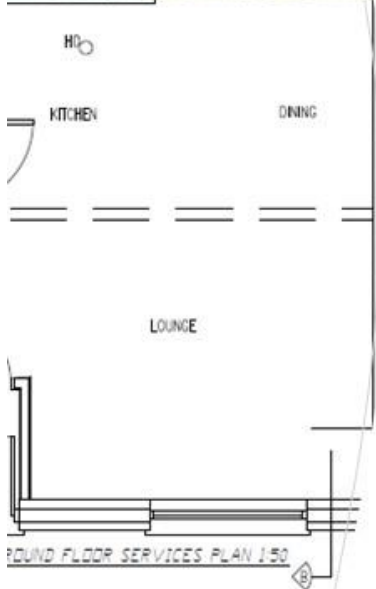




**EARTH ENVIRONMENTAL
& GEOTECHNICAL**
A Technics Group Company

Geo-Environmental Site Investigation Report

Land Adjacent to

9 Addison Road

Sandfields

Port Talbot

SA12 6HQ

Report Ref: B5374/25

December 2025

Earth Environmental & Geotechnical (Southern) Ltd
3 Tollbridge Studios
Toll Bridge Road
Bath
BA1 7DE

Tel : 01225 858823

Email southwest@earthenvironmental.co.uk
www.earthenvironmental.co.uk

**GEO-ENVIRONMENTAL
GROUND INVESTIGATION REPORT**

**LAND ADJACENT TO 9 ADDISON
ROAD**

SANDFIELDS

PORT TALBOT

SA12 6HQ

REPORT REF: B5374/25

DECEMBER 2025

Prepared on Behalf of:

Mr Piku Das & Mrs Sarah Jane Das

By:

Earth Environmental & Geotechnical (Southern) Ltd
3 Tollbridge Studios
Toll Bridge Road
Bath
BA1 7DE

DISTRIBUTION:

1 electronic copy Mr Piku Das

GEO-ENVIRONMENTAL GROUND INVESTIGATION REPORT

Land Adjacent to 9 Addison Road, Sandfields, Port Talbot

Report Reference: B5374/25

Version A.0

Date: 5th December 2025

Prepared for: Mr Piku Das & Mrs Sarah Jane Das

Prepared by: Earth Environmental & Geotechnical (Southern) Ltd
3 Tollbridge Studios
Toll Bridge Road
Bath
BA1 7DE

Definition of Version Code:

- D. Applied during initial drafting of the report before it has been reviewed.
- C. Applied after the report has been reviewed but before it has been approved by the Project Manager.
- B. Applied after the Project Manager has approved the report ready for issue to the client.
- A. Applied to reports after external/internal review.

The version number starts at "0" and is raised by "1" at each re-type.

Written by:

Robert Verner-Jeffreys
Graduate Geo-environmental Consultant

Approved by:

John Grace
Regional Director

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	BACKGROUND.....	1
1.2	TERMS OF REFERENCE.....	1
1.3	REPORT SCOPE.....	1
1.4	LIMITATIONS OF THE STUDY	1
2.0	THE SITE	2
2.1	SITE LOCATION & DESCRIPTION	2
3.2	GEOLOGY.....	4
3.2.1	<i>Published Geology</i>	4
3.2.2	<i>BGS Borehole Records</i>	4
3.3	PROPOSED DEVELOPMENT	5
4.0	PRELIMINARY CONTAMINATION RISK ASSESSMENT - REVIEW	6
4.1	INTRODUCTION	6
4.2	POTENTIAL SOURCES	6
4.3	POTENTIAL RECEPTORS	6
4.4	POTENTIAL PATHWAYS.....	6
4.5	PRELIMINARY RISK ASSESSMENT - REVIEW	8
5.0	SITE INVESTIGATION	9
5.1	EXPLORATORY FIELDWORK.....	9
5.2	LABORATORY TESTING PROGRAMME	11
5.2.2	<i>Environmental Testing</i>	11
6.0	GROUND CONDITIONS ENCOUNTERED	12
6.1	SOIL PROFILE ENCOUNTERED	12
6.2	OBSTRUCTIONS	12
6.3	GROUNDWATER	12
6.4	LAND GAS	12
6.5	VISUAL / OLFACTORY EVIDENCE OF CONTAMINATION.....	13
6.6	OBSERVATIONS DURING DRILLING.....	13
7.0	ENGINEERING PROPERTIES OF STRATA ENCOUNTERED	14
7.1	SOIL STRENGTH PROFILE	14
7.2	DRAINAGE	14
8.0	SOIL CONTAMINATION RISK ASSESSMENT	15
8.1	GENERAL	15
8.2	TIER I HUMAN HEALTH SOIL RISK ASSESSMENT – FUTURE SITE USERS	15
8.3	SOIL WASTE ASSESSMENT	15
9.0	GROUND GAS RISK ASSESSMENT	19
9.1	LAND GAS	19
9.2	RADON GAS	20
10.0	REVIEW OF PRELIMINARY CONTAMINATION RISK ASSESSMENT	21
11.0	GROUND CONTAMINATION CONCLUSIONS AND RECOMMENDATIONS.....	22
11.1	SOIL CONTAMINATION.....	22
11.2	SOIL DISPOSAL	22
11.3	LAND GAS PROTECTION MEASURES	22
11.4	RISK TO GROUNDWATER AND SURFACE WATERS.....	22
13.6	SITE PERSONNEL & OTHER MATTERS.....	22

LIST OF FIGURES

Figure 1	Site Location Plan
Figure 2	Aerial Photograph Showing Site Location
Figure 3	General Site Photograph (looking South)
Figure 4	Geological Map Extract
Figure 5	Proposed Development Details
Figure 6	Earth Science Partnership Conceptual Site Model
Figure 7	Exploratory Hole Location Plan
Figure 8	SPT v Depth Plot

TABLES

Table 1	Summary of site boundaries
Table 2	Summary of Exploratory Holes Undertaken
Table 3	Summary of Ground Conditions Encountered
Table 4	Soil Results Comparison with C4SL/S4UL Levels (Metals)
Table 5	Soil Results Comparison with C4SL/S4UL Levels (Petroleum Hydrocarbons)
Table 6	Soil Results Comparison with C4SL/S4UL Levels (Polycyclic Aromatic Hydrocarbons & Phenols)
Table 7	Modified Wilson & Card Classification (CIRIA Report 659)
Table 8	Revised Conceptual Model

APPENDICES

Appendix 1	Exploratory Hole Logs
Appendix 2	Photographs
Appendix 3	In Situ Test Results
Appendix 4	Laboratory Test Results
Appendix 5	Monitoring Results
Appendix 6	Report Limitations

1.0 INTRODUCTION

1.1 Background

A Ground Investigation has been commissioned by Mr Piku Das & Mrs Sarah Jane Das, acting (the 'Client'), to examine ground conditions and retrieve soil samples for chemical testing for a proposed development in Land Adjacent to 9 Addison Road, Sandfields, Port Talbot.

Earth Science Partnership Ltd (ESP) has carried out a Preliminary (Geo-Environmental) Risk Assessment (PRA) for the site, the findings of which are included in the ESP Report reference ESP.9517.4434 (September 2025) and summarised in this report.

1.2 Terms of Reference

Earth Environmental and Geotechnical (Southern) Ltd (EEGSL) was commissioned by the Client to undertake a Ground Investigation of the site in accordance with a proposal B5374 dated (1st October 2025).

The objectives of this investigation are as follows:

- *Assess the presence and likely extent of any potential environmental hazards associated within the areas of the site investigated.*

1.3 Report Scope

This report presents full factual records of the site work carried out, the ground conditions encountered in the exploratory holes, the in situ and laboratory test results and results of any monitoring. All information collected has been used to provide an interpretation of the ground conditions, with recommendations on geotechnical design and potential ground contamination risks for the proposed development.

1.4 Limitations of the Study

The report is written in the context of an agreed scope of work and budget and should not be used in a different context. New information, improved practices or changes in legislation may require a reinterpretation of the report in whole or in part. EEGSL reserve the right to amend either conclusions or recommendations in light of any further information that may become available. The report is provided for the sole use by the client and is confidential to them.

Recommendations within this report are also based on exploratory records and examination of samples and, where applicable, laboratory tests. No liability can be accepted for conditions not revealed by the boreholes and trial pits, particularly at intervening locations. Whilst every effort is made to ensure accuracy of data supplied, all opinions expressed as to the spatial distribution of strata between sampling locations is for guidance only and no responsibility is accepted as to its accuracy.

2.0 THE SITE

2.1 Site Location & Description

The site is located adjacent to 9 Addison Road, Sandfields, Port Talbot, centred on National Grid Reference 275444 189824, and with a nearest postcode of SA12 6HQ. The site location is shown in Figure 1.

Figure 1 – Site Location Plan



The site covers approximately 0.021 hectares and is situated to the north of the intersection between Addison Place and Addison Road, approximately 600 metres south of Neath Port Talbot Hospital.

The site is currently a disused area of land with a concrete pad present on the eastern side.

The boundaries of the site can be described as follows:

Table 1 – Summary of Site Boundaries

Boundary	Security/Barrier	Adjacent Land Use
North	Brick wall	Residential
East	Wooden fence	Residential
West	Brick wall/ Wooden fence	Addison Road with residential beyond
South	Wooden fence	Addison Place with residential/commercial beyond

The site is accessed directly off Addison Place to the south.

Figure 2 – Aerial Photograph Showing Site Location



A general site photograph is presented in Figure 3.

Figure 3 – General Site Photograph (Looking South)



3.2 Geology

3.2.1 Published Geology

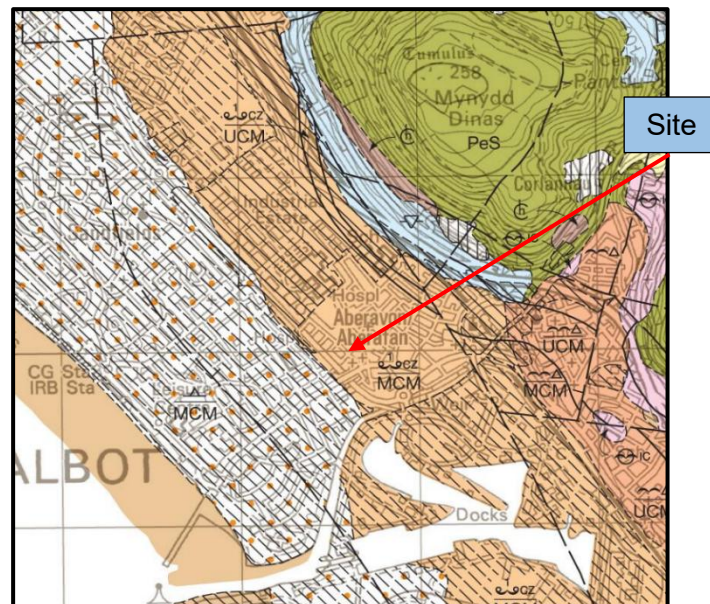
According to the British Geological Survey (BGS), the site is underlain by Artificial Ground 'Landscaped Ground' and Blown Sand superficial deposits overlying the South Wales Middle Coal Measures Formation of Carboniferous age.

Blown Sands are described as: sand that has been transported by wind, or sand consisting predominantly of wind-borne particles.

The South Wales Middle Coal Measures Formation is described as grey, (productive) coal-bearing mudstones/siltstones, with seatearths and minor sandstones.

Figure 4 shows an extract from a geological map of the area.

Figure 4 – Geological Map Extract



3.2.2 BGS Borehole Records

According to BGS, 6 BGS Boreholes are located within 250m of the site boundary although 2 are confidential. The closest borehole with available records is located 170m south-east (BGS ref, SS78NE70). The following geological sequence was recorded:

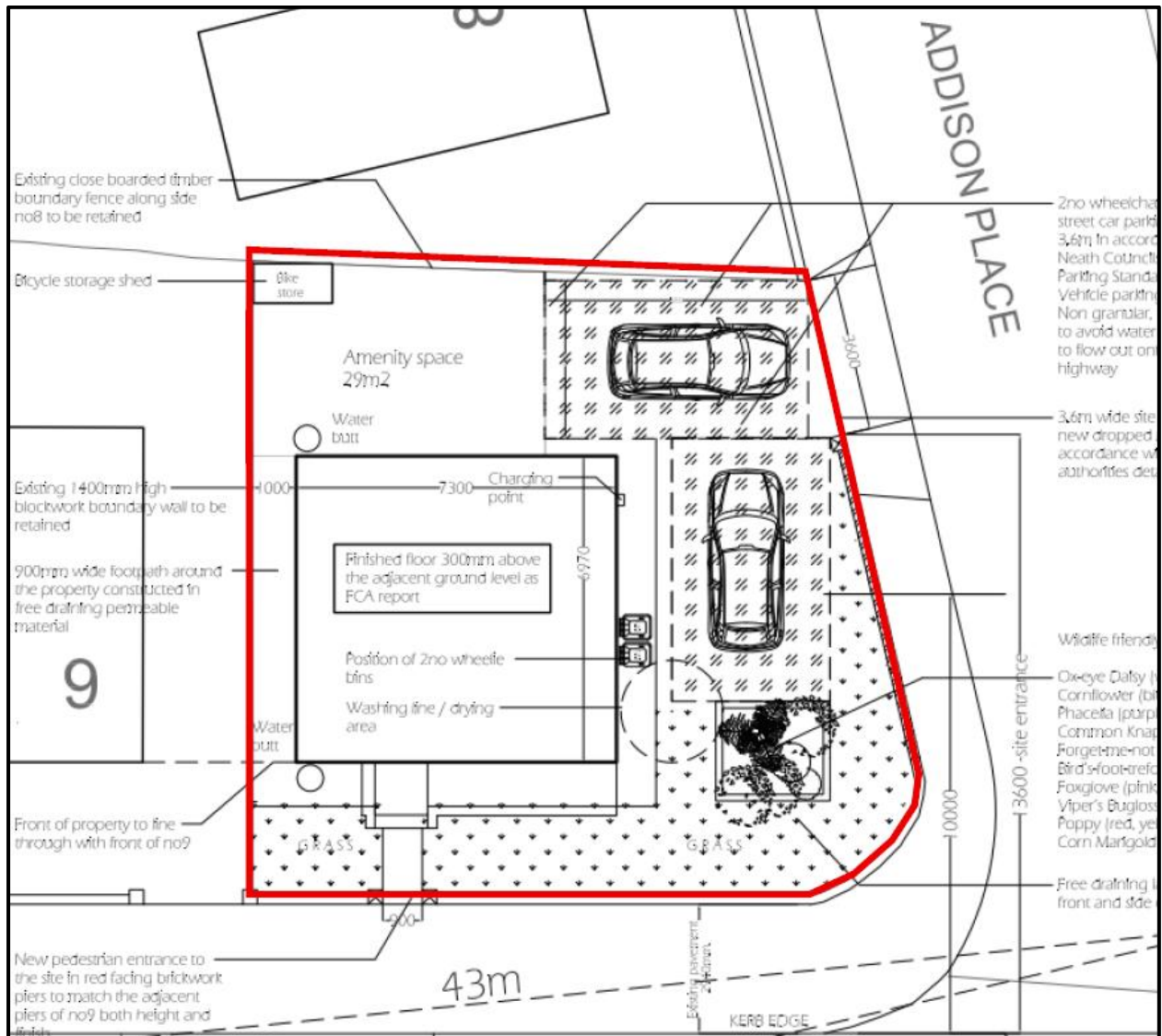
0.00-0.15mbgl:	Clay & Stones.
0.15-3.66mbgl:	Sand.
3.66-4.42mbgl:	Riverbed (Gravel).
4.42-8.08mbgl:	Sandy Clay.
8.08-9.91mbgl:	Peat.
9.91-16.92mbgl:	Large Gravel & Clay.
16.92-17.22mbgl:	Large Gravel & Sandy Clay.
17.22-17.98mbgl:	Hard Clay & Boulders.
17.98-22.56mbgl:	Sand & Gravel
22.56-24.38mbgl:	Hard Clay & Stones.

3.3 Proposed Development

It is proposed to construct a two-storey 4-bedroom dwelling with trench fill foundations, external parking and soft landscaped area.

The proposed development layout details are shown in Figure 5.

Figure 5 – Proposed Development Details



4.0 PRELIMINARY CONTAMINATION RISK ASSESSMENT - REVIEW

4.1 Introduction

A Phase I Desk Study report was carried out by Earth Science Partnership (report ref. ESP.9517.4434) in September 2025.

For full details of the Phase I Desk Study, reference should be made back to the Earth Science Partnership report, however a copy of the sites conceptual model is provided in Figure 6, and the potential sources, pathways and receptors are detailed below.

4.2 Potential Sources

The following potential sources were considered for the assessment site by Earth Science Partnership.

On-site

- Made Ground associated with landscaped development on site as
- Peat as identified in the BGS record to the southeast.

Off-site

- Historic gas works are noted ~60m to the southeast.

4.3 Potential Receptors

The following receptors were considered by Earth Science Partnership.

- Adjacent land users.
- Future land users.
- Construction workers during site development works.
- Controlled waters (River Afon).

4.4 Potential Pathways

The following pathways were considered as part of this assessment.

- Direct / dermal contact, ingestion, inhalation pathways of potentially contaminated soils.
- Vertical or lateral migration of contamination (including ground gas/vapors) on and off site.
- Leaching of soil Contaminants into shallow groundwater.

Figure 6: Earth Science Partnership Conceptual Site Model

Source	Pathway	Receptor	Classification of Consequence	Classification of Probability	Risk Category	Further Investigation or Remedial Action to be Taken
Potential contaminants in shallow soils	Direct contact/ inhalation/ ingestion of contaminated soil or dust	Site Users (residents)	Medium – potential for chronic levels.	Low likelihood ²	Moderate/ Low Risk	Sampling of near-surface soils to confirm levels of total contamination present.
	Direct contact/ inhalation/ ingestion of contaminated soil or dust	Construction/ Maintenance Workers	Minor – standard PPE likely to be sufficient	Low likelihood ²	Very Low Risk	
	Leaching of soil contaminants	Impact on Groundwater /Potable Water	Medium – site lies on Secondary A Aquifers	Low likelihood ²	Moderate/ Low Risk	
	Leaching of soil contaminants	Impact on River Afon	Medium – site lies ~300m from river	Unlikely ²	Low Risk	
Asbestos in shallow soils	Inhalation of fibres	Site End Users	Medium – potential for chronic levels	Low likelihood ³	Moderate/ Low Risk	Sampling of shallow soils for asbestos.
		Construction/ Maintenance Workers		Low likelihood ³	Moderate/ Low Risk	
Hazardous ground gas/vapours	Asphyxiation/poisoning. Injury due to explosion.	Site Users/Visitors.	Severe – acute risk.	Low likelihood ⁴	Moderate Risk	Install and monitor gas wells.
	Damage through explosion.	Building/Property	Severe – acute risk.		Moderate Risk	
	Asphyxiation/poisoning. Injury due to explosion.	Construction and Maintenance Workers.	Severe – acute risk.		Moderate Risk	
Radon gas	Migration into Buildings	Site Users (residents)	Medium – potential for chronic levels	Unlikely ⁵	Low Risk	See Section 2.10.
Notes: - Methodology and details of risk consequence, probability and category based on CIRIA C552 (2001) and presented in Section 3.2.1. - The presence of Made Ground or contamination has not yet been confirmed on site. - No obvious source of asbestos materials has been identified in the Desk Study; however, any Made Ground has the potential to contain asbestos, and a former building was present in the east, which may have has asbestos containing materials in its structure. - General Made Ground (presence yet to be proved) forms a potential source of hazardous ground gas/vapours at the site. Off-site sources also exist. - Radon risk identified in data report. See Section 2.10. - The potential risks to buried concrete (foundations, drainage etc.) have not been considered at this stage (geotechnical risk).						

4.5 Preliminary Risk Assessment - Review

ESP concluded that there is a moderate risk of asbestos within shallow soils, a moderate risk due to hazardous ground gas, a low risk posed by radon, and a moderate risk from contamination in shallow soils.

These conclusions are based on the close proximity to the nearby gasworks, the presence of Made Ground on site, and the possible presence of peat within the superficial deposits underlying the site.

Upon review of the information, Earth Environmental generally agrees with the conclusions of ESP. A copy of the conceptual model has been provided in Figure 6 for reference.

Earth Environmental has been commissioned to complete a ground investigation, with the outcome of the investigation works provided in the following sections.

5.0 SITE INVESTIGATION

5.1 Exploratory Fieldwork

The fieldwork was carried out by EEGSL on 20/10/2025 and comprised:

- 3. window sample boreholes (designated WS01 WS03) were sunk to depths of between 2.50m and 4.00m below existing ground level. Window sampler boring is carried out with a small, track-mounted rig, which uses a chain-driven trip hammer to drive sampling tubes or penetrometers into the ground. These tools are coupled to the anvil of the hammer by solid drill rods. Sampling tubes comprise “windowless samplers”, which are plain sampler tubes in which a continuous disturbed sample is recovered within a semi-rigid plastic liner. In order to reduce friction within the borehole, sampling tubes of progressively smaller diameter are used as the borehole depth increases. Sampler diameters generally range from between approximately 90mm to 50mm. Standard penetration tests (SPT’s) were conducted in suitable materials. Groundwater observations were noted where possible. These observations relate to the time of the investigation only, and do not necessarily reflect seasonal fluctuations. Logsheets are included in Appendix 1. 50mm diameter standpipes were installed in WS01 and WS02 to depths of 3.70m below ground level. Log sheets are included in Appendix 1. Window sample liner photographs are presented in Appendix 2.
- Dynamic probe tests were carried out generally in accordance with BS EN ISO 22476-2, at each WS location from ground level to depths of up to 7.88m below ground level. The results of these tests are shown in the Appendix 3. Dynamic probe tests are conducted with a window sampler type rig, which uses a chain-driven trip hammer to drive a cone-tipped, solid steel penetrometer into the ground. The “super heavy” test (DPSH) uses a 50.5mm diameter cone, and a 63.5kg hammer, falling over a distance of 750mm. The resistance of the ground to the dynamic penetration is given by the number of blows required to drive the cone over depth increments of 100mm (DPN₁₀₀).
- EEGSL carried out groundwater/gas monitoring in standpipes after the fieldwork period, the results of which are presented in Appendix 5.

Each exploratory location was scanned using a Cable Avoidance Tool (CAT) in order to locate unrecorded underground services, and the exploratory locations were repositioned if necessary. On completion, all samples recovered from the site were taken to a specialist laboratory for testing.

All site investigation work was supervised full time by a representative of EEGSL. The logging of soils and rocks has been carried out in accordance with BS5930⁽²⁰¹⁵⁾ except where superseded by the soil and rock description methodology in BS EN14688-1⁽²⁰⁰²⁾, BS EN 14688-2⁽²⁰⁰⁴⁾ and BS EN 14689-1⁽²⁰⁰³⁾.

A summary of exploratory holes undertaken in presented in Table 2.

Table 2 – Summary of Exploratory Holes Undertaken

Hole	Type*	Depth (m)	Date Started	Date Finished	Location		Backfill Details**
					Easting (m)	Northing (m)	
WS01	WS	4.00	20/10/25	20/10/25	275445	189830	SP
WS02	WS	4.00	20/10/25	20/10/25	275439	189824	SP
WS03	WS	2.50	20/10/25	20/10/25	275445	189821	A
DP01	DP	7.80	20/10/25	20/10/25	275445	189830	SP
DP02	DP	7.87	20/10/25	20/10/25	275439	189824	SP
DP03	DP	2.78	20/10/25	20/10/25	275445	189821	A

* WS = Window Sample, DP = Dynamic probe.
**A = Arisings, SP = standpipe

The fieldwork was carried out generally in accordance with BS 5930:2015 Code of Practice for Site Investigations, Eurocode 7, unless otherwise stated. The exploratory hole locations are shown approximately on the Exploratory Hole Location Plan in figure 7:

Figure 7 - Exploratory Hole Location Plan



Not To Scale



Window sample



Window sample
with Standpipe
installation

5.2 Laboratory Testing Programme

5.2.2 Environmental Testing

The environmental chemistry of the ground was investigated by specialist chemical analysis of selected samples, scheduled by EEGSL and carried out by DETS Ltd

Chemical analyses were carried out on 4 soil samples and were submitted for the following suite of determinants:

Asbestos Screen, Arsenic, Barium, Beryllium, Boron, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Vanadium, Zinc, Cyanide, Sulphate (SO₄), Sulphide, pH, Soil Organic Matter, Phenol, speciated Total Petroleum Hydrocarbons (TPH) and speciated Polyaromatic Hydrocarbons (PAH).

The results of the laboratory contamination tests are included in Appendix 4.

The range of potentially hazardous contaminants present on the site can be wide and varied, and the suite has been chosen to reflect both commonly found contaminants and others indicated by research to have a significant risk of being present. It is, however, possible that others may exist for which analyses have not been carried out. It is also possible that contaminants exist on the site but were not present at any of the exploratory hole locations.

6.0 GROUND CONDITIONS ENCOUNTERED

6.1 Soil Profile Encountered

The sequence of strata encountered beneath the site was as follows:

- **Made Ground** – Variable Made Ground was encountered in all the exploratory holes, comprising:
 - Clayey SAND with gravel of various lithologies including, brick, clinker, glass, porcelain. Thickness 1.20m to 1.50m.
- **Superficial Deposits** – were encountered in all the boreholes and comprised:
 - SAND (WS01, WS02, WS03). Thickness 1.00m to 2.60m.
 - CLAY (WS01, WS02). Thickness 0.20m.

The depths of the various materials encountered in each of the exploratory holes are summarised in Table 3.

Table 3 - Summary of Ground Conditions Encountered

Hole	Depth to Stratum (m)			GROUND-WATER
	MADE GROUND	SUPERFICIAL DEPOSITS		
		SAND	CLAY	
WS01	0.00-1.40	1.40-3.80	3.80-4.00	2.60
WS02	0.00-1.20	1.20-3.80	3.80-4.00	2.40
WS03	0.00-1.50	1.50-2.50	-	-

6.2 Obstructions

Underground man-made obstructions were not encountered during the investigation.

6.3 Groundwater

Groundwater was encountered during the fieldwork in WS01 and WS02 at 2.60mbgl and 2.40mbgl.

Subsequent monitoring of groundwater in standpipes indicated groundwater levels at depths ranging between 1.82mbgl and 2.18mbgl.

6.4 Land Gas

Results obtained during the initial monitoring visit indicated Methane (CH₄) levels of 0% by volume, Carbon Dioxide (CO₂) levels ranging from 0% to 1.9% by volume, and Oxygen (O₂) levels ranging from 20.8% to 18.7% by volume. Hydrogen Sulphide levels of 0ppm Carbon Monoxide levels of 0ppm were recorded. Borehole pressures of 0Pa and gas flows of 0l/hr to were recorded.

Results obtained during subsequent monitoring visits indicated Methane levels of 0% by volume, Carbon Dioxide levels ranging from 0% to 2.1% by volume, and Oxygen levels ranging from 20.5% to 18.3% by volume. Hydrogen Sulphide levels of 0ppm and Carbon Monoxide levels of 0ppm were recorded. Borehole pressures ranging from 0Pa to 1Pa and gas flows ranging from 0l/hr to 0.3l/hr were recorded.

It should be noted that the concentrations and levels of mobile liquid and gaseous materials are likely to vary with time. The results obtained may therefore be representative of the conditions only at the time of sampling.

6.5 Visual / Olfactory Evidence of Contamination

No visual or olfactory contamination was observed on site or encountered in any of the exploratory holes during the investigation.

6.6 Observations During Drilling

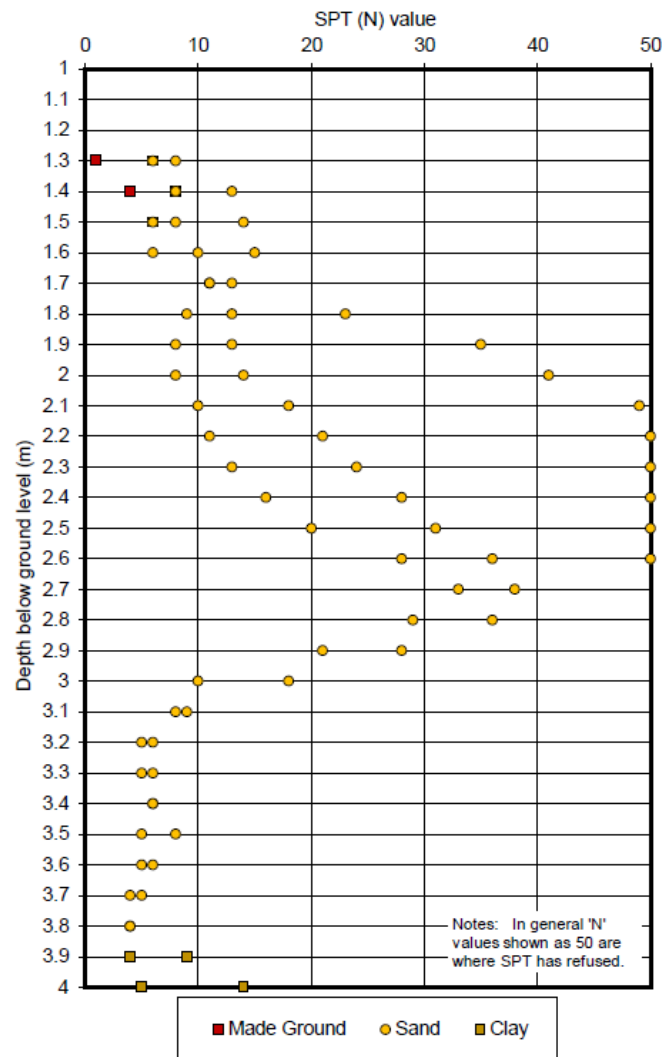
Blowing sands were encountered within all exploratory boreholes between depths of 1.20mbgl and 3.80mbgl.

7.0 ENGINEERING PROPERTIES OF STRATA ENCOUNTERED

7.1 Soil Strength Profile

During the ground investigation works dynamic probe testing was completed at each borehole location. Calculated **SPT N values** range from 1 to 50, as can be seen from SPT v Depth Plot (Figure 8), an average value of $N = 16$ would seem reasonable for the superficial sands and clays.

Figure 8 – SPT v Depth Plot



7.2 Drainage

Based off thickness of made ground present (1.0-1.4m thickness) and the presence of shallow ground water levels encountered during the investigation and subsequent monitoring (~1.80mbgl), soakaway infiltration drainage is not expected to be feasible.

8.0 SOIL CONTAMINATION RISK ASSESSMENT

8.1 General

The following sections provide a Human Health Soil Assessment for future site users.

8.2 Tier I Human Health Soil Risk Assessment – Future Site Users

As part of the contamination assessment, the chemical results obtained by EEGSL have been screened against accepted compliance criteria, namely:

- Defra C4SL Health Criteria Values^(March 2014), where available;
- CL:AIRE Category 4 Screening Levels: Naphthalene⁽²⁰²⁴⁾;
- CL:AIRE Category 4 Screening Levels: Inorganic Mercury⁽²⁰²⁴⁾;
- Tier 1 assessment values - based on LQM/CIEH Suitable 4 Use Levels⁽²⁰¹⁵⁾ (S4ULs).

As a preliminary screening assessment, all results have been compared to residential end use criteria.

The comparison of results is summarised in Tables 4-6.

Review of the screening assessment has shown exceedances for the following toxic metals at the assessment site:

- Arsenic exceedances were detected within all exploratory boreholes at depths between 0.5mbgl and 0.9mbgl within the Made Ground.
- Beryllium exceedances were detected within WS01 and WS02 at depths between 0.5mbgl and 0.9mbgl within the Made Ground.
- Lead exceedances were detected within all exploratory boreholes at depths between 0.5mbgl and 0.9mbgl within the Made Ground.

Asbestos, TPH and PAH contamination has not been encountered in any of the samples tested.

8.3 Soil Waste Assessment

Environment Agency Technical Guidance WM3.1: Hazardous Waste; “Guidance on the classification and assessment of waste”, May 2018, published by Environment Agency of England and Wales, SEPA, NIEA and Natural Resources Wales has been used to characterise soil materials.

HazWasteOnline™ a cloud-based software application for the management, analysis and reporting of hazardous waste materials has been used to make this assessment.

The Hazardous Waste Assessment (included in Appendix 5) confirms that the sample of made ground collected from WS01 is classified as **Hazardous** whilst the samples of natural sands at depth at WS01 and the made ground at WS02 and WS03 can be classified as **Non-Hazardous**.

Table 4 - Soil Results Comparison with C4SL/S4UL Levels (Metals)

0.50-0.80	C4SL/S4UL Levels (mg/kg)*		WS01 0.50-0.60	WS01 2.70-3.00	WS02 0.80-0.90	WS03 0.50-0.80
	Residential with homegrown produce	Residential without homegrown produce				
Arsenic	37	40	71	4	70	55
Beryllium	1.7	1.7	2.1	< 0.5	1.8	1.3
Boron	290	11000	1.6	< 1	1.1	1.2
Cadmium	26	149	0.4	< 0.2	0.4	0.4
Chromium	910	910	28	3	22	24
Chromium VI	21	21	< 2	< 2	< 2	< 2
Copper	2400	7100	872	< 4	223	388
Lead	200	310	341	< 3	529	202
Mercury	1.2	1.2	< 1	< 1	< 1	< 1
Nickel	180	180	77	< 3	72	48
Selenium	250	430	< 2	< 2	2	< 2
Vanadium	410	1200	132	7	46	37
Zinc	3700	4000	215	9	264	245

Table 5 - Soil Results Comparison with C4SL/S4UL Levels (Petroleum Hydrocarbons)

Determinand		C4SL/S4UL Levels (mg/kg)*					WS01 0.50-0.60	WS01 2.70-3.00	WS02 0.80-0.90	WS03 0.50-0.80	
		Residential with homegrown produce			Residential without homegrown produce						
SOM (%)	1.0	2.5	6.0	1.0	2.5	6.0	51.4	0.5	64.3	61.5	
Benzene	0.87	17	0.37	3.3	0.70	1.4	< 2	< 2	< 2	< 2	
Toluene	130	290	660	880	1900	3900	< 5	< 5	< 5	< 5	
Ethylbenzene	47	110	260	83	190	440	< 2	< 2	< 2	< 2	
o-xylenes	60	140	330	88	210	480	< 2	< 2	< 2	< 2	
m-xylenes	59	140	320	82	190	450	< 2	< 2	< 2	< 2	
p-xylenes	56	130	310	79	180	430	< 2	< 2	< 2	< 2	
Aliphatic (EC)	5-6	42	78	160	42	78	160	< 0.01	< 0.01	< 0.01	< 0.01
	>6-8	100	230	530	100	230	530	< 0.05	< 0.05	< 0.05	< 0.05
	>8-10	27	65	150	27	65	150	< 2	< 2	< 2	< 2
	>10-12	130	330	760	130	330	770	< 2	< 2	< 2	< 2
	>12-16	1100	24000	4300	1100	24000	4400	< 3	< 3	< 3	< 3
	>16-21	65000	92000	110000	65000	92000	110000	< 3	< 3	< 3	< 3
Aromatic (EC)	>21-34	65000	92000	110000	65000	92000	110000	< 10	< 10	< 10	< 10
	5-7	70	78	300	370	690	1400	< 0.01	< 0.01	< 0.01	< 0.01
	>7-8	130	230	660	860	1800	3900	< 0.05	< 0.05	< 0.05	< 0.05
	>8-10	34	65	190	47	110	270	< 2	< 2	< 2	< 2
	>10-12	74	330	380	250	590	1200	< 2	< 2	< 2	< 2
	>12-16	140	24000	660	1800	2300	2500	< 2	< 2	< 2	< 2
	>16-21	280	92000	930	1900	1900	1900	< 3	< 3	< 3	< 3
	>21-35	1100	92000	1700	1900	1900	1900	< 10	< 10	< 10	< 10

Table 6 - Soil Results Comparison with C4SL/S4UL Levels (Polycyclic Aromatic Hydrocarbons & Phenols)

Determinand	C4SL/S4UL Levels (mg/kg)*						WS01 0.50-0.60	WS01 2.70-3.00	WS02 0.80-0.90	WS03 0.50-0.80
	Residential with homegrown produce			Residential without homegrown produce						
Polycyclic Aromatic Hydrocarbons										
SOM (%)	1.0	2.5	6.0	1.0	2.5	6.0	< 0.1	< 0.1	< 0.1	< 0.1
Naphthalene	15	36	85	15	36	85	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	170	420	920	2900	4600	6000	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	210	510	1100	3000	4700	6000	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	170	400	860	2800	3800	4500	0.93	< 0.1	0.20	0.36
Phenanthrene	95	220	440	1300	1500	1500	0.26	< 0.1	< 0.1	< 0.1
Anthracene	2400	5400	11000	31000	35000	37000	1.39	< 0.1	0.53	1.06
Fluoranthene	280	560	890	1500	1600	1600	1.16	< 0.1	0.51	0.95
Pyrene	620	1200	2000	3700	3800	3800	0.65	< 0.1	0.45	0.62
Benz(a)anthracene	7.2	11	13	11	14	15	0.78	< 0.1	0.54	0.78
Chrysene	15	22	27	30	31	32	0.77	< 0.1	0.60	0.82
Benzo(a)pyrene	5.0	2.7	3.0	5.3	3.2	3.2	0.32	< 0.1	0.30	0.36
Benzo(b)fluoranthene	2.6	3.3	3.7	3.9	4.0	4.0	0.77	< 0.1	0.60	0.82
Benzo(k)fluoranthene	77	93	100	110	110	110	0.32	< 0.1	0.30	0.36
Indeno(1,2,3-cd)pyrene	27	36	41	45	46	46	0.36	< 0.1	0.35	0.37
Dibenz(a,h)anthracene	0.24	0.28	0.3	0.31	0.31	0.32	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	320	340	350	360	360	360	0.33	< 0.1	0.29	0.32
Phenols										
Phenol	280	550	1100	750	1300	2300	< 2	< 2	< 2	< 2

9.0 GROUND GAS RISK ASSESSMENT

9.1 Land Gas

The potential risk associated with gases being generated in the ground (whether from natural or man-made sources) depends on the concentrations of gas and its flow rate to the surface. These factors are assessed by monitoring of the gas installations in the boreholes. The variable nature of gas generation and the effect of barometric pressure on gas flow, means that the volume of gas potentially reaching the ground surface is normally inconsistent over time.

For the assessment of sites, in terms of the potential for ground gas to present a hazard, the risk based methodology detailed in the NHBC Guidance on Methane and Carbon Dioxide^(Edition No. 4, March 2007) is used. This is a risk based approach that is designed to allow quick and easy design of gas protection for a low-rise development by comparing the measured gas emission rates to Characteristic Situations, based on risk based Gas Screening Values (GSVs), as described by CIRIA Report C665⁽²⁰⁰⁷⁾. The GSVs equate to the borehole gas volume flow rate as defined by Wilson and Card⁽¹⁹⁹⁹⁾ as the borehole flow rate multiplied by the concentration in the air stream of the particular gas being considered.

For the purposes of this evaluation the calculations will be carried out for both carbon dioxide and methane encountered in the boreholes on site, and a peak flow rate of 0.2l/hr assumed (or max flow recorded, whichever is higher) to give a worst case scenario adopted in order to establish the appropriate protection measures, as follows:

- Carbon dioxide: maximum flow rate = 0.3l/hr, max concentration = 2.1%
- Methane: maximum flow rate = 0.3l/hr, max concentration = 0%.

Based on the above figures, the GSV is calculated as:

- Carbon dioxide: $GSV = 0.3 \times 0.021 = 0.006\text{l/hr}$
- Methane: $GSV = 0.2 \times 0 = 0\text{l/hr}$.

The above results suggest the site can be given a Characteristic Situation of (1), i.e. 'very low risk', in accordance with table 9. Given this classification, no special ground gas protection measures will be required.

Table 7 - Modified Wilson & Card Classification (CIRIA Report 659)

Characteristic Situation (CIRIA Report 149)	Risk Classification	GSV (CH ₄ or CO ₂) (l/hr)	Additional Factors	Typical Source of Generation
1	Very Low Risk	<0.07	Typically methane ≤1%v/v and/or carbon dioxide ≤5% v/v. Otherwise consider increase to Situation 2.	Natural Soils with low organic content. "Typical" Made Ground.
2	Low Risk	<0.7	Borehole flow rate not to exceed 70l/hr. Otherwise increase to Situation 3.	Natural soil, high peat/organic content. "Typical" Made Ground.
3	Moderate Risk	<3.5		Old landfill, inert waste, mineworking flooded.
4	Moderate to High Risk	<15	Quantitative risk assessment required to evaluate scope of measures required.	Mineworking susceptible to flooding, completed landfill (WMP 26B criteria)
5	High Risk	<70		Mineworking unflooded inactive with shallow workings near surface.
6	Very High Risk	>70		Recent landfill site.

9.2 Radon Gas

Based on information included in the Preliminary Risk Assessment, protection against the ingress of radon gas into the new building is not required.

10.0 REVIEW OF PRELIMINARY CONTAMINATION RISK ASSESSMENT

The Following table provides a review of the Preliminary Conceptual Model/Contamination Risk Assessment included in Section 8.0, based on the findings of the Phase II investigation, and laboratory testing.

Table 8 - Revised Conceptual Model

Source	Pathway	Receptor	Risk
Contamination of the ground beneath site due to current and historical use	Dermal contact, ingestion and inhalation of soils, dust	Current Site Users	LOW
		Future Site users	MODERATE
		Construction Workers	LOW - MODERATE
	Vertical or lateral migration of contamination (including ground gas) on and off site.	Current Site Users	LOW
		Adjacent land users	LOW - MODERATE
		Future land users	MODERATE
		Controlled Waters	LOW
		Construction Workers	LOW - MODERATE

11.0 GROUND CONTAMINATION CONCLUSIONS AND RECOMMENDATIONS

11.1 Soil Contamination

As discussed in the above sections, the contamination tests indicate elevated levels of toxic metals, including arsenic, Beryllium and lead, present within the shallow Made Ground deposit across the assessment site.

Areas of proposed hardcover development will not require any remediation as these areas effectively seal contamination beneath and break any potential source-pathway-pollutant linkage.

The elevated contamination encountered is located within the Made Ground near surface. Areas of proposed soft landscaping will require remediation. This can be carried out by either removing the Made Ground from these areas, capping the Made Ground with a minimum 600mm of clean imported material, or a combination of both, depending on finished site levels.

The presence of higher levels of contamination on areas of the site not covered by the current exploratory holes should not be discounted and additional spot checks would be prudent, particularly during groundworks and in areas of proposed soft landscaping. This testing can be carried out as part of the Soil Management Plan for the site.

11.2 Soil Disposal

Soils should be disposed of at a suitable site, registered to take the levels of contamination encountered. It is recommended that Made Ground materials be classified as Hazardous based on the results from WS01 and in accordance with Environment Agency guidance WM3.1.

11.3 Land Gas Protection Measures

Based on results of monitoring, land gas protection measures will not be required.

11.4 Risk to Groundwater and Surface Waters

At this stage it is recommended that a low risk is present to controlled waters due to the lack of mobile contamination (TPHs) present at the assessment site and the low mobility of the toxic metals currently identified. It is suggested that the removal of made ground materials from the proposed soft landscaping areas will also reduce any risk to shallow groundwater even further.

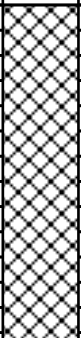
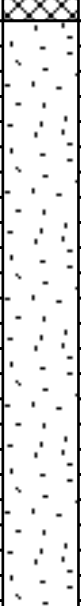
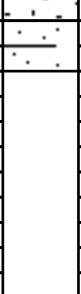
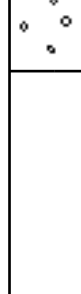
13.6 Site Personnel & Other Matters

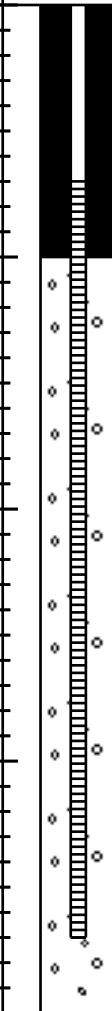
As with all construction sites, personnel working on the site during the construction period should be encouraged to maintain a high standard of personal hygiene and on-site washing facilities should be available.

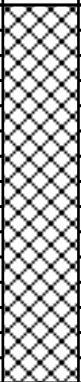
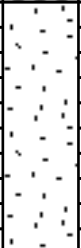
Due diligence is required during the construction period, and should any further evidence of contamination be found, appropriate investigation and / or action should be taken. The significance of any contamination not discovered by this investigation is outside the scope of this report.

APPENDIX 1

EXPLORATORY HOLE LOGS

 EARTH ENVIRONMENTAL & GEOTECHNICAL A Technics Group Company			Project Title: Land Adjacent to 9 Addison Road, Sandfields				WS01				
			Project Number: B5374		Client: Mr Piku Das & Mrs Sarah Jane Das					Sheet: 1 Of 1	
			GL (mAOD): 0		N Coord: 189830		E Coord: 275445				
Date: 20/10/2025			Method: Window Sampler		Driller: South Wales Ground Testing		Logged By: RVJ				
Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe			
0.50 - 0.60	ES				1.00 1.40	MADE GROUND: Loose to medium dense dark grey mottled orange brown slightly gravelly slightly clayey sand. Gravel is very angular to subangular, fine to medium of clinker and glass. Sand is fine to coarse.					
2.50 - 2.80	ES		-1.4		1.40 2.00 3.00 3.80 4.00	Loose to dense pale yellow fine to medium SAND.	▼				
			-3.8		3.80 4.00	Firm to stiff light grey mottled yellow slightly sandy CLAY. Sand is fine to medium. End Of Borehole At 4.00 m	▽				
KEY D - Disturbed Sample B - Bulk Sample U - Undisturbed W - Water Sample S - Standard Penetration Test C - Cone Penetration Test N - Penetration Test 'N' Value V - Hand Shear Vane kPa ▽ - Groundwater Strike ▼ - Groundwater Level 			REMARKS Exploratory hole location was scanned using a Cable Avoidance Tool prior to excavation. Hand pit excavated to 1.20mbgl. Drilling was closely monitored by an EEGSL engineer throughout. Hole terminated at 4.00mbgl due to refusal. Standpipe was installed to a depth of 3.00mbgl. Groundwater was encountered at 2.60mbgl. Scale: 1:30			Water Strikes					
						Date	Strike	Level	Minutes	Casing	Sealed
						20/10/2025	3.5	2.6			
						Daily Log Of Depths			Chiselling		
						Date	Casing	Water	From	To	Hours

 EARTH ENVIRONMENTAL & GEOTECHNICAL A Technics Group Company			Project Title: Land Adjacent to 9 Addison Road, Sandfields				WS02				
			Project Number: B5374		Client: Mr Piku Das & Mrs Sarah Jane Das						
			GL (mAOD): 0		N Coord: 189824		E Coord: 275439				
Date: 20/10/2025			Method: Window Sampler		Driller: South Wales Ground Testing		Logged By: RVJ				
Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe			
0.80 - 0.90	ES				1.00	MADE GROUND: Loose to medium dense dark grey slightly gravelly slightly clayey sand. Gravel is very angular to subangular, fine to medium of brick, clinker, glass and porcelain. Sand is fine to coarse.					
			-1.2		1.20						
					2.00	Loose to dense pale yellow fine to medium SAND.					
					3.00						
3.80 - 4.00	ES		-3.8		3.80	Soft to firm light grey mottled yellow sandy CLAY. Sand is fine to medium. 3.80 - 4.00 Clay is less sandy with depth. End Of Borehole At 4.00 m					
					4.00						
KEY			REMARKS			Water Strikes					
D - Disturbed Sample B - Bulk Sample U - Undisturbed W - Water Sample S - Standard Penetration Test C - Cone Penetration Test N - Penetration Test 'N' Value V - Hand Shear Vane kPa ▽ - Groundwater Strike ▼ - Groundwater Level 			Exploratory hole location was scanned using a Cable Avoidance Tool prior to excavation. Hand pit excavated to 1.20mbgl. Drilling was closely monitored by an EEGSL engineer throughout. Hole terminated at 4.00mbgl due to refusal. Standpipe was installed to a depth of 3.70mbgl. Groundwater was encountered at 2.40mbgl. Scale: 1:30			Date	Strike	Level	Minutes	Casing	Sealed
						20/10/2025	3	2.4			
						Daily Log Of Depths			Chiselling		
						Date	Casing	Water	From	To	Hours

 EARTH ENVIRONMENTAL & GEOTECHNICAL A Technica Group Company			Project Title: Land Adjacent to 9 Addison Road, Sandfields				WS03				
			Project Number: B5374		Client: Mr Piku Das & Mrs Sarah Jane Das					sheet: 1 Of 1	
			GL (mAOD): 0		N Coord: 189821		E Coord: 275445				
Date: 20/10/2025			Method: Window Sampler		Driller: South Wales Ground Testing		Logged By: RVJ				
Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe			
0.50 - 0.80	ES		-1.5		1.00	MADE GROUND: Loose dark grey slightly gravelly slightly clayey sand. Gravel is very angular to subangular, fine to medium of clinker, brick, glass, porcelain. Sand is fine to coarse.					
					1.50	Loose to very dense pale yellow fine to medium SAND.					
					2.00						
			-2.5		2.50	End Of Borehole At 2.50 m					
					3.00						
					4.00						
KEY D - Disturbed Sample B - Bulk Sample U - Undisturbed W - Water Sample S - Standard Penetration Test C - Cone Penetration Test N - Penetration Test 'N' Value V - Hand Shear Vane kPa  - Groundwater Strike  - Groundwater Level 			REMARKS Exploratory hole location was scanned using a Cable Avoidance Tool prior to excavation. Hand pit excavated to 1.20mbgl. Drilling was closely monitored by an EEGSL engineer throughout. Hole terminated at 2.50mbgl due to refusal. Hole was backfilled with arisings. Groundwater was not encountered. Scale: 1:30			Water Strikes					
						Date	Strike	Level	Minutes	Casing	Sealed
Daily Log Of Depths Chiselling Date Casing Water From To Hours											

APPENDIX 2

PHOTOGRAPHS



EARTH ENVIRONMENTAL & GEOTECHNICAL

Earth Environmental & Geotechnical (Southern) Ltd
Studio 3, Tollbridge Studios, Toll Bridge Rd, Bath, BA1 7DE

www.earthenvironmental.co.uk
southwest@earthenvironmental.co.uk
+44 (0)1225 858823

PHOTOGRAPHIC BOARD



PROJECT NAME

4 ADDISON ROAD

PROJECT NO.

B5374

DATE

20/10/25

HOLE NO.

WS01

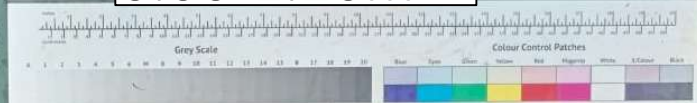
SAMPLE NO.

1

DEPTH FROM

0.00-1.20m

m



EARTH ENVIRONMENTAL & GEOTECHNICAL

Earth Environmental & Geotechnical (Southern) Ltd
Studio 3, Tollbridge Studios, Toll Bridge Rd, Bath, BA1 7DE

www.earthenvironmental.co.uk
southwest@earthenvironmental.co.uk
+44 (0)1225 858823

PHOTOGRAPHIC BOARD



PROJECT NAME

4 ADDISON ROAD

PROJECT NO.

B5374

DATE

20/10/25

HOLE NO.

WS01

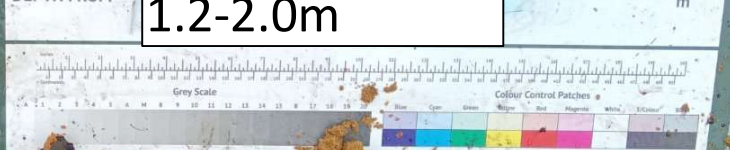
SAMPLE NO.

1

DEPTH FROM

1.2-2.0m

m



EARTH ENVIRONMENTAL & GEOTECHNICAL

Earth Environmental & Geotechnical (Southern) Ltd
Studio 3, Tollbridge Studios, Toll Bridge Rd, Bath, BA1 7DE

www.earthenvironmental.co.uk
southwest@earthenvironmental.co.uk
+44 (0)1225 858823

PHOTOGRAPHIC BOARD



PROJECT NAME

4 ADDISON ROAD

PROJECT NO.

B5374

DATE

20/10/25

HOLE NO.

WS01

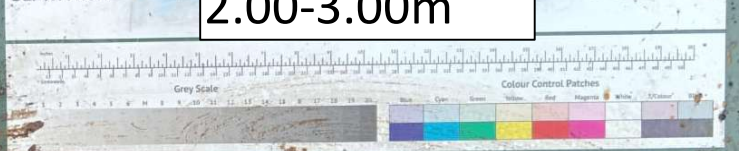
SAMPLE NO.

1

DEPTH FROM

2.00-3.00m

m



EARTH ENVIRONMENTAL
& GEOTECHNICAL
A Technics Group Company

Project

B5374: Addison Road
Port Talbot

Drawing Title

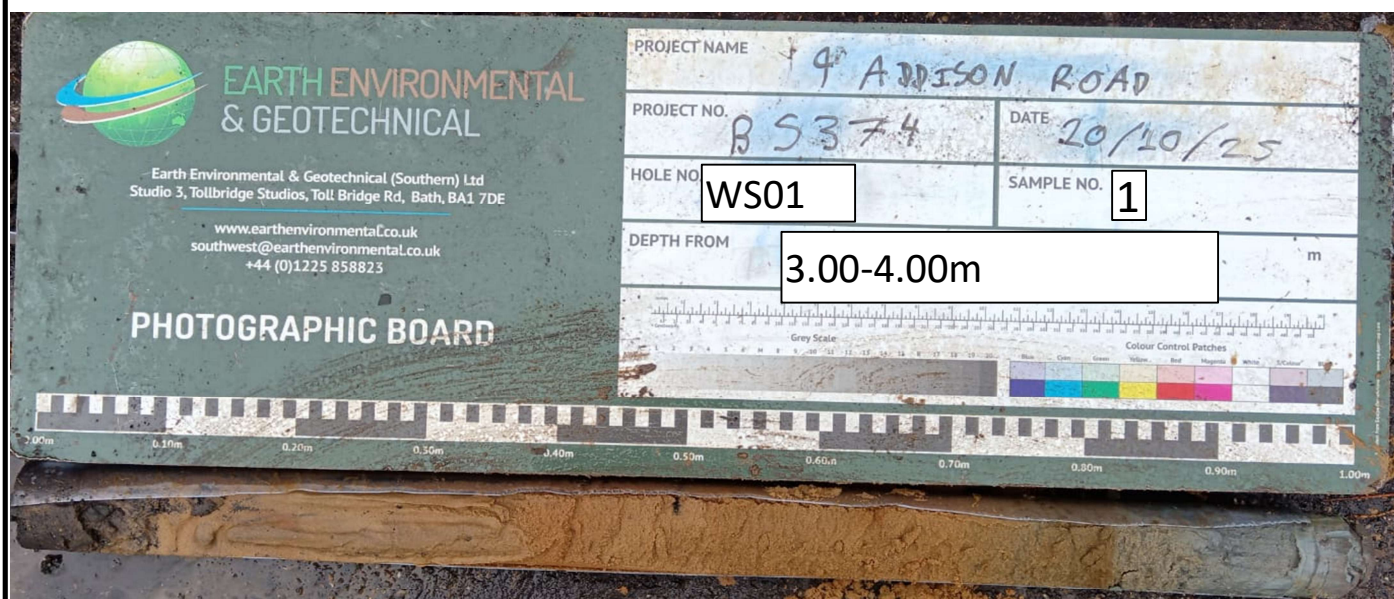
Window sample photographs

Client

Mr Piku Das & Mrs
Sarah Jane Das

Reference

WS01



EARTH ENVIRONMENTAL & GEOTECHNICAL
 A Technics Group Company

Project

**B5374: Addison Road
 Port Talbot**

Drawing Title

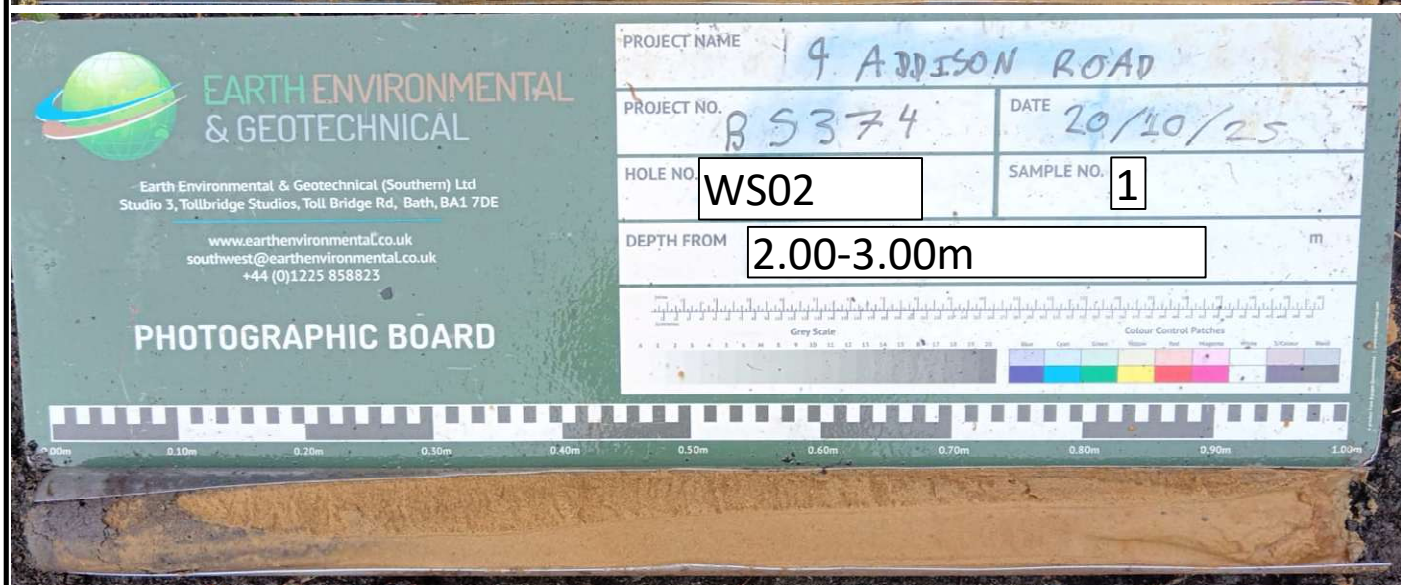
Window sample photographs

Client

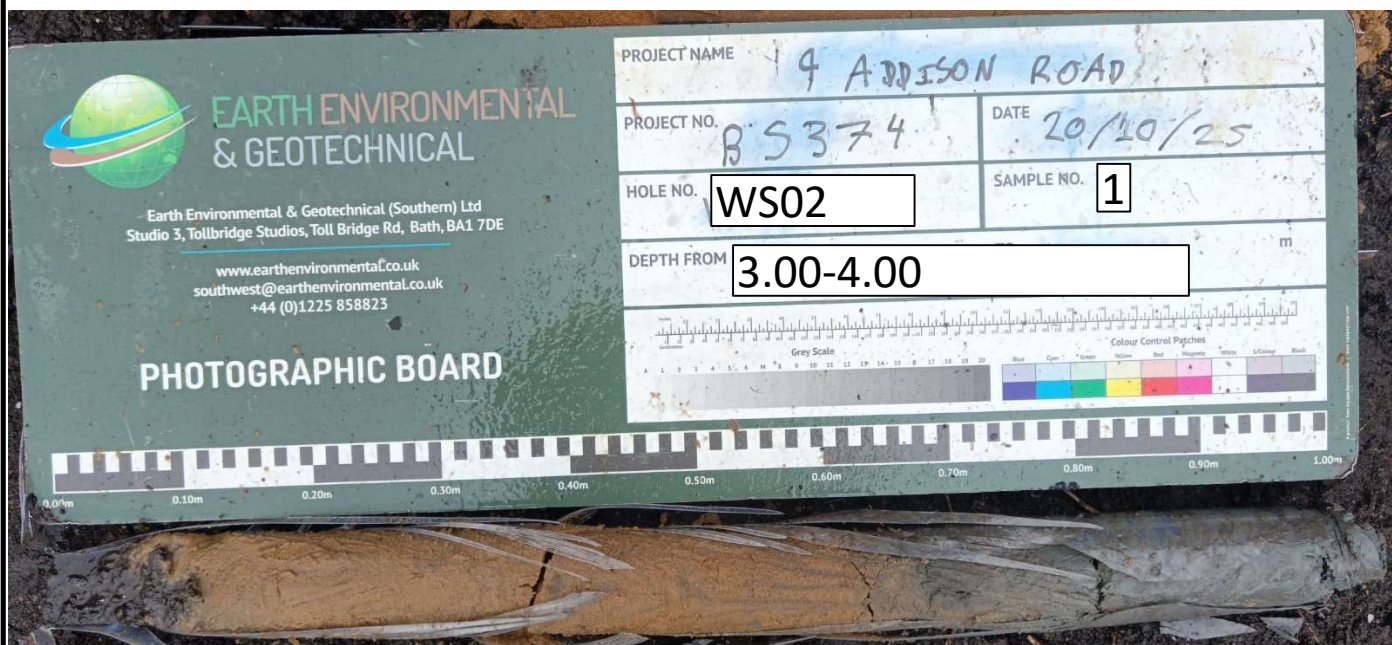
**Mr Piku Das & Mrs
 Sarah Jane Das**

Reference

WS01



 EARTH ENVIRONMENTAL & GEOTECHNICAL A Technics Group Company	Project	B5374: Addison Road Port Talbot	Drawing Title	Window sample photographs
	Client	Mr Piku Das & Mrs Sarah Jane Das	Reference	WS02



 EARTH ENVIRONMENTAL & GEOTECHNICAL A Technics Group Company	Project	B5374: Addison Road Port Talbot	Drawing Title	Window sample photographs
	Client	Mr Piku Das & Mrs Sarah Jane Das	Reference	WS02



 EARTH ENVIRONMENTAL & GEOTECHNICAL A Technics Group Company	Project	B5374: Addison Road Port Talbot	Drawing Title	Window sample photographs
	Client	Mr Piku Das & Mrs Sarah Jane Das	Reference	WS03

APPENDIX 3

IN SITU TEST RESULTS

Dynamic Probe Test Results Sheet



**EARTH ENVIRONMENTAL
& GEOTECHNICAL**
A Technics Group Company

Site: **Land Adjacent to 9 Addison Road, Sandfields**

Date: **20-Oct-25**

Job Number: **B5374**

Test Type: **DPSH**

Client: **Mr Piku Das & Mrs Sarah Jane Das**

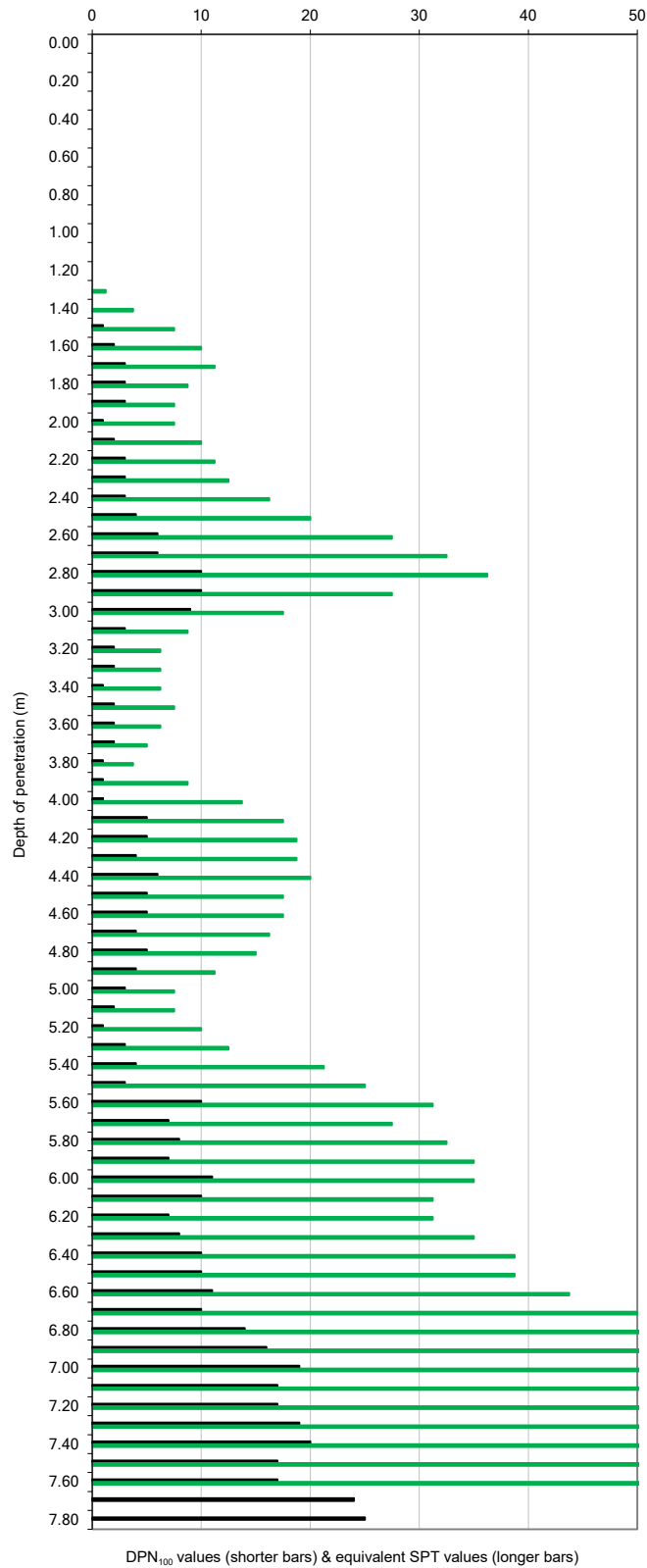
Final Depth: **7.86**

Rig Type: **Archway Dart**

Sheet 1 of 2

DP No: **WS01**

Depth (m)	DPN ₁₀₀	DPN ₃₀₀	SPT N *
0.00			
0.10			
0.20			
0.30			
0.40			
0.50			
0.60			
0.70			
0.80			
0.90			
1.00			
1.10			
1.20			
1.30	0	1	1
1.40	0	3	4
1.50	1	6	8
1.60	2	8	10
1.70	3	9	11
1.80	3	7	9
1.90	3	6	8
2.00	1	6	8
2.10	2	8	10
2.20	3	9	11
2.30	3	10	13
2.40	3	13	16
2.50	4	16	20
2.60	6	22	28
2.70	6	26	33
2.80	10	29	36
2.90	10	22	28
3.00	9	14	18
3.10	3	7	9
3.20	2	5	6
3.30	2	5	6
3.40	1	5	6
3.50	2	6	8
3.60	2	5	6
3.70	2	4	5
3.80	1	3	4
3.90	1	7	9
4.00	1	11	14
4.10	5	14	18
4.20	5	15	19
4.30	4	15	19
4.40	6	16	20
4.50	5	14	18
4.60	5	14	18
4.70	4	13	16
4.80	5	12	15
4.90	4	9	11
5.00	3	6	8
5.10	2	6	8
5.20	1	8	10
5.30	3	10	13
5.40	4	17	21
5.50	3	20	25
5.60	10	25	31
5.70	7	22	28
5.80	8	26	33
5.90	7	28	35
6.00	11	28	35
6.10	10	25	31
6.20	7	25	31
6.30	8	28	35
6.40	10	31	39
6.50	10	31	39
6.60	11	35	44
6.70	10	40	50
6.80	14	49	61
6.90	16	52	65
7.00	19	53	66
7.10	17	53	66
7.20	17	56	70
7.30	19	56	70
7.40	20	54	68
7.50	17	58	73
7.60	17	66	83
7.70	24		
7.80	25		



Hammer Mass: 63.5 kg Cone Dia: 50.5mm
Drop Height: 760 mm Test by: SWGT

General Remarks:
 DPN₁₀₀ = Dynamic penetration resistance for 100mm penetration.
 DPN₃₀₀ = Dynamic penetration resistance for 300mm penetration (ie: sum of 3 consecutive DPN₁₀₀ values), starting at the depth given.
 * Equivalent SPT N-values (for 300mm penetration) assumed to approximate the DPN₃₀₀ values for dynamic probe "super-heavy" test (DPSH).
 For dynamic probe "heavy" test (DPH), equivalent SPT N-values estimated using the theoretical relationship DPN₃₀₀ = 1.5 SPT-N. [see Card, G.B., Roche, D.P. & Herbert, S.M., in Geol. Soc. Special Publication No 6, *Field Testing in Engineering Geology* (1990)]. SPT values are estimated and are for general guidance only.

Hand Pit excavated to 1.20m
SPT Hammer Energy Ratio = 75.00%

Dynamic Probe Test Results Sheet



Site: Land Adjacent to 9 Addison Road, Sandfields

Date: 20-Oct-25

Job Number: B5374

Test Type: DPSH

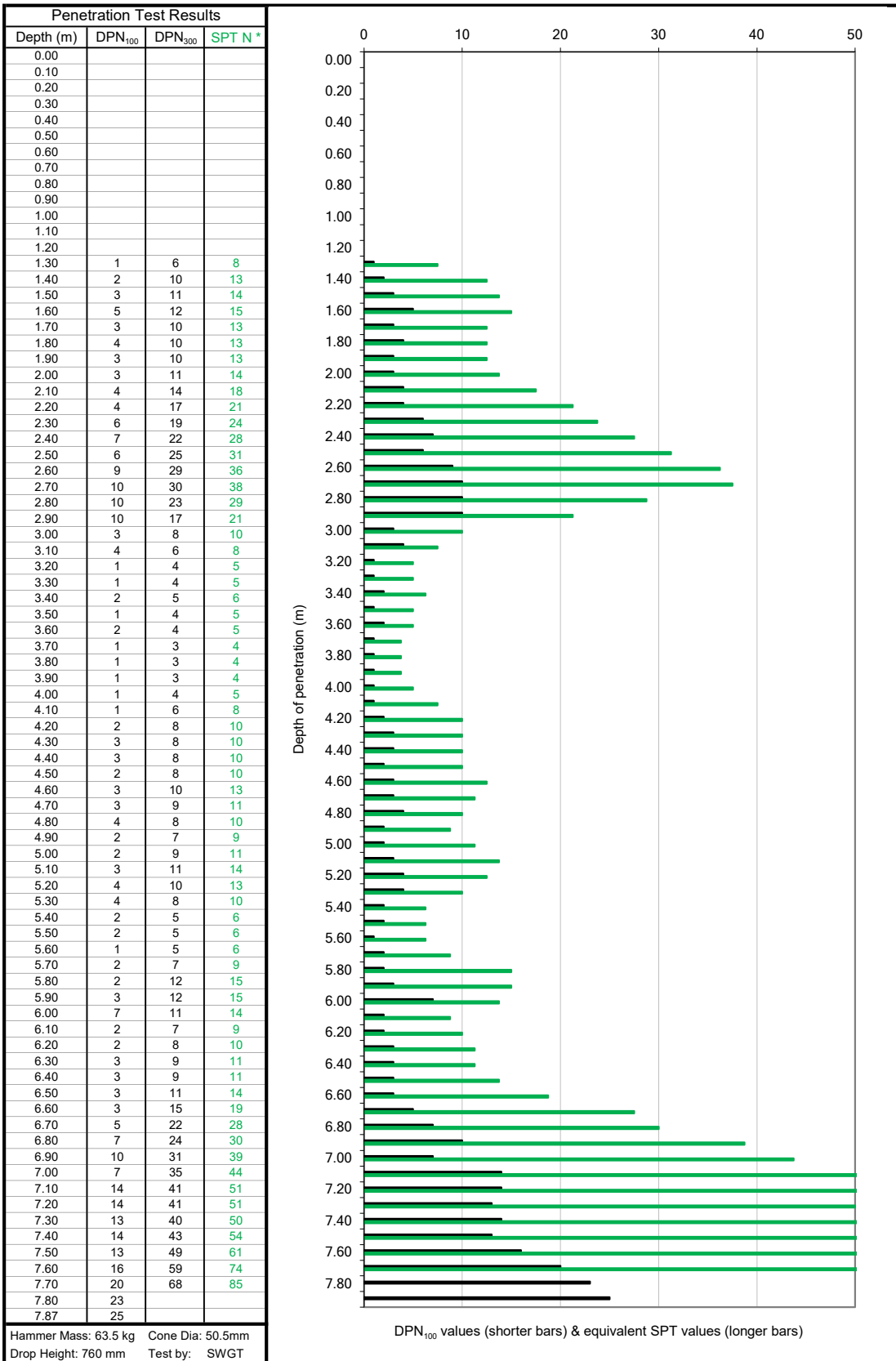
Client: Mr Piku Das & Mrs Sarah Jane Das

Final Depth: 7.87

Rig Type: Archway Dart

Sheet 1 of 2

DP No: WS02



Hammer Mass: 63.5 kg Cone Dia: 50.5mm
Drop Height: 760 mm Test by: SWGT

General Remarks:

DPN₁₀₀ = Dynamic penetration resistance for 100mm penetration.

DPN₃₀₀ = Dynamic penetration resistance for 300mm penetration (ie: sum of 3 consecutive DPN₁₀₀ values), starting at the depth given.

* Equivalent SPT N-values (for 300mm penetration) assumed to approximate the DPN₃₀₀ values for dynamic probe "super-heavy" test (DPSH).

For dynamic probe "heavy" test (DPH), equivalent SPT N-values estimated using the theoretical relationship DPN₃₀₀ = 1.5 SPT-N. [see Card, G.B., Roche, D.P. & Herbert, S.M., in Geol. Soc. Special Publication No 6, *Field Testing in Engineering Geology* (1990)]. SPT values are estimated and are for general guidance only.

Hand Pit excavated to 1.20m

SPT Hammer Energy Ratio = 75.00%

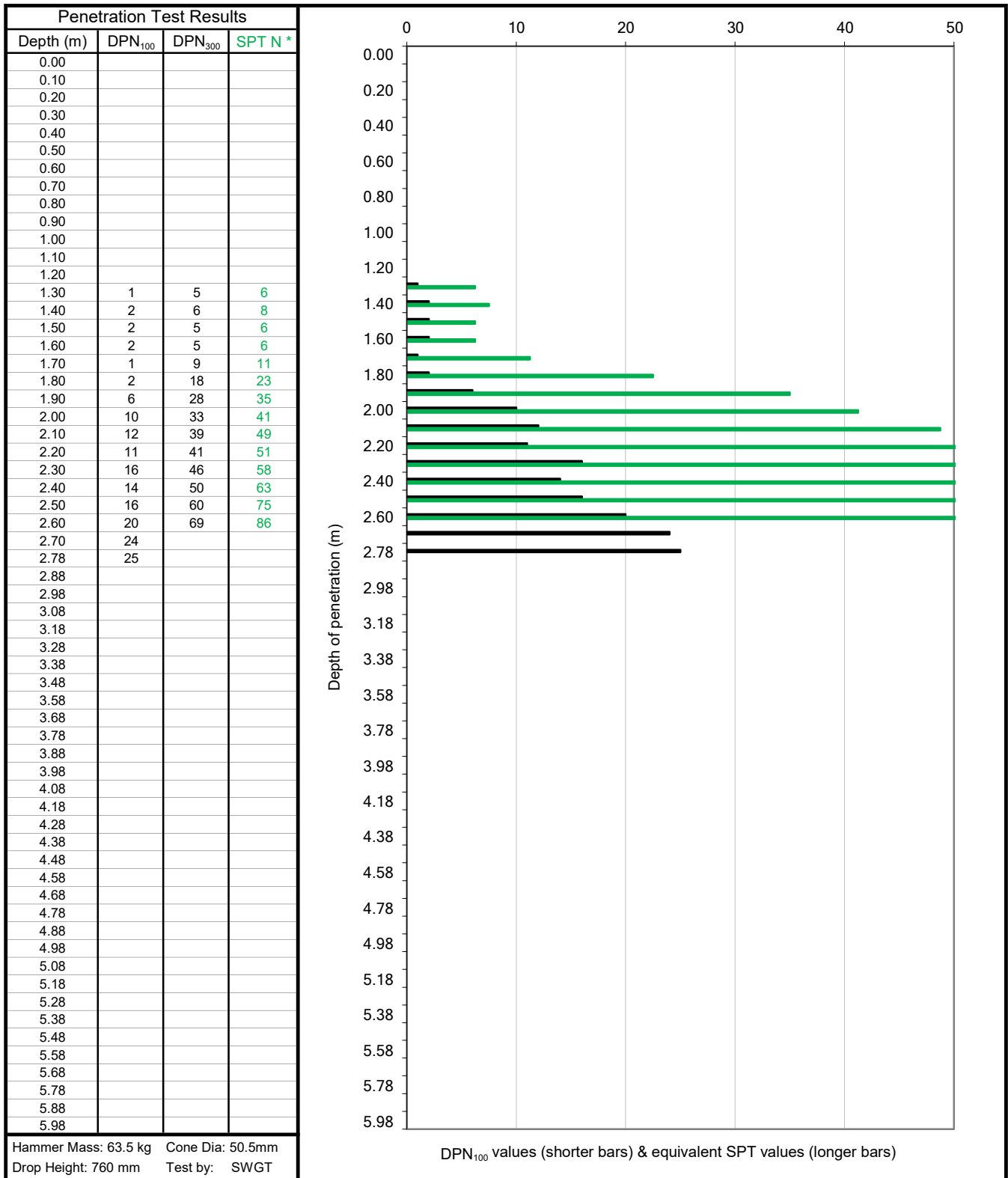
Dynamic Probe Test Results Sheet



**EARTH ENVIRONMENTAL
& GEOTECHNICAL**
A Technics Group Company

Site: **Land Adjacent to 9 Addison Road, Sandfields** Date: **20-Oct-25**
Job Number: **B5374** Test Type: **DPSH**
Client: **Mr Piku Das & Mrs Sarah Jane Das** Final Depth: **2.78**
Rig Type: **Archway Dart** Sheet 1 of 1

DP No: WS03



Hammer Mass: 63.5 kg Cone Dia: 50.5mm
Drop Height: 760 mm Test by: SWGT

General Remarks:

DPN₁₀₀ = Dynamic penetration resistance for 100mm penetration.
DPN₃₀₀ = Dynamic penetration resistance for 300mm penetration (ie: sum of 3 consecutive DPN₁₀₀ values), starting at the depth given.
* Equivalent SPT N-values (for 300mm penetration) assumed to approximate the DPN₃₀₀ values for dynamic probe "super-heavy" test (DPSH).
For dynamic probe "heavy" test (DPH), equivalent SPT N-values estimated using the theoretical relationship DPN₃₀₀ = 1.5 SPT-N. [see Card, G.B., Roche, D.P. & Herbert, S.M., in Geol. Soc. Special Publication No 6, *Field Testing in Engineering Geology* (1990)]. SPT values are estimated and are for general guidance only.

Hand Pit excavated to 1.20m
SPT Hammer Energy Ratio = 75.00%

APPENDIX 4

LABORATORY TEST RESULTS

Jasmin Jander
Earth Environmental & Geotechnical (Southern Ltd)
Studio 3,
Tollbridge Studios
Toll Bridge Road
Bath
BA1 7DE

Normec DETS Limited
Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410

DETS Report No: 25-09094

Site Reference: Addison Rd, Port Talbot

Project / Job Ref: B5374

Order No: B5374/JJ/23102025

Sample Receipt Date: 23/10/2025

Sample Scheduled Date: 24/10/2025

Report Issue Number: 1

Reporting Date: 30/10/2025

Authorised by:



Steve Knight
Customer Support Manager

Dates of laboratory activities for each tested analyte are available upon request.

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. 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 certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Soil Analysis Certificate						
DETS Report No: 25-09094	~Date Sampled	20/10/25	20/10/25	20/10/25	20/10/25	
Earth Environmental & Geotechnical (Southern Ltd)	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	
~Site Reference: Addison Rd, Port Talbot	~TP / BH No	WS01	WS01	WS02	WS03	
~Project / Job Ref: B5374	~Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	
~Order No: B5374/JJ/23102025	~Depth (m)	0.50-0.60	2.70-3.00	0.80-0.90	0.50-0.80	
Reporting Date: 30/10/2025	DETS Sample No	794213	794214	794215	794216	

Determinand	Unit	RL	Accreditation	(n)			
Asbestos Screen ⁽⁵⁾	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	Not Detected
pH	pH Units	N/a	MCERTS	7.2	8.0	7.2	7.1
Total Cyanide	mg/kg	< 1	NONE	2	< 1	1	< 1
Complex Cyanide	mg/kg	< 1	NONE	2	< 1	1	< 1
Free Cyanide	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1
Total Sulphate as SO ₄	mg/kg	< 200	MCERTS	2125	< 200	1111	873
Total Sulphate as SO ₄	%	< 0.02	MCERTS	0.21	< 0.02	0.11	0.09
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	52	< 10	32	35
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.05	< 0.01	0.03	0.04
Sulphide	mg/kg	< 5	NONE	< 5	< 5	< 5	< 5
Organic Matter (SOM)	%	< 0.1	MCERTS	51.4	0.5	64.3	61.5
Arsenic (As)	mg/kg	< 2	MCERTS	71	4	70	55
Barium (Ba)	mg/kg	< 2.5	MCERTS	687.9	3.6	633.9	469.5
Beryllium (Be)	mg/kg	< 0.5	MCERTS	2.1	< 0.5	1.8	1.3
W/S Boron	mg/kg	< 1	NONE	1.6	< 1	1.1	1.2
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	0.4	< 0.2	0.4	0.4
Chromium (Cr)	mg/kg	< 2	MCERTS	28	3	22	24
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	MCERTS	872	< 4	223	388
Lead (Pb)	mg/kg	< 3	MCERTS	341	< 3	529	202
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1
Nickel (Ni)	mg/kg	< 3	MCERTS	77	< 3	72	48
Selenium (Se)	mg/kg	< 2	MCERTS	< 2	< 2	2	< 2
Vanadium (V)	mg/kg	< 1	MCERTS	132	7	46	37
Zinc (Zn)	mg/kg	< 3	MCERTS	215	9	264	245
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Analysis carried out on the dried sample is corrected for the stone content

Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 25-09094	~Date Sampled	20/10/25	20/10/25	20/10/25	20/10/25	
Earth Environmental & Geotechnical (Souther	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	
~Site Reference: Addison Rd, Port Talbot	~TP / BH No	WS01	WS01	WS02	WS03	
~Project / Job Ref: B5374	~Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	
~Order No: B5374/JJ/23102025	~Depth (m)	0.50-0.60	2.70-3.00	0.80-0.90	0.50-0.80	
Reporting Date: 30/10/2025	DETS Sample No	794213	794214	794215	794216	

Determinand	Unit	RL	Accreditation	(n)			
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	< 0.1	MCERTS	0.93	< 0.1	0.20	0.36
Anthracene	mg/kg	< 0.1	MCERTS	0.26	< 0.1	< 0.1	< 0.1
Fluoranthene	mg/kg	< 0.1	MCERTS	1.39	< 0.1	0.53	1.06
Pyrene	mg/kg	< 0.1	MCERTS	1.16	< 0.1	0.51	0.95
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	0.65	< 0.1	0.45	0.62
Chrysene	mg/kg	< 0.1	MCERTS	0.78	< 0.1	0.54	0.78
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	0.77	< 0.1	0.60	0.82
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	0.32	< 0.1	0.30	0.36
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	0.60	< 0.1	0.46	0.62
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	0.36	< 0.1	0.35	0.37
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	0.33	< 0.1	0.29	0.32
**Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	7.5	< 1.6	4.2	6.3

Soil Analysis Certificate - TPH CWG Banded

DETS Report No: 25-09094	~Date Sampled	20/10/25	20/10/25	20/10/25	20/10/25
Earth Environmental & Geotechnical (Southern)	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Addison Rd, Port Talbot	~TP / BH No	WS01	WS01	WS02	WS03
~Project / Job Ref: B5374	~Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: B5374/JJ/23102025	~Depth (m)	0.50-0.60	2.70-3.00	0.80-0.90	0.50-0.80
Reporting Date: 30/10/2025	DETS Sample No	794213	794214	794215	794216

Determinand	Unit	RL	Accreditation	(n)				
Aliphatic >C5 - C6 : HS_1D_MS_AL	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic >C6 - C8 : HS_1D_MS_AL	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	
Aliphatic >C8 - C10 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
Aliphatic >C10 - C12 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
Aliphatic >C12 - C16 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	
Aliphatic >C16 - C21 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	
Aliphatic >C21 - C34 : EH_CU_1D_AL	mg/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	
Aliphatic (C5 - C34) : HS_1D_MS+EH_CU_1D_AL	mg/kg	< 21	NONE	< 21	< 21	< 21	< 21	
Aromatic >C5 - C7 : HS_1D_MS_AR	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic >C7 - C8 : HS_1D_MS_AR	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	
Aromatic >C8 - C10 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
Aromatic >C10 - C12 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
Aromatic >C12 - C16 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
Aromatic >C16 - C21 : EH_CU_1D_AR	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	
Aromatic >C21 - C35 : EH_CU_1D_AR	mg/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	
Aromatic (C5 - C35) : HS_1D_MS+EH_CU_1D_AR	mg/kg	< 21	NONE	< 21	< 21	< 21	< 21	
Total >C5 - C35 : HS_1D_MS+EH_CU_1D_Tot al	mg/kg	< 42	NONE	< 42	< 42	< 42	< 42	

Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 25-09094	~Date Sampled	20/10/25	20/10/25	20/10/25	20/10/25	
Earth Environmental & Geotechnical (Southern)	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	
~Site Reference: Addison Rd, Port Talbot	~TP / BH No	WS01	WS01	WS02	WS03	
~Project / Job Ref: B5374	~Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	
~Order No: B5374/JJ/23102025	~Depth (m)	0.50-0.60	2.70-3.00	0.80-0.90	0.50-0.80	
Reporting Date: 30/10/2025	DETS Sample No	794213	794214	794215	794216	

Determinand	Unit	RL	Accreditation	(n)				
Benzene : HS_1D_MS	µg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
Toluene : HS_1D_MS	µg/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	
Ethylbenzene : HS_1D_MS	µg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
p & m-xylene : HS_1D_MS	µg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
o-xylene : HS_1D_MS	µg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
MTBE : HS_1D_MS	µg/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	

Soil Analysis Certificate - Sample Descriptions	
DETS Report No: 25-09094	
Earth Environmental & Geotechnical (Southern Ltd)	
~Site Reference: Addison Rd, Port Talbot	
~Project / Job Ref: B5374	
~Order No: B5374/JJ/23102025	
Reporting Date: 30/10/2025	

DETS Sample No	~TP / BH No	~Additional Refs	~Depth (m)	Moisture Content (%)	Sample Matrix Description
794213	WS01	None Supplied	0.50-0.60	21.7	Brown sandy gravel with stones and vegetation
794214	WS01	None Supplied	2.70-3.00	17.4	Light brown sand
794215	WS02	None Supplied	0.80-0.90	23.8	Brown gravelly clay with stones
794216	WS03	None Supplied	0.50-0.80	24.6	Brown gravelly clay with stones

Moisture content is part of procedure E003 & is not an accredited test

Soil Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 25-09094
Earth Environmental & Geotechnical (Southern Ltd)
~Site Reference: Addison Rd, Port Talbot
~Project / Job Ref: B5374
~Order No: B5374/JJ/23102025
Reporting Date: 30/10/2025

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	DS	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	DS	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	DS	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	DS	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	DS	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	DS	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	DS	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	DS	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	DS	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	DS	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	DS	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	DS	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	DS	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	DS	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	DS	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	DS	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	DS	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	DS	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	DS	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	DS	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	DS	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	DS	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

List of HWOL Acronyms and Operators
DETS Report No: 25-09094
Earth Environmental & Geotechnical (Southern Ltd)
~Site Reference: Addison Rd, Port Talbot
~Project / Job Ref: B5374
~Order No: B5374/JJ/23102025
Reporting Date: 30/10/2025

Acronym	Description
HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total
~	Sample details provided by customer and can affect the validity of results

Benzene - HS_1D_MS
Ethylbenzene - HS_1D_MS
MTBE - HS_1D_MS
TPH CWG - Aliphatic >C10 - C12 - EH_CU_1D_AL
TPH CWG - Aliphatic >C12 - C16 - EH_CU_1D_AL
TPH CWG - Aliphatic >C16 - C21 - EH_CU_1D_AL
TPH CWG - Aliphatic >C21 - C34 - EH_CU_1D_AL
TPH CWG - Aliphatic >C5 - C6 - HS_1D_MS_AL
TPH CWG - Aliphatic >C6 - C8 - HS_1D_MS_AL
TPH CWG - Aliphatic >C8 - C10 - EH_CU_1D_AL
TPH CWG - Aliphatic C5 - C34 - HS_1D_MS+EH_CU_1D_AL
TPH CWG - Aromatic >C10 - C12 - EH_CU_1D_AR
TPH CWG - Aromatic >C12 - C16 - EH_CU_1D_AR
TPH CWG - Aromatic >C16 - C21 - EH_CU_1D_AR
TPH CWG - Aromatic >C21 - C35 - EH_CU_1D_AR
TPH CWG - Aromatic >C5 - C35 - HS_1D_MS+EH_CU_1D_AR
TPH CWG - Aromatic >C5 - C7 - HS_1D_MS_AR
TPH CWG - Aromatic >C7 - C8 - HS_1D_MS_AR
TPH CWG - Aromatic >C8 - C10 - EH_CU_1D_AR
TPH CWG - Total >C5 - C35 - HS_1D_MS+EH_CU_1D_Total
Toluene - HS_1D_MS
m & p-xylene - HS_1D_MS
o-Xylene - HS_1D_MS

DETS South Report No:25-09094	~Date Sampled
	~Time Sampled
Site Reference:Addison Rd, Port Talbot	~TP / BH No
Project / Job Ref:B5374	~Additional Refs
Order No:B5374/JJ/23102025	~Depth (m)
Reporting Date:30/10/2025	DETS Sample No

Determinand	Unit	RL	
Sample Description	N/a	N/a	
Moisture Content	%	< 0.1	
Deviating - No Glass Containe		0	
Deviating - Headspace		0	
Organic Matter - By Analyser	%	< 0.1	
Asbestos Screen (Subcon to L	N/a	N/a	
pH	pH Units	N/a	
Total Cyanide	mg/kg	< 1	
Complex Cyanide	mg/kg	< 1	
Free Cyanide	mg/kg	< 1	
Total Sulphate as SO4	mg/kg	< 200	
Sulphide	mg/kg	< 5	
Arsenic	mg/kg	< 2	
Barium	mg/kg	< 2.5	
Beryllium	mg/kg	< 0.5	
Water Soluble Boron	mg/kg	< 1	
Cadmium	mg/kg	< 0.2	
Chromium	mg/kg	< 2	
Hexavalent Chromium	mg/kg	< 2	
Copper	mg/kg	< 4	
Lead	mg/kg	< 3	
Mercury	mg/kg	< 1	
Nickel	mg/kg	< 3	
Selenium	mg/kg	< 2	
Vanadium	mg/kg	< 1	
Zinc	mg/kg	< 3	
Monohydric Phenols	mg/kg	< 2	
Water Soluble Sulphate as SO4	g/l	< 0.01	
Total Sulphate as SO4 (BRE S	%	< 0.02	
Water Soluble Sulphate as SO4	mg/l	< 10	
Naphthalene	mg/kg	< 0.1	
Acenaphthylene	mg/kg	< 0.1	
Acenaphthene	mg/kg	< 0.1	
Fluorene	mg/kg	< 0.1	
Phenanthrene	mg/kg	< 0.1	
Anthracene	mg/kg	< 0.1	
Fluoranthene	mg/kg	< 0.1	
Pyrene	mg/kg	< 0.1	
Benzo(a)anthracene	mg/kg	< 0.1	
Chrysene	mg/kg	< 0.1	
Benzo(b)fluoranthene	mg/kg	< 0.1	
Benzo(k)fluoranthene	mg/kg	< 0.1	
Benzo(a)pyrene	mg/kg	< 0.1	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	
Di-benzo(a,h)anthracene	mg/kg	< 0.1	
Benzo(ghi)perylene	mg/kg	< 0.1	
Total EPA-16 PAHs	mg/kg	< 1.6	
TPH CWG - Aliphatic >C5 - C	mg/kg	< 0.01	
TPH CWG - Aliphatic >C6 - C	mg/kg	< 0.05	
TPH CWG - Aliphatic >C8 - C	mg/kg	< 2	
TPH CWG - Aliphatic >C10 - C	mg/kg	< 2	

TPH CWG - Aliphatic >C12 - C	mg/kg	< 3	
TPH CWG - Aliphatic >C16 - C	mg/kg	< 3	
TPH CWG - Aliphatic >C21 - C	mg/kg	< 10	
TPH CWG - Aliphatic >C5 - C	mg/kg	< 21	
TPH CWG - Aromatic >C5 - C	mg/kg	< 0.01	
TPH CWG - Aromatic >C7 - C	mg/kg	< 0.05	
TPH CWG - Aromatic >C8 - C	mg/kg	< 2	
TPH CWG - Aromatic >C10 - C	mg/kg	< 2	
TPH CWG - Aromatic >C12 - C	mg/kg	< 2	
TPH CWG - Aromatic >C16 - C	mg/kg	< 3	
TPH CWG - Aromatic >C21 - C	mg/kg	< 10	
TPH CWG - Aromatic >C5 - C	mg/kg	< 21	
TPH CWG - Total >C5 - C35	mg/kg	< 42	
Benzene	ug/kg	< 2	
Toluene	ug/kg	< 5	
Ethylbenzene	ug/kg	< 2	
m & p-xylene	ug/kg	< 2	
o-Xylene	ug/kg	< 2	
MTBE	ug/kg	< 5	

20/10/2025	20/10/2025	20/10/2025
WS01	WS01	WS02
0.50-0.60	2.70-3.00	0.80-0.90
794213	794214	794215

Brown sandy gravel with stones and vegetation	Light brown sand	Brown gravelly clay with stones
21.7	17.4	23.8
Ok	Ok	Ok
51.4	0.5	64.3
Not Detected	Not Detected	Not Detected
7.2	8	7.2
2	< 1	1
2	< 1	1
< 1	< 1	< 1
2125	< 200	1111
< 5	< 5	< 5
71	4	70
687.9	3.6	633.9
2.1	< 0.5	1.8
1.6	< 1	1.1
0.4	< 0.2	0.4
28	3	22
< 2	< 2	< 2
872	< 4	223
341	< 3	529
< 1	< 1	< 1
77	< 3	72
< 2	< 2	2
132	7	46
215	9	264
< 2	< 2	< 2
0.05	< 0.01	0.03
0.21	< 0.02	0.11
52	< 10	32
< 0.1	< 0.1	< 0.1
< 0.1	< 0.1	< 0.1
< 0.1	< 0.1	< 0.1
< 0.1	< 0.1	< 0.1
0.93	< 0.1	0.2
0.26	< 0.1	< 0.1
1.39	< 0.1	0.53
1.16	< 0.1	0.51
0.65	< 0.1	0.45
0.78	< 0.1	0.54
0.77	< 0.1	0.6
0.32	< 0.1	0.3
0.6	< 0.1	0.46
0.36	< 0.1	0.35
< 0.1	< 0.1	< 0.1
0.33	< 0.1	0.29
7.5	< 1.6	4.2
< 0.01	< 0.01	< 0.01
< 0.05	< 0.05	< 0.05
< 2	< 2	< 2
< 2	< 2	< 2

< 3	< 3	< 3
< 3	< 3	< 3
< 10	< 10	< 10
< 21	< 21	< 21
< 0.01	< 0.01	< 0.01
< 0.05	< 0.05	< 0.05
< 2	< 2	< 2
< 2	< 2	< 2
< 2	< 2	< 2
< 3	< 3	< 3
< 10	< 10	< 10
< 21	< 21	< 21
< 42	< 42	< 42
< 2	< 2	< 2
< 5	< 5	< 5
< 2	< 2	< 2
< 2	< 2	< 2
< 2	< 2	< 2
< 5	< 5	< 5

20/10/2025
WS03
0.50-0.80
794216

Brown gravelly clay with stones
24.6
Ok
61.5
Not Detected
7.1
< 1
< 1
< 1
873
< 5
55
469.5
1.3
1.2
0.4
24
< 2
388
202
< 1
48
< 2
37
245
< 2
0.04
0.09
35
< 0.1
< 0.1
< 0.1
< 0.1
0.36
< 0.1
1.06
0.95
0.62
0.78
0.82
0.36
0.62
0.37
< 0.1
0.32
6.3
< 0.01
< 0.05
< 2
< 2

< 3
< 3
< 10
< 21
< 0.01
< 0.05
< 2
< 2
< 2
< 3
< 10
< 21
< 42
< 2
< 5
< 2
< 2
< 2
< 2
< 5

Normec DETS Limited
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

Certificate Key

Symbol	Description
F	Filtered sample
UF	Unfiltered sample
D	Dried sample
AR	As received sample
RL	Reporting limit
~	Sample details provided by customer and can affect the validity of results
M/S	Missing Sample
*	The Dutch 10 PAH compounds consist of Naphthalene, Anthracene, Phenanthrene, Fluoranthene, Benz(a)anthracene, Chrysene, Benzo(k)fluoranthene, Benzo(a)pyrene, Benzo(g,h,i)perylene, and Indeno(1,2,3-cd)pyrene
**	Total EPA-16 PAHs consist of the following polycyclic aromatic hydrocarbons: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, and Benzo(ghi)perylene.
***	Total WAC-17 PAHs consist of the following polycyclic aromatic hydrocarbons: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, Benzo(ghi)perylene and Coronene.
^	No sampling date provided; unable to confirm if samples are within acceptable holding times
\$	Samples exceeded their recommended holding times
C	Deviation due to exceeded time between Sampling and Receipt
n	Please note that we are MCERTS soil accredited (UK soils only) for sand, loam, and clay, and UKAS accredited for groundwater, tap water, surface water, and generated leachates. Other matrices are outside our scope of accreditation.
S	Subcontracted analysis
M	MCERTS accredited test
U	UKAS accredited test

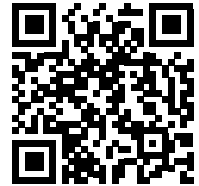
APPENDIX 5

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:

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



0M7AQ-EZ4FZ-VF87D

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

Report is invalid if pages are removed.

Job name

9 ADDISON ROAD

Description/Comments

Project

B5374

Site

9 ADDISON ROAD

Classified by

Name: **John Grace**
Date: **05 Dec 2025 11:16 GMT**
Telephone: **0845 2508100**
Company: **Earth Environmental & Geotechnical Ltd**
Houldsworth Mill Business & Arts Centre
Houldsworth Street
Stockport
SK5 6DA

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:

-

Course

Hazardous Waste Classification

Date

-

Purpose of classification

2 - Material Characterisation

Address of the waste

9 ADDISON ROAD

Post Code **SA12 6HQ**

SIC for the process giving rise to the waste

41202 Construction of domestic buildings

Description of industry/producer giving rise to the waste

redevelopment of brown field site

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

foundation excavations

Description of the waste

Made Ground



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS01	0.50-0.60	Hazardous	HP 14	3
2	WS01[2]	2.70-3.00	Non Hazardous		6
3	WS02	0.80-0.90	Non Hazardous		9
4	WS03	0.50-0.80	Non Hazardous		12

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

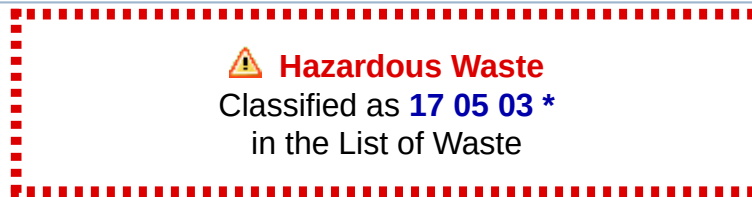
Created by: John Grace

Created date: 05 Dec 2025 11:16 GMT

Appendices

	Page
Appendix A: Classifier defined and non GB MCL determinands	15
Appendix B: Rationale for selection of metal species	16
Appendix C: Version	17

Classification of sample: WS01



Sample details

Sample name:	LoW Code:
WS01	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 03 * (Soil and stones containing hazardous substances)
0.50-0.60 m	
Moisture content:	
21.7%	
(wet weight correction)	

Hazard properties

HP 14: Ecotoxic "waste which presents or may present immediate or delayed risks for one or more sectors of the environment"

Hazard Statements hit:

Aquatic Chronic 1; H410 "Very toxic to aquatic life with long lasting effects."

Because of determinand:

copper sulphate pentahydrate (compound conc.: 0.268%)

Determinands

Moisture content: 21.7% Wet Weight 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	arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				71	mg/kg	1.895	105.322	mg/kg	0.0105 %	✓	
	033-005-00-1											
2	barium { barium diboron tetraoxide }				687.9	mg/kg	1.623	874.444	mg/kg	0.0874 %	✓	
	056-005-00-3	237-222-4	13701-59-2									
3	beryllium { beryllium compounds with the exception of aluminium beryllium silicates, and with those specified elsewhere in this Annex }				2.1	mg/kg	8.868	14.582	mg/kg	0.00146 %	✓	
	004-002-00-2											
4	boron { boric acid; [1] boric acid; [2] }				1.6	mg/kg	5.719	7.165	mg/kg	0.000717 %	✓	
	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]									
5	cadmium { cadmium sulfate }				0.4	mg/kg	1.855	0.581	mg/kg	0.0000581 %	✓	
	048-009-00-9	233-331-6	10124-36-4									
6	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				28	mg/kg	1.462	32.043	mg/kg	0.0032 %	✓	
		215-160-9	1308-38-9									
7	chromium in Cr(VI) compounds { chromium(VI) oxide }				<2	mg/kg	1.923	<3.846	mg/kg	<0.000385 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
8	copper { copper sulphate pentahydrate }				872	mg/kg	3.929	2682.663	mg/kg	0.268 %	✓	
	029-023-00-4	231-847-6	7758-99-8									
9	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	341	mg/kg		267.003	mg/kg	0.0267 %	✓	
	082-001-00-6											
10	mercury { mercury dichloride }				<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
11	nickel { nickel dibromate }				77	mg/kg	5.358	323.058	mg/kg	0.0323 %	✓	
	028-053-00-5	238-596-1	14550-87-9									



#	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								
12	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg		<0.000511 %		<LOD
	028-031-00-5	239-125-2	15060-62-5								
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				132 mg/kg	1.785	184.51 mg/kg		0.0185 %	✓	
	023-001-00-8	215-239-8	1314-62-1								
14	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				215 mg/kg	4.398	740.369 mg/kg		0.074 %	✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
15	TPH (C6 to C40) petroleum group				<42 mg/kg		<42 mg/kg		<0.0042 %		<LOD
			TPH								
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5 mg/kg		<5 mg/kg		<0.0005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4								
17	benzene				<2 mg/kg		<2 mg/kg		<0.0002 %		<LOD
	601-020-00-8	200-753-7	71-43-2								
18	toluene				<5 mg/kg		<5 mg/kg		<0.0005 %		<LOD
	601-021-00-3	203-625-9	108-88-3								
19	ethylbenzene				<2 mg/kg		<2 mg/kg		<0.0002 %		<LOD
	601-023-00-4	202-849-4	100-41-4								
20	xylene				<2 mg/kg		<2 mg/kg		<0.0002 %		<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]								
21	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 }				2 mg/kg	1.884	2.95 mg/kg		0.000295 %	✓	
	006-007-00-5										
22	pH				7.2 pH		7.2 pH		7.2 pH		
			PH								
23	naphthalene				<0.1 mg/kg		<0.1 mg/kg		<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3								
24	acenaphthylene				<0.1 mg/kg		<0.1 mg/kg		<0.00001 %		<LOD
		205-917-1	208-96-8								
25	acenaphthene				<0.1 mg/kg		<0.1 mg/kg		<0.00001 %		<LOD
		201-469-6	83-32-9								
26	fluorene				<0.1 mg/kg		<0.1 mg/kg		<0.00001 %		<LOD
		201-695-5	86-73-7								
27	phenanthrene				0.93 mg/kg		0.728 mg/kg		0.0000728 %	✓	
		201-581-5	85-01-8								
28	anthracene				0.26 mg/kg		0.204 mg/kg		0.0000204 %	✓	
		204-371-1	120-12-7								
29	fluoranthene				1.39 mg/kg		1.088 mg/kg		0.000109 %	✓	
		205-912-4	206-44-0								
30	pyrene				1.16 mg/kg		0.908 mg/kg		0.0000908 %	✓	
		204-927-3	129-00-0								
31	benzo[a]anthracene				0.65 mg/kg		0.509 mg/kg		0.0000509 %	✓	
	601-033-00-9	200-280-6	56-55-3								
32	chrysene				0.78 mg/kg		0.611 mg/kg		0.0000611 %	✓	
	601-048-00-0	205-923-4	218-01-9								
33	benzo[b]fluoranthene				0.77 mg/kg		0.603 mg/kg		0.0000603 %	✓	
	601-034-00-4	205-911-9	205-99-2								
34	benzo[k]fluoranthene				0.32 mg/kg		0.251 mg/kg		0.0000251 %	✓	
	601-036-00-5	205-916-6	207-08-9								
35	benzo[a]pyrene; benzo[def]chrysene				0.6 mg/kg		0.47 mg/kg		0.000047 %	✓	
	601-032-00-3	200-028-5	50-32-8								
36	indeno[123-cd]pyrene				0.36 mg/kg		0.282 mg/kg		0.0000282 %	✓	
		205-893-2	193-39-5								



#	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							
37	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
38	benzo[ghi]perylene				0.33 mg/kg		0.258 mg/kg	0.0000258 %	✓	
		205-883-8	191-24-2							
39	phenol				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
	604-001-00-2	203-632-7	108-95-2							
Total:								0.524 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - 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: WS01[2]

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

Sample details

Sample name:	LoW Code:
WS01[2]	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
2.70-3.00 m	
Moisture content:	
17.4%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 17.4% Wet Weight 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	arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				4 mg/kg	1.895	6.26 mg/kg	0.000626 %	✓	
	033-005-00-1									
2	barium { barium diboron tetraoxide }				3.6 mg/kg	1.623	4.828 mg/kg	0.000483 %	✓	
	056-005-00-3	237-222-4	13701-59-2							
3	beryllium { beryllium compounds with the exception of aluminium beryllium silicates, and with those specified elsewhere in this Annex }				<0.5 mg/kg	8.868	<4.434 mg/kg	<0.000443 %		<LOD
	004-002-00-2									
4	boron { boric acid; [1] boric acid; [2] }				<1 mg/kg	5.719	<5.719 mg/kg	<0.000572 %		<LOD
	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]							
5	cadmium { cadmium sulfate }				<0.2 mg/kg	1.855	<0.371 mg/kg	<0.0000371 %		<LOD
	048-009-00-9	233-331-6	10124-36-4							
6	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				3 mg/kg	1.462	3.622 mg/kg	0.000362 %	✓	
		215-160-9	1308-38-9							
7	chromium in Cr(VI) compounds { chromium(VI) oxide }				<2 mg/kg	1.923	<3.846 mg/kg	<0.000385 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
8	copper { copper sulphate pentahydrate }				<4 mg/kg	3.929	<15.716 mg/kg	<0.00157 %		<LOD
	029-023-00-4	231-847-6	7758-99-8							
9	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	<3 mg/kg		<3 mg/kg	<0.0003 %		<LOD
	082-001-00-6									
10	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
11	nickel { nickel dibromate }				<3 mg/kg	5.358	<16.075 mg/kg	<0.00161 %		<LOD
	028-053-00-5	238-596-1	14550-87-9							
12	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				7 mg/kg	1.785	10.322 mg/kg	0.00103 %	✓	
	023-001-00-8	215-239-8	1314-62-1							



#	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								
14	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				9 mg/kg	4.398	32.694	mg/kg	0.00327 %	✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
15	TPH (C6 to C40) petroleum group				<42 mg/kg		<42	mg/kg	<0.0042 %		<LOD
			TPH								
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5 mg/kg		<5	mg/kg	<0.0005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4								
17	benzene				<2 mg/kg		<2	mg/kg	<0.0002 %		<LOD
	601-020-00-8	200-753-7	71-43-2								
18	toluene				<5 mg/kg		<5	mg/kg	<0.0005 %		<LOD
	601-021-00-3	203-625-9	108-88-3								
19	ethylbenzene				<2 mg/kg		<2	mg/kg	<0.0002 %		<LOD
	601-023-00-4	202-849-4	100-41-4								
20	xylene				<2 mg/kg		<2	mg/kg	<0.0002 %		<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]								
21	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										
22	pH				8 pH		8	pH	8pH		
			PH								
23	naphthalene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3								
24	acenaphthylene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8								
25	acenaphthene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9								
26	fluorene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7								
27	phenanthrene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-581-5	85-01-8								
28	anthracene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		204-371-1	120-12-7								
29	fluoranthene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-912-4	206-44-0								
30	pyrene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		204-927-3	129-00-0								
31	benzo[a]anthracene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-033-00-9	200-280-6	56-55-3								
32	chrysene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-048-00-0	205-923-4	218-01-9								
33	benzo[b]fluoranthene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-034-00-4	205-911-9	205-99-2								
34	benzo[k]fluoranthene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-036-00-5	205-916-6	207-08-9								
35	benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-032-00-3	200-028-5	50-32-8								
36	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-893-2	193-39-5								
37	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-041-00-2	200-181-8	53-70-3								
38	benzo[ghi]perylene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-883-8	191-24-2								
39	phenol				<2 mg/kg		<2	mg/kg	<0.0002 %		<LOD
	604-001-00-2	203-632-7	108-95-2								



#	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							
Total:								0.00577 %		

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 Determinand - 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: WS02

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

Sample details

Sample name:	LoW Code:
WS02	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.80-0.90 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
23.8%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 23.8% Wet Weight 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	arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				70 mg/kg	1.895	101.054	mg/kg	0.0101 %	✓	
	033-005-00-1										
2	barium { barium diboron tetraoxide }				633.9 mg/kg	1.623	784.189	mg/kg	0.0784 %	✓	
	056-005-00-3	237-222-4	13701-59-2								
3	beryllium { beryllium compounds with the exception of aluminium beryllium silicates, and with those specified elsewhere in this Annex }				1.8 mg/kg	8.868	12.163	mg/kg	0.00122 %	✓	
	004-002-00-2										
4	boron { boric acid; [1] boric acid; [2] }				1.1 mg/kg	5.719	4.794	mg/kg	0.000479 %	✓	
	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]								
5	cadmium { cadmium sulfate }				0.4 mg/kg	1.855	0.565	mg/kg	0.0000565 %	✓	
	048-009-00-9	233-331-6	10124-36-4								
6	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				22 mg/kg	1.462	24.502	mg/kg	0.00245 %	✓	
		215-160-9	1308-38-9								
7	chromium in Cr(VI) compounds { chromium(VI) oxide }				<2 mg/kg	1.923	<3.846	mg/kg	<0.000385 %		<LOD
	024-001-00-0	215-607-8	1333-82-0								
8	copper { copper sulphate pentahydrate }				223 mg/kg	3.929	667.648	mg/kg	0.0668 %	✓	
	029-023-00-4	231-847-6	7758-99-8								
9	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	529 mg/kg		403.098	mg/kg	0.0403 %	✓	
	082-001-00-6										
10	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353	mg/kg	<0.000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7								
11	nickel { nickel dibromate }				72 mg/kg	5.358	293.979	mg/kg	0.0294 %	✓	
	028-053-00-5	238-596-1	14550-87-9								
12	selenium { nickel selenate }				2 mg/kg	2.554	3.892	mg/kg	0.000389 %	✓	
	028-031-00-5	239-125-2	15060-62-5								
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				46 mg/kg	1.785	62.574	mg/kg	0.00626 %	✓	
	023-001-00-8	215-239-8	1314-62-1								



#	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									
14	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				264	mg/kg	4.398	884.722	mg/kg	0.0885 %	✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
15	TPH (C6 to C40) petroleum group		TPH		<42	mg/kg		<42	mg/kg	<0.0042 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									
17	benzene				<2	mg/kg		<2	mg/kg	<0.0002 %		<LOD
	601-020-00-8	200-753-7	71-43-2									
18	toluene				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
	601-021-00-3	203-625-9	108-88-3									
19	ethylbenzene				<2	mg/kg		<2	mg/kg	<0.0002 %		<LOD
	601-023-00-4	202-849-4	100-41-4									
20	xylene				<2	mg/kg		<2	mg/kg	<0.0002 %		<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]									
21	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	1.436	mg/kg	0.000144 %	✓	
	006-007-00-5											
22	pH		PH		7.2	pH		7.2	pH	7.2 pH		
23	naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
24	acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8									
25	acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9									
26	fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7									
27	phenanthrene				0.2	mg/kg		0.152	mg/kg	0.0000152 %	✓	
		201-581-5	85-01-8									
28	anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		204-371-1	120-12-7									
29	fluoranthene				0.53	mg/kg		0.404	mg/kg	0.0000404 %	✓	
		205-912-4	206-44-0									
30	pyrene				0.51	mg/kg		0.389	mg/kg	0.0000389 %	✓	
		204-927-3	129-00-0									
31	benzo[a]anthracene				0.45	mg/kg		0.343	mg/kg	0.0000343 %	✓	
	601-033-00-9	200-280-6	56-55-3									
32	chrysene				0.54	mg/kg		0.411	mg/kg	0.0000411 %	✓	
	601-048-00-0	205-923-4	218-01-9									
33	benzo[b]fluoranthene				0.6	mg/kg		0.457	mg/kg	0.0000457 %	✓	
	601-034-00-4	205-911-9	205-99-2									
34	benzo[k]fluoranthene				0.3	mg/kg		0.229	mg/kg	0.0000229 %	✓	
	601-036-00-5	205-916-6	207-08-9									
35	benzo[a]pyrene; benzo[def]chrysene				0.46	mg/kg		0.351	mg/kg	0.0000351 %	✓	
	601-032-00-3	200-028-5	50-32-8									
36	indeno[123-cd]pyrene				0.35	mg/kg		0.267	mg/kg	0.0000267 %	✓	
		205-893-2	193-39-5									
37	dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-041-00-2	200-181-8	53-70-3									
38	benzo[ghi]perylene				0.29	mg/kg		0.221	mg/kg	0.0000221 %	✓	
		205-883-8	191-24-2									
39	phenol				<2	mg/kg		<2	mg/kg	<0.0002 %		<LOD
	604-001-00-2	203-632-7	108-95-2									



#	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							
Total:								0.325 %		

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 Determinand - 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: WS03

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

Sample details

Sample name:	WS03	LoW Code:	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	0.50-0.80 m	Entry:		17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content:	24.6%			
	(wet weight correction)			

Hazard properties

None identified

Determinands

Moisture content: 24.6% Wet Weight 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	arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				55 mg/kg	1.895	78.566 mg/kg	0.00786 %	✓		
	033-005-00-1										
2	barium { barium diboron tetraoxide }				469.5 mg/kg	1.623	574.714 mg/kg	0.0575 %	✓		
	056-005-00-3	237-222-4	13701-59-2								
3	beryllium { beryllium compounds with the exception of aluminium beryllium silicates, and with those specified elsewhere in this Annex }				1.3 mg/kg	8.868	8.692 mg/kg	0.000869 %	✓		
	004-002-00-2										
4	boron { boric acid; [1] boric acid; [2] }				1.2 mg/kg	5.719	5.175 mg/kg	0.000517 %	✓		
	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]								
5	cadmium { cadmium sulfate }				0.4 mg/kg	1.855	0.559 mg/kg	0.0000559 %	✓		
	048-009-00-9	233-331-6	10124-36-4								
6	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				24 mg/kg	1.462	26.448 mg/kg	0.00264 %	✓		
		215-160-9	1308-38-9								
7	chromium in Cr(VI) compounds { chromium(VI) oxide }				<2 mg/kg	1.923	<3.846 mg/kg	<0.000385 %			<LOD
	024-001-00-0	215-607-8	1333-82-0								
8	copper { copper sulphate pentahydrate }				388 mg/kg	3.929	1149.452 mg/kg	0.115 %	✓		
	029-023-00-4	231-847-6	7758-99-8								
9	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	202 mg/kg		152.308 mg/kg	0.0152 %	✓		
	082-001-00-6										
10	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %			<LOD
	080-010-00-X	231-299-8	7487-94-7								
11	nickel { nickel dibromate }				48 mg/kg	5.358	193.928 mg/kg	0.0194 %	✓		
	028-053-00-5	238-596-1	14550-87-9								
12	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %			<LOD
	028-031-00-5	239-125-2	15060-62-5								
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				37 mg/kg	1.785	49.803 mg/kg	0.00498 %	✓		
	023-001-00-8	215-239-8	1314-62-1								



#	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									
14	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				245	mg/kg	4.398	812.429	mg/kg	0.0812 %	✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
15	TPH (C6 to C40) petroleum group				<42	mg/kg		<42	mg/kg	<0.0042 %		<LOD
			TPH									
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									
17	benzene				<2	mg/kg		<2	mg/kg	<0.0002 %		<LOD
	601-020-00-8	200-753-7	71-43-2									
18	toluene				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
	601-021-00-3	203-625-9	108-88-3									
19	ethylbenzene				<2	mg/kg		<2	mg/kg	<0.0002 %		<LOD
	601-023-00-4	202-849-4	100-41-4									
20	xylene				<2	mg/kg		<2	mg/kg	<0.0002 %		<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]									
21	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											
22	pH				7.1	pH		7.1	pH	7.1 pH		
			PH									
23	naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
24	acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8									
25	acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9									
26	fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7									
27	phenanthrene				0.36	mg/kg		0.271	mg/kg	0.0000271 %	✓	
		201-581-5	85-01-8									
28	anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		204-371-1	120-12-7									
29	fluoranthene				1.06	mg/kg		0.799	mg/kg	0.0000799 %	✓	
		205-912-4	206-44-0									
30	pyrene				0.95	mg/kg		0.716	mg/kg	0.0000716 %	✓	
		204-927-3	129-00-0									
31	benzo[a]anthracene				0.62	mg/kg		0.467	mg/kg	0.0000467 %	✓	
	601-033-00-9	200-280-6	56-55-3									
32	chrysene				0.78	mg/kg		0.588	mg/kg	0.0000588 %	✓	
	601-048-00-0	205-923-4	218-01-9									
33	benzo[b]fluoranthene				0.82	mg/kg		0.618	mg/kg	0.0000618 %	✓	
	601-034-00-4	205-911-9	205-99-2									
34	benzo[k]fluoranthene				0.36	mg/kg		0.271	mg/kg	0.0000271 %	✓	
	601-036-00-5	205-916-6	207-08-9									
35	benzo[a]pyrene; benzo[def]chrysene				0.62	mg/kg		0.467	mg/kg	0.0000467 %	✓	
	601-032-00-3	200-028-5	50-32-8									
36	indeno[123-cd]pyrene				0.37	mg/kg		0.279	mg/kg	0.0000279 %	✓	
		205-893-2	193-39-5									
37	dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-041-00-2	200-181-8	53-70-3									
38	benzo[ghi]perylene				0.32	mg/kg		0.241	mg/kg	0.0000241 %	✓	
		205-883-8	191-24-2									
39	phenol				<2	mg/kg		<2	mg/kg	<0.0002 %		<LOD
	604-001-00-2	203-632-7	108-95-2									



#	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							
Total:								0.306 %		

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 Determinand - 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

• 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

• lead compounds with the exception of those specified elsewhere in this Annex (worst case)

GB MCL index number: 082-001-00-6

Description/Comments: Worst Case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers lead compounds from smelting industries, flue dust and similar to be Carcinogenic category 1A

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 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html (worst case lead compounds). Review date 29/09/2015

• 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

• 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

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.

barium {barium diboron tetraoxide}

There isn't enough Metal and Cr(VI) to make the Metal chromate

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.

boron {boric acid; [1] boric acid; [2]}

Reasonable worst case CLP species based on hazard statements/molecular weight and assuming water is or has been present.

cadmium {cadmium sulfate}

Worst case CLP species based on hazard statements/molecular weight.

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

There isn't enough Metal and Cr(VI) to make the Metal chromate

chromium in Cr(VI) compounds {chromium(VI) oxide}

There isn't enough Metal and Cr(VI) to make the Metal chromate

copper {copper sulphate pentahydrate}

Worst case CLP species based on hazard statements/molecular weight.

lead {lead compounds with the exception of those specified elsewhere in this Annex (worst case)}

There isn't enough Metal and Cr(VI) to make the Metal chromate

mercury {mercury dichloride}

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

nickel {nickel dibromate}

Worst case CLP species based on hazard statements/molecular weight.

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case CLP species based on hazard statements/molecular weight

zinc {zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2]}

There isn't enough Metal and Cr(VI) to make the Metal chromate

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]

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.2.GB - Oct 2021**

HazWasteOnline Classification Engine Version: 2025.332.6908.12479 (29 Nov 2025)

HazWasteOnline Database: 2025.332.6908.12479 (29 Nov 2025)

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

APPENDIX 6

REPORT LIMITATIONS

REPORT LIMITATIONS

This contract was completed by Earth Environmental & Geotechnical Ltd on the basis of a defined programme and scope of works and terms and conditions agreed with the client. This report was compiled with all reasonable skill, and care, bearing in mind the project objectives, the agreed scope of works, the prevailing site conditions, the budget and staff resources allocated to the project.

Other than that expressly contained in the above paragraph, Earth Environmental & Geotechnical Ltd provides no other representation or warranty whether express or implied, is made in relation to the services. Unless otherwise agreed this report has been prepared exclusively for the use and reliance of the client in accordance with generally accepted consulting practices and for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon, or transferred to, by any other party without the written agreement of a Director of Earth Environmental & Geotechnical Ltd.

If a third party relies on this report, it does so wholly at its own and sole risk and Earth Environmental & Geotechnical Ltd disclaims any liability to such parties.

It is Earth Environmental & Geotechnical Ltd understanding that this report is to be used for the purpose described in the introduction to the report. That purpose was an important factor in determining the scope and level of the services. Should the purpose for which the report is used, or the proposed use of the site change, this report will no longer be valid and any further use of, or reliance upon the report in those circumstances by the client without Earth Environmental & Geotechnical Ltd review and advice shall be at the client's sole and own risk.

The report was written in 2025 and should be read in light of any subsequent changes in legislation, statutory requirements and industry best practices. Ground conditions can also change over time and further investigations or assessment should be made if there is any significant delay in acting on the findings of this report. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of Earth Environmental & Geotechnical Ltd. In the absence of such written advice of Earth Environmental & Geotechnical Ltd, reliance on the report in the future shall be at the client's own and sole risk. Should Earth Environmental & Geotechnical Ltd be requested to review the report in the future, Earth Environmental & Geotechnical Ltd shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between Earth Environmental & Geotechnical Ltd and the client.

The observations and conclusions described in this report are based solely upon the services that were provided pursuant to the agreement between the client and Earth Environmental & Geotechnical Ltd. Earth Environmental & Geotechnical Ltd has not performed any observations, investigations, studies or testing not specifically set out or mentioned within this report.

Earth Environmental & Geotechnical Ltd is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this report, Earth Environmental & Geotechnical Ltd did not seek to evaluate the presence on or off the site of electromagnetic fields, lead paint, radon gas or other radioactive materials.

The services are based upon Earth Environmental & Geotechnical Ltd observations of existing physical conditions at the site gained from a walkover survey of the site together with Earth

Environmental & Geotechnical Ltd interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. The findings and recommendations contained in this report are based in part upon information provided by third parties, and whilst Earth Environmental & Geotechnical Ltd have no reason to doubt the accuracy and that it has been provided in full from those it was requested from, the items relied on have not been verified.

No responsibility can be accepted for errors within third party items presented in this report. Further Earth Environmental & Geotechnical Ltd was not authorised and did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the services. Earth Environmental & Geotechnical Ltd is not liable for any inaccurate information, misrepresentation of data or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to Earth Environmental & Geotechnical Ltd and including the doing of any independent investigation of the information provided to Earth Environmental & Geotechnical Ltd save as otherwise provided in the terms of the contract between the client and Earth Environmental & Geotechnical Ltd.

Where field investigations have been carried out these have been restricted to a level of detail required to achieve the stated objectives of the work. Ground conditions can also be variable and as investigation excavations only allow examination of the ground at discrete locations. The potential exists for ground conditions to be encountered which are different to those considered in this report. The extent of the limited area depends on the soil and groundwater conditions, together with the position of any current structures and underground facilities and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters [as stipulated in the contract between the client and Earth Environmental & Geotechnical Ltd] based on an understanding of the available operational and historical information, and it should not be inferred that other chemical species are not present.

The groundwater conditions entered on the exploratory hole records are those observed at the time of investigation. The normal speed of investigation usually does not permit the recording of an equilibrium water level for any one water strike. Moreover, groundwater levels are subject to seasonal variation or changes in local drainage conditions and higher groundwater levels may occur at other times of the year than were recorded during this investigation.

Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan, but is (are) used to present the general relative locations of features on, and surrounding, the site.