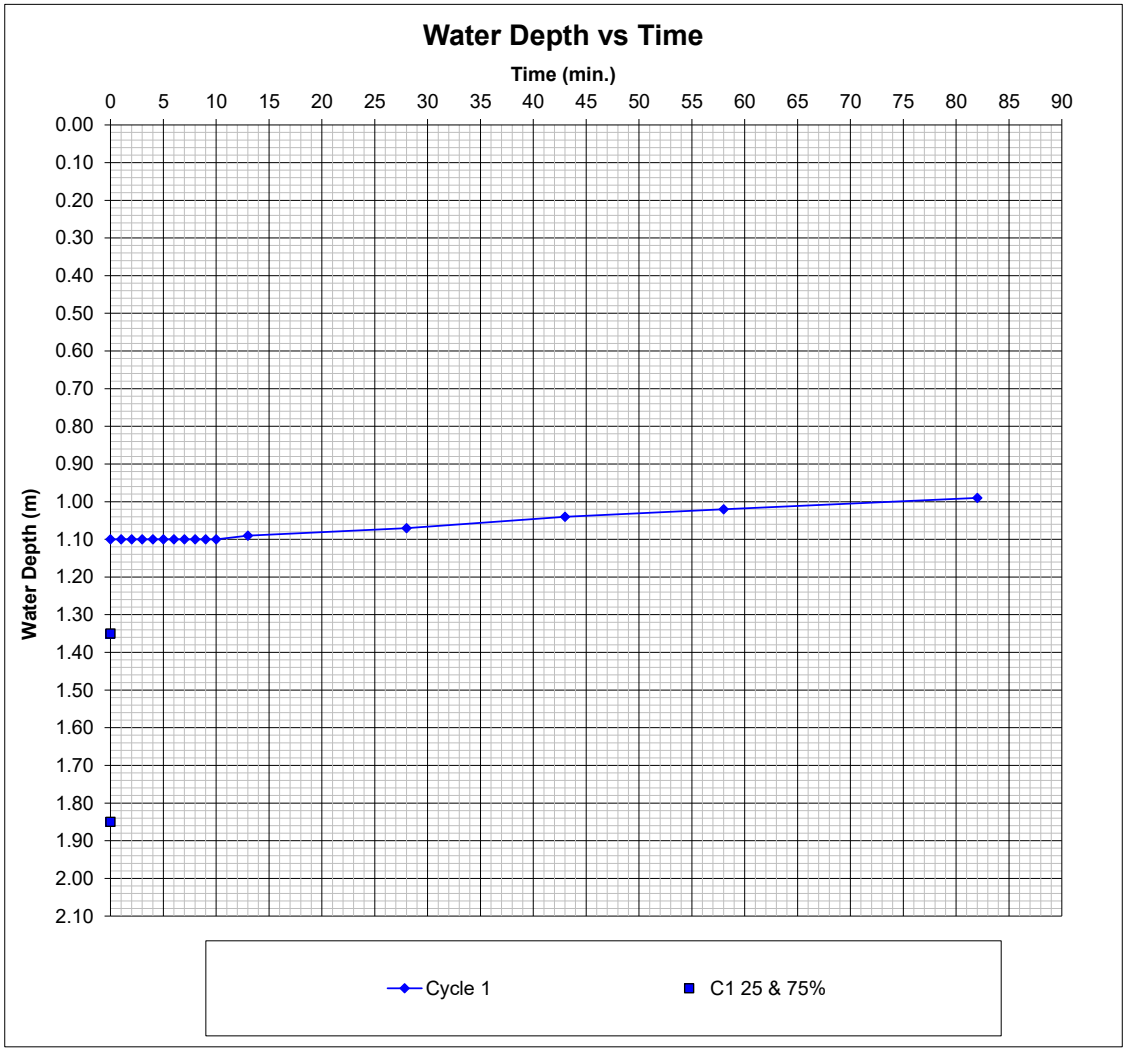
Trial Pit Information	
Length (m)	2.30
Width (m)	0.70
Depth (m)	2.10
Groundwater	1.70
Weather Conditions	Light Rain
Date	05-Mar-26

Remarks

1. Terminated at 2.10m bgl.
2. Minor groundwater inflows noted below 1.70m depth.
3. Rise in water level noted.
4. Insufficient infiltration in order to calculate infiltration rate.

Cycle 1		Cycle 2		Cycle 3	
Time (min)	Depth (m)	Time (min)	Depth (m)	Time (min)	Depth (m)
0	1.10				
1	1.10				
2	1.10				
3	1.10				
4	1.10				
5	1.10				
6	1.10				
7	1.10				
8	1.10				
9	1.10				
10	1.10				
13	1.09				
28	1.07				
43	1.04				
58	1.02				
82	0.99				

Final Excavation Depth (m)	Cycle 1	Cycle 2	Cycle 3
At end of testing cycle	2.10		
Water Depths (m)			
Water depth at start of test	1.10		
Water depth at end of test	1.10		
Effective depth (measured)	0.00		
% Effective storage depth	0.00		
Effective Storage Depths (m)			
Effective storage depth (100%)	1.00		
Effective storage depth (75%)	0.75		
Effective storage depth (50%)	0.50		
Effective storage depth (25%)	0.25		
Outflow Time (min)			
Time for measured outflow	82		
Time for 100% outflow	n/a		
Time for 75-25% outflow	n/a		
Volume of Outflow (m^3)			
Over measured effective depth	0.00		
Over 100% effective depth	1.61		
From 75% - 25% effective depth	0.81		
Surface Area (m^2)			
For 100% effective storage	7.61		
For 50% effective storage	4.61		
Over measured depth	1.61		
Soil Infiltration Rate (m/s)	**Cycle 1**	**Cycle 2**	**Cycle 3**
Over 100% effective depth	n/a		
Over measured depth	0.0E+00		
Over 75% - 25% effective depth	**n/a**		



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BRE365 SOIL INFILTRATION RATE TEST - HDP01

14560 YGG Tregeles, St John's Terrace, Neath Abbey

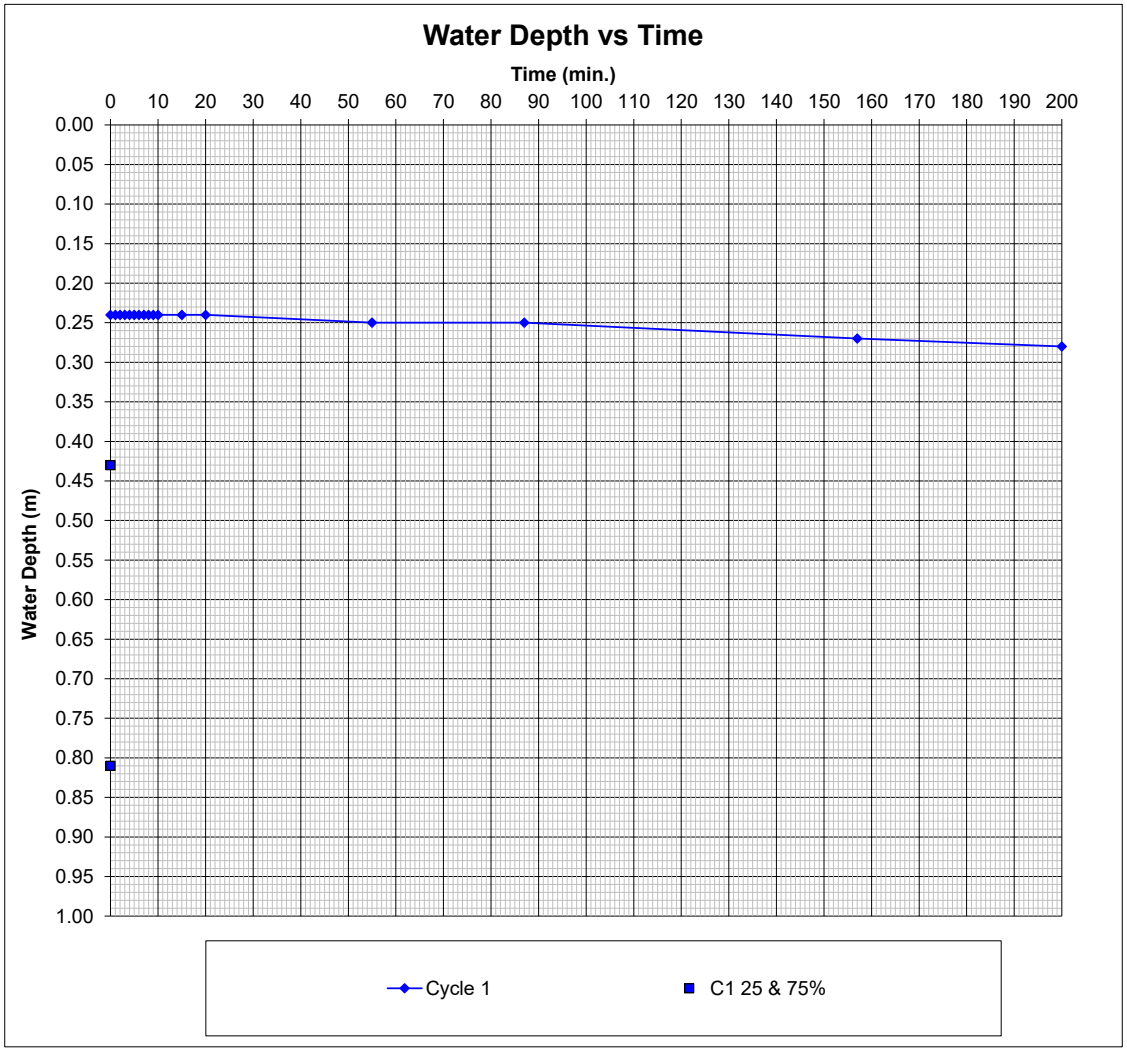
Trial Pit Information	
Length (m)	0.30
Width (m)	0.30
Depth (m)	1.00
Groundwater	Dry
Weather Conditions	Overcast
Date	06-Mar-26

Remarks

1. Terminated at 1.00m bgl.
2. No groundwater encountered.
3. Minimal infiltration observed.
4. Insufficient infiltration in order to calculate infiltration rate.

Cycle 1		Cycle 2		Cycle 3	
Time (min)	Depth (m)	Time (min)	Depth (m)	Time (min)	Depth (m)
0	0.24				
1	0.24				
2	0.24				
3	0.24				
4	0.24				
5	0.24				
6	0.24				
7	0.24				
8	0.24				
9	0.24				
10	0.24				
15	0.24				
20	0.24				
55	0.25				
87	0.25				
157	0.27				
200	0.28				

Final Excavation Depth (m)	Cycle 1	Cycle 2	Cycle 3
At end of testing cycle	1.00		
Water Depths (m)			
Water depth at start of test	0.24		
Water depth at end of test	0.28		
Effective depth (measured)	0.04		
% Effective storage depth	0.05		
Effective Storage Depths (m)			
Effective storage depth (100%)	0.76		
Effective storage depth (75%)	0.57		
Effective storage depth (50%)	0.38		
Effective storage depth (25%)	0.19		
Outflow Time (min)			
Time for measured outflow	200		
Time for 100% outflow	n/a		
Time for 75-25% outflow	n/a		
Volume of Outflow (m^3)			
Over measured effective depth	0.00		
Over 100% effective depth	0.07		
From 75% - 25% effective depth	0.03		
Surface Area (m^2)			
For 100% effective storage	1.00		
For 50% effective storage	0.55		
Over measured depth	0.14		
Soil Infiltration Rate (m/s)	**Cycle 1**	**Cycle 2**	**Cycle 3**
Over 100% effective depth	n/a		
Over measured depth	2.2E-06		
Over 75% - 25% effective depth	**n/a**		



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BRE365 SOIL INFILTRATION RATE TEST - HDP02

14560 YGG Tregeles, St John's Terrace, Neath Abbey

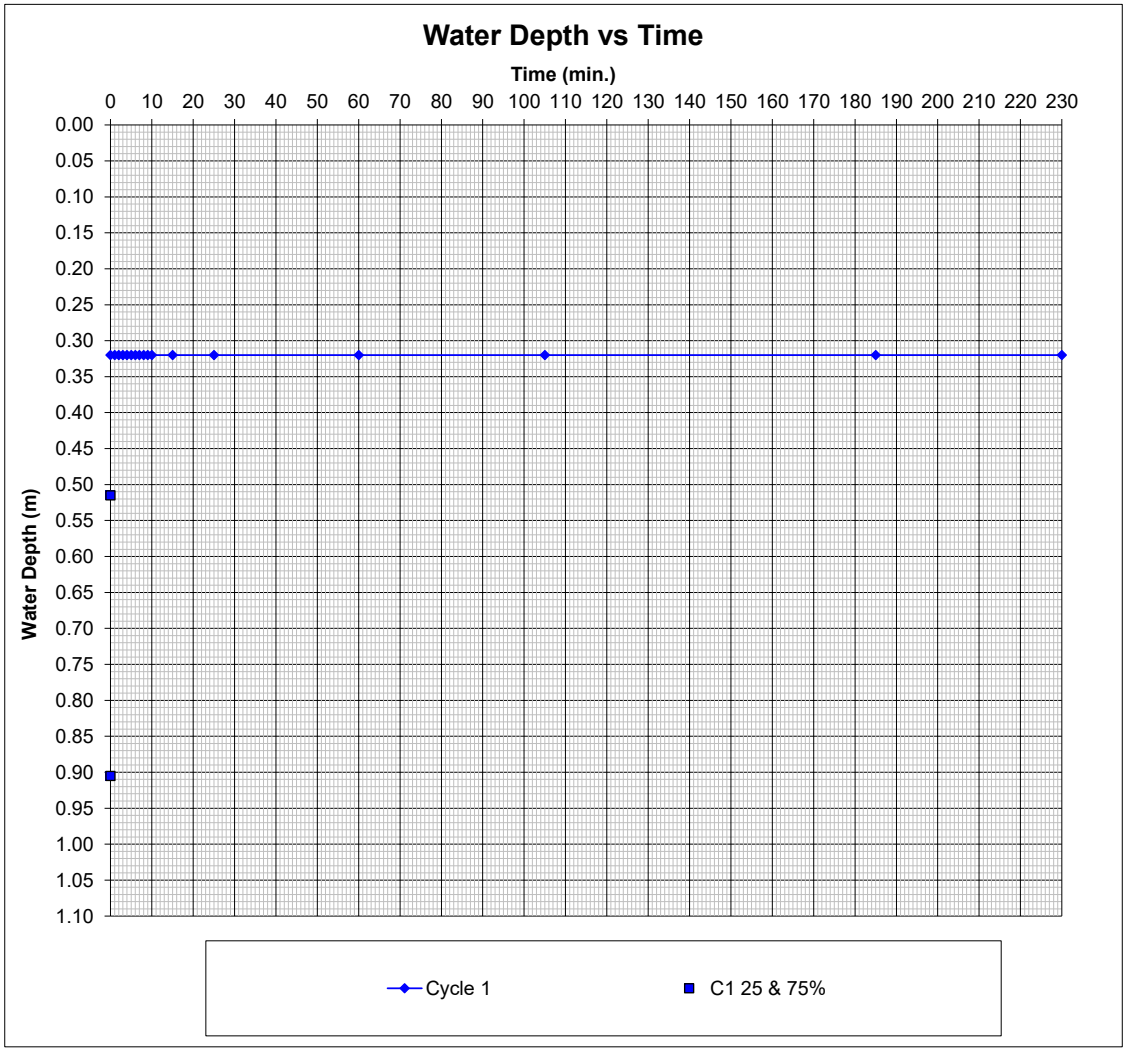
Trial Pit Information	
Length (m)	0.30
Width (m)	0.30
Depth (m)	1.10
Groundwater	Dry
Weather Conditions	Overcast
Date	06-Mar-26

Remarks

1. Terminated at 1.10m bgl.
2. Minor groundwater seepages noted below 0.80m depth.
3. No infiltration observed.
4. Insufficient infiltration in order to calculate infiltration rate.

Cycle 1		Cycle 2		Cycle 3	
Time (min)	Depth (m)	Time (min)	Depth (m)	Time (min)	Depth (m)
0	0.32				
1	0.32				
2	0.32				
3	0.32				
4	0.32				
5	0.32				
6	0.32				
7	0.32				
8	0.32				
9	0.32				
10	0.32				
15	0.32				
25	0.32				
60	0.32				
105	0.32				
185	0.32				
230	0.32				

Final Excavation Depth (m)	Cycle 1	Cycle 2	Cycle 3
At end of testing cycle	1.10		
Water Depths (m)			
Water depth at start of test	0.32		
Water depth at end of test	0.32		
Effective depth (measured)	0.00		
% Effective storage depth	0.00		
Effective Storage Depths (m)			
Effective storage depth (100%)	0.78		
Effective storage depth (75%)	0.59		
Effective storage depth (50%)	0.39		
Effective storage depth (25%)	0.20		
Outflow Time (min)			
Time for measured outflow	230		
Time for 100% outflow	n/a		
Time for 75-25% outflow	n/a		
Volume of Outflow (m^3)			
Over measured effective depth	0.00		
Over 100% effective depth	0.07		
From 75% - 25% effective depth	0.04		
Surface Area (m^2)			
For 100% effective storage	1.03		
For 50% effective storage	0.56		
Over measured depth	0.09		
Soil Infiltration Rate (m/s)	**Cycle 1**	**Cycle 2**	**Cycle 3**
Over 100% effective depth	n/a		
Over measured depth	0.0E+00		
Over 75% - 25% effective depth	**n/a**		



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APPENDIX E

LABORATORY CHEMICAL TEST RESULTS

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Analytical Report Number : 26-012144

Project / Site name:	YGG Tregeles 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.

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number: 26-012144
Project / Site name: YGG Tregeles 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	-
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	-

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The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number: 26-012144
Project / Site name: YGG Tregeles 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
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 Tregeles 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

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Analytical Report Number: 26-012144
Project / Site name: YGG Tregeles 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	-	-
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	-	-	-	-	-

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Analytical Report Number: 26-012144
Project / Site name: YGG Tregeles 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	-	-	-	-
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 Tregeles 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

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Analytical Report Number: 26-012144
Project / Site name: YGG Tregeles 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	-

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	-

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Analytical Report Number: 26-012144
Project / Site name: YGG Tregeles 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	-
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 Tregeles 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

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Analytical Report Number: 26-012144
Project / Site name: YGG Tregeles 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

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Watford, WD18 8YS

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email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Results

Report No:	**26-012144**						
					Client:	**Integral Geotechnique**	
Location	**YGG Tregeles 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_1D_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	10:1			10:1	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			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						

Results are expressed on a dry weight basis, after correction for moisture content where applicable.

*= UKAS accredited (liquid eluate analysis only)

Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation

** = MCERTS accredited

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

Report No:	**26-012144**						
					Client:	**Integral Geotechnique**	
Location	**YGG Tregeles 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_1D_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	10:1			10:1	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			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						

Results are expressed on a dry weight basis, after correction for moisture content where applicable.

*= UKAS accredited (liquid eluate analysis only)

Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation

** = MCERTS accredited

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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Analytical Report Number : 26-012144
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 *
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

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Project / Site name: YGG Tregeles 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 SO4 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 Tregeles Neath Abbey

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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 an 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 Tregeles 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.

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APPENDIX F

LABORATORY GEOTECHNICAL TEST RESULTS

Laboratory Report

UKAS TESTING 2788

GSTL
GEOTECHNICAL SITE & TESTING LABORATORIES
A PHENNA GROUP COMPANY

Contract Number: 85253

Client Ref: **14560**
Client PO: **14560/AG**

Date Received: **11-03-2026**
Date Completed: **20-03-2026**
Report Date: **20-03-2026**

Client: **Integral Geotechnique (Wales) Limited**

Contract Title: **YGG Tregeles, Neath Abbey**
For the attention of: **Aidan Gamble**

This report has been checked and approved by:

Darren Bourne
Quality Senior Technician

Description	Qty
Determination of water content BS EN ISO 17892-1:2014 - * UKAS	3
1 point Liquid & Plastic Limit.. BS EN ISO 17892-12 - * UKAS	3

Notes: **Observations and Interpretations are outside the UKAS Accreditation**
*** - denotes test included in laboratory scope of accreditation**
 # - denotes test carried out by approved contractor
@ - denotes non accredited tests

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This test report/certificate shall not be reproduced except in full, without the approval of GEO Site & Testing Services Ltd. Any opinions or interpretations stated - within this report/certificate are excluded from the laboratories UKAS accreditation.

Approved Signatories:
Brendan Evans (Business Support Co-ordinator) - Darren Bourne (Quality Senior Technician) - Jason Jenkins (Business Development Manager)
Luke Williams (Senior Laboratory Technician) - Paul Evans (Director) - Richard John (Quality/Technical Manager)
Shaun Jones (Laboratory manager) - Shaun Thomas (Site Manager) - Vince Williams (Site Technician)
Wayne Honey (HR & HSE Manager)

GEO Site & Testing Services Ltd
Unit 3-4 Heol Aur, Dafen Ind Est, Llanelli, Carmarthenshire SA14 8QN
Tel: 01554 784 040 Fax: 01554 784 040 info@gstl.co.uk https://gstl.co.uk

GSTL GEOTECHNICAL SITE & TESTING LABORATORIES	WATER CONTENT, LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX BS 1377-2:2022 Clause 5.3 BS EN ISO 17892-12:2018+A2:2022 1 Point Liquid Limit BS EN ISO 17892-1:2014+A1:2022 Determination of Water Content	
Contract Number	85253	
Project Name	Alexandra Docks, Newport	
Date Tested	18/03/2026	
	DESCRIPTIONS	

Sample/Hole Reference	Sample Number	Sample Type	Depth (m)			Descriptions
WS01	1	D	1.20	-		Brown/grey silty CLAY
WS02	1	D	1.00	-		Brown/grey sandy silty CLAY
WS03	1	D	1.30	-		Brown fine to medium gravelly sandy silty CLAY
				-		
				-		
				-		
				-		
				-		
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				-		
				-		

Operator
Cameron. E

GSTL GEOTECHNICAL SITE & TESTING LABORATORIES	WATER CONTENT, LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX BS 1377-2:2022 Clause 5.3 BS EN ISO 17892-12:2018+A2:2022 1 Point Liquid Limit BS EN ISO 17892-1:2014+A1:2022 Determination of Water Content	
Contract Number	85253	
Project Name	Alexandra Docks, Newport	
Date Tested	18/03/2026	
Test Comments	80g/30° Fall cone used	

Sample/Hole Reference	Sample Number	Sample Type	Depth (m)			Water Content %	Liquid Limit %	Plastic Limit %	Plasticity index %	Passing 0.425mm %	Factor Applied	Remarks
WS01	1	D	1.20	-		27.7	57	22	35	100	0.994	CH High Plasticity
WS02	1	D	1.00	-		22.9	44	17	27	100	0.992	CI Intermediate Plasticity
WS03	1	D	1.30	-		14.3	37	12	25	89	1.018	CI Intermediate Plasticity
				-								
				-								
				-								
				-								
				-								
				-								
				-								
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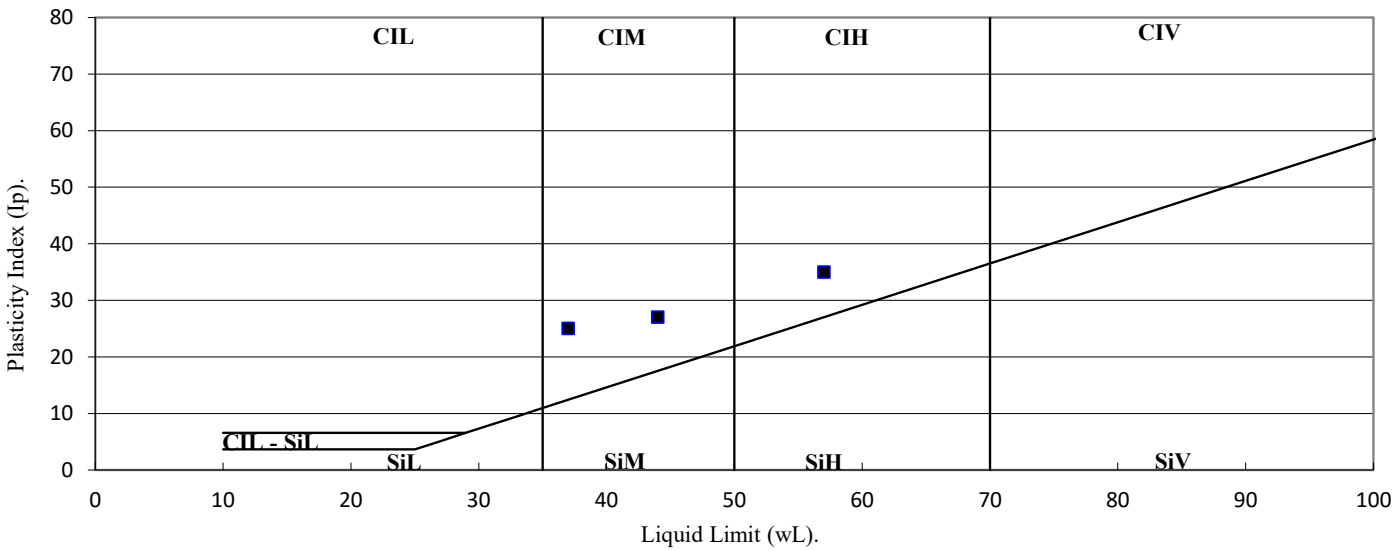
				-								

SYMBOLS : NP = Non Plastic

PLASTICITY CHART
BS EN ISO 14688-2:2018 Clause 4.4



***For sample descriptions please see sample descriptions sheet**

Operator
Cameron. E

APPENDIX G

IN-SITU GAS MONITORING RESULTS

FIELD GAS MONITORING RESULTS - SUMMARY

Job No.: 14560
Site: YGG Tregeles, St John's Terrace, Neath Abbey

Maximum Methane Concentration (%v/v)	Maximum Carbon Dioxide Concentration (%v/v)	Maximum Gas Concentration (%v/v)	Maximum Gas Flow Rate (l/hr)	**GSV (l/hr)**
0.60	1.20	1.20	<0.1	**<0.0012**

Methane							
Location	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	**Maximum**
WS 01	0.10	0.20	0.10	0.20	0.30	0.20	**0.30**
WS 02	0.10	0.10	0.10	0.10	0.30	0.10	**0.30**
WS 04			0.20	0.10	0.50	0.60	**0.60**

Carbon Dioxide							
Location	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	**Maximum**
WS 01	0.30	0.20	0.30	0.10	0.20	0.10	**0.30**
WS 02	0.40	0.30	0.10	0.20	1.10	1.20	**1.20**
WS 04			0.10	<0.5	0.20	0.10	**<0.50**

Oxygen							
Location	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	**Minimum**
WS 01	19.80	18.90	19.10	18.60	17.40	18.50	**17.40**
WS 02	19.60	20.00	18.80	19.60	18.20	17.50	**17.50**
WS 04			17.80	18.70	15.60	17.80	**15.60**

Gas Flow Rate							
Location	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	**Maximum**
WS 01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.10**
WS 02	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.10**
WS 04			<0.1	<0.1	<0.1	<0.1	**<0.10**

Intégral Géotechnique

FIELD GAS MONITORING RESULTS

Job No.:	14560
Site:	YGG Tregeles, St John's Terrace, Neath Abbey
Monitoring Date:	12.03.26
Monitoring Round:	1

Monitoring Conditions			**Barometric Pressure (mb)**	
Weather:	Light Rain/High Wind		**On Arrival:**	1004
Ambient Temp:	8	°C	**During Monitoring:**	1004
Instrument:	GA5000		**End of Monitoring:**	1004

Location	Well Base Level (mbgl)	Water Level (mbgl)	Methane (CH4) %v/v		Methane % LEL		Oxygen (O2) %v/v		Carbon Dioxide (CO2) %v/v		Carbon Monoxide (CO) (ppm)	Hydrogen Sulphide (H2S) (ppm)	Peak Gas Flow (l/hr)	VOC Vapours (ppm>background)
			Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady				
WS 01	1.70	1.31	0.10	0.10	2.00	2.00	19.80	20.00	0.30	0.30	3.00	<1	<0.1	0.20
WS 02	1.60	1.01	0.10	0.10	2.00	2.00	19.60	19.80	0.40	0.20	18.00	<1	<0.1	0.30
WS 04	1.00	GL*												

Typical Instrument Accuracy:

$\%CH_4$	0-70% +/- 0.5%	CO	0-500ppm +/- 2% FS
$\%CO_2$	0-60% +/- 0.5%	H_2S	0-5000ppm +/- 2.0% FS
$\%O_2$	0-25% +/- 1.0%	Flow from borehole +/- 0.3l/h	

LEL = Lower Explosive Limit
N/R = No Reading Taken
FS = Full Scale

Notes:

***Groundwater too high to gas monitor**

Intégral Géotechnique

FIELD GAS MONITORING RESULTS

Job No.:	14560
Site:	YGG Tregeles, St John's Terrace, Neath Abbey
Monitoring Date:	25.03.26
Monitoring Round:	2

Monitoring Conditions			**Barometric Pressure (mb)**	
Weather:	Sunny/High Wind		**On Arrival:**	1014
Ambient Temp:	9	°C	**During Monitoring:**	1014
Instrument:	GA5000		**End of Monitoring:**	1014

Location	Well Base Level (mbgl)	Water Level (mbgl)	Methane (CH4) %v/v		Methane % LEL		Oxygen (O2) %v/v		Carbon Dioxide (CO2) %v/v		Carbon Monoxide (CO) (ppm)	Hydrogen Sulphide (H2S) (ppm)	Peak Gas Flow (l/hr)	VOC Vapours (ppm>background)
			Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady				
WS 01	1.70	1.19	0.20	0.20	4.00	4.00	18.90	18.90	0.20	0.20	1.00	<1	<0.1	0.10
WS 02	1.60	1.00	0.10	0.10	2.00	2.00	20.00	19.50	0.30	0.30	5.00	<1	<0.1	0.20
WS 04	1.00	GL*												

Typical Instrument Accuracy:

$\%CH_4$	0-70% +/- 0.5%	CO	0-500ppm +/- 2% FS
$\%CO_2$	0-60% +/- 0.5%	H_2S	0-5000ppm +/- 2.0% FS
$\%O_2$	0-25% +/- 1.0%	Flow from borehole +/- 0.3l/h	

LEL = Lower Explosive Limit
N/R = No Reading Taken
FS = Full Scale

Notes:

***Ground water too high to gas monitor**

Intégral Géotechnique

FIELD GAS MONITORING RESULTS

Job No.:	14560
Site:	YGG Tregeles, St John's Terrace, Neath Abbey
Monitoring Date:	24.04.26
Monitoring Round:	3

Monitoring Conditions		**Barometric Pressure (mb)**	
Weather:	Sunny	**On Arrival:**	109
Ambient Temp:	20 °C	**During Monitoring:**	1009
Instrument:	GA5000	**End of Monitoring:**	1009

Location	Well Base Level (mbgl)	Water Level (mbgl)	Methane (CH4) %v/v		Methane % LEL		Oxygen (O2) %v/v		Carbon Dioxide (CO2) %v/v		Carbon Monoxide (CO) (ppm)	Hydrogen Sulphide (H2S) (ppm)	Peak Gas Flow (l/hr)	VOC Vapours (ppm>background)
			Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady				
WS 01	1.70	1.16	0.10	0.10	2.00	2.00	19.10	19.20	0.30	0.20	<1	<1	<0.1	0.10
WS 02	1.60	1.10	0.10	0.10	2.00	2.00	18.80	18.80	0.10	0.10	<1	<1	<0.1	0.30
WS 04	1.00	0.56	0.20	0.20	4.00	4.00	17.80	18.40	0.10	0.10	<1	<1	<0.1	0.10

Typical Instrument Accuracy:

$\%CH_4$	0-70% +/- 0.5%	CO	0-500ppm +/- 2% FS
$\%CO_2$	0-60% +/- 0.5%	H_2S	0-5000ppm +/- 2.0% FS
$\%O_2$	0-25% +/- 1.0%	Flow from borehole +/- 0.3l/h	

LEL = Lower Explosive Limit
N/R = No Reading Taken
FS = Full Scale

Notes:

Intégral Géotechnique

FIELD GAS MONITORING RESULTS

Job No.:	14560
Site:	YGG Tregeles, St John's Terrace, Neath Abbey
Monitoring Date:	14.05.26
Monitoring Round:	4

Monitoring Conditions			**Barometric Pressure (mb)**	
Weather:	Cloudy		**On Arrival:**	994
Ambient Temp:	13	°C	**During Monitoring:**	994
Instrument:	GA5000		**End of Monitoring:**	994

Location	Well Base Level (mbgl)	Water Level (mbgl)	Methane (CH4) %v/v		Methane % LEL		Oxygen (O2) %v/v		Carbon Dioxide (CO2) %v/v		Carbon Monoxide (CO) (ppm)	Hydrogen Sulphide (H2S) (ppm)	Peak Gas Flow (l/hr)	VOC Vapours (ppm>background)
			Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady				
WS 01	1.70	1.14	0.20	0.20	4.00	4.00	18.60	18.90	0.10	0.10	<1	<1	<0.1	<0.1
WS 02	1.60	1.01	0.10	0.10	2.00	2.00	19.60	19.60	0.20	0.10	<1	<1	<0.1	0.10
WS 04	1.00	0.59	0.10	0.10	2.00	2.00	18.70	18.90	<0.5	<0.5	<1	<1	<0.1	<0.1

Typical Instrument Accuracy:

$\%CH_4$	0-70% +/- 0.5%	CO	0-500ppm +/- 2% FS
$\%CO_2$	0-60% +/- 0.5%	H_2S	0-5000ppm +/- 2.0% FS
$\%O_2$	0-25% +/- 1.0%	Flow from borehole +/- 0.3l/h	

LEL = Lower Explosive Limit
N/R = No Reading Taken
FS = Full Scale

Notes:

Intégral Géotechnique

FIELD GAS MONITORING RESULTS

Job No.:	14560
Site:	YGG Tregeles, St John's Terrace, Neath Abbey
Monitoring Date:	09.06.26
Monitoring Round:	5

Monitoring Conditions			**Barometric Pressure (mb)**	
Weather:	Sunny		**On Arrival:**	1002
Ambient Temp:	18	°C	**During Monitoring:**	1002
Instrument:	GA5000		**End of Monitoring:**	1002

Location	Well Base Level (mbgl)	Water Level (mbgl)	Methane (CH4) %v/v		Methane % LEL		Oxygen (O2) %v/v		Carbon Dioxide (CO2) %v/v		Carbon Monoxide (CO) (ppm)	Hydrogen Sulphide (H2S) (ppm)	Peak Gas Flow (l/hr)	VOC Vapours (ppm>background)
			Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady				
WS 01	1.70	1.19	0.30	0.30	6.00	6.00	17.40	17.60	0.20	0.20	<1	<1	<0.1	<0.1
WS 02	1.60	1.12	0.30	0.10	6.00	2.00	18.20	18.90	1.10	0.50	<1	<1	<0.1	0.20
WS 04	1.00	0.78	0.50	0.50	10.00	10.00	15.60	15.90	0.20	0.20	<1	<1	<0.1	<0.1

Typical Instrument Accuracy:

$\%CH_4$	0-70% +/- 0.5%	CO	0-500ppm +/- 2% FS
$\%CO_2$	0-60% +/- 0.5%	H_2S	0-5000ppm +/- 2.0% FS
$\%O_2$	0-25% +/- 1.0%	Flow from borehole +/- 0.3l/h	

LEL = Lower Explosive Limit
N/R = No Reading Taken
FS = Full Scale

Notes:

Intégral Géotechnique

FIELD GAS MONITORING RESULTS

Job No.:	14560
Site:	YGG Tregeles, St John's Terrace, Neath Abbey
Monitoring Date:	18.06.26
Monitoring Round:	6

Monitoring Conditions			**Barometric Pressure (mb)**	
Weather:	Sunny		**On Arrival:**	1009
Ambient Temp:	20	°C	**During Monitoring:**	1009
Instrument:	GA5000		**End of Monitoring:**	1009

Location	Well Base Level (mbgl)	Water Level (mbgl)	Methane (CH4) %v/v		Methane % LEL		Oxygen (O2) %v/v		Carbon Dioxide (CO2) %v/v		Carbon Monoxide (CO) (ppm)	Hydrogen Sulphide (H2S) (ppm)	Peak Gas Flow (l/hr)	VOC Vapours (ppm>background)
			Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady				
WS 01	1.70	1.20	0.20	0.10	4.00	2.00	18.50	18.60	0.10	0.10	<1	<1	<0.1	<0.1
WS 02	1.60	1.20	0.10	0.10	2.00	2.00	17.50	17.60	1.20	1.20	<1	<1	<0.1	0.10
WS 04	1.00	0.77	0.60	0.50	12.00	10.00	17.80	18.40	0.10	0.10	<1	<1	<0.1	<0.1

Typical Instrument Accuracy:

$\%CH_4$	0-70% +/- 0.5%	CO	0-500ppm +/- 2% FS
$\%CO_2$	0-60% +/- 0.5%	H_2S	0-5000ppm +/- 2.0% FS
$\%O_2$	0-25% +/- 1.0%	Flow from borehole +/- 0.3l/h	

LEL = Lower Explosive Limit
N/R = No Reading Taken
FS = Full Scale

Notes:

Intégral Géotechnique

APPENDIX H

SUMMARY OF LABORATORY CHEMICAL TEST RESULTS (MADE GROUND)

SUMMARY OF LABORATORY SOIL TEST RESULTS

METALS AND SEMI-METALS

Job No.: 14560
Site: YGG Tregeles, 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	200.0	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

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SUMMARY OF LABORATORY SOIL TEST RESULTS

INORGANIC CHEMICALS & OTHERS

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

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SUMMARY OF LABORATORY SOIL TEST RESULTS

Job No.: 14560

POLYAROMATIC HYDROCARBONS (PAH)

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

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Intégral Géotechnique

SUMMARY OF LABORATORY SOIL TEST RESULTS

Job No.: 14560

Site: YGG Tregeles, St John's Terrace, Neath Abbey

Soil Type: Made Ground

Soil Organic Matter: 1%

PETROLEUM HYDROCARBONS

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

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Intégral Géotechnique

APPENDIX I

SUMMARY OF LABORATORY CHEMICAL TEST RESULTS (TOPSOIL)

SUMMARY OF LABORATORY SOIL TEST RESULTS

METALS AND SEMI-METALS

Job No.: 14560
Site: YGG Tregeles, 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	200.0	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

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Intégral Géotechnique

SUMMARY OF LABORATORY SOIL TEST RESULTS

INORGANIC CHEMICALS & OTHERS

Job No.: 14560
Site: YGG Tregeles, St John's Terrace, Neath Abbey
Soil Type: Topsoil
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 (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

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SUMMARY OF LABORATORY SOIL TEST RESULTS

Job No.: 14560

POLYAROMATIC HYDROCARBONS (PAH)

Site: YGG Tregeles, 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

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Intégral Géotechnique

SUMMARY OF LABORATORY SOIL TEST RESULTS

Job No.: 14560

Site: YGG Tregeles, St John's Terrace, Neath Abbey

Soil Type: Topsoil

Soil Organic Matter: 1%

PETROLEUM HYDROCARBONS

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

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APPENDIX J

SUMMARY OF LABORATORY CHEMICAL TEST RESULTS (NATURAL SOILS/GLACIAL TILL)

SUMMARY OF LABORATORY SOIL TEST RESULTS

METALS AND SEMI-METALS

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)	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**	**200.0**	**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

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SUMMARY OF LABORATORY SOIL TEST RESULTS

INORGANIC CHEMICALS & OTHERS

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)	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

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SUMMARY OF LABORATORY SOIL TEST RESULTS

Job No.: 14560

POLYAROMATIC HYDROCARBONS (PAH)

Site: YGG Tregeles, 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

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SUMMARY OF LABORATORY SOIL TEST RESULTS

Job No.: 14560

Site: YGG Tregeles, St John's Terrace, Neath Abbey

Soil Type: Natural Soils / Glacial Till

Soil Organic Matter: 1%

PETROLEUM HYDROCARBONS

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

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APPENDIX K

CLEA MODEL SETTING AND RESULTS (ARSENIC TOPSOIL SSTL)

CLEA Software Version 1.071

Report generated	01/04/2026
Report title	YGG Tregeles
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	✓	Dermal contact with indoor dust	✓	Inhalation of indoor dust	✓
Consumption of homegrown produce	✗	Dermal contact with soil	✓	Inhalation of soil dust	✓
Soil attached to homegrown produce	✗			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

Consumption rates (g FW kg^{-1} bodyweight day^{-1}) by Produce Group

Age Class	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)

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

Soil Sandy loam

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 *m* (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 (cm^3 s^{-1})	1.50E+02
Building ventilation rate (cm^3 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 (m^2 m^{-2})		0.5

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

Soil - Plant Model

	Dry weight conversion factor	Homegrown fraction Average	Homegrown fraction High	Soil loading factor	Preparation correction factor
	g DW g^{-1} FW	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

CLEA Software Version 1.071

Report generated	01-Apr-26
Report title	YGG Tregeles
Created by	Jack Jones at Integral Geotechnique (Wales) Limited

RESULTS

Environment Agency

		Assessment Criterion (mg kg^{-1})			Ratio of ADE to HCV			Saturation Limit (mg kg^{-1})	50% rule?		Top Two applied?	Apply Top 2 Approach to Produce Group					
		oral	inhalation	combined	oral	inhalation	combined		Oral	Inhal		Green vegetables	Root vegetables	Tuber vegetables	Herbaceous fruit	Shrub fruit	Tree fruit
1	Arsenic (C4SL child)	2.00E+02	2.92E+03	NR	1.00	0.07	NR	NR	No	No	Yes	Yes	No	No	No	No	Yes
2																	
3																	
4																	
5																	
6																	
7																	
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Environment Agency

	Assessment Criterion (mg kg^{-1})			Ratio of ADE to HCV			Saturation Limit (mg kg^{-1})	50% rule?		Top Two applied?	Apply Top 2 Approach to Produce Group					
	oral	inhalation	combined	oral	inhalation	combined		Oral	Inhal		Green vegetables	Root vegetables	Tuber vegetables	Herbaceous fruit	Shrub fruit	Tree fruit
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Environment Agency

		Soil Distribution				Media Concentrations													
		Sorbed	Dissolved	Vapour	Total	Soil	Soil gas	Indoor Dust	Outdoor dust at 0.8m	Outdoor dust at 1.6m	Indoor Vapour	Outdoor vapour at 0.8m	Outdoor vapour at 1.6m	Green vegetables	Root vegetables	Tuber vegetables	Herbaceous fruit	Shrub fruit	Tree fruit
		%	%	%	%	mg kg^{-1}	mg m^{-3}	mg kg^{-1}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg kg^{-1} FW	mg kg^{-1} FW	mg kg^{-1} FW	mg kg^{-1} FW	mg kg^{-1} FW	mg kg^{-1} FW
1	Arsenic (C4SL child)	99.9	0.1	0.0	100.0	2.00E+02	NR	1.00E+02	8.19E-07	2.05E-07	NA	0.00E+00	0.00E+00	NA	NA	NA	NA	NA	NA
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Environment Agency

	Soil Distribution				Media Concentrations													
	Sorbed	Dissolved	Vapour	Total	Soil	Soil gas	Indoor Dust	Outdoor dust at 0.8m	Outdoor dust at 1.6m	Indoor Vapour	Outdoor vapour at 0.8m	Outdoor vapour at 1.6m	Green vegetables	Root vegetables	Tuber vegetables	Herbaceous fruit	Shrub fruit	Tree fruit
	%	%	%	%	mg kg^{-1}	mg m^{-3}	mg kg^{-1}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg kg^{-1} FW	mg kg^{-1} FW	mg kg^{-1} FW	mg kg^{-1} FW	mg kg^{-1} FW	mg kg^{-1} FW
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Environment Agency

		Average Daily Exposure (mg kg^{-1} 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	0.00
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Environment Agency

	Average Daily Exposure (mg kg^{-1} 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	Dermal contact with soil and dust	Inhalation of dust	Inhalation of vapour (indoor)	Inhalation of vapour (outdoor)	Background (oral)	Background (inhalation)
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Environment Agency

		Oral Health Criteria Value (µg kg^{-1} BW day^{-1})		Inhalation Health Criteria Value (µg kg^{-1} BW day^{-1})	Oral Mean Daily Intake (µg day^{-1})	Inhalation Mean Daily Intake (µg day^{-1})	Air-water partition coefficient (K_{aw}) (cm^3 cm^{-3})	Coefficient of Diffusion in Air (m^2 s^{-1})	Coefficient of Diffusion in Water (m^2 s^{-1})	log K_{oc} (cm^3 g^{-1})	log K_{ow} (dimensionless)	Dermal Absorption Fraction (dimensionless)	Soil-to-dust transport factor (g g^{-1} DW)	Sub-surface soil to indoor air correction factor (dimensionless)	Relative bioavailability via soil ingestion (unitless)	Relative bioavailability via dust inhalation (unitless)
1	Arsenic (C4SL child)	ID	0.3	ID	0.0087	NR	NR	NR	NR	NR	NR	NR	0.03	0.5	1	1	1
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Environment Agency

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

		Soil-to-water partition coefficient ($cm^3 g^{-1}$)	Vapour pressure (Pa)	Water solubility ($mg L^{-1}$)	Soil-to-plant concentration factor for green vegetables (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for root vegetables (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for tuber vegetables (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for herbaceous fruit (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for shrub fruit (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for tree fruit (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)
1	Arsenic (C4SL child)	5.00E+02	NR	1.25E+06	0.00043 fw	0.0004 fw	0.00023 fw	0.00033 fw	0.0002 fw	0.0011 fw
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Environment Agency

	Soil-to-water partition coefficient ($cm^3 g^{-1}$)	Vapour pressure (Pa)	Water solubility ($mg L^{-1}$)	Soil-to-plant concentration factor for green vegetables (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for root vegetables (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for tuber vegetables (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for herbaceous fruit (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for shrub fruit (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for tree fruit (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)
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APPENDIX L

HAZWASTEONLINE WASTE CLASSIFICATION REPORT

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

a) understand the origin of the waste
b) select the correct List of Waste code(s)
c) confirm that the list of determinands, results and sampling plan are fit for purpose
d) select and justify the chosen metal species (Appendix B)
e) correctly apply moisture correction and other available corrections
f) add the meta data for their user-defined substances (Appendix A)
g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

EI5NU-DLIRK-W7G5U

Report is invalid if pages are removed.

Job name

14560 YGG Tregeles

Description/Comments

Project

14560

Site

YGG Tregeles

Classified by

Name:
Lowri Feighoney
Date:
01 Apr 2026 10:30 GMT
Telephone:
07595068182

Company:
Intégral Géotechnique (Wales) Limited
7 Beddau Way
Castlegate Business Park
Caerphilly
CF83 2AX

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification: **CERTIFIED**

Course	Date
Hazardous Waste Classification	07 Dec 2023

Next 3 year Refresher due by Dec 2026

Purpose of classification

2 - Material Characterisation

Address of the waste

New Road, Neath Abbey **Post Code** N/A

SIC for the process giving rise to the waste

41201 Construction of commercial buildings

Description of industry/producer giving rise to the waste

Redevelopment of an existing school for continued educational use

Description of the specific process, sub-process and/or activity that created the waste

Waste create during excavations associated with the redevelopment

Description of the waste

Topsoil, made ground and natural soils

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	SA02	0.2	Non Hazardous		3
2	HDP01	0.2	Non Hazardous		5
3	HDP01[2]	0.7	Non Hazardous		8
4	HDP02	0.2	Non Hazardous		11
5	WS01	0.5	Non Hazardous		14
6	WS04	0.7	Non Hazardous		17
7	WS04[2]	0.1	Non Hazardous		19

Related documents

#	Name	Description
1	Example worst case waste stream template: 17 05 04 or 17 05 03 *	waste stream template used to create this Job

Report

Created by: Lowri Feighoney

Created date: 01 Apr 2026 10:30 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	21
Appendix B: Rationale for selection of metal species	22
Appendix C: Version	23

Classification of sample: SA02

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
SA02
Sample Depth:
0.2 m
Moisture content:
36%
(no correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 36% No Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		asbestos fibres detected (Yes/No)			ACM_FIBRES		No							
2		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }	033-005-00-1				110	mg/kg	1.895	208.398	mg/kg	0.0208 %		
3		beryllium { beryllium compounds with the exception of aluminium beryllium silicates, and with those specified elsewhere in this Annex }	004-002-00-2				0.55	mg/kg	8.868	4.877	mg/kg	0.000488 %		
4		cadmium { cadmium sulfate }	048-009-00-9	233-331-6	10124-36-4		2.1	mg/kg	1.855	3.895	mg/kg	0.000389 %		
5		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12	mg/kg	1.462	17.539	mg/kg	0.00175 %		
6		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8	mg/kg	2.27	<4.086	mg/kg	<0.000409 %		**<LOD**
7		copper { copper sulphate pentahydrate }	029-023-00-4	231-847-6	7758-99-8		260	mg/kg	3.929	1021.554	mg/kg	0.102 %		
8		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	180	mg/kg	1.56	280.767	mg/kg	0.018 %		
9		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
10		nickel { nickel dibromate }	028-053-00-5	238-596-1	14550-87-9		23	mg/kg	5.358	123.241	mg/kg	0.0123 %		
11		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		1.4	mg/kg	2.554	3.575	mg/kg	0.000358 %		
12		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		25	mg/kg	1.785	44.63	mg/kg	0.00446 %		
13		zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		230	mg/kg	2.774	638.054	mg/kg	0.0638 %		
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides,					<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5											
15	●	pH			PH		6.6	pH		6.6	pH	6.6 pH		
16		naphthalene	601-052-00-2	202-049-5	91-20-3		0.16	mg/kg		0.16	mg/kg	0.000016 %		
17	●	acenaphthylene		205-917-1	208-96-8		0.1	mg/kg		0.1	mg/kg	0.00001 %		
18	●	acenaphthene		201-469-6	83-32-9		0.05	mg/kg		0.05	mg/kg	0.000005 %		
19	●	fluorene		201-695-5	86-73-7		0.09	mg/kg		0.09	mg/kg	0.000009 %		
20	●	phenanthrene		201-581-5	85-01-8		1.4	mg/kg		1.4	mg/kg	0.00014 %		
21	●	anthracene		204-371-1	120-12-7		0.24	mg/kg		0.24	mg/kg	0.000024 %		
22	●	fluoranthene		205-912-4	206-44-0		2.2	mg/kg		2.2	mg/kg	0.00022 %		
23	●	pyrene		204-927-3	129-00-0		1.7	mg/kg		1.7	mg/kg	0.00017 %		
24		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		1.1	mg/kg		1.1	mg/kg	0.00011 %		
25		chrysene	601-048-00-0	205-923-4	218-01-9		1.5	mg/kg		1.5	mg/kg	0.00015 %		
26		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		1.7	mg/kg		1.7	mg/kg	0.00017 %		
27		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.63	mg/kg		0.63	mg/kg	0.000063 %		
28		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.1	mg/kg		1.1	mg/kg	0.00011 %		
29	●	indeno[123-cd]pyrene		205-893-2	193-39-5		0.59	mg/kg		0.59	mg/kg	0.000059 %		
30		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.17	mg/kg		0.17	mg/kg	0.000017 %		
31	●	benzo[ghi]perylene		205-883-8	191-24-2		0.65	mg/kg		0.65	mg/kg	0.000065 %		
32		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
											Total:	0.226 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: HDP01

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
HDP01
Sample Depth:
0.2 m
Moisture content:
14%
(no correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 14% No Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		asbestos fibres detected (Yes/No)			ACM_FIBRES		No							
2		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }	033-005-00-1				39	mg/kg	1.895	73.886	mg/kg	0.00739 %		
3		beryllium { beryllium compounds with the exception of aluminium beryllium silicates, and with those specified elsewhere in this Annex }	004-002-00-2				0.96	mg/kg	8.868	8.513	mg/kg	0.000851 %		
4		cadmium { cadmium sulfate }	048-009-00-9	233-331-6	10124-36-4		0.9	mg/kg	1.855	1.669	mg/kg	0.000167 %		
5		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18	mg/kg	1.462	26.308	mg/kg	0.00263 %		
6		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8	mg/kg	2.27	<4.086	mg/kg	<0.000409 %		**<LOD**
7		copper { copper sulphate pentahydrate }	029-023-00-4	231-847-6	7758-99-8		160	mg/kg	3.929	628.648	mg/kg	0.0629 %		
8		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	130	mg/kg	1.56	202.776	mg/kg	0.013 %		
9		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
10		nickel { nickel dibromate }	028-053-00-5	238-596-1	14550-87-9		27	mg/kg	5.358	144.675	mg/kg	0.0145 %		
11		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
12		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		30	mg/kg	1.785	53.556	mg/kg	0.00536 %		
13		zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		160	mg/kg	2.774	443.863	mg/kg	0.0444 %		
14		TPH (C6 to C40) petroleum group			TPH		560	mg/kg		560	mg/kg	0.056 %		

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
16		pH			PH		7.8	pH		7.8	pH	7.8 pH		
17		naphthalene	601-052-00-2	202-049-5	91-20-3		0.35	mg/kg		0.35	mg/kg	0.000035 %		
18		acenaphthylene		205-917-1	208-96-8		3.8	mg/kg		3.8	mg/kg	0.00038 %		
19		acenaphthene		201-469-6	83-32-9		0.59	mg/kg		0.59	mg/kg	0.000059 %		
20		fluorene		201-695-5	86-73-7		2.8	mg/kg		2.8	mg/kg	0.00028 %		
21		phenanthrene		201-581-5	85-01-8		47	mg/kg		47	mg/kg	0.0047 %		
22		anthracene		204-371-1	120-12-7		11	mg/kg		11	mg/kg	0.0011 %		
23		fluoranthene		205-912-4	206-44-0		55	mg/kg		55	mg/kg	0.0055 %		
24		pyrene		204-927-3	129-00-0		43	mg/kg		43	mg/kg	0.0043 %		
25		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		27	mg/kg		27	mg/kg	0.0027 %		
26		chrysene	601-048-00-0	205-923-4	218-01-9		23	mg/kg		23	mg/kg	0.0023 %		
27		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		28	mg/kg		28	mg/kg	0.0028 %		
28		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		13	mg/kg		13	mg/kg	0.0013 %		
29		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		23	mg/kg		23	mg/kg	0.0023 %		
30		indeno[123-cd]pyrene		205-893-2	193-39-5		11	mg/kg		11	mg/kg	0.0011 %		
31		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		3.1	mg/kg		3.1	mg/kg	0.00031 %		
32		benzo[ghi]perylene		205-883-8	191-24-2		9.8	mg/kg		9.8	mg/kg	0.00098 %		
33		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
											Total:	0.237 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and £ 75 °C;"

Force this Hazardous Property to non-hazardous for cumulative determinand results below the concentration of: 1000 mg/kg (0.1%) because: No visual or olfactory evidence of petroleum hydrocarbons encountered

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.056%)

Classification of sample: HDP01[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
HDP01[2]
Sample Depth:
0.7 m
Moisture content:
26%
(no correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 26% No Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	asbestos fibres detected (Yes/No)			ACM_FIBRES		No							
2	arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }	033-005-00-1				13	mg/kg	1.895	24.629	mg/kg	0.00246 %		
3	beryllium { beryllium compounds with the exception of aluminium beryllium silicates, and with those specified elsewhere in this Annex }	004-002-00-2				0.51	mg/kg	8.868	4.523	mg/kg	0.000452 %		
4	cadmium { cadmium sulfate }	048-009-00-9	233-331-6	10124-36-4		0.3	mg/kg	1.855	0.556	mg/kg	0.0000556 %		
5	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11	mg/kg	1.462	16.077	mg/kg	0.00161 %		
6	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8	mg/kg	2.27	<4.086	mg/kg	<0.000409 %		**<LOD**
7	copper { copper sulphate pentahydrate }	029-023-00-4	231-847-6	7758-99-8		17	mg/kg	3.929	66.794	mg/kg	0.00668 %		
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	12	mg/kg	1.56	18.718	mg/kg	0.0012 %		
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
10	nickel { nickel dibromate }	028-053-00-5	238-596-1	14550-87-9		7.6	mg/kg	5.358	40.723	mg/kg	0.00407 %		
11	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		1.2	mg/kg	2.554	3.065	mg/kg	0.000306 %		
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		13	mg/kg	1.785	23.207	mg/kg	0.00232 %		
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		46	mg/kg	2.774	127.611	mg/kg	0.0128 %		
14	TPH (C6 to C40) petroleum group			TPH		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		benzene	601-020-00-8	200-753-7	71-43-2		<5	mg/kg		<5	mg/kg	<0.0005 %		**<LOD**
16		toluene	601-021-00-3	203-625-9	108-88-3		<5	mg/kg		<5	mg/kg	<0.0005 %		**<LOD**
17		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<5	mg/kg		<5	mg/kg	<0.0005 %		**<LOD**
18		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<8	mg/kg		<8	mg/kg	<0.0008 %		**<LOD**
19		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
20		pH			PH		6.3	pH		6.3	pH	6.3 pH		
21		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
22		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
23		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
24		fluorene		201-695-5	86-73-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
25		phenanthrene		201-581-5	85-01-8		0.14	mg/kg		0.14	mg/kg	0.000014 %		
26		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
27		fluoranthene		205-912-4	206-44-0		0.25	mg/kg		0.25	mg/kg	0.000025 %		
28		pyrene		204-927-3	129-00-0		0.19	mg/kg		0.19	mg/kg	0.000019 %		
29		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.13	mg/kg		0.13	mg/kg	0.000013 %		
30		chrysene	601-048-00-0	205-923-4	218-01-9		0.17	mg/kg		0.17	mg/kg	0.000017 %		
31		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.15	mg/kg		0.15	mg/kg	0.000015 %		
32		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.09	mg/kg		0.09	mg/kg	0.000009 %		
33		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.13	mg/kg		0.13	mg/kg	0.000013 %		
34		indeno[123-cd]pyrene		205-893-2	193-39-5		0.06	mg/kg		0.06	mg/kg	0.000006 %		
35		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
36		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
37		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
38		polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3		<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		**<LOD**
											Total:	0.032 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: HDP02

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
HDP02
Sample Depth:
0.2 m
Moisture content:
31%
(no correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 31% No Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		asbestos fibres detected (Yes/No)			ACM_FIBRES		No							
2		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }	033-005-00-1				160	mg/kg	1.895	303.124	mg/kg	0.0303 %		
3		beryllium { beryllium compounds with the exception of aluminium beryllium silicates, and with those specified elsewhere in this Annex }	004-002-00-2				1.5	mg/kg	8.868	13.302	mg/kg	0.00133 %		
4		cadmium { cadmium sulfate }	048-009-00-9	233-331-6	10124-36-4		2.8	mg/kg	1.855	5.193	mg/kg	0.000519 %		
5		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		20	mg/kg	1.462	29.231	mg/kg	0.00292 %		
6		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8	mg/kg	2.27	<4.086	mg/kg	<0.000409 %		**<LOD**
7		copper { copper sulphate pentahydrate }	029-023-00-4	231-847-6	7758-99-8		540	mg/kg	3.929	2121.689	mg/kg	0.212 %		
8		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	200	mg/kg	1.56	311.963	mg/kg	0.02 %		
9		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
10		nickel { nickel dibromate }	028-053-00-5	238-596-1	14550-87-9		31	mg/kg	5.358	166.108	mg/kg	0.0166 %		
11		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		3.1	mg/kg	2.554	7.917	mg/kg	0.000792 %		
12		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		32	mg/kg	1.785	57.126	mg/kg	0.00571 %		
13		zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		320	mg/kg	2.774	887.727	mg/kg	0.0888 %		
14		TPH (C6 to C40) petroleum group			TPH		230	mg/kg		230	mg/kg	0.023 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
15		benzene				<5	mg/kg		<5	mg/kg	<0.0005 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
16		toluene				<5	mg/kg		<5	mg/kg	<0.0005 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
17		ethylbenzene				<5	mg/kg		<5	mg/kg	<0.0005 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
18		xylene				<8	mg/kg		<8	mg/kg	<0.0008 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
19		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
		006-007-00-5											
20		pH				6.6	pH		6.6	pH	6.6 pH		
				PH									
21		naphthalene				0.46	mg/kg		0.46	mg/kg	0.000046 %		
		601-052-00-2	202-049-5	91-20-3									
22		acenaphthylene				0.97	mg/kg		0.97	mg/kg	0.000097 %		
			205-917-1	208-96-8									
23		acenaphthene				0.15	mg/kg		0.15	mg/kg	0.000015 %		
			201-469-6	83-32-9									
24		fluorene				0.63	mg/kg		0.63	mg/kg	0.000063 %		
			201-695-5	86-73-7									
25		phenanthrene				11	mg/kg		11	mg/kg	0.0011 %		
			201-581-5	85-01-8									
26		anthracene				1.8	mg/kg		1.8	mg/kg	0.00018 %		
			204-371-1	120-12-7									
27		fluoranthene				22	mg/kg		22	mg/kg	0.0022 %		
			205-912-4	206-44-0									
28		pyrene				17	mg/kg		17	mg/kg	0.0017 %		
			204-927-3	129-00-0									
29		benzo[a]anthracene				11	mg/kg		11	mg/kg	0.0011 %		
		601-033-00-9	200-280-6	56-55-3									
30		chrysene				12	mg/kg		12	mg/kg	0.0012 %		
		601-048-00-0	205-923-4	218-01-9									
31		benzo[b]fluoranthene				15	mg/kg		15	mg/kg	0.0015 %		
		601-034-00-4	205-911-9	205-99-2									
32		benzo[k]fluoranthene				6.5	mg/kg		6.5	mg/kg	0.00065 %		
		601-036-00-5	205-916-6	207-08-9									
33		benzo[a]pyrene; benzo[def]chrysene				12	mg/kg		12	mg/kg	0.0012 %		
		601-032-00-3	200-028-5	50-32-8									
34		indeno[123-cd]pyrene				5.7	mg/kg		5.7	mg/kg	0.00057 %		
			205-893-2	193-39-5									
35		dibenz[a,h]anthracene				1.3	mg/kg		1.3	mg/kg	0.00013 %		
		601-041-00-2	200-181-8	53-70-3									
36		benzo[ghi]perylene				5.8	mg/kg		5.8	mg/kg	0.00058 %		
			205-883-8	191-24-2									
37		phenol				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
38		polychlorobiphenyls; PCB				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		**<LOD**
		602-039-00-4	215-648-1	1336-36-3									
										Total:	0.414 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and £ 75 °C;"
Force this Hazardous Property to non-hazardous for cumulative determinand results below the concentration of: 1000 mg/kg (0.1%)
because: No visual or olfactory evidence of petroleum hydrocarbons encountered

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.023%)

Classification of sample: WS01

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS01
Sample Depth:
0.5 m
Moisture content:
23%
(no correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 23% No Moisture Correction applied (MC)

#		Determinand				CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number										
1		asbestos fibres detected (Yes/No)		ACM_FIBRES			No							
2		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }	033-005-00-1				89	mg/kg	1.895	168.613	mg/kg	0.0169 %		
3		beryllium { beryllium compounds with the exception of aluminium beryllium silicates, and with those specified elsewhere in this Annex }	004-002-00-2				1	mg/kg	8.868	8.868	mg/kg	0.000887 %		
4		cadmium { cadmium sulfate }	048-009-00-9	233-331-6	10124-36-4		1.7	mg/kg	1.855	3.153	mg/kg	0.000315 %		
5		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16	mg/kg	1.462	23.385	mg/kg	0.00234 %		
6		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8	mg/kg	2.27	<4.086	mg/kg	<0.000409 %		**<LOD**
7		copper { copper sulphate pentahydrate }	029-023-00-4	231-847-6	7758-99-8		310	mg/kg	3.929	1218.006	mg/kg	0.122 %		
8		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	140	mg/kg	1.56	218.374	mg/kg	0.014 %		
9		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.3	mg/kg	1.353	0.406	mg/kg	0.0000406 %		
10		nickel { nickel dibromate }	028-053-00-5	238-596-1	14550-87-9		25	mg/kg	5.358	133.958	mg/kg	0.0134 %		
11		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		1.1	mg/kg	2.554	2.809	mg/kg	0.000281 %		
12		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		27	mg/kg	1.785	48.2	mg/kg	0.00482 %		
13		zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		260	mg/kg	2.774	721.278	mg/kg	0.0721 %		
14		TPH (C6 to C40) petroleum group		TPH			770	mg/kg		770	mg/kg	0.077 %		

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
16		pH			PH		7.3	pH		7.3	pH	7.3 pH		
17		naphthalene	601-052-00-2	202-049-5	91-20-3		0.28	mg/kg		0.28	mg/kg	0.000028 %		
18		acenaphthylene		205-917-1	208-96-8		5.5	mg/kg		5.5	mg/kg	0.00055 %		
19		acenaphthene		201-469-6	83-32-9		0.61	mg/kg		0.61	mg/kg	0.000061 %		
20		fluorene		201-695-5	86-73-7		2.7	mg/kg		2.7	mg/kg	0.00027 %		
21		phenanthrene		201-581-5	85-01-8		40	mg/kg		40	mg/kg	0.004 %		
22		anthracene		204-371-1	120-12-7		9.2	mg/kg		9.2	mg/kg	0.00092 %		
23		fluoranthene		205-912-4	206-44-0		60	mg/kg		60	mg/kg	0.006 %		
24		pyrene		204-927-3	129-00-0		48	mg/kg		48	mg/kg	0.0048 %		
25		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		36	mg/kg		36	mg/kg	0.0036 %		
26		chrysene	601-048-00-0	205-923-4	218-01-9		31	mg/kg		31	mg/kg	0.0031 %		
27		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		40	mg/kg		40	mg/kg	0.004 %		
28		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		19	mg/kg		19	mg/kg	0.0019 %		
29		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		34	mg/kg		34	mg/kg	0.0034 %		
30		indeno[123-cd]pyrene		205-893-2	193-39-5		16	mg/kg		16	mg/kg	0.0016 %		
31		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		4.6	mg/kg		4.6	mg/kg	0.00046 %		
32		benzo[ghi]perylene		205-883-8	191-24-2		15	mg/kg		15	mg/kg	0.0015 %		
33		phenol	604-001-00-2	203-632-7	108-95-2		1.2	mg/kg		1.2	mg/kg	0.00012 %		
											Total:	0.36 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and £ 75 °C;"

Force this Hazardous Property to non-hazardous for cumulative determinand results below the concentration of: 1000 mg/kg (0.1%) because: No visual or olfactory evidence of petroleum hydrocarbons encountered

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.077%)

Classification of sample: WS04

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS04
Sample Depth:
0.7 m
Moisture content:
18%
(no correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 18% No Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		asbestos fibres detected (Yes/No)			ACM_FIBRES		No							
2		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }	033-005-00-1				3.8	mg/kg	1.895	7.199	mg/kg	0.00072 %		
3		beryllium { beryllium compounds with the exception of aluminium beryllium silicates, and with those specified elsewhere in this Annex }	004-002-00-2				0.53	mg/kg	8.868	4.7	mg/kg	0.00047 %		
4		cadmium { cadmium sulfate }	048-009-00-9	233-331-6	10124-36-4		<0.2	mg/kg	1.855	<0.371	mg/kg	<0.0000371 %		**<LOD**
5		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		19	mg/kg	1.462	27.77	mg/kg	0.00278 %		
6		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8	mg/kg	2.27	<4.086	mg/kg	<0.000409 %		**<LOD**
7		copper { copper sulphate pentahydrate }	029-023-00-4	231-847-6	7758-99-8		8.5	mg/kg	3.929	33.397	mg/kg	0.00334 %		
8		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	12	mg/kg	1.56	18.718	mg/kg	0.0012 %		
9		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
10		nickel { nickel dibromate }	028-053-00-5	238-596-1	14550-87-9		20	mg/kg	5.358	107.166	mg/kg	0.0107 %		
11		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
12		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		21	mg/kg	1.785	37.489	mg/kg	0.00375 %		
13		zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		65	mg/kg	2.774	180.32	mg/kg	0.018 %		
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides,					<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5											
15	●	pH			PH		7.1	pH		7.1	pH	7.1 pH		
16		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
17	●	acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
18	●	acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
19	●	fluorene		201-695-5	86-73-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
20	●	phenanthrene		201-581-5	85-01-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
21	●	anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
22	●	fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
23	●	pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
24		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
25		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
26		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
27		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
28		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
29	●	indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
30		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
31	●	benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
32		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
											Total:	0.041 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS04[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS04[2]
Sample Depth:
0.1 m
Moisture content:
35%
(no correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 35% No Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	asbestos fibres detected (Yes/No)			ACM_FIBRES		No							
2	arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }	033-005-00-1				84	mg/kg	1.895	159.14	mg/kg	0.0159 %		
3	beryllium { beryllium compounds with the exception of aluminium beryllium silicates, and with those specified elsewhere in this Annex }	004-002-00-2				0.45	mg/kg	8.868	3.991	mg/kg	0.000399 %		
4	cadmium { cadmium sulfate }	048-009-00-9	233-331-6	10124-36-4		1.7	mg/kg	1.855	3.153	mg/kg	0.000315 %		
5	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11	mg/kg	1.462	16.077	mg/kg	0.00161 %		
6	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8	mg/kg	2.27	<4.086	mg/kg	<0.000409 %		**<LOD**
7	copper { copper sulphate pentahydrate }	029-023-00-4	231-847-6	7758-99-8		190	mg/kg	3.929	746.52	mg/kg	0.0747 %		
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	74	mg/kg	1.56	115.426	mg/kg	0.0074 %		
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
10	nickel { nickel dibromate }	028-053-00-5	238-596-1	14550-87-9		13	mg/kg	5.358	69.658	mg/kg	0.00697 %		
11	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		1.4	mg/kg	2.554	3.575	mg/kg	0.000358 %		
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		18	mg/kg	1.785	32.133	mg/kg	0.00321 %		
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		180	mg/kg	2.774	499.346	mg/kg	0.0499 %		
14	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides,					<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5											
15	●	pH			PH		7.2	pH		7.2	pH	7.2 pH		
16		naphthalene	601-052-00-2	202-049-5	91-20-3		0.14	mg/kg		0.14	mg/kg	0.000014 %		
17	●	acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
18	●	acenaphthene		201-469-6	83-32-9		0.05	mg/kg		0.05	mg/kg	0.000005 %		
19	●	fluorene		201-695-5	86-73-7		0.08	mg/kg		0.08	mg/kg	0.000008 %		
20	●	phenanthrene		201-581-5	85-01-8		0.79	mg/kg		0.79	mg/kg	0.000079 %		
21	●	anthracene		204-371-1	120-12-7		0.17	mg/kg		0.17	mg/kg	0.000017 %		
22	●	fluoranthene		205-912-4	206-44-0		0.89	mg/kg		0.89	mg/kg	0.000089 %		
23	●	pyrene		204-927-3	129-00-0		0.72	mg/kg		0.72	mg/kg	0.000072 %		
24		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.46	mg/kg		0.46	mg/kg	0.000046 %		
25		chrysene	601-048-00-0	205-923-4	218-01-9		0.51	mg/kg		0.51	mg/kg	0.000051 %		
26		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.51	mg/kg		0.51	mg/kg	0.000051 %		
27		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.25	mg/kg		0.25	mg/kg	0.000025 %		
28		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.42	mg/kg		0.42	mg/kg	0.000042 %		
29	●	indeno[123-cd]pyrene		205-893-2	193-39-5		0.2	mg/kg		0.2	mg/kg	0.00002 %		
30		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
31	●	benzo[ghi]perylene		205-883-8	191-24-2		0.19	mg/kg		0.19	mg/kg	0.000019 %		
32		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
											Total:	0.161 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non GB MCL determinands

asbestos fibres detected (Yes/No) (CAS Number: ACM_FIBRES)

Description/Comments: not classified, information only
Data source: N/A
Data source date: 15 Jan 2020
Hazard Statements: None.

chromium(III) oxide (worst case) (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex

GB MCL index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
20 Nov 2021 - EUH032 >= 0.2 % hazard statement sourced from:: WM3, Table C12.2

pH (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H330 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

acenaphthene (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Aquatic Chronic 2; H411

fluorene (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

phenanthrene (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Skin Irrit. 2; H315

anthracene (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

fluoranthene (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

pyrene (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

indeno[123-cd]pyrene (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2; H351

benzo[ghi]perylene (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

TPH (C6 to C40) petroleum group (CAS Number: TPH)

Description/Comments: Unknown Oil

Hazard statements taken from WM3 1st Edition 2015
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , STOT RE 2; H373 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 2; H361d , Aquatic Chronic 2; H411

ethylbenzene (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4
Description/Comments:
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 2; H351 hazard statement sourced from:: IARC Group 2B (77) 2000

polychlorobiphenyls; PCB (EC Number: 215-648-1, CAS Number: 1336-36-3)

GB MCL index number: 602-039-00-4
Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans;

POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.
Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from:: IARC Group 1 (23, Sup 7, 100C) 2012

Appendix B: Rationale for selection of metal species

arsenic {arsenic acid and its salts with the exception of those specified elsewhere in this Annex}

Worst case CLP species based on hazard statements/molecular weight and conversion factor for arsenic acid H3AsO4. (edit as required)

beryllium {beryllium compounds with the exception of aluminium beryllium silicates, and with those specified elsewhere in this Annex}

Worst case CLP species based on hazard statements/molecular weight and conversion factor for beryllium chloride. (edit as required)

cadmium {cadmium sulfate}

Worst case CLP species based on hazard statements/molecular weight. (edit as required)

chromium in Cr(III) compounds {chromium(III) oxide (worst case)}

Worst Case

chromium in Cr(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on hazard statements/molecular weight (edit as required)

copper {copper sulphate pentahydrate}

Worst case CLP species based on hazard statements/molecular weight. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Reasonable worst case CLP species based on hazard statements/molecular weight and assuming no evidence for the use of explosives. (edit as required)

nickel {nickel dibromate}

Worst case CLP species based on hazard statements/molecular weight. (edit as required)

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide] (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2026.83.7020.12656 (25 Mar 2026)
HazWasteOnline Database: 2026.83.7020.12656 (25 Mar 2026)

This classification utilises the following guidance and legislation:
WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
GB MCL List - version 1.1 of 09 June 2021
GB MCL List v2.0 - version 2.0 of 20th October 2023
GB MCL List v3.0 - version 3.0 of 11th January 2024
GB MCL List v4.0 - version 4.0 of 2nd March 2024
GB MCL List v5.0 - version 5.0 of 26th June 2024
GB MCL List v6.0 - version 6.0 of 15th February 2025
GB MCL List v7.0 - version 7.0 of 23rd September 2025

FIGURES

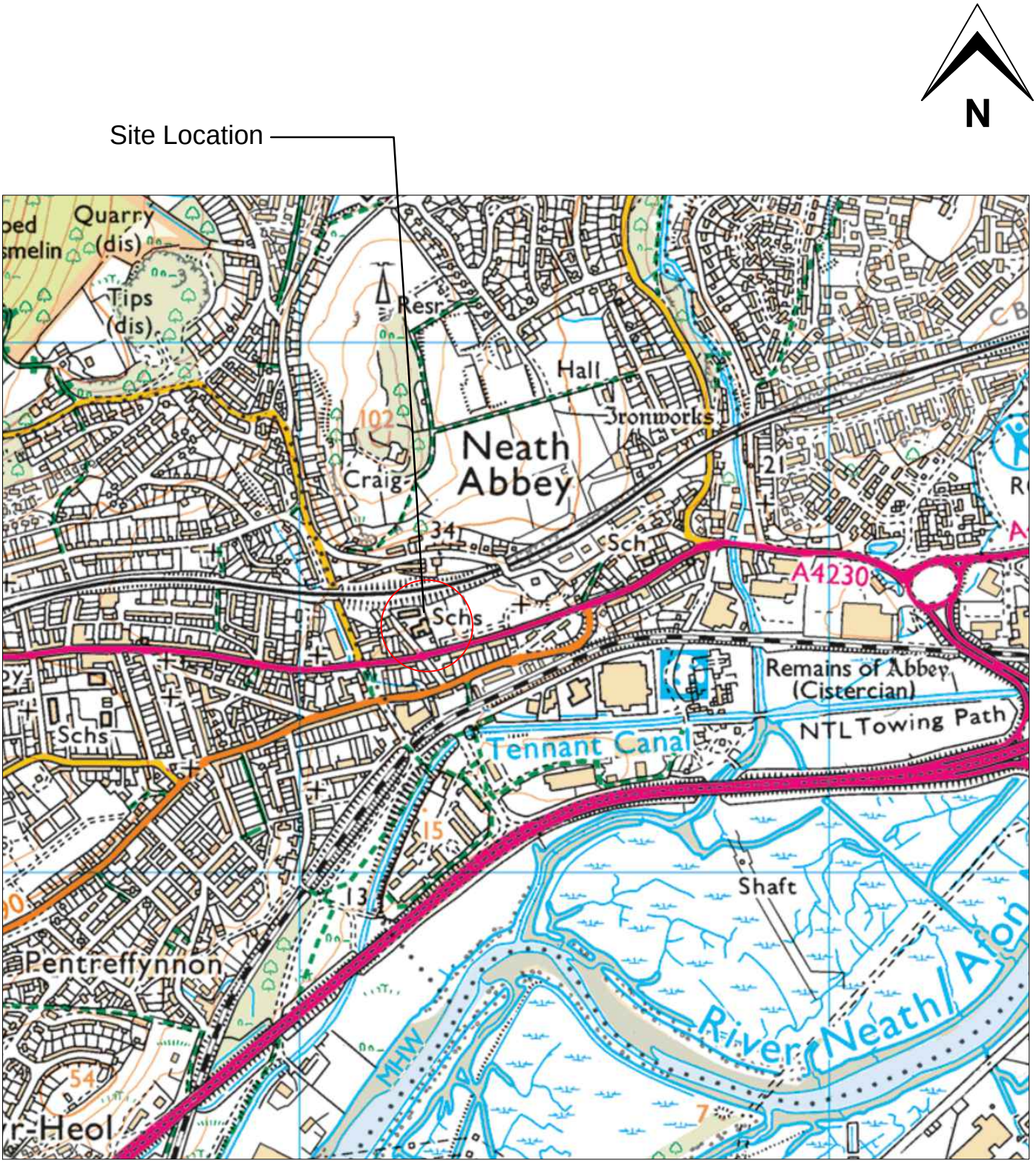
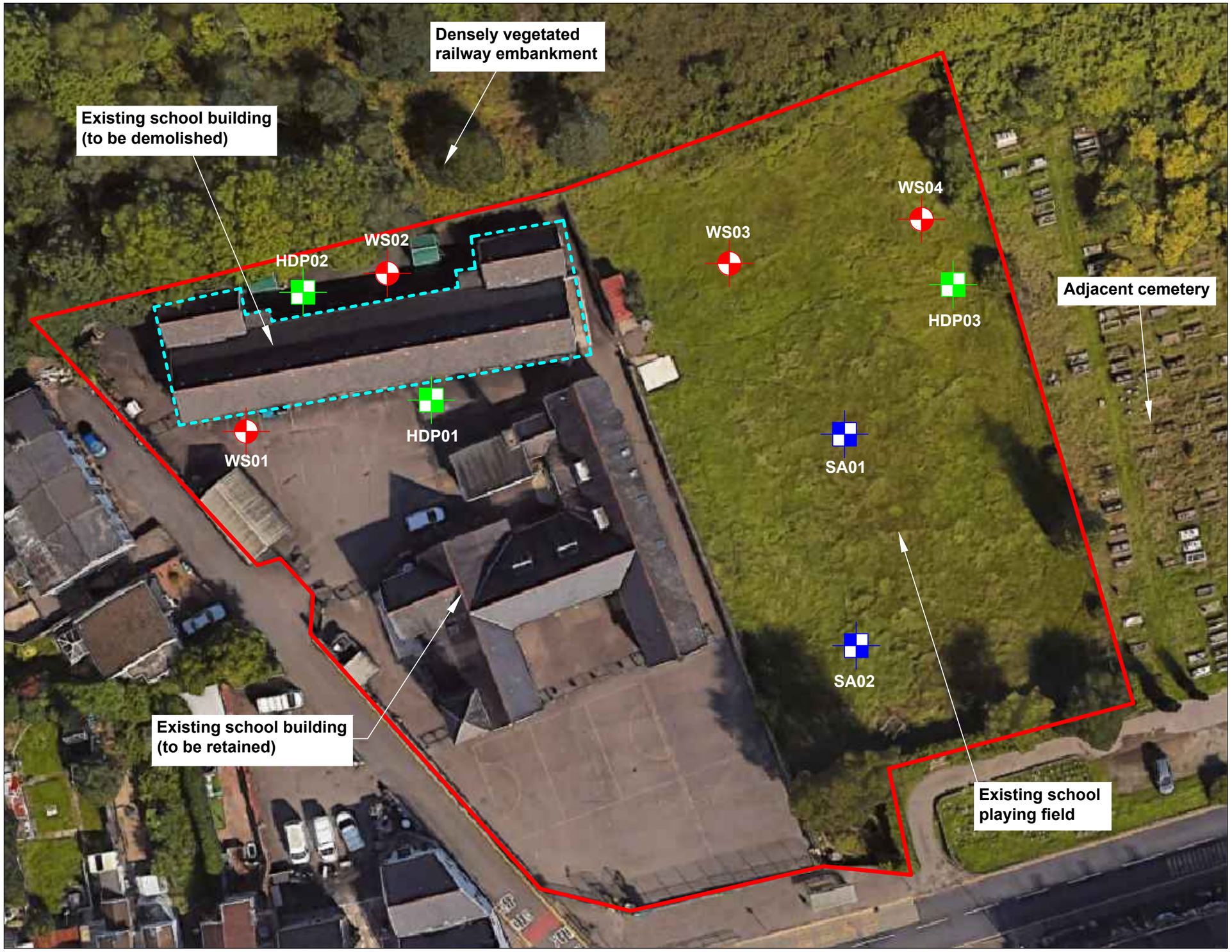


Figure 1: Site Location

Project: YGG Tregeles, Neath Abbey	Job no.: 14560	Intégral Géotechnique	Integral House, 7 Beddau Way, Castlegate Business Park, Caerphilly, CF83 2AX. Tel: 029 2080 7991
Client: Knox & Wells Limited	Scale: NTS		



N

Legend

- 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 Tregeles, St Johns Terrace, Neath Abbey	Job No.: 14560	Intégral Géotechnique	Integral House, 7 Beddau Way, Castlegate Business Park, Caerphilly, CF83 2AX. Tel: 029 2080 7991
Client: Knox & Wells Limited	Scale: 1:500 at A3		

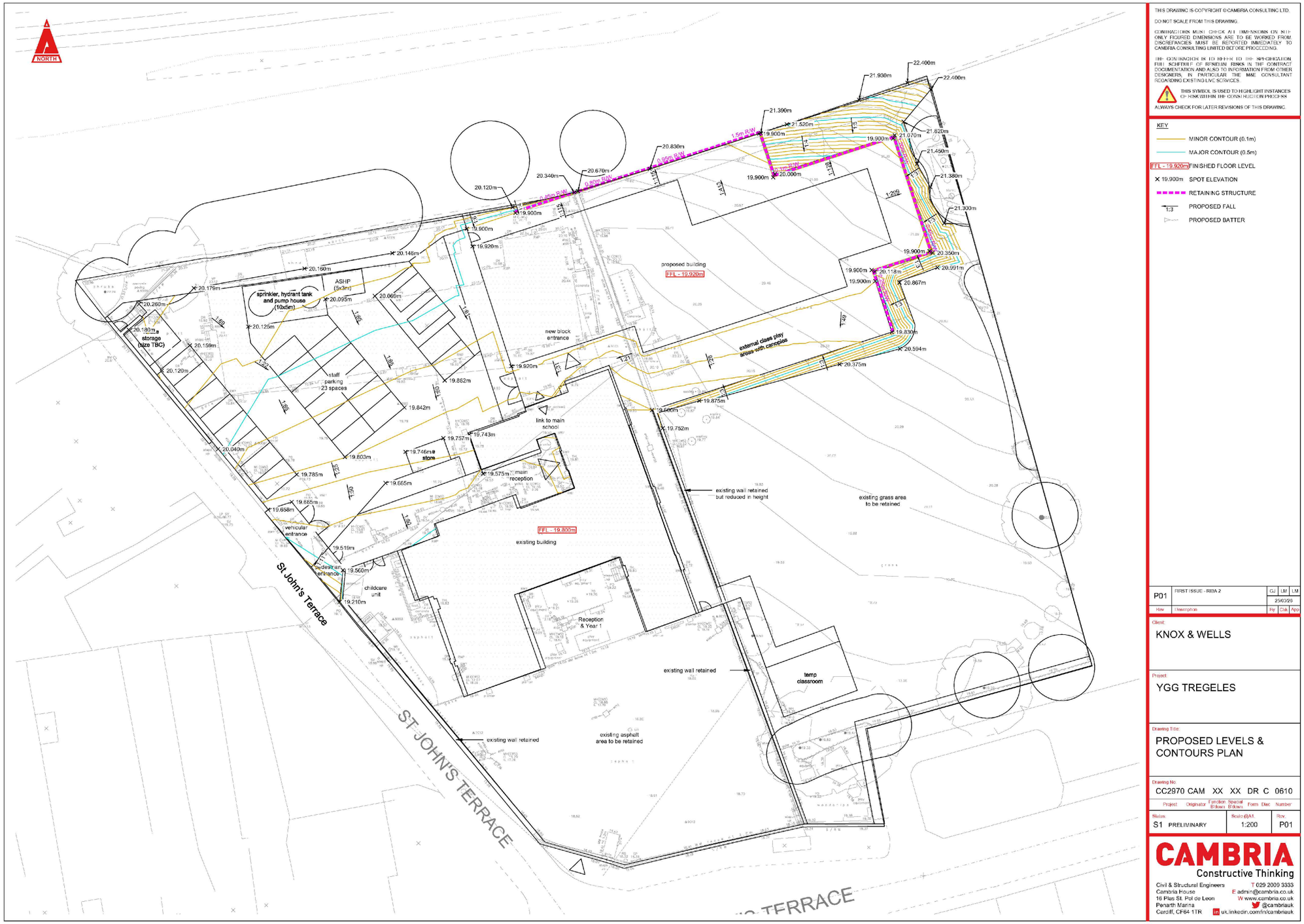


Figure 3: Proposed Development Layout Plan

Project: YGG Tregeles, St Johns Terrace, Neath Abbey	Job No.: 14560	Intégral Géotechnique	Integral House, 7 Beddau Way, Castlegate Business Park, Caerphilly, CF83 2AX. Tel: 029 2080 7991
Client: Knox & Wells Limited	Scale: NTS		

Legend

Area of site underlain by made ground.

Remedial options include:

600mm clean capping system with underlying geotextile in all proposed soft landscaped areas (situated within the orange remedial zone)

OR

Full removal of made ground from footprints of all proposed soft landscaped areas (situated within orange remedial zone)

Figure 4: Remedial Zone Plan

Project: YGG Tregeles, St Johns Terrace, Neath Abbey	Job No.: 14560	Intégral Géotechnique	Integral House, 7 Beddau Way, Castlegate Business Park, Caerphilly, CF83 2AX. Tel: 029 2080 7991
Client: Knox & Wells Limited	Scale: NTS		