

PHASE II GEO-ENVIRONMENTAL ASSESSMENT REPORT

Moorgate Point, Knowsley

August 2025



CIVIL | STRUCTURAL | GEOTECHNICAL & ENVIRONMENTAL | TRAFFIC AND TRANSPORT

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Land off Moorgate Point Knowsley Liverpool L33 7XW

Phase II Geo-Environmental Assessment

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Executive Summary

HSP Consulting Engineers Ltd has been commissioned by Indurent Management Ltd to undertake an intrusive ground investigation at the site to investigate the existing ground conditions and provide information on likely constraints to the development, preliminary parameters for design and recommendations for any mitigation measures should they be required.

The site is located in Knowsley and currently comprises a municipal waste depot in the west, and vacant land in the east. The approximate National Grid Reference for the centre of the site is NGR 342555, 397212.

The ground investigation comprised five window sample boreholes to a maximum depth of 3.00m bgl, three cable percussive boreholes to a maximum depth of 4.00m bgl, as well as six machine excavated trial pits to a maximum depth of 2.25m bgl – three of which used for infiltration testing. Five in situ CBR plate tests were also conducted beneath the topsoil/subsoil. The ground conditions generally comprised topsoil or Made Ground over superficial Devensian Till and bedrock deposits of the Chester Formation - Sandstone.

Traditional pad foundations are considered feasible within the shallow deposits at a minimum depth of 1.20m begl designed to a net allowable bearing pressure of 100kN/m² when utilising a 0.6m strip or up to 2m x 2m pad foundation to maintain total settlements to less than 25mm and differential settlements to acceptable limits. Depending on the final layout and levels, the ABP could be increased to 200kN/m² where foundations are placed within the deeper superficial deposits or Chester Formation bedrock where N=50 has been recorded between 2m and 3m begl.

The screening process for on-site human health receptors show that the GACs, representative of minimal risk for a commercial setting, were not exceeded in any of the samples. Furthermore, no visual or olfactory evidence of contamination was observed during the ground investigation. The risk to human health is presently considered to be very low.

Ground gas monitoring has been undertaken on six occasions. It is considered that the site should be classified as Characteristic Situation 1 and ground gas protection measures are not required.

It is considered appropriate to adopt a basic Design Sulphate Class of DS-1 and Aggressive Chemical Environment for Concrete (ACEC) AC-1.

The executive summary contains an overview of key findings and conclusions. However, no reliance should be placed on the executive summary until the whole of the report has been read. Other sections of the report may contain information which puts into context the findings noted within the executive summary.



1. Introduction

1.1 Background

This report has been prepared to support a planning application. At the time of writing, development plans show two commercial units with loading docks, associated car parking, limited landscaping and attenuation.

1.2 Client Brief & Scope

HSP Consulting Engineers Ltd has been commissioned by Indurent Management Limited to undertake an intrusive ground investigation at the site to investigate the existing ground conditions and provide information on likely constraints to the development, preliminary parameters for design and recommendations for any mitigation measures should they be required.

The report presents the following information:

- a summary of the previous Geo-environmental Reports (Section 1.5 below),
- details of the ground investigation undertaken, and the ground conditions encountered,
- details and results of the geotechnical testing and contamination analysis,
- recommendations for mitigating constraints to the proposed development where appropriate and providing preliminary parameters for foundation design.

The human health risk assessment reported within Section 5 follows the principles of the Land Contamination Risk Management (LCRM) Guidance.

Where applicable, the fieldwork was undertaken in accordance with BS5930:2015+A1:2020 Code of Practice for Site Investigations and BS10175:2011+A2:2017 Investigation of Potentially Contaminated Sites.

1.3 Report Objectives

The objectives of this report are to:

- Establish the geological and hydrogeological conditions using existing available/published information.
- Summarise available information and identify site specific geotechnical and environmental hazards which may place a constraint upon the proposed site use.
- Produce an updated Conceptual Site Model identifying potential pollution linkages between sources of contamination, pathways and receptors.

1.4 Limitations

The recommendations made in this report are based on the findings of the intrusive ground investigation undertaken by HSP Consulting Engineers Ltd between the 26th and 29th August 2025.

1.5 Previous Reports

A Phase I Desk Study Report for the site has been undertaken by HSP Consulting Engineers Ltd, details of which can be found below:

- HSP Consulting Engineers Ltd, Land off Moorgate Point, Knowsley, Phase I Geo-Environmental Desk Study Report, August 2025, Ref: HSP2025-C4884-G-GPI-3433 (Ref 1.)

2. Review of Existing Information & Geo-environmental Setting

2.1 The Site

2.1.1 Location

The site is located in Knowsley, approximately 10.5km northeast from Liverpool city centre and can be accessed off Moorgate Road North. The approximate National Grid Reference for the centre of the site is NGR 342555, 397212. A Site Location Plan is included in Appendix I.

2.1.2 Description

The site is approximately trapezoidal in shape and is approximately 4.63Ha in area. Vehicular and pedestrian access is from the southwest of the site through the industrial estate access road, off Moorgate Road North.

The site is split into two distinct areas; the eastern two-thirds comprise vacant land covered in rough vegetation and the western third is currently being utilised as a refuse lorry depot. Access to the vacant section of the site is from the north of the site, off an unused access road.

The municipal waste depot comprised a small building in the south which is used for site offices and maintenance workshops. Immediately north of the commercial units there is a car park. The centre of the refuse lorry depot was primarily lorry parking, with a jet wash station and a refuelling station adjacent to the western site boundary. The refuelling station comprised large metal housing atop a concrete slab, indicating the storage tank is above ground. There are two pumps with concrete lanes either side of the refuelling station for vehicle access. Light staining is noted in these access lanes; however the concrete is observed to be in good condition. There is a drain directly in front of the refuelling pumps, but it is unknown whether this is an interceptor or part of the surface draining system. The north of the depot has refuse storage. There is an access road to the refuse store in the north of the site, however this is not currently in use by the depot. This access road also provides access to the vacant area of the site, via a grass slope.

The vacant land is heavily overgrown with grasses, shrubs, tree saplings and occasional bullrush, varying in height from approximately 1m to 3m. The ground is heavily rutted from previous vehicle use on the site, which is largely obscured by the dense vegetation. The boundary between the vacant land area and the depot comprises a small earthen ridge and mature shrubbery. In the south, adjacent to the commercial units, there is an area of hardstanding laid to concrete with loosely fitting metal sheet. The metal sheet was partially removed and a manhole with standing water was noted. It could not be determined if this comprised any formal drainage.

The site boundary in the west is defined by the edge of the grass landscaping between the refuse lorry depot and the site access road. Towards the northwest there is a level change of approx. 2.40m from the refuse lorry depot to the adjacent site access road. The northern boundary comprises metal palisade fencing and mature trees and shrubs. The eastern

boundary is overgrown with mature trees and shrubs, as is the southern boundary, though Heras fencing can also be seen along the southern boundary of the vacant area. The commercial units comprise the southern boundary of the site in the southwest. Access off Alchemy Way was not possible due to it being heavily vegetated at the time of the walkover.

The topography of the site gently slopes north from 27.28m AOD in the southeast to 31.17m AOD in the north as observed on the topographical survey (Mapmatic drawing no. 7653/0001, March 2025, HSP Ref: C4884-HSP-00-00-DR-C-5111-TopographicalSurvey).

No olfactory or visual evidence of contamination was identified during the walkover and the ground investigation.

2.1.3 Surrounding Land Use

The main features of interest identified are:

North: Commercial units
East: Commercial units
West: Commercial units, Moorgate Road North and residential housing beyond
South: Vacant land, Commercial units

2.1.4 Proposed End Use

This report has been prepared to support a planning application. At the time of writing, development plans show two commercial units with loading docks, associated car parking, limited landscaping and attenuation.

2.2 Geology

2.2.1 Made Ground

Based on BGS mapping, Made Ground (undivided) is mapped across the entirety of the site and is defined as an artificial deposit, described by the BGS as 'an area where the pre-existing (natural or artificial) land surface is raised by artificial deposits'.

2.2.2 Superficial Deposits

BGS mapping indicates the site to be underlain by Devensian Till – Diamicton.

2.2.3 Bedrock Geology

BGS bedrock mapping indicates the site to be underlain by bedrock deposits of the Chester Formation – Sandstone of the early Triassic Period. BGS describes these deposits as 'comprises conglomerates and reddish brown, cross-bedded, pebbly sandstones with subordinate beds of red-brown mudstone'.

2.3 Pertinent Site Sensitivity Information

Based on the information collated for the desk study, the geo-environmental setting of the site is summarised as follows:

- The site was undeveloped from earliest mapping until the early 1960's when land in the west forms part of the Engineering Works located adjacent and to the west of the site. This area of the site has been laid to hardstanding and utilised for car and lorry parking. A small building is located in the southwest and storage containers are located in the northwest. The land in the east has not been developed, being shown as a sports ground from 1978. In recent years the site is shown as heavily vegetated.
- The surrounding area was historically agricultural fields. By the early 1960's, industry is shown in the immediate surrounding area with development comprising factories and works. The surrounding land is broadly similar to present day.
- Based on BGS mapping, Made Ground (undivided) is mapped across the entirety of the site and is defined as an artificial deposit, described by the BGS as '*an area where the pre-existing (natural or artificial) land surface is raised by artificial deposits*'.
- BGS mapping indicates the site is underlain by superficial deposits of Devensian Till and bedrock of the Chester Sandstone Formation.
- The Superficial deposits are classified as a Secondary Undifferentiated Aquifer and the bedrock is classified as a Principal Aquifer.
- The nearest surface water feature is located 32m south, though it was not observed during the site walkover, historical mapping dated 2010 shows it labelled a drain. A further watercourse is recorded 194m east of the site.
- Historically a watercourse ran across the southeastern corner of the site (trending NE to SW and flowing SW), by the late 1960s this appeared to have been diverted to follow the eastern and southern boundaries and is noted as "Spreads" (dissemination of a water course into rough grass land in this instance).
- There is a moderate to high risk from groundwater flooding in the southern half of the site and a negligible risk in the north. The highest risk of surface water flooding on the site is shown as a 1 in 30 year return at a depth of 0.1m – 0.3m in the northeast of the site in the current vegetated area.
- The site is within an area in which less than 1% of the properties are above the action level for radon. Radon protection measures will not be required for new developments on the site.
- There are no records of Historic, Active or Recent Landfill Sites recorded within a 250m radius of the site.

3. Fieldwork & Factual Information

Site work was carried out between the 26th and 29th August 2025. Where applicable, the fieldwork was undertaken in accordance with BS5930:2015+A1:2020 Code of Practice for Site Investigations (Ref. 6) and BS10175:2011+A2:2017 Investigation of Potentially Contaminated Sites (Ref. 8).

The exploratory holes were positioned to provide coverage across the site area and to provide information for foundation design and obtain representative soil samples for geotechnical and geo-environmental analysis.

3.1 Exploratory Methods

The exploratory methods are detailed in the table below.

Table 3.1 – Summary of exploratory methods

Type	Quantity	Maximum Depth (m)	Details
Windowless Sampling Borehole	5	3.00	WS101 – WS105
Cable Percussive Borehole	3	4.00	CP101 – CP103
Trial Pits	3	2.25	TP101 – TP103
CBR Tests	5	0.80	CBR101 – CBR105
Soakaway Tests	3	2.10	SKA101 – SKA103

The exploratory holes were logged and sampled by an Engineer from HSP Consulting Engineers Ltd. The logs are presented in Appendix III, and the exploratory hole locations are shown on the Ground Investigation Layout Plan presented in Appendix II.

Fragmentary bulk disturbed samples were recovered from materials revealed within all the exploratory holes. Geo-environmental samples, placed in plastic tubs and glass jars supplied by the laboratory, were also obtained specifically for chemical analysis. The samples were taken to UKAS accredited laboratories for further examination and testing.

3.2 In-situ Testing

3.2.1 Standard Penetration Tests

Standard Penetration Tests (SPTs) were carried out at 1.20m begl, then at metre intervals until refusal, with one further test at the base of the borehole. The SPTs were undertaken in accordance with BS EN ISO 22476-3 2005 + A1:2011 and the results are included on the appended borehole logs (Appendix III).

3.2.2 CBR Tests

Plate bearing tests were undertaken in situ at five (5No.) locations on the vacant land in the east of the site. The locations were dug out by excavator and conducted beneath the topsoil layer directly on the underlying superficial Devensian Till deposits, utilising a 450mm plate with the excavator as kentledge. The results are included within Appendix VIII.

3.2.3 Topsoil Survey

A Soil Resources Assessment was undertaken by Land Research Associates Ltd alongside the ground investigation. The findings are detailed in Report Ref: 2714/1, dated 29th September 2025 which is included within Appendix IX.

3.3 Laboratory Testing

The laboratory testing schedules were prepared by HSP Consulting Engineers Ltd.

3.3.1 Geotechnical Testing

Geotechnical testing has been scheduled to be undertaken by a UKAS accredited laboratory as part of the works at the site:

- Plasticity Index (PI)
- Natural Moisture Content (NMC)
- Particle Size Distribution including Sedimentation
- Water Content/Dry Density Relationship

The laboratory testing has been carried out by Geolabs (UKAS accredited laboratory No.1982), in accordance with BS EN ISO 17892-12: 2018+A2:2022 (PI) and BS EN ISO 17892-1:2014 (NMC), 17892-4:2016 (PSD; Clauses 5.2 and 5.3), and BS 1377-2:2022 using calibrated equipment specifically for the British Standard. The results are presented in Appendix IV.

3.3.2 Chemical Analysis

The geo-environmental samples retained specifically for chemical analysis were stored in cooled containers until delivery to the laboratory by courier. Chemical analysis was scheduled on nineteen soil samples for the presence of a selected suite of potential contaminants as outlined in the table below.

Table 3.3.2a – Chemical Analysis

Exploratory Hole Location & Depth (m)	Sample Description	Exploratory Hole Location & Depth (m)	Sample Description
CP101: 0.45	CLAY ^{1,3,4}	WS101: 0.00 – 0.05	ASPHALT CONCRETE ⁵
CP101: 0.75	CLAY ^{1,3,4}	WS101: 1.50	CLAY ^{1,2,3}
CP101: 4.00 – 4.45	SAND ²	WS102: 0.00 – 0.05	ASPHALT CONCRETE ⁵
CP102: 0.50	CLAY ^{1,3,4}	WS102: 2.40	CLAY ^{1,2,3}
CP102: 0.70	CLAY ^{1,3,4}	WS103: 0.00 – 0.05	ASPHALT CONCRETE ⁵
CP102: 3.00 – 3.45	SAND ²	WS103: 0.10	MADE GROUND ⁴
CP103: 0.25	CLAY ^{1,3,4}	WS103: 0.40	CLAY ^{1,2,3}
CP103: 0.50	CLAY ²	WS104: 0.50	CLAY ^{1,3,4}
CP103: 2.00 – 2.45	SAND ²	WS105: 0.90	CLAY ^{1,3,4}

¹HSP Standard Soil Suite ²BRE Sulphate Suite ³Organic Matter ⁴Asbestos Screen ⁵HSP Blacktop Suite

Table 3.3.2b – HSP Standard Chemical Analysis Soil Suite

Metals	Cadmium	Chromium (III & VI)	Copper
	Lead	Mercury	Nickel
	Zinc	Vanadium	
Semi Metals and Non-metals	Arsenic	Boron	Antimony

Others	Selenium		
	pH	Organic Matter	Loss on Ignition
Inorganic Chemicals	Cyanide	Total and Soluble Sulphate	Total Sulphur
	Sulphide		
Organic Chemicals	PAH (US EPA 16)	TPH (CWG)	Phenol

The contamination analysis on the soil samples were carried out by Eurofins Chemtest Limited (UKAS accredited, laboratory No. 2183) during the period 3rd September to 6th October 2025. The results are presented in Appendix V.

3.4 Ground Conditions

3.4.1 Published Geology

The published geology indicates the site is underlain by superficial deposits of Devensian Till, and bedrock geology of the Chester Formation - Sandstone.

3.4.2 Ground Conditions Encountered

The exploratory hole data generally confirms the published information. The table below summarises the ground conditions encountered:

Table 3.4.2 – General Encountered Ground Conditions

	Strata	Depth (m begl)	Maximum Thickness (m)	Description
Anthropogenic	MADE GROUND - HARDSTANDING	G.L. – 0.05	0.05	MADE GROUND: Macadam Surfacing.
	MADE GROUND – SUB BASE (Municipal Waste Depot)	0.05 – 0.60	0.55	MADE GROUND: Dark grey slightly clayey gravelly fine to coarse sand. Gravel is fine to coarse angular to subangular of brick, concrete and asphalt concrete. MADE GROUND: Light grey slightly clayey sandy fine to coarse angular gravel of mudstone. Sand is fine to coarse.
	MADE GROUND - TOPSOIL (Vacant Land)	G.L. – 0.60	0.60	MADE GROUND: Grass and shrub over brown slightly sandy slightly gravelly SILT. Gravel is fine to coarse angular to subangular of concrete, quartzite, clinker and brick. MADE GROUND: Grass and shrub over brown slightly sandy slightly gravelly silt with low cobble content of concrete. Sand is fine to coarse. Gravel is fine to coarse angular to subangular of concrete, ceramic and quartzite.
Superficial	DEVENSIAN TILL	0.10 – 3.00	2.60	Firm brown slightly gravelly sandy CLAY with frequent pockets of grey clay. Gravel is fine to medium subrounded of quartzite, mudstone and sandstone. Sand is fine to coarse. Firm to stiff reddish brown sandy CLAY with occasional pockets of grey clay. Sand is fine to coarse.
Bedrock	CHESTER FORMATION	1.10 – 4.00*	-	Medium dense to very dense reddish brown clayey fine to coarse SAND.

*base not reached

3.5 Groundwater Levels

Groundwater strikes were not encountered within any of the exploratory holes during drilling. Groundwater water levels have been recorded on six (6No.) occasions within the ground gas monitoring installations, as detailed in the table below:

Table 3.5a – Groundwater Levels (mbegl)

Borehole No.	Installation Depth (mbegl)	Groundwater Level (mbegl)					
		08.09.25	15.09.25	22.09.25	29.09.25	07.10.25	17.10.25
CP101	3.50	2.62	2.34	2.17	2.04	N/A	2.00
CP103	3.00	2.02	1.66	1.15	1.10	0.50	1.07
WS101	2.90	2.42	2.39	2.25	2.25	N/A	2.15
WS103	1.90	1.60	1.67	1.47	1.49	N/A	1.33
WS104	1.90	DRY	DRY	0.96	1.32	N/A	1.18

Table 3.5b – Groundwater Levels (mAOD)

Borehole No.	Surface Level (mAOD)	Groundwater Level (mAOD)					
		08.09.25	15.09.25	22.09.25	29.09.25	07.10.25	17.10.25
CP101	29.98	27.36	27.64	27.81	27.94	N/A	27.98
CP103	30.45	28.43	28.79	29.30	29.35	29.95	29.38
WS101	30.24	27.82	27.85	27.99	27.99	N/A	28.09
WS103	29.39	27.79	27.72	27.92	27.90	N/A	28.06
WS104	29.97	N/A	N/A	29.01	28.65	N/A	28.79

It should be noted that the dip meter was observed to be faulty during the fifth visit and thus water level readings were not able to be obtained (except for the shallow water in CP103 confirmed with a tape measure).

Groundwater levels were generally seen to rise throughout the duration of the monitoring programme. Due to the impermeable nature of the underlying soils this is considered to be perched groundwater, rather than a true reflection of the groundwater levels.

3.6 Ground Gas Monitoring

Gas monitoring installations were constructed within three (3No.) of the windowless sampling boreholes (WS101, WS103, WS104) and two (2No.) of the cable percussion boreholes (CP101 and CP103). Each well has been constructed using a mix of plain and slotted 50mm diameter HDPE pipe. All of the borehole installations have a 6mm pea gravel surround to the slotted pipe with a bentonite seal above and below and a gas tap. The lockable covers are cemented into the ground and either flush with the surrounding ground (WS101 & WS103) or raised from the surrounding ground (WS104, CP101 & CP103).

The results of the ground gas monitoring are discussed in Section 5.6 below.

3.7 Visual and Olfactory Evidence of Contamination

No significant visual and olfactory evidence of contamination was noted in the exploratory holes during the ground investigation.

4. Geotechnical Assessment

4.1 Detailed Ground Model

For the purpose of this foundation assessment the information gained from the windowless sampling and cable percussive boreholes have been included. The borehole logs are presented in Appendix II.

4.1.1 Made Ground

Shallow Made Ground was encountered within all of the exploratory holes to a maximum depth of 0.60m begl. In the west of the site (municipal waste depot) the Made Ground generally comprised hardstanding, overlying dark grey becoming light grey slightly clayey gravelly fine to coarse sand, with gravel of mudstone, concrete and brick which is considered to be a sub base. In the east of the site (vacant land) the Made Ground comprised slightly sandy slightly gravelly silt with gravel of concrete, quartzite and brick is considered to be a topsoil containing anthropogenic gravels and cobbles.

4.1.2 Superficial Geology

Superficial Devensian Till Deposits were encountered in all exploratory holes and proved to a maximum depth of 3.00m begl. The superficial deposits generally consisted of firm to stiff reddish brown sandy gravelly clay.

4.1.3 Bedrock Geology

Bedrock deposits of the Chester Formation were recorded beneath the superficial deposits in the deeper cable percussive boreholes. The deposits were encountered from 1.10m begl at their shallowest depth, and the base of the unit was not proven. The bedrock geology comprised medium dense to very dense reddish brown clayey sand.

4.1.4 In-situ Testing, Laboratory Testing and Assessment

Standard Penetration Tests (SPT's) have been undertaken within all boreholes. The following table summarises the N values at depth across the site.

Table 4.1.4a – Uncorrected SPT N Values

Depth (m)	Range of 'N' Values	Mean 'N' Value (Rounded down)	Description
1.20	6 – 15	8	CLAY (TILL)
	25	25	SAND (CHESTER FORMATION)
2.00	4 – 50	–*	CLAY (TILL)
	50	50	SAND (CHESTER FORMATION)
2.70 – 3.00	50	50	CLAY (TILL)
3.00 – 4.00	50	50	SAND (CHESTER FORMATION)

–* mean not provided due large range in SPT 'N' Values

Ten (10No.) Moisture Content and Atterberg Limit tests have been undertaken in the laboratory on disturbed samples of the fine deposits. The results show all samples to be classified as low plasticity (CL) after the classification system of BS EN ISO 14668-2:2018.

All ten (10No.) samples tested are considered to be of low volume change potential in accordance with the National House Building Council (NHBC) Standards, Chapter 4.2: 2022.

Table 4.1.4b - Plasticity Index Values

Location & Depth (m begl)	Soil Type	LL (%)	PL (%)	PI (%)	% Passing 425µm	Modified PI (%)	Soil Class	MC (%)
CP101: 1.20 – 1.65	sandy CLAY	20	11	9	98	8.8	CIL	10.5
CP102: 0.40 – 0.60	CLAY	32	15	17	99	16.8	CIL	9.6
CP102: 1.20 – 1.65	sandy CLAY	29	15	14	100	14	CIL	11.0
TP101: 1.00	sandy CLAY	25	12	13	98	12.7	CIL	11.4
TP102: 1.80	sandy CLAY	29	14	15	100	15	CIL	16.8
TP103: 0.60	sandy CLAY	29	15	14	97	13.5	CIL	8.7
WS101: 2.20	CLAY	30	14	16	94	15	CIL	14.1
WS102: 0.90	sandy CLAY	32	15	17	100	17	CIL	15.9
WS103: 1.50	sandy CLAY	22	13	9	100	9	CIL	15.9
WS105: 1.30	sandy CLAY	31	14	17	100	17	CIL	14.6

Eight (8No.) Particle Size Distribution tests, (5No. superficial Till and 3No. Chester Formation deposits) were scheduled to confirm the engineering behaviour of the deposits. The results generally conformed with the observations noted within the field logs.

Three (3No.) compaction tests to obtain maximum dry density and optimum moisture content relationships were undertaken on representative samples of the Devensian Till, 1No. sample using a 2.5kg rammer and 2No. samples using a 4.5kg rammer. The testing recorded optimum moisture contents between 8.4 – 10.3% and maximum dry densities of between 1.96 – 2.05Mg/m³. The initial natural water content of the samples was between 8.7 – 16.8%. One (1No.) sample has an initial moisture content 8% greater than their optimum moisture content. The remaining two (2No.) samples have an initial moisture within 1% of the optimum moisture content.

The geotechnical laboratory results are included in Appendix IV.

4.1.5 Materials Suitability – Devensian Till

As a guide, classification testing on samples from the Devensian Till indicate the samples either conform to Class 2A 'Wet Cohesive' or Class 2B 'Dry Cohesive' in accordance with National Highways CC 601 – Earthworks, Version E/1.0.0, Sep 2025 (formerly Series 600) (Ref 22.).

4.2 Earthworks

The topography of the site gently slopes north from 27.28m AOD in the southeast to 31.17m AOD in the north as observed on the topographical survey (Mapmatic drawing no. 7653/0001, March 2025, HSP Ref: C4884-HSP-00-00-DR-C-5111-TopographicalSurvey). Proposed levels for the development are currently unknown, however reprofiling of the site is expected.

Any Made Ground or topsoil arisings generated on site are unlikely to be suitable as engineered fill. As highlighted in section 4.1.4, geotechnical testing was completed on samples of the shallow Devensian Till deposits and it is considered that natural near surface soil

arisings are likely to be suitable for engineered fill, subject to appropriate targeted testing and assessment.

Should materials prove suitable, placement and compaction would need to be strictly controlled and supervised. Project programming should consider the 'earthworks window' (prevailing dry & warm climatic conditions) as the fine soil materials will be susceptible to softening during periods of wet weather and will be easily damaged by site traffic and deterioration at times of heavy rainfall.

Further appropriate testing and assessment should be undertaken, as deemed necessary prior to any placement.

4.3 Excavations

Excavations to proposed formation level for new foundations and infrastructure should be feasible adopting standard excavation plant. It is likely that shoring of excavations will be required, and this should be planned for in advance, e.g. for the pouring of concrete. Random and potentially severe falls should be anticipated from the faces of near vertically sided unsupported excavations carried out at the site.

Where personnel are required to enter near vertically sided excavations, it is considered that full support should be provided to the full depth of all excavations.

It is recommended that all support systems are continually assessed by fully trained or experienced personnel.

Water level monitoring results have recorded groundwater within all boreholes between 0.50m to 2.62m begl, over six visits, and are considered to represent perched groundwater within the superficial deposits. Traditional sump and pump dewatering is likely to be sufficient if any inflow of ground or surface water should be encountered during groundwork operations.

It should be noted that groundwater levels may vary due to seasonal variations or other effects, there may be instances of groundwater ingress in deep excavations, and water may collect in excavations during periods of rainfall.

4.4 Foundations

Proposed Foundations

Based on the ground conditions encountered, the general downward succession has been identified as up to 0.60m of Made Ground (including Made Ground considered to be topsoil) overlying cohesive superficial Devensian Till deposits to a maximum depth of 3.00m begl. Bedrock deposits of the Chester Formation were observed, from 1.10m begl at the shallowest depth in CP103.

The SPT 'N' results within the natural deposits at 1.20m begl ranged between N=6 to N=25, with N=6 and N=8 at 1.20m begl being observed in WS101 and WS103 respectively. At 2.00m begl the SPT 'N' results ranged from N=4 to N=50, with N=4 at 2.00m begl recorded in WS102.

All foundations will need to be taken below any Made Ground or Topsoil/Subsoil as these are not considered a suitable founding stratum.

Traditional pad foundations are considered feasible within the shallow deposits at a minimum depth of 1.20m begl designed to a net allowable bearing pressure of 100kN/m² when utilising a 0.6m strip or up to 2m x 2m pad foundation to maintain total settlements to less than 25mm and differential settlements to acceptable limits. Local deepening of foundations will be required in the west of the site where SPT 'N' values between N=4 and N=8 have been recorded. Depending on the final layout and levels, the ABP could be increased to 200kN/m² where foundations are placed within the deeper superficial deposits or Chester Formation bedrock where N=50 has been recorded between 2m and 3m begl. However, consideration should be given to the potential for founding on different strata which may result in differential settlement.

Any foundation solutions should be designed in accordance with NHBC Standards Chapter 4.2 Building near Trees (Ref. 9) where foundations are within influencing distance of proposed or existing trees in accordance with the requirements for soils of low volume change potential.

Foundations would need to be locally deepened through any organic, loose or disturbed ground.

Where cohesive and granular deposits are encountered at the base of any footings, consideration should be given to the inclusion of mesh reinforcement at the top and bottom of foundations to reduce the potential for differential settlement to occur.

It would be prudent within the west of the site (bin lorry depot), that following site clearance and decommissioning of any tanks the depth to Made Ground and strength of the underlying natural strata is confirmed within the proposed building footprints.

4.5 Ground Floor Slab

Where the depth of Made Ground is in excess of 600mm (current hardstanding in the west), or structures are to be located within the influence zone of existing or future trees, or where foundations depths exceed 1.5m when designed in accordance with NHBC Chapter 4.2, a suspended floor slab is recommended. Ground bearing floor slabs could be considered elsewhere, subject to excavation and compaction of suitable materials to an engineered specification.

4.6 Concrete Classification

The results of sulphate and pH testing carried out on selected soil samples taken during this investigation have been compared with the recommendations outlined in BRE Special Digest 1, Part 1: 2005.

The guidelines given in BRE Special Digest 1 are based upon a site classification relating to its previous usage. For the purpose of the concrete classification, it is considered appropriate to define this site as a 'greenfield site' location with a mobile groundwater regime.

The results show that the Devensian Till and Chester Formation are not considered to be potentially pyritic, thus classification of the deposits is undertaken using 2:1 water soluble sulphate results.

On the basis of the above, it is considered appropriate to adopt a basic Design Sulphate Class of DS-1 and Aggressive Chemical Environment for Concrete (ACEC) AC-1.

4.7 Pavement Design

Five (5No.) in situ CBR plate bearing tests were undertaken by KIWA CMT on the 27th August 2025. All five tests were conducted on the fine grained deposits of the Devensian Till in machine excavated pits, using a 450mm plate and a 13 tonne excavator for kentledge. The in situ tests returned a minimum equivalent CBR of 8.2%, with two of the tests returning results >12%.

All CBR test results are included in Appendix VIII.

It is recommended that CBR testing should be undertaken at finished formation levels in areas of proposed roads and car parking to confirm a representative CBR value at formation.

4.8 Infiltration Drainage

Infiltration testing has been undertaken as part of this investigation. Three machine excavated test pits were advanced to depths of 2.00 – 2.10m bgl and approximately 1000 litres of water introduced to each pit at the beginning of the tests. The water within all three test pits did not drain within the allotted 24 hour period and in accordance with BRE 365, an assumed infiltration rate of less than 1×10^{-11} m/s is assumed.

The infiltration test certificates can be found within Appendix V.

5. Environmental Assessment

5.1 Introduction

The approach to the human health risk assessment reported here follows the principles given in the Land Contamination Risk Management (LCRM) Guidance¹, i.e. application of the following assessment hierarchy:

- Tier 1 risk screening by establishment of potential pollutant linkages, i.e. the preliminary conceptual site model (PCSM), or
- Tier 2 generic quantitative assessment using generic assessment criteria (GACs) that represent 'acceptably low' risk, or
- Tier 3 quantitative risk assessment using site specific assessment criteria (SSACs) that represent 'unacceptable risk', or where generic assessment criteria are not available, or they are not applicable to the CSM.

The results of laboratory analysis have been screened against GACs including the Defra Category 4 Screening Levels (C4SL) and LQM and CIEH S4ULs for Human Health Risk Assessment (Copyright Land Quality Management Limited reproduced with permission; Publication Number S4UL3180. All rights reserved) (Refs 11 and 10 respectively).

An exposure scenario of commercial land use has been used to identify potential exposure pathways for human health receptors. Controlled water, flora and fauna and property receptors have also been included within the CSM.

It should be noted that organic contamination (PAH, TPH and BTEX) have been screened against the GAC for 1% Soil Organic Matter (SOM).

The assessment of PAHs is undertaken, in this instance, using the Public Health England (2017, Ref. 21) assessment with the surrogate marker approach as stated in the C4SL document (2014, Ref. 17) using Benzo(a)pyrene as a marker value.

5.2 Assessment of Soil Analysis Results

Eighteen samples, as detailed in section 3.3.2, were scheduled for analysis from the development area. Ten of these samples were scheduled to provide a basis for characterising the soils to outline the potential impacts on human health and any environmental receptors from any contamination found.

The screening process for on-site human health receptors show that the GACs, representative of minimal risk for a commercial setting, were not exceeded in any of the samples.

Eight samples were screened for asbestos. No asbestos containing materials were recorded on site.

¹ <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>

5.3 Human Health Mitigation

The screening process for on-site human health receptors show that the GACs, representative of minimal risk for a commercial setting, were not exceeded in any of the samples. Furthermore, no visual or olfactory evidence of contamination was observed during the ground investigation.

Should any obvious evidence of unexpected contamination be encountered during the redevelopment works it should be reported to HSP Consulting Engineers Ltd so that an inspection can be made, and appropriate sampling and assessment work be carried out.

Further soil sampling would be prudent once the municipal waste depot is not longer active and existing fuel tanks are decommissioned.

Appropriate health and safety precautions (e.g., wearing appropriate PPE) should be adopted during any excavation works to avoid exposure to contaminated soils and dust.

5.4 Protection of Controlled Waters

The risk to controlled waters is considered to be very low due to the lack of significant/gross contamination across the site.

5.5 Water Supply

Environmental testing for the site should be compared to the following document in order to assess the most appropriate pipe material that should be used upon the site for mains water supply:

‘Water UK Contaminated Land Assessment Guidance (January 2014)’. (Ref. 19).

Testing to the Water UK Suite is beyond the scope of the investigation and the report. The use of plastic (PE) water supply pipes may be suitable; however, specific targeted testing will likely be required by the utility provider once the development and water supply pipe route(s) have been confirmed. Water supply pipes should be placed at a minimum depth of 0.75m below the finished ground level(s) (to the top of the piping).

5.6 Ground Gas Risk Assessment

Ground gas concentrations have been monitored on six (6No.) occasions in order to obtain an indication of the ground gas regime at the site. The atmospheric pressures ranged between 992 – 1026mbar. One visit was conducted during a period of “low” atmospheric pressure.

The results indicate that methane has not been recorded above the limits of detection during the duration of the gas monitoring program. Carbon dioxide has been recorded up to a maximum steady concentration of 6.7% by volume in air. Oxygen levels have been recorded at near atmospheric (20.5%vol) to highly depleted (6.6%vol). Steady state gas flows have

been recorded at a maximum of 3.8l/hr. All other readings exhibit gas flow readings below the limit of detection.

A photo ionisation detector (PID) monitor was utilised during the ground gas monitoring programme. A maximum reading of 7.1ppm isobutylene units was recorded in WS104. Isobutylene is used as a calibration gas, to which specific VOCs can be compared. The results recorded are very low and marginally above the detection limit of 1ppm. The threshold limit value-time weighted average for isobutylene units is 250ppm – in this case VOCs are not considered to pose a risk to the end users of the final development.

From the results above, the maximum steady state gas screening value (GSV) for the entire site (a generic assessment) is 0.2545 l/hr based on Carbon Dioxide.

In addition to the maximum steady state gas screening value given above, gas screening values have been calculated for each monitoring event (results from each monitoring well on each visit) where a positive flow was recorded. The maximum GSV for the site on this basis is 0.0836l/hr based on the maximum results from CP101.

Table 5.6.1 – GSV Calculations based on maximums for each borehole for each monitoring visit.

Monitoring Point Reference	CO ₂ MAX	CH ₄ MAX	FLOW MAX	CO ₂ GSV	CH ₄ GSV	CS as per CIRIA C665 & BS8485
CP101	2.2	0.1	3.8	0.0836	0.0001	CS2
CP103	1.2	0.1	0.1	0.0012	0.0001	CS1
WS101	2.2	0.1	3.0	0.0660	0.0001	CS1
WS103	2.6	0.1	2.7	0.0702	0.0001	CS2
WS104	6.8	0.1	0.9	0.0612	0.0001	CS1

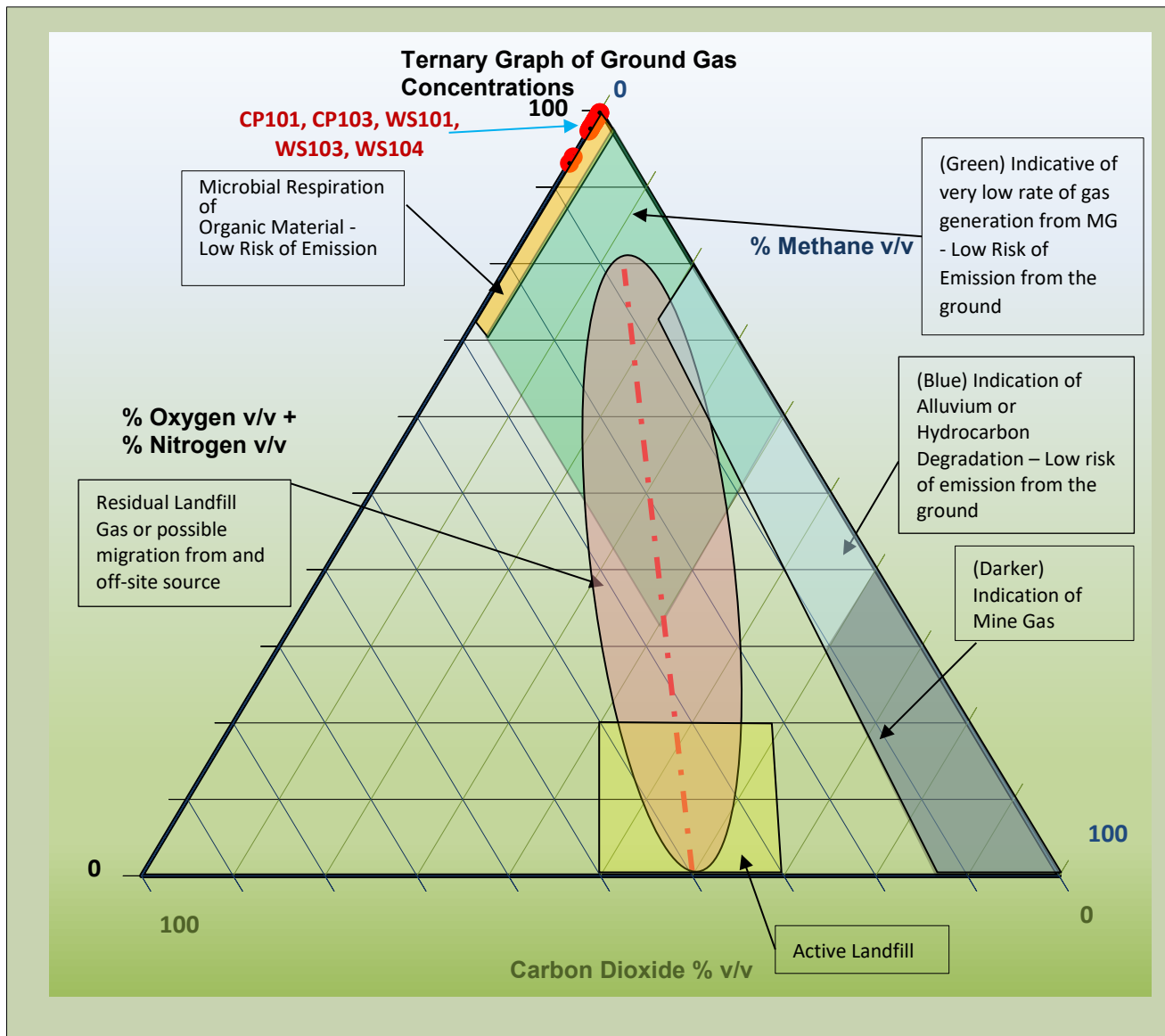
The initial results have been assessed in line with the guidance provided in BS8485:2015 + A1:2019 Code of Practice of the design of protective measures for methane and carbon dioxide ground gas for new buildings (Ref 15) and CIRIA Document C665 'Assessing Risks Posed by Hazardous Ground Gases to Buildings' (Ref 16). The site is considered to comply with Characteristic Situation 2 (CS1). However, there are other lines of evidence to consider.

There was no significant source of ground gas identified within the Phase I Desk Study and the plots on the ternary graph (see below) also indicate that the origin of the gas is likely to be from microbial respiration in organic matter.

Additionally, the fluctuation of the concentrations of ground gases are not coincident with barometric pressure. As such the site is not considered to be producing significant concentrations of gas at high flow rates. The site is considered to be of LOW likelihood of ground gas production and transmission into buildings is considered to be LOW Risk.

Following the programme of gas monitoring it is considered that a CS1 rating can be provided for the site based on the gas concentrations and flow rates. This is subject to EHO approval. It is recommended that is obtained prior to design and development.

The results of the ground gas monitoring are presented in Appendix VII.



5.7 Waste Classification

Waste Assessment and Classification is required to be carried out as per the Environment Agency Document "Waste Classification: Guidance on the Classification and Assessment of Waste (v1.2.GB 2021) – Technical Guidance WM3" (Ref. 18).

Waste Assessment and Classification is required to be carried out as per the Environment Waste Materials require classification, as per the EU Directive 2008/98/EC, excluding those wastes noted in Article 2 of that document. The Directive lays down measures to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving the efficiency of such use.

Assessment of the soil based material is carried out in line with the European Waste Catalogue Code relating to Chapter 17, Sub-chapter 05 for Excavated Soils and Stones (both anthropogenic and natural) to determine the hazardous nature of the material and to classify the material as either one of the mirror entries: “Soil and Stones containing Hazardous Substances” (Hazardous Mirror Entry: 17 05 03*) or “Soil and Stones other than those mentioned in 17 05 03*” (Non-Hazardous Mirror Entry 17 05 04).

Assessment of the macadam based material is carried out in line with the European Waste Catalogue Code relating to Chapter 17, Sub-chapter 03 for Bituminous mixtures to determine the hazardous nature of the material and to classify the material as either one of the mirror entries: Bituminous mixtures other than those mentioned in 17 03 01 (Non-Hazardous Mirror Entry 17 03 02) or Bituminous mixtures containing coal tar (17 03 01).

Of the ten (10No.) soil samples tested, all are indicated to be the non-hazardous mirror entry 17 05 04. The results are included in Appendix VI. No WAC testing for Landfill Classification has been carried out.

Of the three (3No.) macadam samples tested, two (2No.) are noted to be non-hazardous mirror entry 17 03 02 (WS103 0.00-0.05m and WS102 0.00-0.05m). One (1No.) sample is noted to be a hazardous mirror entry (WS101 0.00-0.05m) 17 03 01*.

Please note the above classification provides an indication of how the material should be classified for removal off site; however, this should be used at your approved waste handler’s discretion and further testing may be required prior to any offsite disposal.

The decision of the disposal facility to accept/reject the waste is final and there is no obligation for any facility to accept the waste.

5.8 Topsoil Survey

The Soil Resources Assessment undertaken by Land Research Associates Ltd indicates that the site has low nutrient topsoil that meets the standard of BS3882 that are suitable for reuse on site for landscaping purposes. The full findings of the topsoil survey are reported within Appendix IX.

5.9 Conceptual Site Model

The conceptual site model (CSM) and summary of plausible pollutant linkages was produced by undertaking a Source-Pathway-Receptor analysis of the site. The preliminary conceptual

site model from the HSP Consulting Phase I report, together with the findings of the ground investigation, have been used to inform the updated CSM, as presented in the table below.

Table 5.8 Conceptual Site Model and Qualitative Risk Assessment

Source	Pathway	Receptor	Consequence	Probability	Risk	Comments
On Site S1: Historical and Contemporary land use: Made Ground associated with development of the commercial/industrial buildings and associated hardstanding. It is noted that the site has been raised with artificial deposits. Fuel storage is also noted to be present on the site.	P1: Human uptake pathways	R1: End Users	Mild	Low	Low	The screening process for on-site human health receptors shows that the GACs, representative of minimal risk for a commercial setting were not exceeded in in any samples. Furthermore, no visual or olfactory evidence of contamination was observed during the ground investigation. The residual risk posed to human health is considered to be LOW.
		R2: Construction and Maintenance workers	Mild	Low	Low	
	P2: Horizontal and vertical migration of mobile contaminants through potentially permeable soils and rocks.	R3: Controlled Water: Groundwater	Mild	Low	Low	The nearest surface water feature is a drain located 32m to the south of the site and the underlying bedrock is a Principal Aquifer. Gross contamination was not observed or recorded and thus the potential to impact Controlled Waters through leaching is considered to be low. The residual risk to controlled water is LOW.
	P3: Direct Contact	R4: Services and structures	Mild	Low Likelihood	Low	A Design Sulphate Class of DS-1 and Aggressive Chemical Environment for Concrete (ACEC) AC-1 is considered to be suitable for new developments on site. The risk to water supply pipes, due to the lack of measured indicative organic contamination (petroleum hydrocarbons, phenols) is considered to be low within the shallow ground. The risk to water supply pipes is considered to be LOW providing the correct materials are used.
	P4: Migration along preferential pathways via underground services and drainage runs (pipes, culverts and granular material)					
	P7: Root uptake.	R6: Flora and fauna	Mild	Unlikely	Very Low	The topsoil survey has confirmed low nutrient topsoil on site compliant with BS:3882:2015. Any soils (site won/imported) used for planting medium would need to have the appropriate testing prior to placement. The residual risk of uptake to proposed flora and fauna is considered to be VERY LOW.
Off site S2: Historical and Contemporary land use: Made Ground associated with commercial development, former garage, tanks, various commercial works/factories, and artificial land raise.	P1: Human uptake pathways	R1: End Users	Mild	Low	Low	The off-site sources are considered to be minimal and concentrations of contaminants on site are below the relevant GACs within near surface deposits. The risk is considered to be VERY LOW.
	P2: Horizontal and vertical migration of contaminants through potentially permeable soils and rocks.	R3: Controlled Water: Groundwater and Surface Watercourses	Mild	Low	Low	
On and Off-Site Gas Sources S3: Ground Gases – Made Ground associated with development	P6: Vertical and lateral migration of ground gases and/or vapour.	R1: End Users	Medium	Low Likelihood	Low	Ground gas monitoring has confirmed a Characteristic Situation 1 classification for the site is suitable, following approval from the EHO. VOCs by PID analysis were noted to be at very low levels and no further consideration to hydrocarbons is required at this stage. The risk to human health is assessed to be LOW.

6. Development Constraints and Recommendations for Further Work

6.1 Development Constraints

A Design Sulphate Class of DS-1 and Aggressive Chemical Environment for Concrete (ACEC) AC-1 will be suitable for new developments.

Ground gas monitoring has been undertaken on six occasions. It is considered that the site should be classified as Characteristic Situation 1 and ground gas protection measures are not required, following approval from the EHO. If EHO approval is not sought, provision should be made for a CS2 scenario.

Specific targeted testing may be required by the utility provider for supply water pipes once the development and water supply pipe route(s) have been confirmed. However, the site is considered to be of LOW risk to PE water pipes.

Following infiltration testing, soakaway drainage is not considered to be viable.

Traditional pad foundations are considered feasible within the shallow deposits at a minimum depth of 1.20m begl designed to a net allowable bearing pressure of 100kN/m² when utilising a 0.6m strip or up to 2m x 2m pad foundation to maintain total settlements to less than 25mm and differential settlements to acceptable limits. Depending on the final layout and levels, the ABP could be increased to 200kN/m² where foundations are placed within the deeper superficial deposits or Chester Formation bedrock where N=50 has been recorded between 2m and 3m begl.

All foundations will need to be taken below any made ground, topsoil and soft/loose materials/soft spots, as these are not considered a suitable founding stratum.

6.2 Further Work

Further boreholes are recommended in the proposed development area once final levels are achieved, particularly in the west of the site where SPT 'N' values of <10 were observed in 1.20 and 2.00m bgl.

During the removal of the fuel tank in the west of the site, a watching brief is recommended, undertaken by a suitably qualified and competent person. Further soil sampling would be prudent once the municipal waste depot is no longer active and existing fuel tanks are decommissioned.

7. References

1. HSP Consulting Engineers Ltd, Phase 1 Geo-environmental Desk Study, 'Land off Moorgate Point, Knowsley'. August 2025, Ref: HSP2025-C4884-G-GPI-3433.
2. BRITISH GEOLOGICAL SURVEY. 2013. Wigan. England and Wales Sheet 84. Bedrock and Drift Deposits. 1:50 000 (Keyworth, Nottingham: British geological Survey).
3. British Geological Survey Lexicon Search.
4. Department of the Environment Industry Profiles.
5. Site Investigation in Construction, Volume 3, Specification for Ground Investigation 2nd Edition.
6. BS 5930:2015 Code of Practice for Site Investigations.
7. BS 8576:2013 Guidance on investigations for ground gas. Permanent gases and Volatile Organic Compounds (VOCs)
8. BS10175:2011 +A2:2017 Investigation of Potentially Contaminated Sites - Code of Practice.
9. NHBC Standards, Chapter 4.2, Building near trees.
10. Nathanail, C.P., McCaffrey, C., Gillett, A.G., Ogden, R.C. and Nathanail, J.F. 2015. The LQM/CIEH S4ULs for Human Health Risk Assessment. Land Quality Press, Nottingham.
11. Department for Environment, Food and Rural Affairs and Contaminated Land: Applications in Real Environments (CL:AIRE) (December 2013). SP1010: Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination.
12. BRE Special Digest 1:Concrete in Aggressive Ground, 2005, Building Research Establishment.
13. CL:AIRE The definition of Waste: Development Industry Code of Practice, 2008.
14. NHBC & RSK Group Plc, March 2007. Guidance on evaluation of development proposals on sites where methane and carbon dioxide are present. Ed 4.
15. BS8485:2015 + A1:2019 Code of Practice of the design of protective measures for methane and carbon dioxide ground gas for new buildings
16. CIRIA C665 'Assessing Risks Posed by Hazardous Ground Gases to Buildings'
17. Department for Environment, Food and Rural Affairs and Contaminated Land: Applications in Real Environments (CL:AIRE) (December 2013). SP1010: Appendix E Provisional C4SLs for Benzo(a)pyrene as a surrogate marker for PAHs.
18. Waste Classification: Guidance on the Classification and Assessment of Waste (v1.2.GB 2021) – Technical Guidance WM3.
19. Water UK Contaminated Land Assessment Guidance (January 2014).
20. BRE, Digest 365 – Soakaway Design, 2016.
21. Public Health England (2017) Contaminated land information sheet: risk assessment approaches for polycyclic aromatic hydrocarbons (PAHs).
22. National Highways (September 2025) CC 601 – Earthworks.

Appendix I



DO NOT SCALE
NOTES:



 - Approximate Site Location



Lawrence House, Meadowbank Way,
Eastwood, Nottingham, NG16 3SB
Tel: 01773 535 555 Fax: 0870 600 6091
www.hspconsulting.com

CLIENT:
Indurent

PROJECT:
Moorgate Point

TITLE:
Site Location Plan

SCALE@SIZE : NTS	ISSUE: FINAL
DESIGN/DRAWN : TG	DATE: July 2025
PROJECT No: C4884	DRAWING No: 501

Appendix II



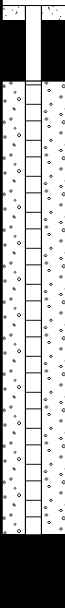
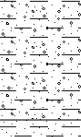
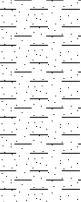
- GENERAL NOTES**
- 1. Do not scale.
 - 2. This drawing is to be read in conjunction with all other relevant HSP drawings/reports.
 - 3. Should there be any discrepancy between details indicated on this drawing and those indicated on other drawings the Engineer should be informed PRIOR to construction on site.
 - 4. Until technical approval has been obtained from the relevant Authorities it should be understood that all drawings issued are preliminary and NOT for construction. Should the contractor start site work prior to approval been given, it is entirely at his own risk.
 - 5. All dimensions shown are in metres unless noted otherwise.
 - 6. This drawing is based on Mapmatic Drawing Number, 7653-0001, dated 26.03.2025.
 - 7. All survey information is provided by the surveying company and HSP cannot accept any liability for any discrepancies there in. All survey information to be verified on site by contractor. Should discrepancies be identified, HSP to be notified immediately.

- Legend**
- CP# Cable Percussive Borehole
 - TP/CBR# Trial Pit / CBR Test
 - SKA# Infiltration Test
 - WS# Window Sampling Borehole
 - Denotes monitoring well

P01		
REV	BY	DATE
		DETAILS
		CKD
STATUS		
S2 - INFORMATION		
CLIENT		
Indurent Management Limited		
PROJECT		
Moorgate Point, Knowsley		
TITLE		
Ground Investigation Layout Plan		
Lawrence House, 6 Meadowbank Way, Eastwood, Nottingham, NG16 3SB Tel: 01773 535555 www.hspsconsulting.com		
SCALE	PROJECT NO.	SHEET
1:500	C4884	SIZE A1
DATE	DRAWN	CHECKED
17.09.2025	MK	TG
DRAWING NO.		REV
C4884-HSP-00-00-DR-G-5001		P01

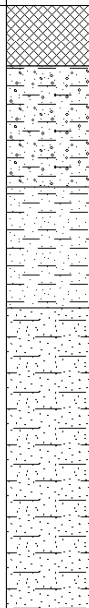
Appendix III

				Borehole Log				Borehole No. CP101 Sheet 1 of 1	
Project Name: Moorgate Point, Knowlsey				Project No. C4884		Co-ords: 342562.48 - 397223.78		Hole Type CP	
Location: Land off Moorgate Point, Knowlsey, Liverpool				Level: 29.98		Scale 1:50			
Client: Indurent Management Limited				Dates: 27/08/2025 - 27/08/2025		Logged By TG			

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
					0.40	29.58		MADE GROUND: Grass and shrub over brown slightly sandy slightly gravelly silt. Gravel is fine to coarse angular to subangular of concrete and brick.		
		1.00 - 1.20	D	N=15 (2,2/2,2,5,6)	1.20	28.78		Firm brown slightly sandy slightly gravelly CLAY with frequent pockets of grey clay. Sand is fine to coarse. Gravel is fine to medium subrounded of quartzite and mudstone. (DEVENSIAN TILL)	1	
		1.20 - 1.65	D						Firm reddish brown sandy CLAY. Sand is fine to coarse. (DEVENSIAN TILL)	2
		2.00						N=16 (2,2/4,4,4,4)		
		2.70 - 2.80	D	50 (25 for 125mm/50 for 70mm)	2.70	27.28		Very dense reddish brown clayey fine to coarse SAND. (CHESTER FORMATION)	3	
		3.00								
	4.00	D	50 (25 for 40mm/50 for 30mm)	4.00	25.98		End of borehole at 4.00 m	4		
	4.00								5	
									6	
									7	
									8	
									9	
									10	

Remarks 1. Borehole terminated at 4.00m begl due to refusal and installed with a monitoring well (50mm pipe, response zone 0.50 - 3.50m begl, bentonite seal at base). 2. Groundwater was not encountered during the advancement of the borehole.		
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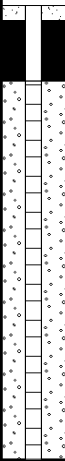
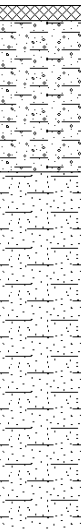
				Borehole Log				Borehole No. CP102 Sheet 1 of 1	
Project Name: Moorgate Point, Knowlsey				Project No. C4884		Co-ords: 342532.13 - 397164.86		Hole Type CP	
Location: Land off Moorgate Point, Knowlsey, Liverpool				Level: 29.51		Scale 1:50			
Client: Indurent Management Limited				Dates: 27/08/2025 - 27/08/2025		Logged By TG			

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		0.40 - 0.60	D		0.40	29.11		MADE GROUND: Grass and shrub over brown slightly sandy slightly gravelly silt. Gravel is fine to coarse angular to subangular of concrete and brick.		
		1.20		N=11 (2,2/2,2,3,4)	1.20	28.31		Firm brown slightly sandy slightly gravelly CLAY with frequent pockets of grey clay. Sand is fine to coarse. Gravel is fine to medium subrounded of quartzite and mudstone. (DEVANSIAN TILL)	1	
		1.20 - 1.65	D							
		1.50 - 1.70	D						Stiff to very stiff reddish brown sandy CLAY. Sand is fine to coarse. (DEVANSIAN TILL)	
		2.00		50 (6,11/50 for 195mm)	2.00	27.51			Very dense reddish brown clayey fine to coarse SAND. (CHESTER FORMATION)	2
		3.00		50 (7,14/50 for 95mm)						3
		3.00 - 3.45	D							
		4.00		50 (25 for 30mm/50 for 25mm)	4.00	25.51		End of borehole at 4.00 m	4	
									5	
									6	
									7	
									8	
									9	
									10	

Remarks
 1. Borehole terminated at 4.00m begl due to refusal and backfilled with arisings.
 2. Groundwater was not encountered during the advancement of the borehole.

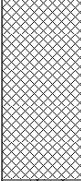
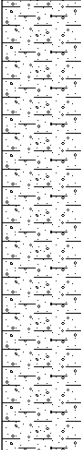


				Borehole Log				Borehole No. CP103 Sheet 1 of 1	
Project Name: Moorgate Point, Knowlsey				Project No. C4884		Co-ords: 342656.83 - 397245.00		Hole Type CP	
Location: Land off Moorgate Point, Knowlsey, Liverpool				Level: 30.45		Scale 1:50			
Client: Indurent Management Limited				Dates: 28/08/2025 - 28/08/2025		Logged By TG			

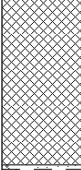
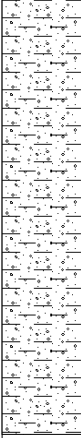
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10			0.10	30.35		MADE GROUND: Grass and shrub over brown slightly sandy slightly gravelly silt. Gravel is fine to coarse angular to subangular of concrete and brick.	
		0.50	D						
		1.10	D	N=25 (2,3/5,6,7,7)	1.10	29.35		Firm brown slightly sandy slightly gravelly CLAY with frequent pockets of grey clay. Sand is fine to coarse. Gravel is fine to medium subrounded of quartzite and mudstone. (DEVENSIAN TILL)	1
		1.20							
		2.00		50 (25 for 90mm/50 for 103mm)				Medium dense to very dense reddish brown slightly clayey fine to coarse SAND. (CHESTER FORMATION)	2
		2.00 - 2.45	D						
		2.50	D						
		3.00		50 (25 for 50mm/50 for 25mm)					3
		3.50		50 (25 for 25mm/50 for 18mm)	3.50	26.95		End of borehole at 3.50 m	4
									5
									6
									7
									8
									9
									10

Remarks 1. Borehole terminated at 3.50m begl due to refusal and installed with a monitoring well (50mm pipe, response zone 0.50 - 3.00m begl, bentonite seal at base). 2. Groundwater was not encountered during the advancement of the borehole.		
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				Trial Pit Log			Trialpit No SKA101 Sheet 1 of 1		
Project Name: Moorgate Point, Knowlsey				Project No. C4884		Co-ords: 342572.11 - 397177.00 Level: 29.72		Date 26/08/2025	
Location: Land off Moorgate Point, Knowlsey, Liverpool						Dimensions (m): 2.4		Scale 1:25	
Client: Indurent Management Limited						Depth 2.10		Logged TG	

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.60	29.12		MADE GROUND: Grass and shrub over brown slightly sandy slightly gravelly silt. Sand is fine to coarse. Gravel is fine to coarse angular to subangular of concrete, ceramic and quartzite.	
							Reddish brown slightly gravelly sandy CLAY. Gravel is fine to coarse subangular to subrounded of mudstone. Sand is fine to coarse. (DEVENSIAN TILL)	1
				2.10	27.62		End of pit at 2.10 m	2
								3
								4
								5

Remarks: 1. Trial pit excavated to 2.10m begl and infiltration test carried out prior to backfilling with arisings. 2. Groundwater was not encountered during the excavation process.		
Stability: Sides remained stable.		

				Trial Pit Log			Trialpit No SKA102 Sheet 1 of 1		
Project Name: Moorgate Point, Knowlsey				Project No. C4884		Co-ords: 342533.10 - 397147.20 Level: 29.23		Date 26/08/2025	
Location: Land off Moorgate Point, Knowlsey, Liverpool						Dimensions (m): 2.7 		Scale 1:25	
Client: Indurent Management Limited						Depth 2.00		Logged TG	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
				0.55	28.68		MADE GROUND: Grass and shrub over brown slightly sandy slightly gravelly silt with low cobble content of concrete paving slabs. Sand is fine to coarse. Gravel is fine to coarse angular to subangular of concrete, ceramic and quartzite.		
				2.00	27.23		Reddish brown slightly gravelly sandy CLAY. Gravel is fine to coarse subangular to subrounded of mudstone. Sand is fine to coarse. (DEVENSIAN TILL)		
							End of pit at 2.00 m		
1 2 3 4 5									
Remarks: 1. Trial pit excavated to 2.00m begl and infiltration test carried out prior to backfilling with arisings. 2. Groundwater was not encountered during the excavation process.									
Stability: Sides remained stable.									



				Trial Pit Log			Trialpit No SKA103 Sheet 1 of 1		
Project Name: Moorgate Point, Knowlsey				Project No. C4884		Co-ords: 342650.14 - 397233.16 Level: 30.36		Date 26/08/2025	
Location: Land off Moorgate Point, Knowlsey, Liverpool						Dimensions (m): 2.7 Depth 2.10		Scale 1:25 Logged TG	
Client: Indurent Management Limited									

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.60	29.76	[Pattern]	MADE GROUND: Grass and shrub over brown slightly sandy slightly gravelly silt. Sand is fine to coarse. Gravel is fine to coarse angular to subangular of concrete, ceramic and quartzite.	
						[Pattern]	Reddish brown slightly gravelly sandy CLAY. Gravel is fine to coarse subangular to subrounded of mudstone. Sand is fine to coarse. (DEVENSIAN TILL)	1
				2.10	28.26	[Pattern]	End of pit at 2.10 m	2
								3
								4
								5

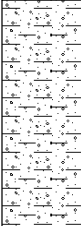
Remarks:

1. Trial pit excavated to 2.10m begl and infiltration test carried out prior to backfilling with arisings.
2. Groundwater was not encountered during the excavation process.

Stability: Sides remained stable.



				Trial Pit Log			Trialpit No TP101 Sheet 1 of 1		
Project Name: Moorgate Point, Knowlsey				Project No. C4884		Co-ords: 342629.74 - 397270.35 Level: 30.21		Date 27/08/2025	
Location: Land off Moorgate Point, Knowlsey, Liverpool						Dimensions (m): 2		Scale 1:25	
Client: Indurent Management Limited						Depth 1.10		Logged TG	

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.30	29.91		MADE GROUND: Grass over brown slightly sandy slightly gravelly silt. Sand is fine to coarse. Gravel is fine to coarse angular to subangular of concrete and quartzite.	
	1.00	B		1.10	29.11		Reddish brown slightly gravelly sandy CLAY. Gravel is fine to coarse angular to subangular of weathered grey sandstone. Sand is fine to coarse. (DEVENSIAN TILL)	1
							End of pit at 1.10 m	2
								3
								4
								5

Remarks: 1. Trial pit excavated to 1.10m begl and backfilled with arisings. 2. Groundwater was not encountered during the excavation process. 3. In situ CBR test conducted at 0.60m begl with a 450mm plate.		
Stability: Sides remained stable.		

Project Name:	Moorgate Point, Knowlsey
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Project No.
C4884

Co-ords:	342662.84 - 397144.86
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Level: 29.35

Date _____

27/08/2025

Location: Land off Moorgate Point, Knowlsey, Liverpool

Dimensions
(m):

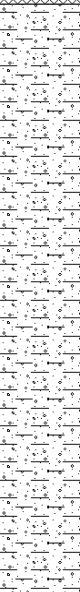
2.5

Depth
2.25

Scale
1:25

Logged TG

Client: Indurent Management Limited

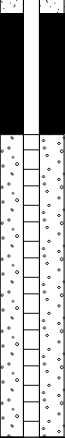
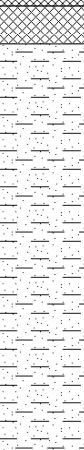
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
	Depth	Type	Results							
	0.60	B		0.30	29.05		MADE GROUND: Grass over brown slightly sandy slightly gravelly silt with low cobble content of concrete. Sand is fine to coarse. Gravel is fine to coarse angular to subangular of concrete and quartzite.			
							Reddish brown slightly gravelly sandy CLAY. Gravel is fine to coarse angular to subangular of weathered grey sandstone. Sand is fine to coarse. (DEVENSIAN TILL)			
				2.25	27.10					
End of pit at 2.25 m										

Remarks:	1. Trial pit excavated to 2.25m begl and backfilled with arisings. 2. Groundwater was not encountered during the excavation process. 3. In situ CBR test conducted at 0.60m begl with a 450mm plate.
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Stability: Sides remained stable.

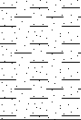


				Borehole Log			Borehole No. WS101 Sheet 1 of 1	
Project Name: Moorgate Point, Knowlsey				Project No. C4884		Co-ords: 342523.06 - 397288.00		Hole Type WS
Location: Land off Moorgate Point, Knowlsey, Liverpool				Level: 30.24		Scale 1:50		
Client: Indurent Management Limited				Dates: 28/08/2025 - 28/08/2025		Logged By TG		

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00 - 0.05	D		0.05	30.19	 MADE GROUND: Macadam surfacing. MADE GROUND: Dark grey slightly clayey gravelly fine to coarse sand. Gravel is fine to coarse angular to subangular of brick, concrete and asphalt concrete. (SUB BASE) Firm to stiff reddish brown slightly sandy CLAY. Sand is fine to medium. (DEVENSIAN TILL)		
				0.30	29.94				
	1.20		N=6 (2,1/1,1,2,2)					1	
	1.50	D							
	2.00		N=12 (2,2/3,3,3,3)					2	
		2.20	D						
		3.00		50 (10,12/50 for 180mm)	3.00	27.24		End of borehole at 3.00 m	3
									4
									5
									6
									7
									8
									9
									10

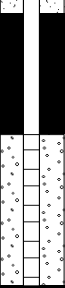
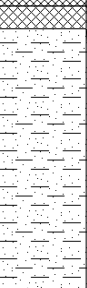
Remarks 1. Borehole terminated at 3.00m begl due to refusal and installed with a monitoring well (50mm pipe, response zone 0.90 - 2.90m begl, bentonite seal at base). 2. Groundwater was not encountered during the advancement of the borehole.		
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				Borehole Log				Borehole No. WS102 Sheet 1 of 1	
Project Name: Moorgate Point, Knowlsey				Project No. C4884		Co-ords: 342535.66 - 397240.47		Hole Type WS	
Location: Land off Moorgate Point, Knowlsey, Liverpool				Level: 30.06		Scale 1:50			
Client: Indurent Management Limited				Dates: 28/08/2025 - 28/08/2025		Logged By TG			

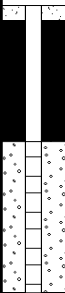
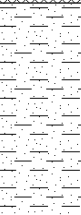
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00 - 0.05	D		0.05 0.20	30.01 29.86	 MADE GROUND: Macadam surfacing.  MADE GROUND: Dark grey slightly clayey gravelly fine to coarse sand. Gravel is fine to coarse angular to subangular of brick, concrete and asphalt concrete. (SUB BASE)  MADE GROUND: Light grey slightly clayey sandy fine to coarse angular gravel of mudstone. Sand is fine to coarse. (SUB BASE)  Firm to stiff reddish brown slightly sandy CLAY with occasional pockets of grey clay. Sand is fine to medium. (DEVENSIAN TILL)		
	0.90	D						1	
	1.20		N=14 (2,2/3,3,4,4)						
	2.00		N=4 (1,1/1,1,1,1)					2	
	2.40	D							
2.70		50 (25 for 30mm/50 for 10mm)	2.70	27.36		3			
		End of borehole at 2.70 m						4	
								5	
								6	
								7	
								8	
								9	
								10	

Remarks 1. Borehole terminated at 2.70m begl due to refusal and backfilled with bentonite. 2. Groundwater was not encountered during the advancement of the borehole.		
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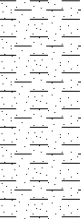
				Borehole Log			Borehole No. WS103 Sheet 1 of 1	
Project Name: Moorgate Point, Knowlsey				Project No. C4884		Co-ords: 342487.95 - 397194.14		Hole Type WS
Location: Land off Moorgate Point, Knowlsey, Liverpool				Level: 29.39		Scale 1:50		
Client: Indurent Management Limited				Dates: 28/08/2025 - 28/08/2025		Logged By TG		

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00 - 0.05	D		0.05	29.34		MADE GROUND: Macadam surfacing. MADE GROUND: Dark grey slightly clayey fine to coarse sand. Gravel is fine to coarse angular to subangular of brick, concrete and asphalt concrete. (SUB BASE) Firm to stiff reddish brown slightly sandy CLAY. Sand is fine to medium. (DEVENSIAN TILL)	
		0.10	D		0.20	29.19			
		0.40	D						
		1.20		N=8 (1,1/2,1,2,3)					1
		1.50	D						
		2.00		N=50 (11,12/50 for 295mm)	2.00	27.39		End of borehole at 2.00 m	2
									3
									4
									5
									6
									7
									8
									9
									10

Remarks 1. Borehole terminated at 2.00m begl due to refusal and installed with a monitoring well (50mm pipe, response zone 0.90 - 1.90m begl, bentonite seal at base). 2. Groundwater was not encountered during the advancement of the borehole.		
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				Borehole Log				Borehole No. WS104 Sheet 1 of 1	
Project Name: Moorgate Point, Knowlsey				Project No. C4884		Co-ords: 342614.58 - 397202.06		Hole Type WS	
Location: Land off Moorgate Point, Knowlsey, Liverpool				Level: 29.97		Scale 1:50			
Client: Indurent Management Limited				Dates: 28/08/2025 - 28/08/2025		Logged By TG			
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.50	29.47		MADE GROUND: Grass and shrub over brown slightly sandy slightly gravelly SILT. Gravel is fine to coarse angular to subangular of concrete and quartzite.	
		1.20		N=10 (3,3/3,3,2,2)				Firm to stiff reddish brown slightly sandy CLAY. Sand is fine to medium. (DEVENSIAN TILL)	1
		2.00		N=50 (10,10/50 for 285mm)	2.00	27.97		End of borehole at 2.00 m	2
									3
									4
									5
									6
									7
									8
									9
									10
Remarks 1. Borehole terminated at 2.00m begl due to refusal and installed with a monitoring well (50mm pipe, response zone 0.90 - 1.90m begl, bentonite seal at base). 2. Groundwater was not encountered during the advancement of the borehole.									

				Borehole Log				Borehole No. WS105 Sheet 1 of 1	
Project Name: Moorgate Point, Knowlsey				Project No. C4884		Co-ords: 342569.61 - 397150.50		Hole Type WS	
Location: Land off Moorgate Point, Knowlsey, Liverpool				Level: 29.35		Scale 1:50			
Client: Indurent Management Limited				Dates: 28/08/2025 - 28/08/2025		Logged By TG			

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.50	28.85		MADE GROUND: Grass and shrub over brown slightly sandy slightly gravelly SILT. Gravel is fine to coarse angular to subangular of concrete and quartzite.	
		1.20		N=11 (2,3/3,3,3,2)				Firm to stiff reddish brown slightly sandy CLAY. Sand is fine to medium. (DEVENSIAN TILL)	1
		1.30	D						
		1.50	D						
		2.00		N=50 (9,10/50 for 285mm)	2.00	27.35		End of borehole at 2.00 m	2
									3
									4
									5
									6
									7
									8
									9
									10

Remarks 1. Borehole terminated at 2.00m begl due to refusal and backfilled with bentonite. 2. Groundwater was not encountered during the advancement of the borehole.								
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Appendix IV

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HSP Consulting
Boutique Workplace Company
6 Bennetts Hill
Birmingham
B2 5ST

26 September 2025

Report No : GEO/43305/01

Page 1 of 1

For the attention of Mr T Gilbraith

Our ref	GEO / 43305	Date samples received	01/09/2025
Your ref	C4884	Date written instructions received	01/09/2025
Order ref	SC16164/C4884/TG	Date testing commenced	02/09/2025
		Date of sample disposal	24/10/2025

Project **MOORGATE POINT, KNOWSLEY**

Further to your instructions we have pleasure in enclosing the results of the tests you requested in the attached figures.

LABORATORY TEST REPORT

Item No	Test Quantity	Description
1	~	Liquid & Plastic Limits Summary
~	10	Water Content
2	10	Liquid & Plastic Limits
3	8	Particle Size Distribution
4	3	Water Content / Dry Density Relationship

Any opinions or interpretations expressed herein are outside the scope of UKAS accreditation. All results contained in this report are provisional and may be subject to change unless signed by an approved signatory. The results contained in this report relate only to samples received in the laboratory and are tested 'as received' unless otherwise stated. This report should not be reproduced, except in full, without the written approval of the laboratory. The results reported are applicable only to the test items received by the laboratory.

All the necessary data required by the documented test procedures has been recorded and will be stored for a period of not less than 6 years. This data will be issued to yourselves at your request. All samples will be disposed of after the date shown above. Written confirmation will be required to retain the samples beyond this period and a storage charge may be applied.

We trust that the above meets your requirements and should you require any further information or assistance, please do not hesitate to contact us.

Yours faithfully
on behalf of **GEOLABS Limited**



J A Reynolds
Director

SUMMARY OF LIQUID AND PLASTIC LIMIT TESTS

Location	Depth m	Sample Ref	Sample Type	Description	Water Content BS EN ISO 17892-1 : 2014 +A1:2022 %	Liquid Limit %	Plastic Limit %	Plasticity Index %	Percentage Passing 425µm %	Atterberg Classification BS EN ISO 14688-2:2018	Test Type	Sample Condition
CP101	1.20-1.65	SPT	D	Reddish brown sandy CLAY with rare fine gravel.	10.5	20	11	9	98	CIL	1	1
CP102	0.40-0.60		D	Orangish brown CLAY with rare fine gravel.	9.6	32	15	17	99	CIL	1	1
CP102	1.20-1.65	SPT	D	Reddish brown mottled black sandy CLAY.	11.0	29	15	14	100	CIL	1	1
TP101	1.00		B	Brown very sandy CLAY with rare fine to medium gravel.	11.4	25	12	13	98	CIL	1	1
TP102	1.80		B	Reddish brown very clayey SAND with rare fine to coarse gravel.	16.8	29	14	15	100	CIL	1	1
TP103	0.60		B	Reddish brown very clayey SAND with rare fine to coarse gravel.	8.7	29	15	14	97	CIL	1	1
WS101	2.20		D	Dark brown CLAY with some fine gravel.	14.1	30	14	16	94	CIL	1	1
WS102	0.90		D	Orangish brown sandy CLAY with rare medium gravel.	15.9	32	15	17	100	CIL	1	1
WS103	1.50		D	Reddish brown sandy CLAY.	15.9	22	13	9	100	CIL	1	1
WS105	1.30		D	Reddish brown sandy CLAY.	14.6	31	14	17	100	CIL	1	1

Test Type: 1 - 1 point 80g / 30° fall cone method.

Sample condition: 1 - As Received
2 - Air Dried
3 - Washed & Air Dried

Checked and Approved by:


J A Reynolds - Director
26/09/2025

Project Number:

GEO / 43305

Project Name:

MOORGATE POINT, KNOWSLEY
C4884

GEOLABS®



LIQUID AND PLASTIC LIMITS

Location CP101
 Sample Ref SPT
 Depth (m) 1.20
 Sample Type D

Description:

Reddish brown sandy CLAY with rare fine gravel.

Preparation : Sample as received with discrete coarse particles removed by hand.

Water Content : (BS EN ISO 17892-1:2014+A1:2022) 10.5 %

Estimated percentage passing 425µm sieve : 98 %

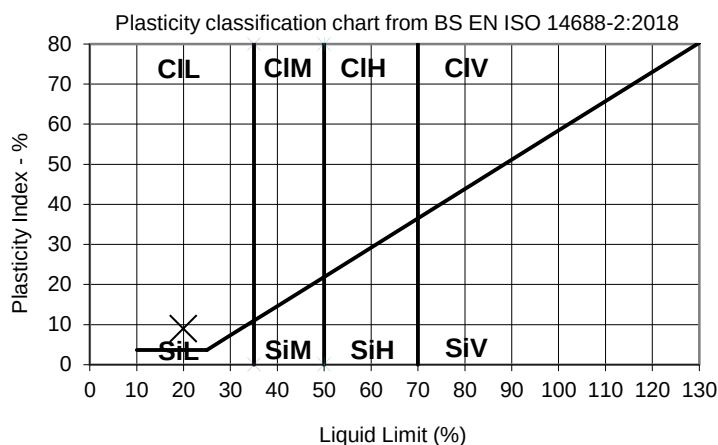
***Liquid Limit - Fall Cone 1 point Method (cone angle 30°) :** 20 %

Plastic Limit : 11 %

Plasticity Index : 9 %

Equivalent Water Content of material passing 425µm sieve : 10.7 %

Liquidity Index : -0.03

***One point liquid limit test readings**

Cone penetration 20.4 mm

Water content 20.1 %

One point method correlation factor : BS 1377-2 : 2022 : 5.3.2 0.994

Tested by MMCG
 Checked and Approved by

J A Reynolds

J A Reynolds - Director
 26/09/2025

Project Number:

GEO / 43305

Project Name:

**MOORGATE POINT, KNOWSLEY
 C4884**

GEOLABS



LIQUID AND PLASTIC LIMITS

Location CP102
Depth (m) 0.40
Sample Type D

Description:

Orangish brown CLAY with rare fine gravel.

Preparation : Sample as received with discrete coarse particles removed by hand.

Water Content : (BS EN ISO 17892-1:2014+A1:2022) 9.6 %

Estimated percentage passing 425µm sieve : 99 %

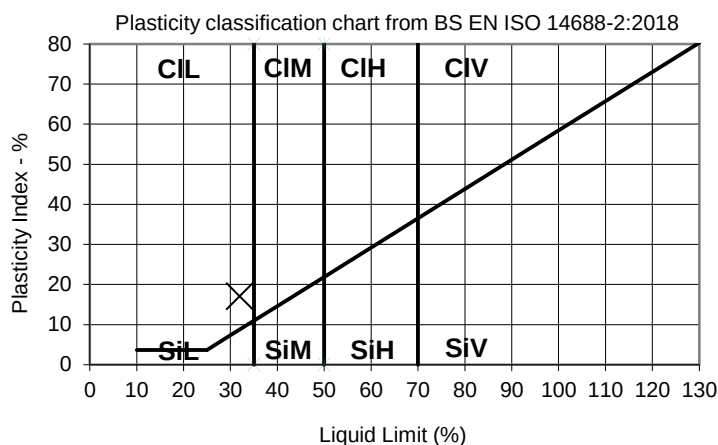
*Liquid Limit - Fall Cone 1 point Method (cone angle 30°) : 32 %

Plastic Limit : 15 %

Plasticity Index : 17 %

Equivalent Water Content of material passing 425µm sieve : 9.7 %

Liquidity Index : -0.31

***One point liquid limit test readings**

Cone penetration 20.3 mm

Water content 31.7 %

One point method correlation factor : BS 1377-2 : 2022 : 5.3.2 0.995

Tested by MMCG
Checked and Approved by

J A Reynolds

J A Reynolds - Director
26/09/2025

Project Number:

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**MOORGATE POINT, KNOWSLEY
C4884**

GEOLABS



LIQUID AND PLASTIC LIMITS

Location CP102
 Sample Ref SPT
 Depth (m) 1.20
 Sample Type D

Description:

Reddish brown mottled black sandy CLAY.

Preparation : Sample as received.

Water Content : (BS EN ISO 17892-1:2014+A1:2022) 11.0 %

Estimated percentage passing 425µm sieve : 100 %

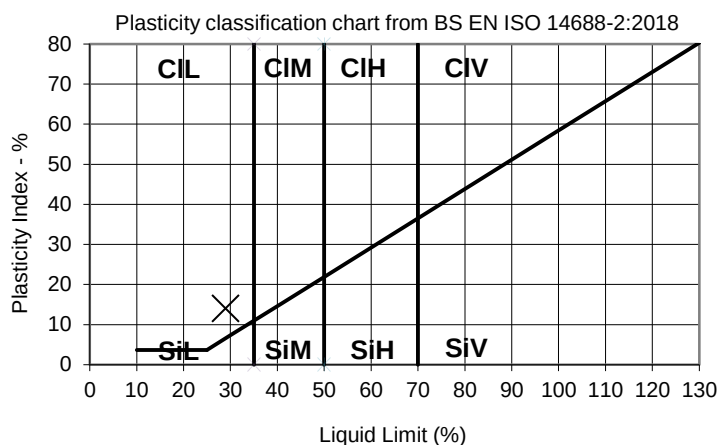
*Liquid Limit - Fall Cone 1 point Method (cone angle 30°) : 29 %

Plastic Limit : 15 %

Plasticity Index : 14 %

Equivalent Water Content of material passing 425µm sieve : 11.0 %

Liquidity Index : -0.29

***One point liquid limit test readings**

Cone penetration 19.7 mm

Water content 28.6 %

One point method correlation factor : BS 1377-2 : 2022 : 5.3.2 1.004

Tested by BM
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J A Reynolds

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**MOORGATE POINT, KNOWSLEY
 C4884**

GEOLABS



LIQUID AND PLASTIC LIMITS

Location TP101
Depth (m) 1.00
Sample Type B

Description:

Brown sandy CLAY with rare fine gravel.

Preparation : Sample as received with discrete coarse particles removed by hand.

Water Content : (BS EN ISO 17892-1:2014+A1:2022) 11.4 %

Estimated percentage passing 425µm sieve : 89 %

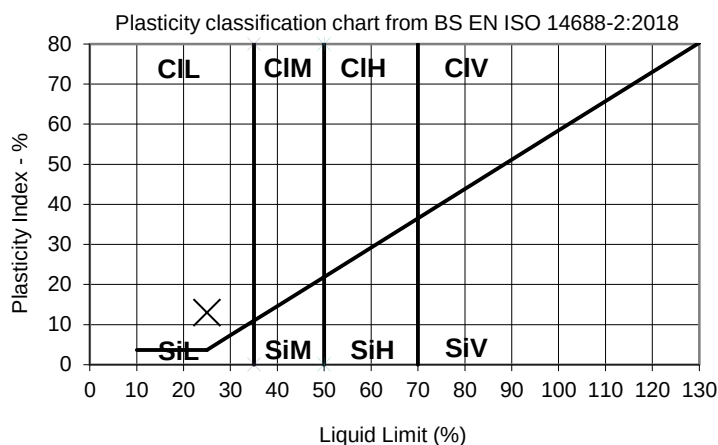
*Liquid Limit - Fall Cone 1 point Method (cone angle 30°) : 25 %

Plastic Limit : 12 %

Plasticity Index : 13 %

Equivalent Water Content of material passing 425µm sieve : 12.8 %

Liquidity Index : 0.06

***One point liquid limit test readings**

Cone penetration 19.1 mm

Water content 24.3 %

One point method correlation factor : BS 1377-2 : 2022 : 5.3.2 1.014

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GEOLABS



LIQUID AND PLASTIC LIMITS

Location TP102
Depth (m) 1.80
Sample Type B

Description:

Reddish brown sandy CLAY.

Preparation : Sample as received with discrete coarse particles removed by hand.

Water Content : (BS EN ISO 17892-1:2014+A1:2022) 16.8 %

Estimated percentage passing 425µm sieve : 84 %

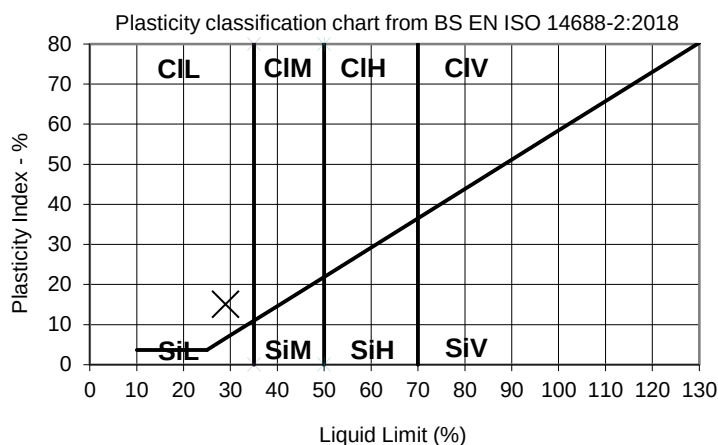
*Liquid Limit - Fall Cone 1 point Method (cone angle 30°) : 29 %

Plastic Limit : 14 %

Plasticity Index : 15 %

Equivalent Water Content of material passing 425µm sieve : 20.0 %

Liquidity Index : 0.40

***One point liquid limit test readings**

Cone penetration 21.0 mm

Water content 29.3 %

One point method correlation factor : BS 1377-2 : 2022 : 5.3.2 0.985

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LIQUID AND PLASTIC LIMITS

Location TP103
Depth (m) 0.60
Sample Type B

Description:

Reddish brown sandy CLAY with rare fine to coarse gravel.

Preparation : Sample as received with discrete coarse particles removed by hand.

Water Content : (BS EN ISO 17892-1:2014+A1:2022) 8.7 %

Estimated percentage passing 425µm sieve : 82 %

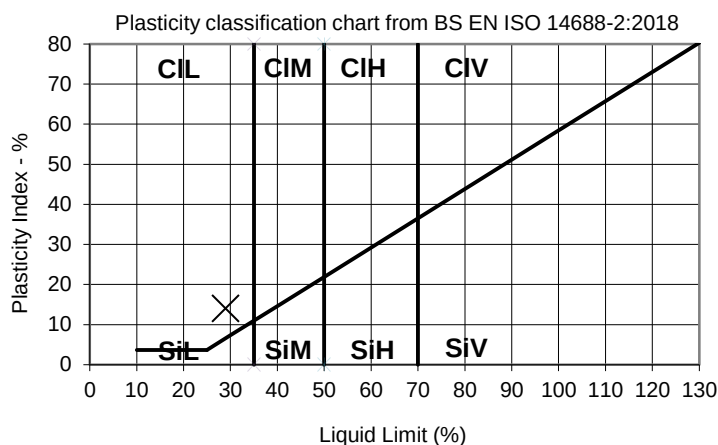
*Liquid Limit - Fall Cone 1 point Method (cone angle 30°) : 29 %

Plastic Limit : 15 %

Plasticity Index : 14 %

Equivalent Water Content of material passing 425µm sieve : 10.7 %

Liquidity Index : -0.31

***One point liquid limit test readings**

Cone penetration 18.0 mm

Water content 28.6 %

One point method correlation factor : BS 1377-2 : 2022 : 5.3.2 1.030

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GEOLABS



LIQUID AND PLASTIC LIMITS

Location WS101
 Depth (m) 2.20
 Sample Type D

Description:

Dark brown CLAY with some fine gravel.

Preparation : Sample as received with discrete coarse particles removed by hand.

Water Content : (BS EN ISO 17892-1:2014+A1:2022) 14.1 %

Estimated percentage passing 425µm sieve : 94 %

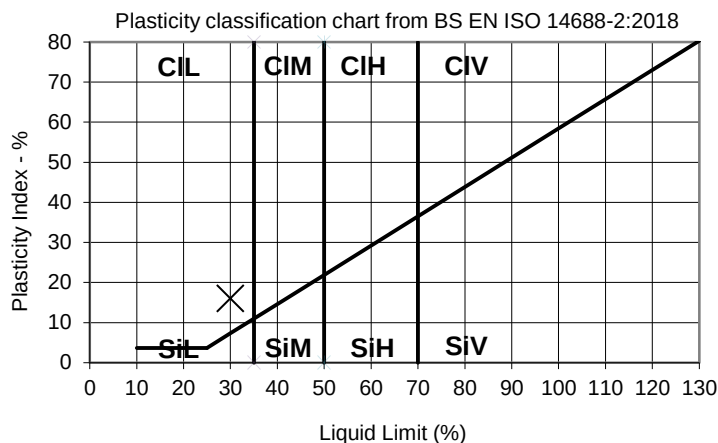
*Liquid Limit - Fall Cone 1 point Method (cone angle 30°) : 30 %

Plastic Limit : 14 %

Plasticity Index : 16 %

Equivalent Water Content of material passing 425µm sieve : 15.0 %

Liquidity Index : 0.06

***One point liquid limit test readings**

Cone penetration 19.3 mm

Water content 29.5 %

One point method correlation factor : BS 1377-2 : 2022 : 5.3.2 1.011

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GEOLABS



LIQUID AND PLASTIC LIMITS

Location WS102
 Depth (m) 0.90
 Sample Type D

Description:

Orangish brown sandy CLAY with rare medium gravel.

Preparation : Sample as received.

Water Content : (BS EN ISO 17892-1:2014+A1:2022) 15.9 %

Estimated percentage passing 425µm sieve : 100 %

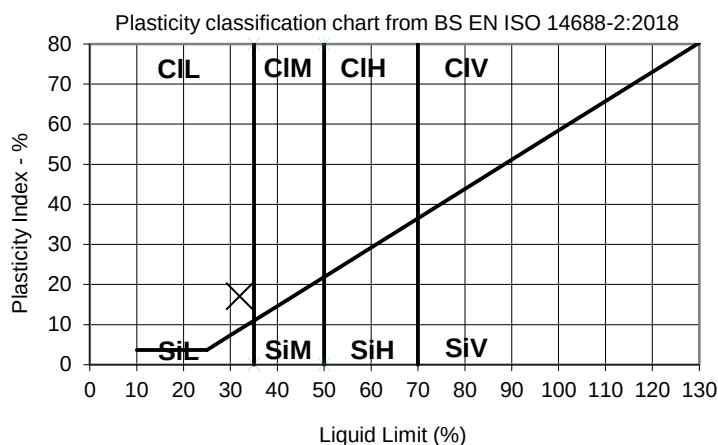
*Liquid Limit - Fall Cone 1 point Method (cone angle 30°) : 32 %

Plastic Limit : 15 %

Plasticity Index : 17 %

Equivalent Water Content of material passing 425µm sieve : 15.9 %

Liquidity Index : 0.05

***One point liquid limit test readings**

Cone penetration 20.4 mm

Water content 32.3 %

One point method correlation factor : BS 1377-2 : 2022 : 5.3.2 0.994

Tested by MMCG
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GEOLABS



LIQUID AND PLASTIC LIMITS

Location WS103
 Depth (m) 1.50
 Sample Type D

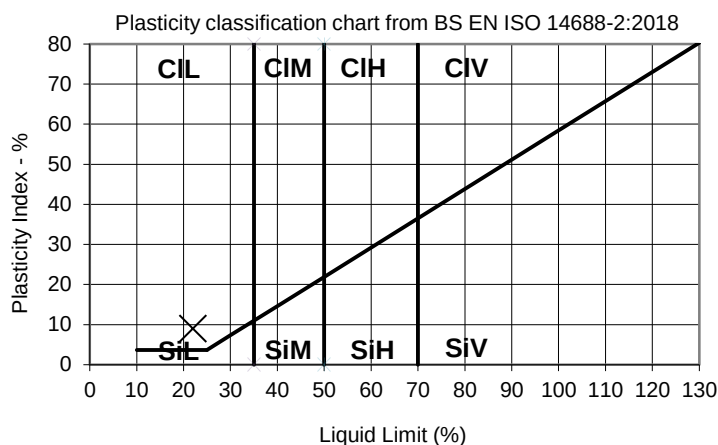
Description:

Reddish brown sandy CLAY.

Preparation : Sample as received.

Water Content : (BS EN ISO 17892-1:2014+A1:2022) 15.9 %
 Estimated percentage passing 425µm sieve : 100 %
 *Liquid Limit - Fall Cone 1 point Method (cone angle 30°) : 22 %
 Plastic Limit : 13 %
 Plasticity Index : 9 %

Equivalent Water Content of material passing 425µm sieve : 15.9 %
 Liquidity Index : 0.32

***One point liquid limit test readings**

Cone penetration 20.0 mm
 Water content 21.7 %
 One point method correlation factor : BS 1377-2 : 2022 : 5.3.2 1.000

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GEOLABS



LIQUID AND PLASTIC LIMITS

Location WS105
Depth (m) 1.30
Sample Type D

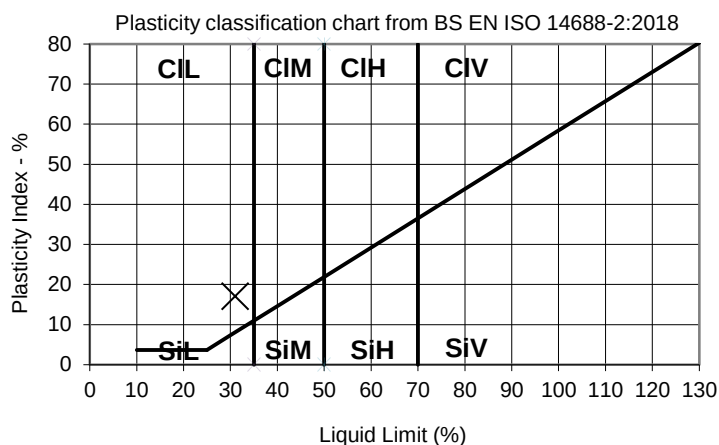
Description:

Reddish brown sandy CLAY.

Preparation : Sample as received.

Water Content : (BS EN ISO 17892-1:2014+A1:2022) 14.6 %
Estimated percentage passing 425µm sieve : 100 %
*Liquid Limit - Fall Cone 1 point Method (cone angle 30°) : 31 %
Plastic Limit : 14 %
Plasticity Index : 17 %

Equivalent Water Content of material passing 425µm sieve : 14.6 %
Liquidity Index : 0.04

***One point liquid limit test readings**

Cone penetration 21.2 mm
Water content 31.3 %
One point method correlation factor : BS 1377-2 : 2022 : 5.3.2 0.981

Tested by BM
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J A Reynolds

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**MOORGATE POINT, KNOWSLEY
C4884**

GEOLABS



PARTICLE SIZE DISTRIBUTION

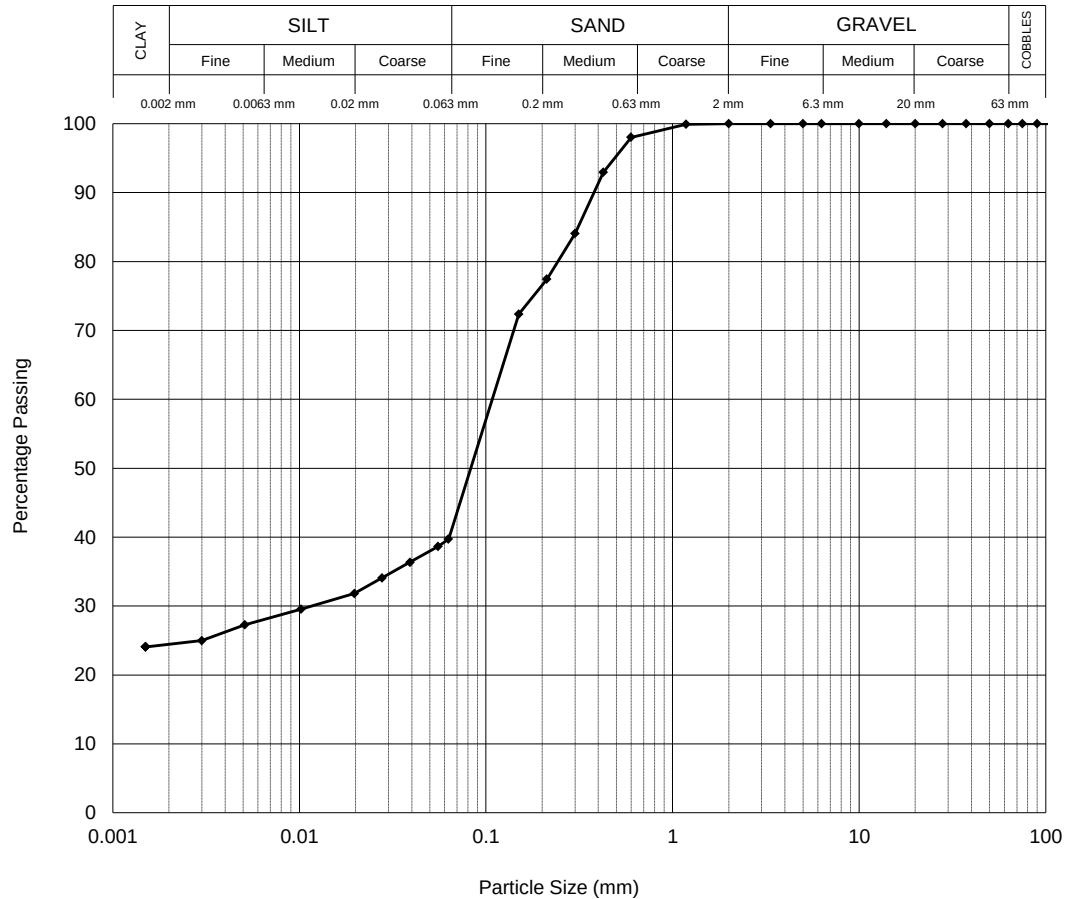
Location CP101
 Sample Ref 9
 Sample Depth 2.70-2.80 m
 Sample Type B

Description

Reddish brown very clayey SAND

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve
 BS EN ISO 17892-4 : 2016 : Clause 5.3 - Sedimentation by Hydrometer

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	100
14.0 mm	100
10.0 mm	100
6.30 mm	100
5.00 mm	100
3.35 mm	100
2.00 mm	100
1.18 mm	100
600 µm	98
425 µm	93
300 µm	84
212 µm	77
150 µm	72
63 µm	40



Sedimentation	
No Pre-treatment used	
Temp (°C)	21.2
Size	% Pass
55 µm	39
39 µm	36
28 µm	34
20 µm	32
10 µm	30
5.1 µm	27
3.0 µm	25
1.5 µm	24

Particle Density 2.70(A) Mg/m³

Particle Proportions	
Cobbles	0.0
Gravel	0.0
Sand	60.3
Silt	15.3
Clay	24.4

Tested by JB
 Checked and Approved by

J A Reynolds

J A Reynolds - Director

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PARTICLE SIZE DISTRIBUTION

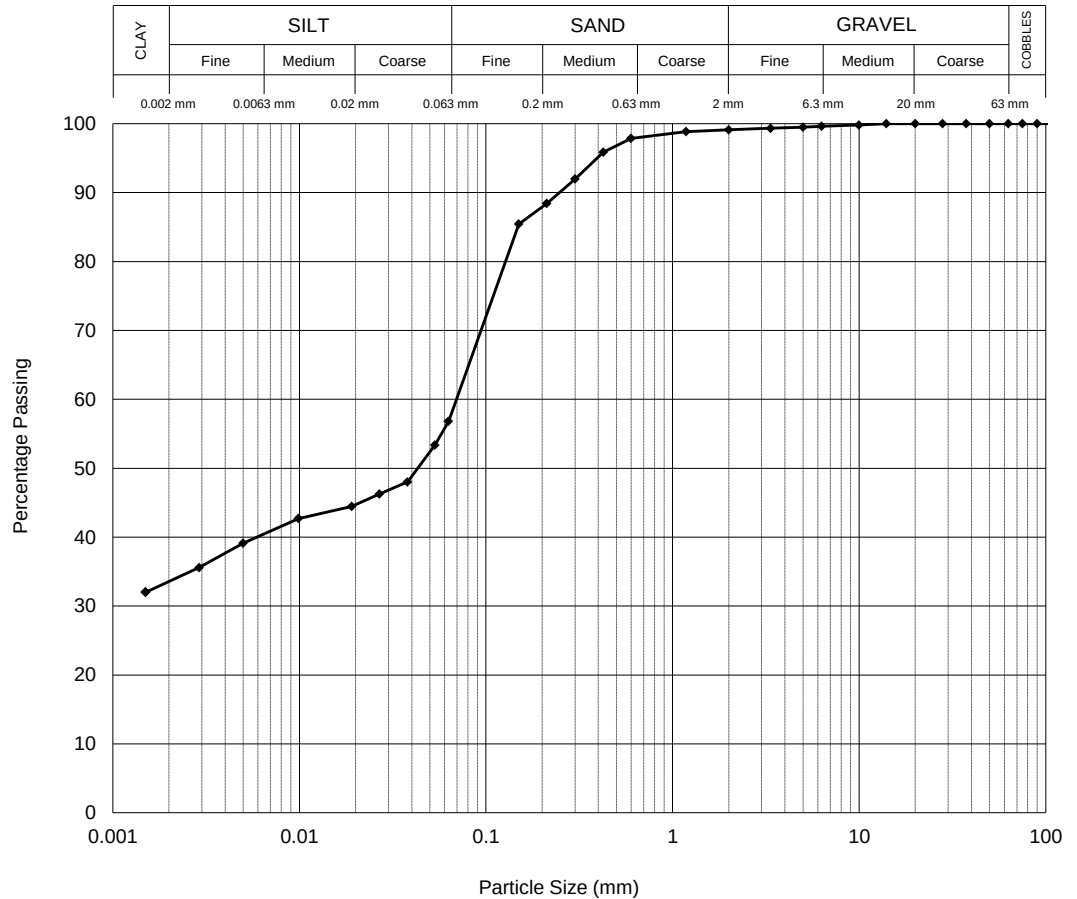
Location CP102
 Sample Ref 7
 Sample Depth 1.50-1.70 m
 Sample Type B

Description

Reddish brown mottled bluish grey very sandy CLAY with rare fine to medium gravel.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve
 BS EN ISO 17892-4 : 2016 : Clause 5.3 - Sedimentation by Hydrometer

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	100
14.0 mm	100
10.0 mm	100
6.30 mm	100
5.00 mm	100
3.35 mm	99
2.00 mm	99
1.18 mm	99
600 µm	98
425 µm	96
300 µm	92
212 µm	88
150 µm	85
63 µm	57



Sedimentation	
No Pre-treatment used	
Temp (°C)	21.2
Size	% Pass
53 µm	53
38 µm	48
27 µm	46
19 µm	44
9.9 µm	43
5.0 µm	39
2.9 µm	36
1.5 µm	32

Particle Density 2.70(A) Mg/m³

Particle Proportions	
Cobbles	0.0
Gravel	0.9
Sand	42.3
Silt	23.5
Clay	33.3

Tested by JB
 Checked and Approved by

J A Reynolds

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 26/09/2025

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**MOORGATE POINT, KNOWSLEY
 C4884**



PARTICLE SIZE DISTRIBUTION

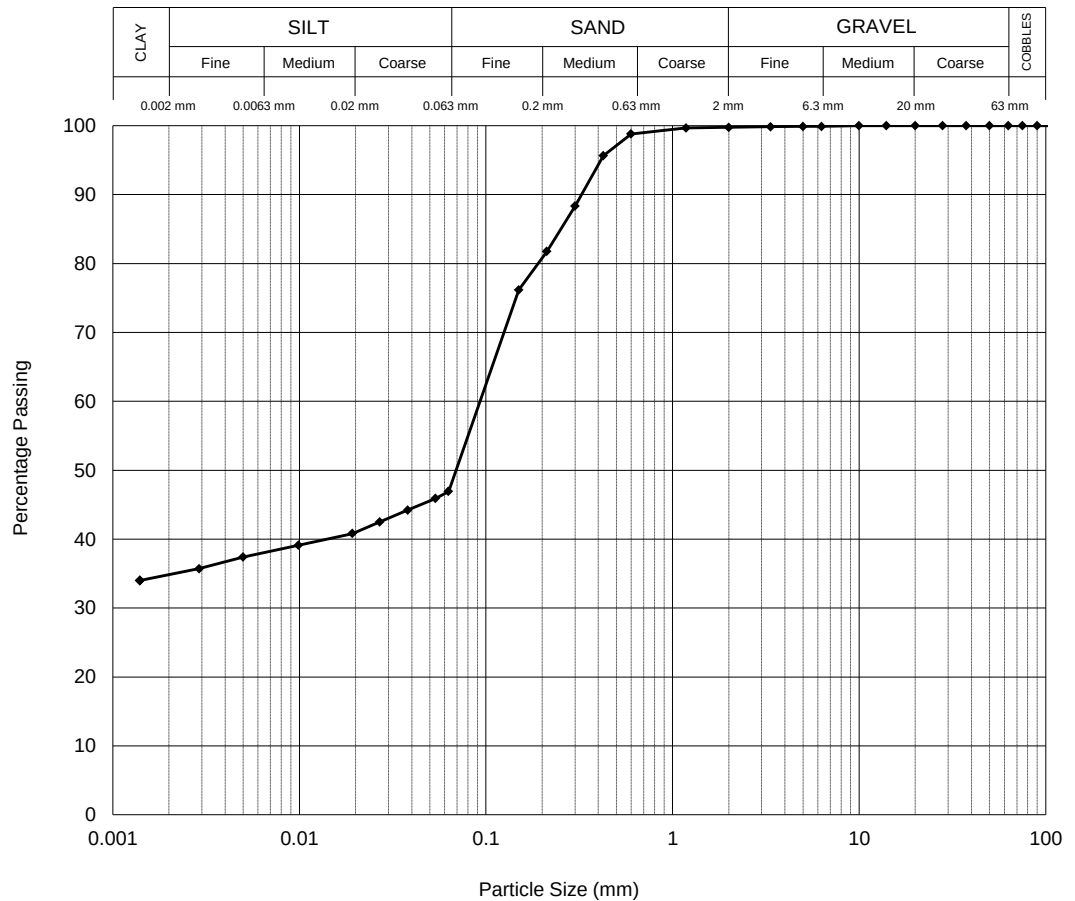
Location CP103
 Sample Depth 1.10 m
 Sample Type D

Description

Reddish brown very clayey SAND.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve
 BS EN ISO 17892-4 : 2016 : Clause 5.3 - Sedimentation by Hydrometer

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	100
14.0 mm	100
10.0 mm	100
6.30 mm	100
5.00 mm	100
3.35 mm	100
2.00 mm	100
1.18 mm	100
600 µm	99
425 µm	96
300 µm	88
212 µm	82
150 µm	76
63 µm	47



Sedimentation	
No Pre-treatment used	
Temp (°C)	21.2
Size	% Pass
54 µm	46
38 µm	44
27 µm	43
19 µm	41
9.9 µm	39
5.0 µm	37
2.9 µm	36
1.4 µm	34

Particle Density 2.70(A) Mg/m³

Particle Proportions	
Cobbles	0.0
Gravel	0.2
Sand	52.8
Silt	12.2
Clay	34.8

Tested by JB
 Checked and Approved by

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 C4884**



PARTICLE SIZE DISTRIBUTION

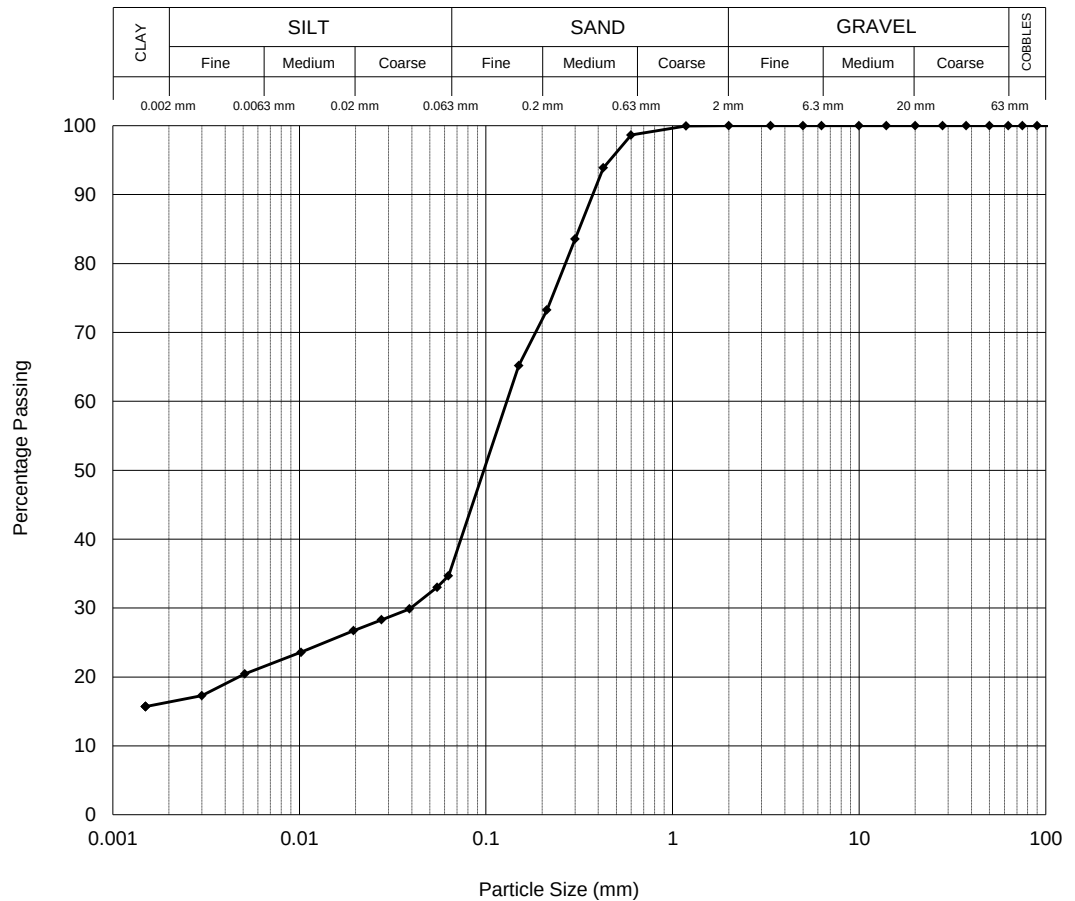
Location CP103
 Sample Depth 2.50 m
 Sample Type D

Description

Reddish brown very clayey SAND.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve
 BS EN ISO 17892-4 : 2016 : Clause 5.3 - Sedimentation by Hydrometer

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	100
14.0 mm	100
10.0 mm	100
6.30 mm	100
5.00 mm	100
3.35 mm	100
2.00 mm	100
1.18 mm	100
600 µm	99
425 µm	94
300 µm	84
212 µm	73
150 µm	65
63 µm	35



Sedimentation	
No Pre-treatment used	
Temp (°C)	21.2
Size	% Pass
55 µm	33
39 µm	30
28 µm	28
20 µm	27
10 µm	24
5.1 µm	20
3.0 µm	17
1.5 µm	16

Particle Density 2.70(A) Mg/m³

Particle Proportions	
Cobbles	0.0
Gravel	0.0
Sand	65.3
Silt	18.4
Clay	16.3

Tested by JB
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PARTICLE SIZE DISTRIBUTION

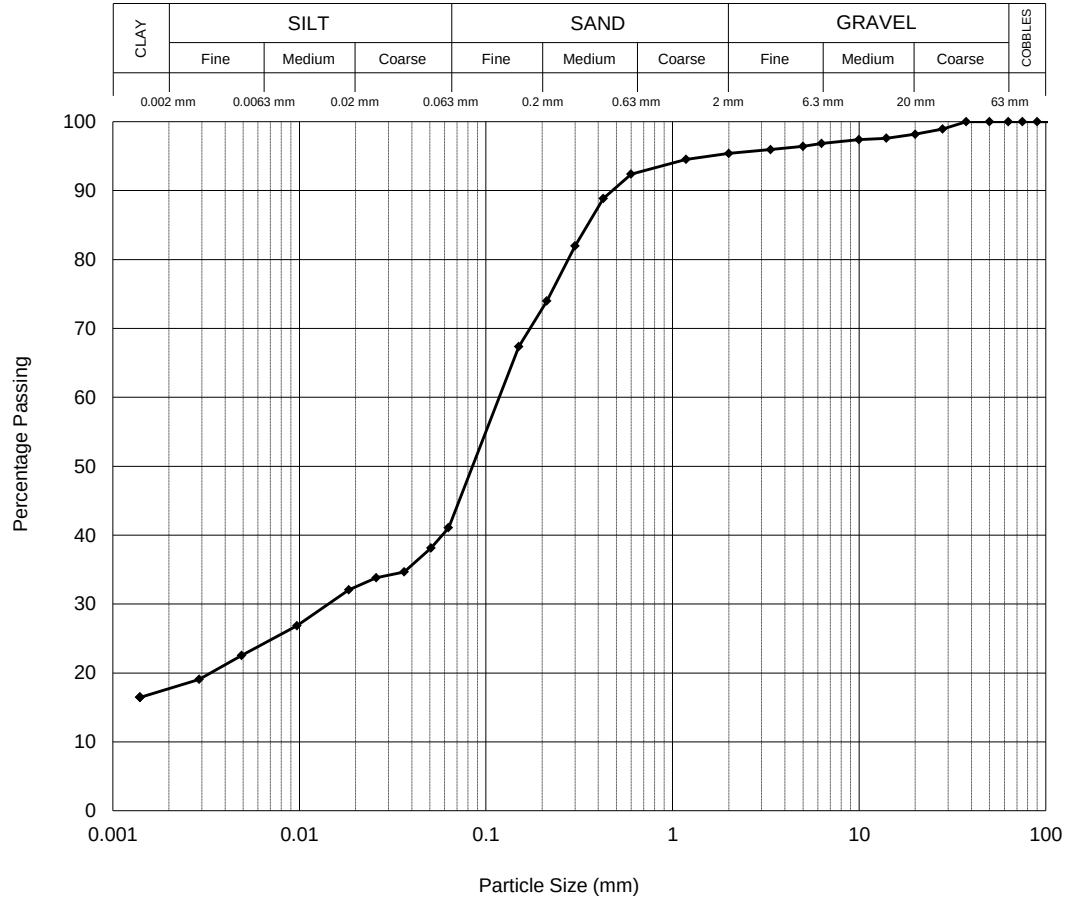
Location TP101
 Sample Depth 1.00 m
 Sample Type B

Description

Brown very sandy CLAY with rare fine to medium gravel.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve
 BS EN ISO 17892-4 : 2016 : Clause 5.3 - Sedimentation by Hydrometer

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	99
20.0 mm	98
14.0 mm	98
10.0 mm	97
6.30 mm	97
5.00 mm	96
3.35 mm	96
2.00 mm	95
1.18 mm	95
600 µm	92
425 µm	89
300 µm	82
212 µm	74
150 µm	67
63 µm	41



Sedimentation	
No Pre-treatment used	
Temp (°C)	21.2
Size	% Pass
51 µm	38
36 µm	35
26 µm	34
18 µm	32
9.7 µm	27
4.9 µm	23
2.9 µm	19
1.4 µm	16

Particle Density 2.70(A) Mg/m³

Particle Proportions	
Cobbles	0.0
Gravel	4.6
Sand	54.3
Silt	23.6
Clay	17.5

Tested by JB
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J A Reynolds - Director

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MOORGATE POINT, KNOWSLEY
C4884



PARTICLE SIZE DISTRIBUTION

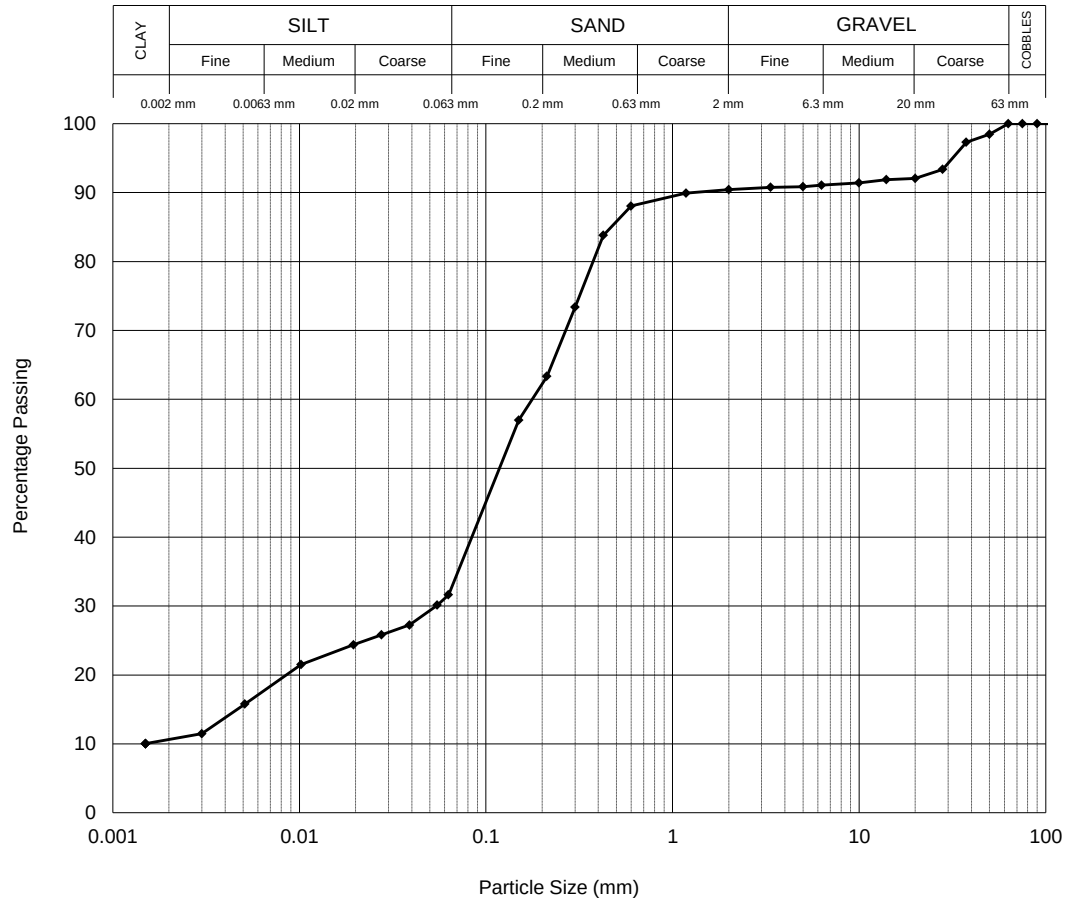
Location TP102
 Sample Depth 1.80 m
 Sample Type B

Description

Reddish brown very clayey SAND with rare fine to coarse gravel.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve
 BS EN ISO 17892-4 : 2016 : Clause 5.3 - Sedimentation by Hydrometer

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	98
37.5 mm	97
28.0 mm	93
20.0 mm	92
14.0 mm	92
10.0 mm	91
6.30 mm	91
5.00 mm	91
3.35 mm	91
2.00 mm	90
1.18 mm	90
600 µm	88
425 µm	84
300 µm	73
212 µm	63
150 µm	57
63 µm	32



Sedimentation	
No Pre-treatment used	
Temp (°C)	21.2
Size	% Pass
55 µm	30
39 µm	27
28 µm	26
20 µm	24
10 µm	22
5.1 µm	16
3.0 µm	11
1.5 µm	10

Particle Density 2.70(A) Mg/m³

Particle Proportions	
Cobbles	0.0
Gravel	9.6
Sand	58.8
Silt	21.1
Clay	10.5

Tested by JB
 Checked and Approved by

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PARTICLE SIZE DISTRIBUTION

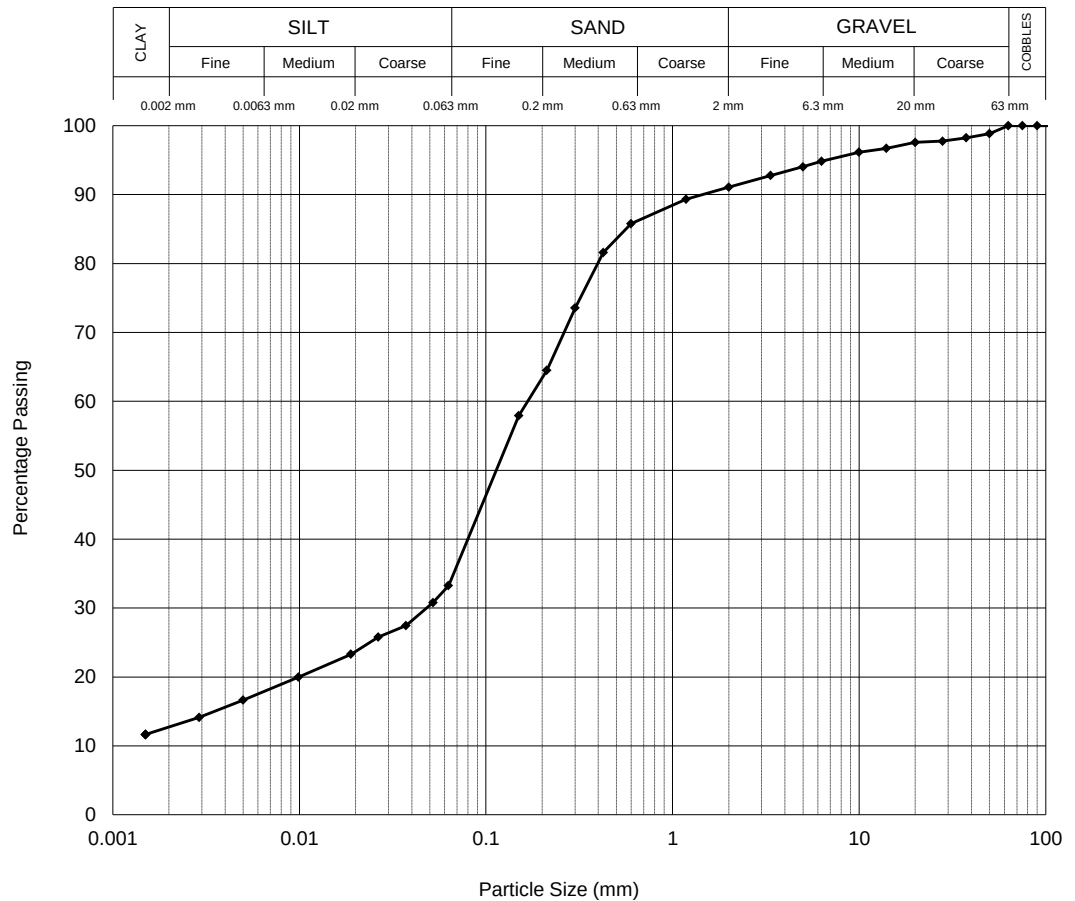
Location TP103
 Sample Depth 0.60 m
 Sample Type B

Description

Reddish brown very clayey SAND with rare fine to coarse gravel.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve
 BS EN ISO 17892-4 : 2016 : Clause 5.3 - Sedimentation by Hydrometer

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	99
37.5 mm	98
28.0 mm	98
20.0 mm	98
14.0 mm	97
10.0 mm	96
6.30 mm	95
5.00 mm	94
3.35 mm	93
2.00 mm	91
1.18 mm	89
600 µm	86
425 µm	82
300 µm	74
212 µm	65
150 µm	58
63 µm	33



Sedimentation	
No Pre-treatment used	
Temp (°C)	21.2
Size	% Pass
52 µm	31
37 µm	27
27 µm	26
19 µm	23
9.9 µm	20
5.0 µm	17
2.9 µm	14
1.5 µm	12

Particle Density 2.70(A) Mg/m³

Particle Proportions	
Cobbles	0.0
Gravel	8.9
Sand	57.8
Silt	20.7
Clay	12.6

Tested by JB
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J A Reynolds

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PARTICLE SIZE DISTRIBUTION

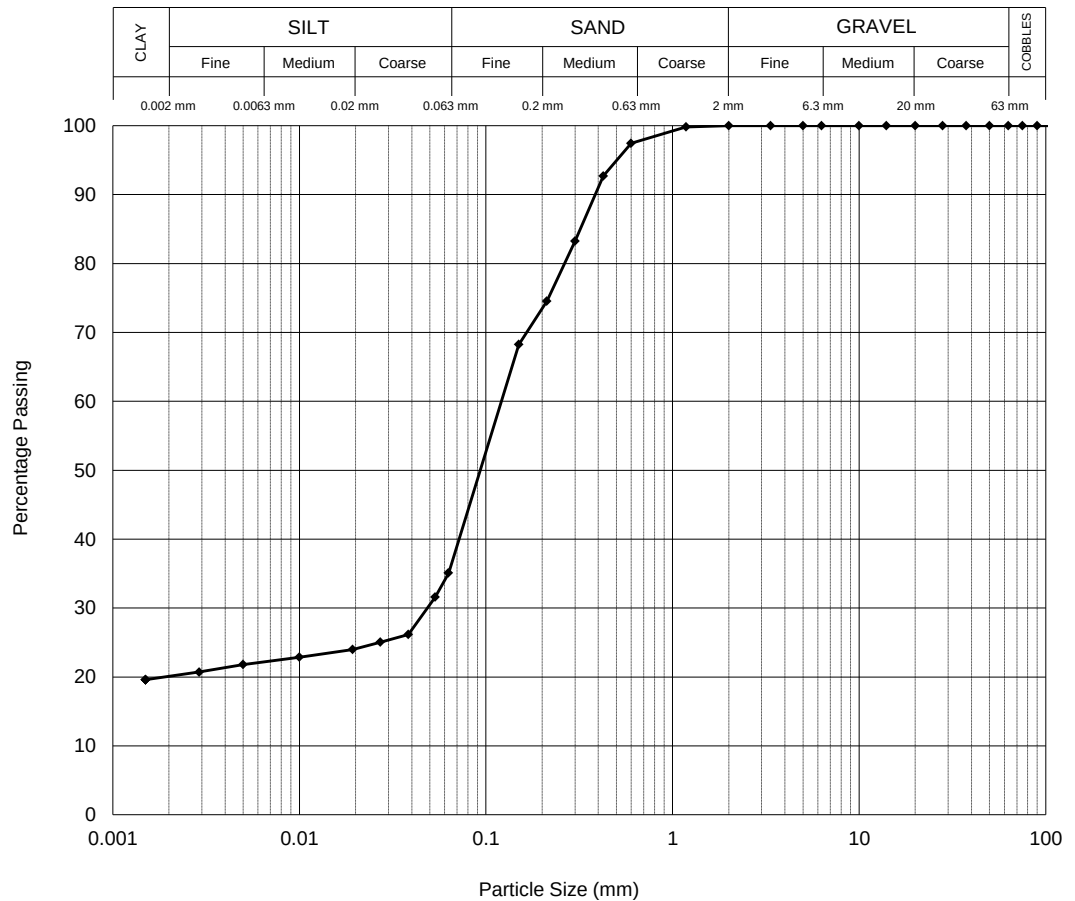
Location WS105
 Sample Depth 1.50 m
 Sample Type D

Description

Reddish brown very clayey SAND.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve
 BS EN ISO 17892-4 : 2016 : Clause 5.3 - Sedimentation by Hydrometer

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	100
14.0 mm	100
10.0 mm	100
6.30 mm	100
5.00 mm	100
3.35 mm	100
2.00 mm	100
1.18 mm	100
600 µm	97
425 µm	93
300 µm	83
212 µm	75
150 µm	68
63 µm	35



Sedimentation	
No Pre-treatment used	
Temp (°C)	21.2
Size	% Pass
53 µm	32
38 µm	26
27 µm	25
19 µm	24
10 µm	23
5.0 µm	22
2.9 µm	21
1.5 µm	20

Particle Density 2.70(A) Mg/m³

Particle Proportions	
Cobbles	0.0
Gravel	0.0
Sand	64.9
Silt	15.1
Clay	20.0

Tested by JB
 Checked and Approved by

J A Reynolds

J A Reynolds - Director
 26/09/2025

Project Number:

GEO / 43305

Project Name:

**MOORGATE POINT, KNOWSLEY
 C4884**



WATER CONTENT / DRY DENSITY RELATIONSHIP

Location TP101
Sample Depth 1.00 m
Sample Type B

Description:

Brown sandy CLAY with rare fine gravel.

Preparation

Air dried

Test Method

2.5 kg Rammer 1L mould for soils with particles up to medium-gravel size

Samples Used

Single

Mass Retained on 37.5 mm Sieve

%

0

Mass Retained on 20.0 mm Sieve

%

1

Grading Zone

2

Particle Density - Assumed

Mg/m³

2.65

Natural Water Content

%

11.4

Maximum Dry Density

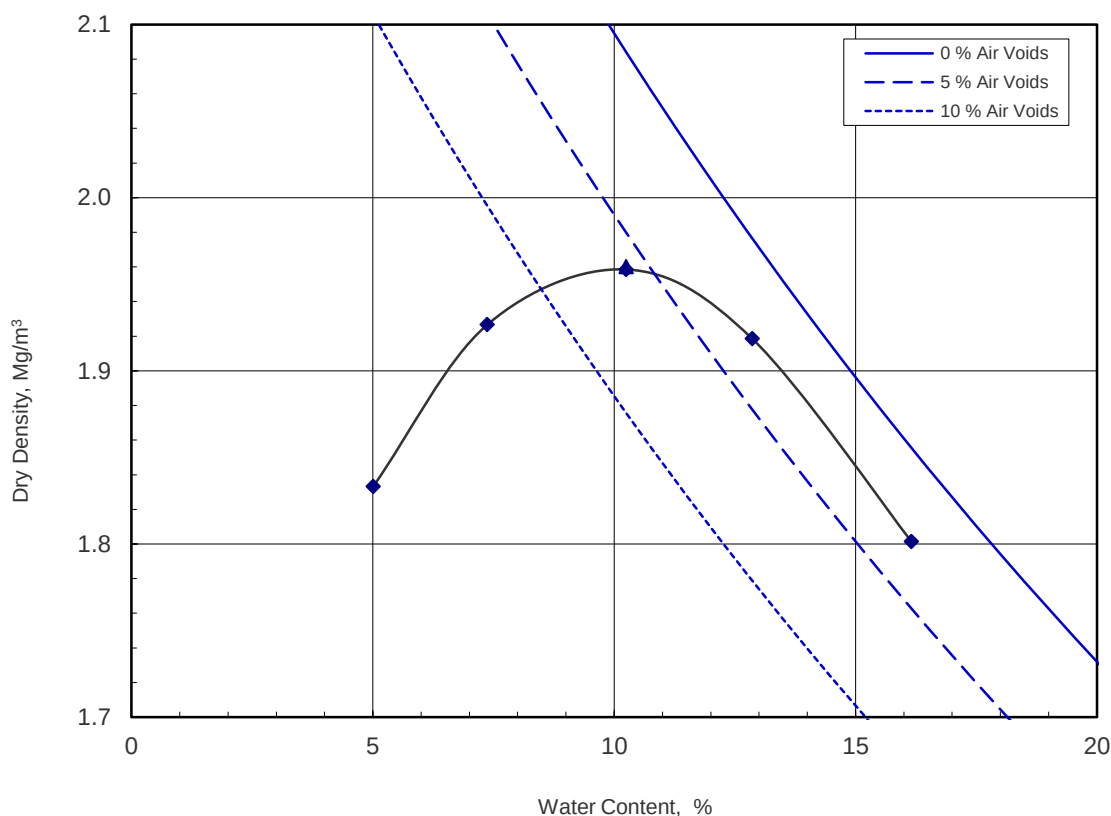
Mg/m³

1.96

Optimum Water Content

%

10.3



Determination		1	2	3	4	5
Water Content	%	5.0	7.4	10.3	12.9	16.2
Dry Density	Mg/m ³	1.83	1.93	1.96	1.92	1.80

Tested by DF
Checked and Approved by

J A Reynolds

J A Reynolds - Director
26/09/2025

Project Number:

GEO / 43305

Project Name:

**MOORGATE POINT, KNOWSLEY
C4884**

GEOLABS



WATER CONTENT / DRY DENSITY RELATIONSHIP

Location TP102
Sample Depth 1.80 m
Sample Type B

Description:

Reddish brown sandy CLAY with some fine to coarse gravel.

Preparation

Air dried

Test Method

4.5 kg Rammer CBR mould for soils with
some coarse gravel-size particles

Samples Used

Single

Mass Retained on 37.5 mm Sieve

%

2

Mass Retained on 20.0 mm Sieve

%

5

Grading Zone

4

Particle Density - Assumed

Mg/m³

2.65

Natural Water Content

%

16.8

Maximum Dry Density

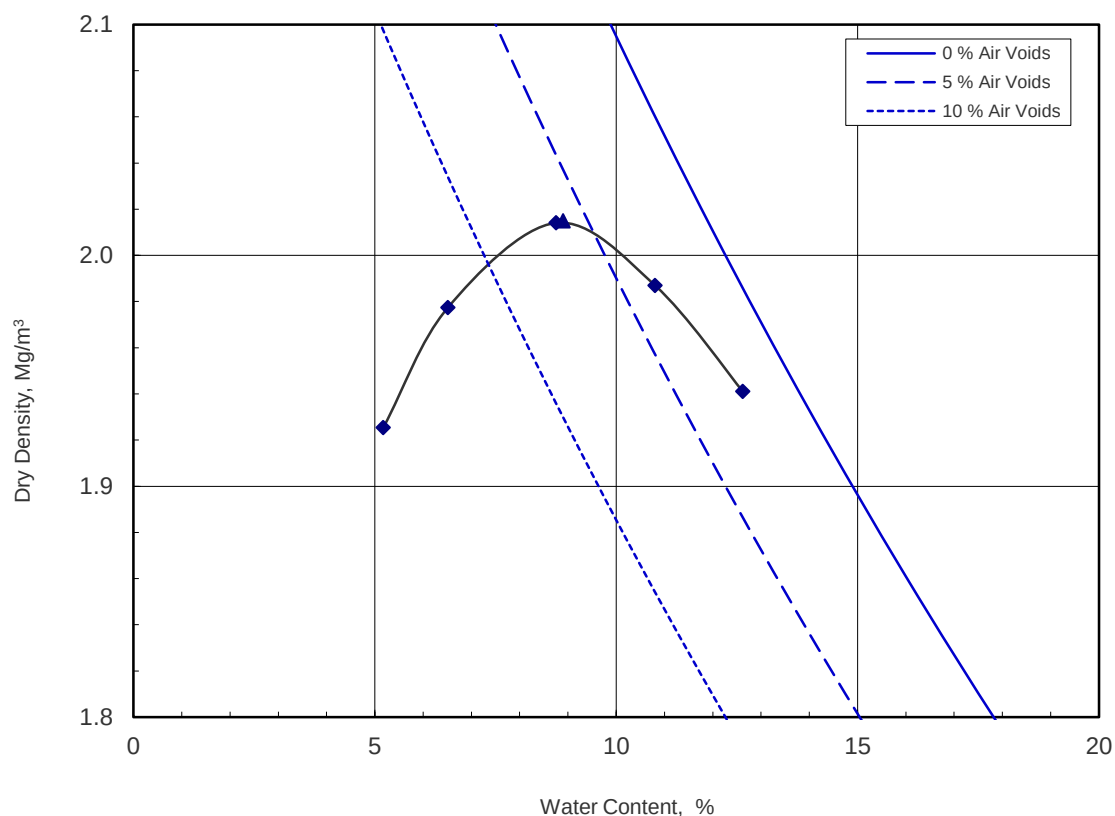
Mg/m³

2.01

Optimum Water Content

%

8.9



Determination	1	2	3	4	5	
Water Content	%	5.2	6.5	8.8	10.8	12.6
Dry Density	Mg/m ³	1.93	1.98	2.01	1.99	1.94

Tested by DF
Checked and Approved by

J A Reynolds - Director
26/09/2025

Project Number:

GEO / 43305

Project Name:

MOORGATE POINT, KNOWSLEY
C4884

GEOLABS

WATER CONTENT / DRY DENSITY RELATIONSHIP

Location TP103
Sample Depth 0.60 m
Sample Type B

Description:

Reddish brown sandy CLAY with rare fine to coarse gravel.

Preparation

Air dried

Test Method

4.5 kg Rammer CBR mould for soils with some coarse gravel-size particles

Samples Used

Single

Mass Retained on 37.5 mm Sieve

%

2

Mass Retained on 20.0 mm Sieve

%

1

Grading Zone

4

Particle Density - Assumed

Mg/m³

2.65

Natural Water Content

%

8.7

Maximum Dry Density

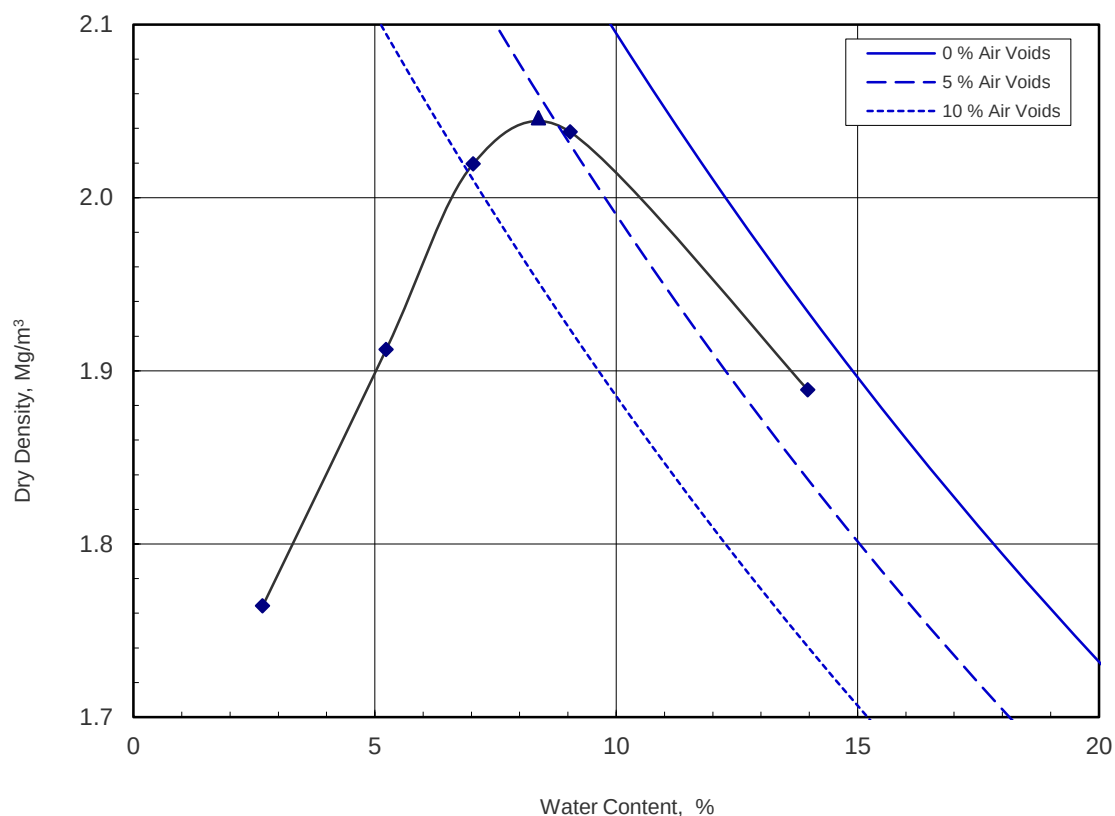
Mg/m³

2.05

Optimum Water Content

%

8.4



Determination	1	2	3	4	5
Water Content %	2.7	5.2	7.0	9.1	14.0
Dry Density Mg/m ³	1.76	1.91	2.02	2.04	1.89

Tested by DF
Checked and Approved by

J A Reynolds

J A Reynolds - Director
26/09/2025

Project Number:

GEO / 43305

Project Name:

**MOORGATE POINT, KNOWSLEY
C4884**

GEOLABS



Appendix V



Amended Report

Report No.: 25-28760-9

Initial Date of Issue: 06-Oct-2025 **Date of Re-Issue:** 22-Oct-2025

Re-Issue Details: This report has been revised and directly supersedes 25-28760-8 in its entirety

Client *HSP Consulting Engineers Limited*

Client Address: *Lawrence House
Meadowbank Way
Eastwood
Nottinghamshire
NG16 3SB*

Contact(s): *Tim Gilbraith*

Project *C4884 Moorgate Point, Knowsley*

Quotation No.: **Date Received:** 02-Sep-2025

Order No.: SC16165/C4884/TG **Date Instructed:** 03-Sep-2025

No. of Samples: 11

Turnaround (Wkdays): 31 **Results Due:** 15-Oct-2025

Date Approved: 15-Oct-2025

Approved By:

Details: David Smith, Technical Director
Simon Wicks, Specialist Chemist

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Amended Report

Report No.:	25-30746-7		
Initial Date of Issue:	03-Oct-2025	Date of Re-Issue:	22-Oct-2025
Re-Issue Details:	This report has been revised and directly supersedes 25-30746-6 in its entirety		
Client	<i>HSP Consulting Engineers Limited</i>		
Client Address:	<i>Lawrence House Meadowbank Way Eastwood Nottinghamshire NG16 3SB</i>		
Contact(s):	<i>Tim Gilbraith</i>		
Project	<i>C4884 Moorgate Point, Knowsley</i>		
Quotation No.:		Date Received:	22-Sep-2025
Order No.:	SC16165/C4884/TG	Date Instructed:	22-Sep-2025
No. of Samples:	7		
Turnaround (Wkdays):	10	Results Due:	03-Oct-2025
Date Approved:	03-Oct-2025		
Approved By:			



Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Miscellaneous Solid

Project: C4884 Moorgate Point, Knowsley

Client: HSP Consulting Engineers Limited	Chemtest Job No.:				25-28760	25-28760	25-28760
Quotation No.:	Chemtest Sample ID.:				2022878	2022881	2022883
	Client Sample ID.:				Tarmac Sample	Tarmac Sample	Tarmac Sample
	Client Reference:				WS103	WS102	WS101
	Sample Type:				MISCSOLID	MISCSOLID	MISCSOLID
	Top Depth (m):				0.00	0.00	0.00
	Bottom Depth (m):				0.05	0.05	0.05
	Date Sampled:				28-Aug-2025	28-Aug-2025	28-Aug-2025
Determinand	Accred.	SOP	Units	LOD			
Chromatogram (TPH)	N			N/A	See Attached		See Attached
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	I/S	< 1.0
Aliphatic TPH C8-C10	N	2680	mg/kg	0.10	< 0.10	I/S	< 0.10
Aliphatic TPH C10-C12	N	2680	mg/kg	1.0	2.9	I/S	3.8
Aliphatic TPH C12-C16	N	2680	mg/kg	1.0	1.0	I/S	9.7
Aliphatic TPH C16-C21	N	2680	mg/kg	1.0	10	I/S	14
Aliphatic TPH C21-C35	N	2680	mg/kg	1.0	14	I/S	19
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	20	I/S	11
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	48	I/S	57
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	I/S	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	I/S	< 1.0
Aromatic TPH C8-C10	N	2680	mg/kg	0.10	< 0.10	I/S	< 0.10
Aromatic TPH C10-C12	N	2680	mg/kg	1.0	1.6	I/S	9.3
Aromatic TPH C12-C16	N	2680	mg/kg	1.0	< 1.0	I/S	48
Aromatic TPH C16-C21	N	2680	mg/kg	1.0	67	I/S	1000
Aromatic TPH C21-C36	N	2680	mg/kg	1.0	560	I/S	3200
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	910	I/S	510
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	1500	I/S	4800
Total Petroleum Hydrocarbons	N	2680	mg/kg	10	1600	I/S	4900
Double Ratio Fluoranthene:Pyrene	N	2700		0.010	0.85	1.1	< 0.010
Double Ratio Benzo(a)Anthracene:Chrysene	N	2700		0.010	0.92	1.1	< 0.010
Naphthalene	N	2800	mg/kg	0.10	0.57	< 0.10	19
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	4.5
Acenaphthene	N	2800	mg/kg	0.10	0.27	< 0.10	120
Fluorene	N	2800	mg/kg	0.10	0.10	< 0.10	110
Phenanthrene	N	2800	mg/kg	0.10	0.27	0.56	990
Anthracene	N	2800	mg/kg	0.10	0.27	0.19	300
Fluoranthene	N	2800	mg/kg	0.10	1.4	1.2	1300
Pyrene	N	2800	mg/kg	0.10	1.7	1.1	1100
Benzo[a]anthracene	N	2800	mg/kg	0.10	1.2	0.53	480
Chrysene	N	2800	mg/kg	0.10	1.8	0.54	430
Benzo[b]fluoranthene	N	2800	mg/kg	0.10	4.8	0.90	510
Benzo[k]fluoranthene	N	2800	mg/kg	0.10	1.4	0.37	190
Benzo[a]pyrene	N	2800	mg/kg	0.10	3.4	0.65	410
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.10	3.4	0.54	230

Results - Miscellaneous Solid

Project: C4884 Moorgate Point, Knowsley

Client: HSP Consulting Engineers Limited	Chemtest Job No.:				25-28760	25-28760	25-28760
Quotation No.:	Chemtest Sample ID.:				2022878	2022881	2022883
	<i>Client Sample ID.:</i>	<i>Tarmac Sample</i>			<i>Tarmac Sample</i>		<i>Tarmac Sample</i>
	<i>Client Reference:</i>	<i>WS103</i>			<i>WS102</i>		<i>WS101</i>
	<i>Sample Type:</i>	<i>MISCSOLID</i>			<i>MISCSOLID</i>		<i>MISCSOLID</i>
	<i>Top Depth (m):</i>	<i>0.00</i>			<i>0.00</i>		<i>0.00</i>
	<i>Bottom Depth (m):</i>	<i>0.05</i>			<i>0.05</i>		<i>0.05</i>
	<i>Date Sampled:</i>	<i>28-Aug-2025</i>			<i>28-Aug-2025</i>		<i>28-Aug-2025</i>
Determinand	Accred.	SOP	Units	LOD			
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	0.56	< 0.10	53
Benzo[g,h,i]perylene	N	2800	mg/kg	0.10	3.3	0.46	200
Moisture	N		%	0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: C4884 Moorgate Point, Knowsley

Client: HSP Consulting Engineers Limited		Chemtest Job No.:	25-28760	25-28760	25-28760	25-28760	25-28760	25-28760	25-28760
Quotation No.:		Chemtest Sample ID.:	2022879	2022880	2022882	2022884	2022885	2022886	2022887
		<i>Client Reference:</i>	WS103	WS103	WS102	WS101	CP101	CP102	CP103
		<i>Sample Type:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		<i>Top Depth (m):</i>	0.10	0.40	2.40	1.50	4.00	3.00	0.50
		<i>Bottom Depth (m):</i>					4.45	3.45	
		<i>Date Sampled:</i>	28-Aug-2025	28-Aug-2025	28-Aug-2025	28-Aug-2025	27-Aug-2025	27-Aug-2025	28-Aug-2025
		<i>Asbestos Lab:</i>	DURHAM						
Determinand	HWOL Code	Accred.	SOP	Units	LOD				
ACM Type		N	2192		N/A	-			
Asbestos Identification		U	2192		N/A	No Asbestos Detected			
Moisture		N	2030	%	0.020		9.9	11	19
Soil Colour		N	2030		N/A		Brown	Brown	Brown
Other Material		N	2030		N/A		None	None	None
Soil Texture		N	2030		N/A		Clay	Clay	Clay
Chromatogram EPH	EH_2D_Total_#1	N			N/A		I/S	I/S	I/S
Chromatogram VPH	HS_2D_Total	N			N/A		I/S	I/S	I/S
pH at 20C		M	2010		4.0		8.8	9.0	8.4
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40		< 0.40	< 0.40	< 0.40
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010		0.071	0.013	0.11
Total Sulphur		U	2175	%	0.010		0.020	0.015	0.031
Cyanide (Total)		M	2300	mg/kg	0.50		0.90	< 0.50	< 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50				
Sulphate (Total)		U	2430	mg/kg	100		240	< 100	270
Sulphate (Acid Soluble)		U	2430	%	0.010		0.048	< 0.010	0.051
Arsenic		M	2455	mg/kg	0.5		14	0.8	11
Cadmium		M	2455	mg/kg	0.10		< 0.10	< 0.10	< 0.10
Chromium		M	2455	mg/kg	0.5		11	12	27
Antimony		N	2455	mg/kg	2.0				
Copper		M	2455	mg/kg	0.50		3.2	< 0.50	13
Mercury		M	2455	mg/kg	0.05		< 0.05	< 0.05	< 0.05
Nickel		M	2455	mg/kg	0.50		8.0	2.7	27
Lead		M	2455	mg/kg	0.50		12	1.2	7.4
Selenium		M	2455	mg/kg	0.25		< 0.25	< 0.25	< 0.25
Vanadium		U	2455	mg/kg	0.5		14	4.9	26
Zinc		M	2455	mg/kg	0.50		14	12	36
Chromium (Hexavalent)		N	2490	mg/kg	0.50		< 0.50	< 0.50	< 0.50
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05		I/S	I/S	I/S
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05		I/S	I/S	I/S
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05		I/S	I/S	I/S
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10				
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05		I/S	I/S	I/S
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25		I/S	I/S	I/S
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00		I/S	I/S	I/S

Results - Soil

Project: C4884 Moorgate Point, Knowsley

Client: HSP Consulting Engineers Limited		Chemtest Job No.:	25-28760	25-28760	25-28760	25-28760	25-28760	25-28760	25-28760
Quotation No.:		Chemtest Sample ID.:	2022879	2022880	2022882	2022884	2022885	2022886	2022887
		<i>Client Reference:</i>	WS103	WS103	WS102	WS101	CP101	CP102	CP103
		<i>Sample Type:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		<i>Top Depth (m):</i>	0.10	0.40	2.40	1.50	4.00	3.00	0.50
		<i>Bottom Depth (m):</i>					4.45	3.45	
		<i>Date Sampled:</i>	28-Aug-2025	28-Aug-2025	28-Aug-2025	28-Aug-2025	27-Aug-2025	27-Aug-2025	28-Aug-2025
		<i>Asbestos Lab:</i>	DURHAM						
Determinand	HWOL Code	Accred.	SOP	Units	LOD				
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00		I/S	I/S	I/S
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00		I/S	I/S	I/S
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00		I/S	I/S	I/S
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00		I/S	I/S	I/S
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00		I/S	I/S	I/S
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00		I/S	I/S	I/S
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05		I/S	I/S	I/S
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05		I/S	I/S	I/S
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05		I/S	I/S	I/S
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25		I/S	I/S	I/S
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00		I/S	I/S	I/S
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00		I/S	I/S	I/S
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00		I/S	I/S	I/S
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00		I/S	I/S	I/S
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00		I/S	I/S	I/S
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00		I/S	I/S	I/S
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00		I/S	I/S	I/S
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50		I/S	I/S	I/S
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00		I/S	I/S	I/S
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00		I/S	I/S	I/S
LOI		M	2610	%	0.10				
Organic Matter		M	2625	%	0.40		0.85	1.0	0.93
Benzene		M	2760	µg/kg	1.0		I/S	I/S	I/S
Toluene		M	2760	µg/kg	1.0		I/S	I/S	I/S
Ethylbenzene		M	2760	µg/kg	1.0		I/S	I/S	I/S
m & p-Xylene		M	2760	µg/kg	1.0		I/S	I/S	I/S
o-Xylene		M	2760	µg/kg	1.0		I/S	I/S	I/S
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0		I/S	I/S	I/S
Naphthalene		M	2800	mg/kg	0.10		0.14	0.17	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10		< 0.10	0.12	< 0.10
Acenaphthene		M	2800	mg/kg	0.10		0.13	0.80	0.25
Fluorene		M	2800	mg/kg	0.10		0.12	0.70	0.23
Phenanthrene		M	2800	mg/kg	0.10		0.79	7.9	1.7
Anthracene		M	2800	mg/kg	0.10		0.19	2.1	0.48
Fluoranthene		M	2800	mg/kg	0.10		0.94	14	2.3
Pyrene		M	2800	mg/kg	0.10		0.83	12	2.0
Benzo[a]anthracene		M	2800	mg/kg	0.10		0.35	5.3	0.96

Results - Soil

Project: C4884 Moorgate Point, Knowsley

Client: HSP Consulting Engineers Limited		Chemtest Job No.:	25-28760	25-28760	25-28760	25-28760	25-28760	25-28760	25-28760
Quotation No.:		Chemtest Sample ID.:	2022879	2022880	2022882	2022884	2022885	2022886	2022887
		<i>Client Reference:</i>	WS103	WS103	WS102	WS101	CP101	CP102	CP103
		<i>Sample Type:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		<i>Top Depth (m):</i>	0.10	0.40	2.40	1.50	4.00	3.00	0.50
		<i>Bottom Depth (m):</i>					4.45	3.45	
		<i>Date Sampled:</i>	28-Aug-2025	28-Aug-2025	28-Aug-2025	28-Aug-2025	27-Aug-2025	27-Aug-2025	28-Aug-2025
		<i>Asbestos Lab:</i>	DURHAM						
Determinand	HWOL Code	Accred.	SOP	Units	LOD				
Chrysene		M	2800	mg/kg	0.10		0.38	5.5	0.93
Benzo[b]fluoranthene		M	2800	mg/kg	0.10		0.49	5.9	1.2
Benzo[k]fluoranthene		M	2800	mg/kg	0.10		< 0.10	2.5	0.39
Benzo[a]pyrene		M	2800	mg/kg	0.10		0.40	4.1	0.91
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10		0.26	2.6	0.49
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10		< 0.10	0.61	0.16
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10		0.27	2.8	0.53
Total Of 16 PAH's		N	2800	mg/kg	2.0		5.3	67	13
Total Phenols		M	2920	mg/kg	0.10		I/S	I/S	I/S

Results - Soil

Project: C4884 Moorgate Point, Knowsley

Client: HSP Consulting Engineers Limited		Chemtest Job No.:				25-28760	25-30746	25-30746	25-30746	25-30746	25-30746	25-30746
Quotation No.:		Chemtest Sample ID.:				2022888	2030730	2030731	2030732	2030733	2030734	2030735
		Client Reference:				CP103	CP101	CP101	CP102	CP102	CP103	WS104
		Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				2.00	0.45	0.75	0.50	0.70	0.25	0.50
		Bottom Depth (m):				2.45						
		Date Sampled:				28-Aug-2025	17-Sep-2025	17-Sep-2025	17-Sep-2025	17-Sep-2025	17-Sep-2025	17-Sep-2025
		Asbestos Lab:					DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD							
ACM Type		N	2192		N/A		-	-	-	-	-	-
Asbestos Identification		U	2192		N/A		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	4.9	9.3	10	7.9	8.7	9.4	11
Soil Colour		N	2030		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2030		N/A	None	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture		N	2030		N/A	Sand	Loam	Clay	Sand	Sand	Loam	Sand
Chromatogram EPH	EH_2D_Total_#1	N			N/A		See Attached	See Attached	See Attached	See Attached	See Attached	See Attached
Chromatogram VPH	HS_2D_Total	N			N/A		See Attached	See Attached	See Attached	See Attached	See Attached	See Attached
pH at 20C		M	2010		4.0	8.6	7.8	8.1	8.2	8.1	8.2	7.9
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40		< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.024	< 0.010	0.019
Total Sulphur		U	2175	%	0.010	< 0.010	0.017	0.012	0.016	0.015	0.016	0.020
Cyanide (Total)		M	2300	mg/kg	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50		3.2	2.6	3.3	3.5	6.3	4.3
Sulphate (Total)		U	2430	mg/kg	100		300	100	210	200	270	350
Sulphate (Acid Soluble)		U	2430	%	0.010	< 0.010						
Arsenic		M	2455	mg/kg	0.5		5.9	6.6	11	6.7	6.4	7.1
Cadmium		M	2455	mg/kg	0.10		< 0.10	1.6	< 0.10	< 0.10	< 0.10	< 0.10
Chromium		M	2455	mg/kg	0.5		29	21	36	24	31	25
Antimony		N	2455	mg/kg	2.0		< 2.0	2.1	< 2.0	< 2.0	< 2.0	< 2.0
Copper		M	2455	mg/kg	0.50		18	15	26	18	19	25
Mercury		M	2455	mg/kg	0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05
Nickel		M	2455	mg/kg	0.50		35	24	37	23	32	21
Lead		M	2455	mg/kg	0.50		13	9.6	17	14	10	21
Selenium		M	2455	mg/kg	0.25		< 0.25	0.73	0.59	0.25	0.28	< 0.25
Vanadium		U	2455	mg/kg	0.5		27	21	34	23	29	23
Zinc		M	2455	mg/kg	0.50		38	29	54	38	37	40
Chromium (Hexavalent)		N	2490	mg/kg	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25		< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

Results - Soil

Project: C4884 Moorgate Point, Knowsley

Client: HSP Consulting Engineers Limited		Chemtest Job No.:				25-28760	25-30746	25-30746	25-30746	25-30746	25-30746	25-30746
Quotation No.:		Chemtest Sample ID.:				2022888	2030730	2030731	2030732	2030733	2030734	2030735
		Client Reference:				CP103	CP101	CP101	CP102	CP102	CP103	WS104
		Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				2.00	0.45	0.75	0.50	0.70	0.25	0.50
		Bottom Depth (m):				2.45						
		Date Sampled:				28-Aug-2025	17-Sep-2025	17-Sep-2025	17-Sep-2025	17-Sep-2025	17-Sep-2025	17-Sep-2025
		Asbestos Lab:					DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD							
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00		< 1.0	< 1.0	2.2	< 1.0	< 1.0	< 1.0
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00		< 2.0	< 2.0	2.2	< 2.0	< 2.0	< 2.0
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00		< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	7.9
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00		< 10	< 10	< 10	< 10	< 10	< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00		< 5.0	< 5.0	5.7	< 5.0	< 5.0	7.9
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00		< 10	< 10	< 10	< 10	< 10	< 10
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25		< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00		6.9	7.1	5.5	6.9	6.9	6.8
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	EH_2D_AR_#1	3.2	3.2	3.3	3.2	3.0	3.2
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	EH_2D_AR_#1	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00		< 1.0	< 1.0	< 1.0	1.4	< 1.0	2.1
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00		11	11	10	11	10	11
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00		11	11	11	12	10	13
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00		13	11	16	13	10	19
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00		14	12	16	15	11	22
LOI		M	2610	%	0.10		2.8	2.6	2.6	2.4	1.9	3.0
Organic Matter		M	2625	%	0.40		0.49	< 0.40	0.63	0.91	0.73	1.6
Benzene		M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene		M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene		M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene		M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene		M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene		M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.15
Pyrene		M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.14
Benzo[a]anthracene		M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: C4884 Moorgate Point, Knowsley

Client: HSP Consulting Engineers Limited		Chemtest Job No.:		25-28760	25-30746	25-30746	25-30746	25-30746	25-30746	25-30746
Quotation No.:		Chemtest Sample ID.:		2022888	2030730	2030731	2030732	2030733	2030734	2030735
		<i>Client Reference:</i>		CP103	CP101	CP101	CP102	CP102	CP103	WS104
		<i>Sample Type:</i>		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		<i>Top Depth (m):</i>		2.00	0.45	0.75	0.50	0.70	0.25	0.50
		<i>Bottom Depth (m):</i>		2.45						
		<i>Date Sampled:</i>		28-Aug-2025	17-Sep-2025	17-Sep-2025	17-Sep-2025	17-Sep-2025	17-Sep-2025	17-Sep-2025
		<i>Asbestos Lab:</i>			DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD					
Chrysene		M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0		< 2.0	< 2.0	< 2.0	< 2.0
Total Phenols		M	2920	mg/kg	0.10		< 0.10	< 0.10	0.20	< 0.10

Results - Soil

Project: C4884 Moorgate Point, Knowsley

Client: HSP Consulting Engineers Limited		Chemtest Job No.:	25-30746			
Quotation No.:		Chemtest Sample ID.:	2030736			
		Client Reference:	WS105			
		Sample Type:	SOIL			
		Top Depth (m):	0.90			
		Bottom Depth (m):				
		Date Sampled:	17-Sep-2025			
		Asbestos Lab:	DURHAM			
Determinand	HWOL Code	Accred.	SOP	Units	LOD	
ACM Type		N	2192		N/A	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected
Moisture		N	2030	%	0.020	9.0
Soil Colour		N	2030		N/A	Brown
Other Material		N	2030		N/A	Stones
Soil Texture		N	2030		N/A	Sand
Chromatogram EPH	EH_2D_Total_#1	N			N/A	See Attached
Chromatogram VPH	HS_2D_Total	N			N/A	See Attached
pH at 20C		M	2010		4.0	7.9
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40	< 0.40
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.017
Total Sulphur		U	2175	%	0.010	0.018
Cyanide (Total)		M	2300	mg/kg	0.50	< 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	3.8
Sulphate (Total)		U	2430	mg/kg	100	300
Sulphate (Acid Soluble)		U	2430	%	0.010	
Arsenic		M	2455	mg/kg	0.5	6.3
Cadmium		M	2455	mg/kg	0.10	< 0.10
Chromium		M	2455	mg/kg	0.5	14
Antimony		N	2455	mg/kg	2.0	< 2.0
Copper		M	2455	mg/kg	0.50	17
Mercury		M	2455	mg/kg	0.05	0.06
Nickel		M	2455	mg/kg	0.50	10
Lead		M	2455	mg/kg	0.50	23
Selenium		M	2455	mg/kg	0.25	< 0.25
Vanadium		U	2455	mg/kg	0.5	16
Zinc		M	2455	mg/kg	0.50	33
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0

Results - Soil

Project: C4884 Moorgate Point, Knowsley

Client: HSP Consulting Engineers Limited		Chemtest Job No.:	25-30746			
Quotation No.:		Chemtest Sample ID.:	2030736			
		<i>Client Reference:</i>	WS105			
		<i>Sample Type:</i>	SOIL			
		<i>Top Depth (m):</i>	0.90			
		<i>Bottom Depth (m):</i>				
		<i>Date Sampled:</i>	17-Sep-2025			
		<i>Asbestos Lab:</i>	DURHAM			
Determinand	HWOL Code	Accred.	SOP	Units	LOD	
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	< 1.0
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	10
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	10
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	11
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	6.7
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	2.8
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	< 2.0
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	1.8
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	9.9
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	12
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	20
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	23
LOI		M	2610	%	0.10	2.9
Organic Matter		M	2625	%	0.40	1.5
Benzene		M	2760	µg/kg	1.0	< 1.0
Toluene		M	2760	µg/kg	1.0	< 1.0
Ethylbenzene		M	2760	µg/kg	1.0	< 1.0
m & p-Xylene		M	2760	µg/kg	1.0	< 1.0
o-Xylene		M	2760	µg/kg	1.0	< 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	< 1.0
Naphthalene		M	2800	mg/kg	0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	< 0.10
Anthracene		M	2800	mg/kg	0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	0.11
Pyrene		M	2800	mg/kg	0.10	0.12
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10

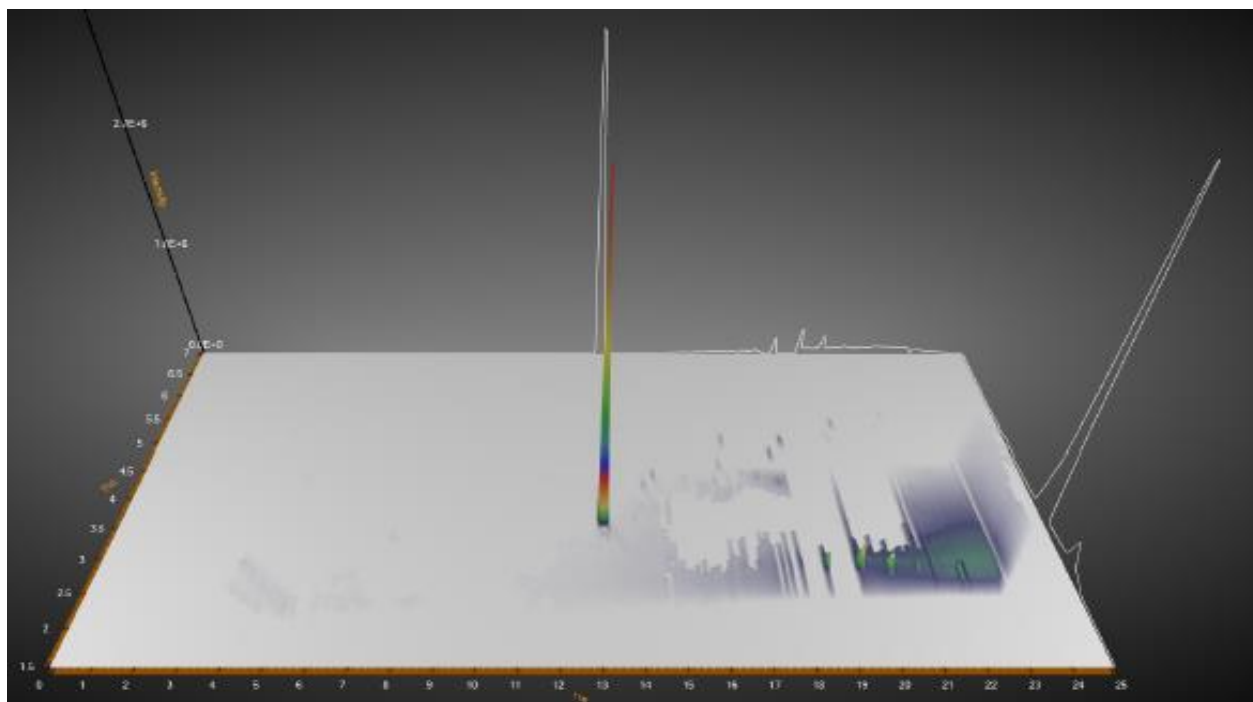
Results - Soil

Project: C4884 Moorgate Point, Knowsley

Client: HSP Consulting Engineers Limited		Chemtest Job No.:	25-30746			
Quotation No.:		Chemtest Sample ID.:	2030736			
		<i>Client Reference:</i>	WS105			
		<i>Sample Type:</i>	SOIL			
		<i>Top Depth (m):</i>	0.90			
		<i>Bottom Depth (m):</i>				
		<i>Date Sampled:</i>	17-Sep-2025			
		<i>Asbestos Lab:</i>	DURHAM			
Determinand	HWOL Code	Accred.	SOP	Units	LOD	
Chrysene		M	2800	mg/kg	0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0
Total Phenols		M	2920	mg/kg	0.10	< 0.10

TPH Chromatogram on Misc Sample: 2022878

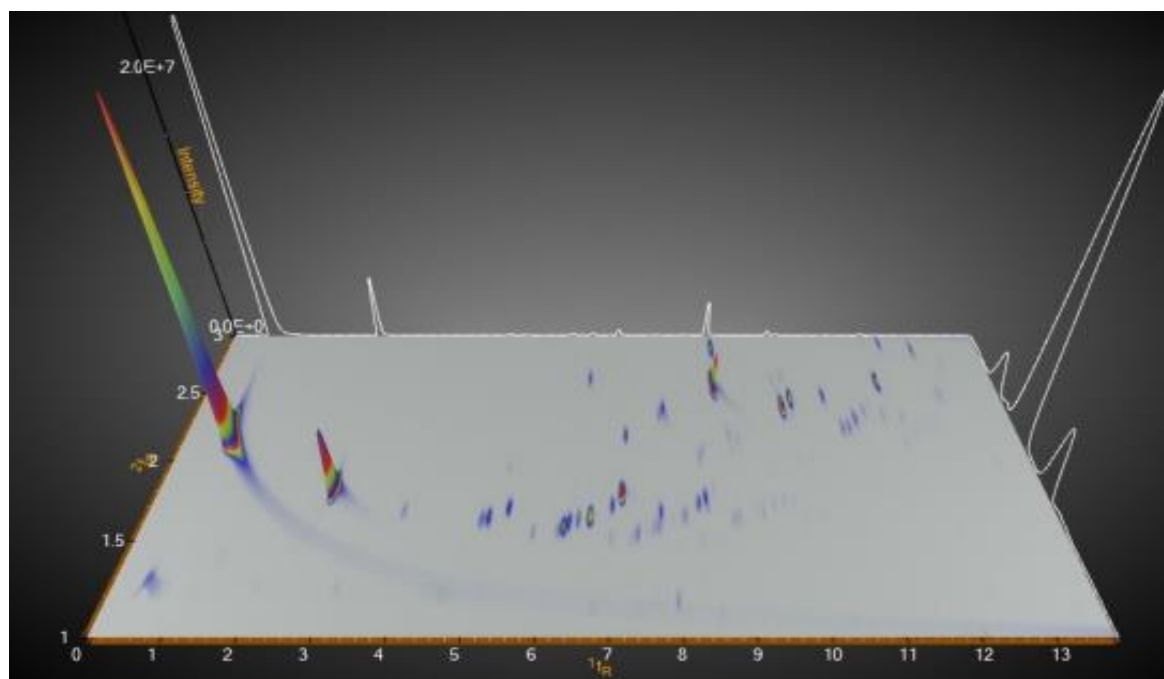
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AA-Split Chromatogram on Soil Sample: 2022880

AA-Split Chromatogram on Soil Sample: 2022880

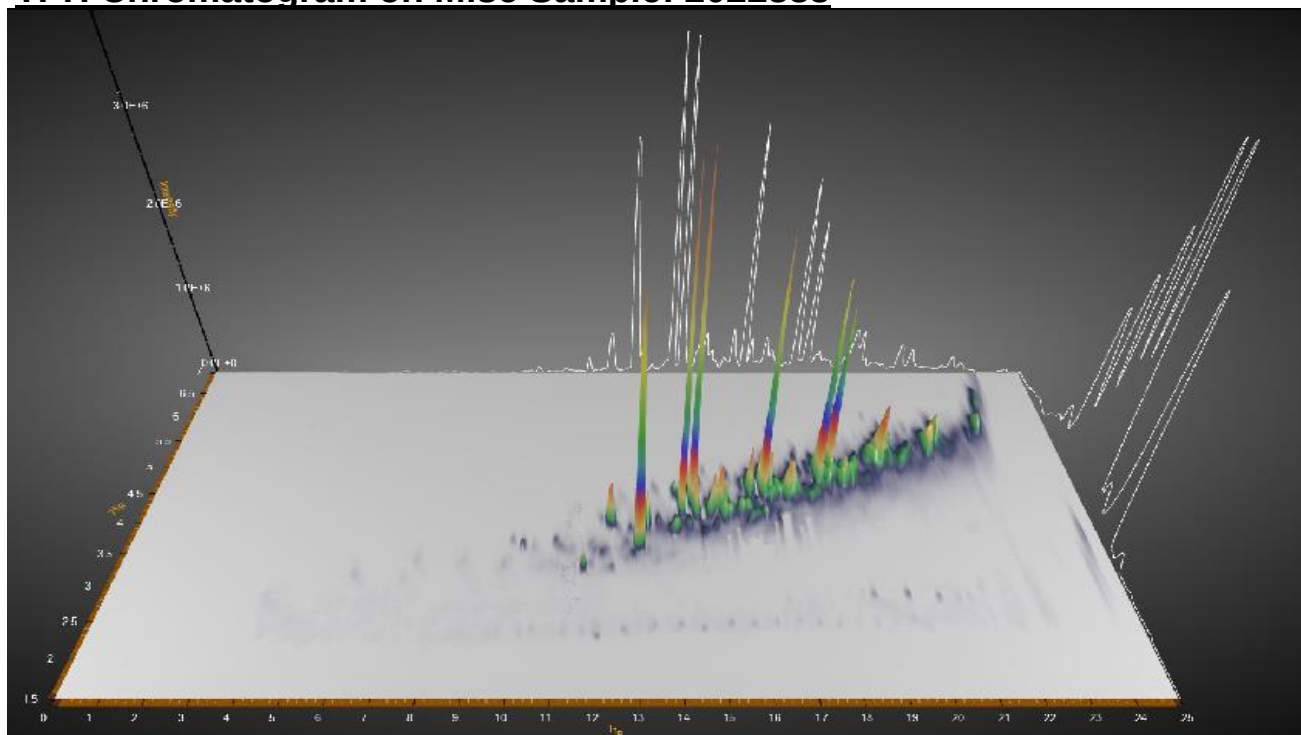
TPH Chromatogram on Misc Sample: 2022881



AA-Split Chromatogram on Soil Sample: 2022882

AA-Split Chromatogram on Soil Sample: 2022882

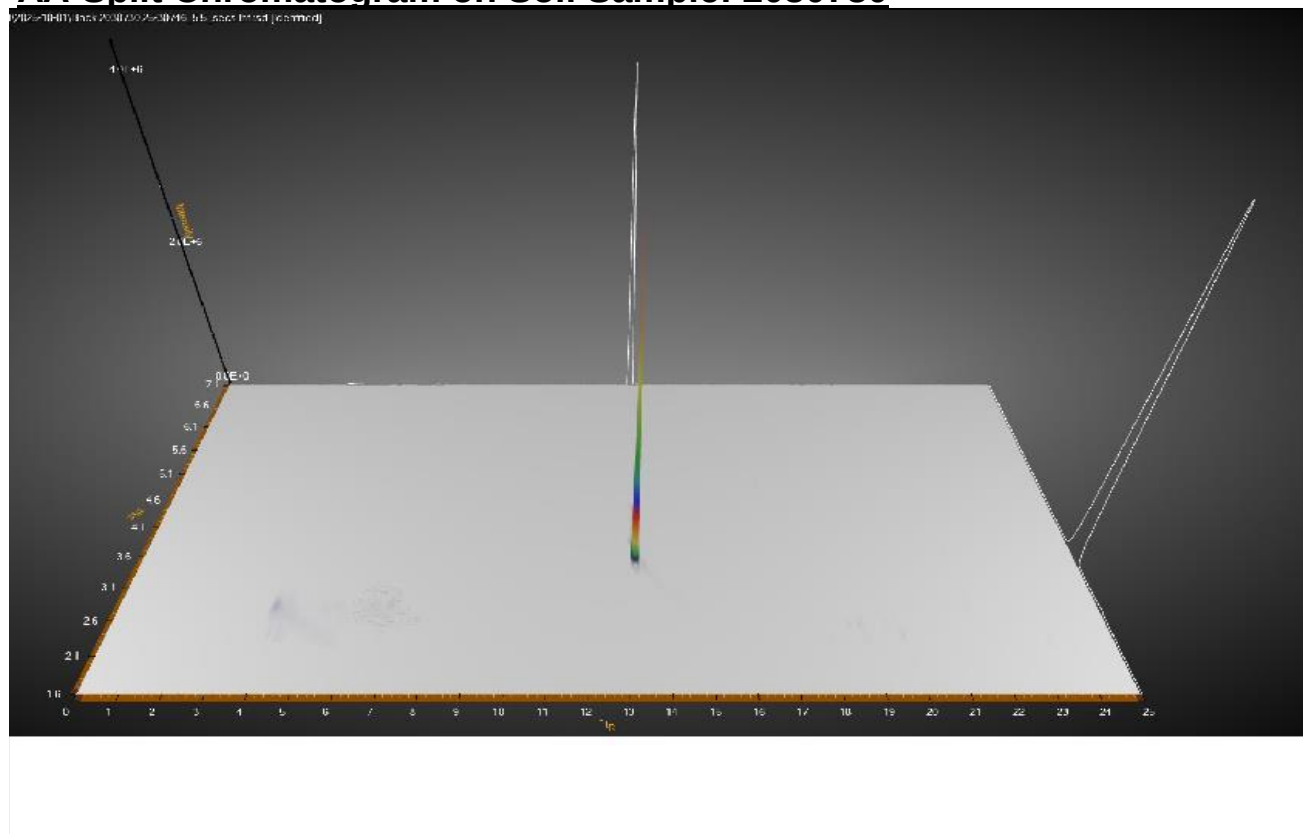
TPH Chromatogram on Misc Sample: 2022883



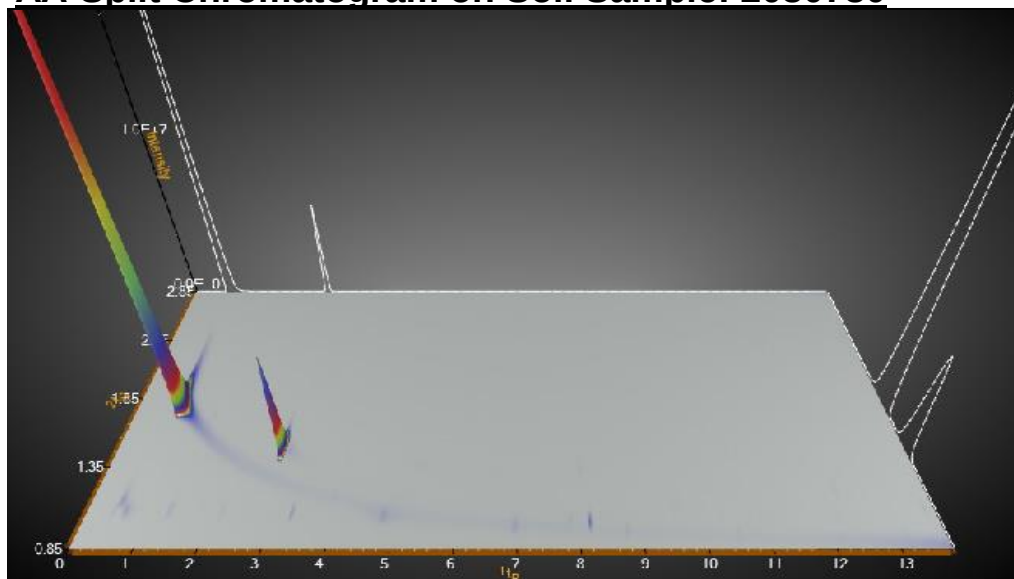
AA-Split Chromatogram on Soil Sample: 2022884

AA-Split Chromatogram on Soil Sample: 2022884

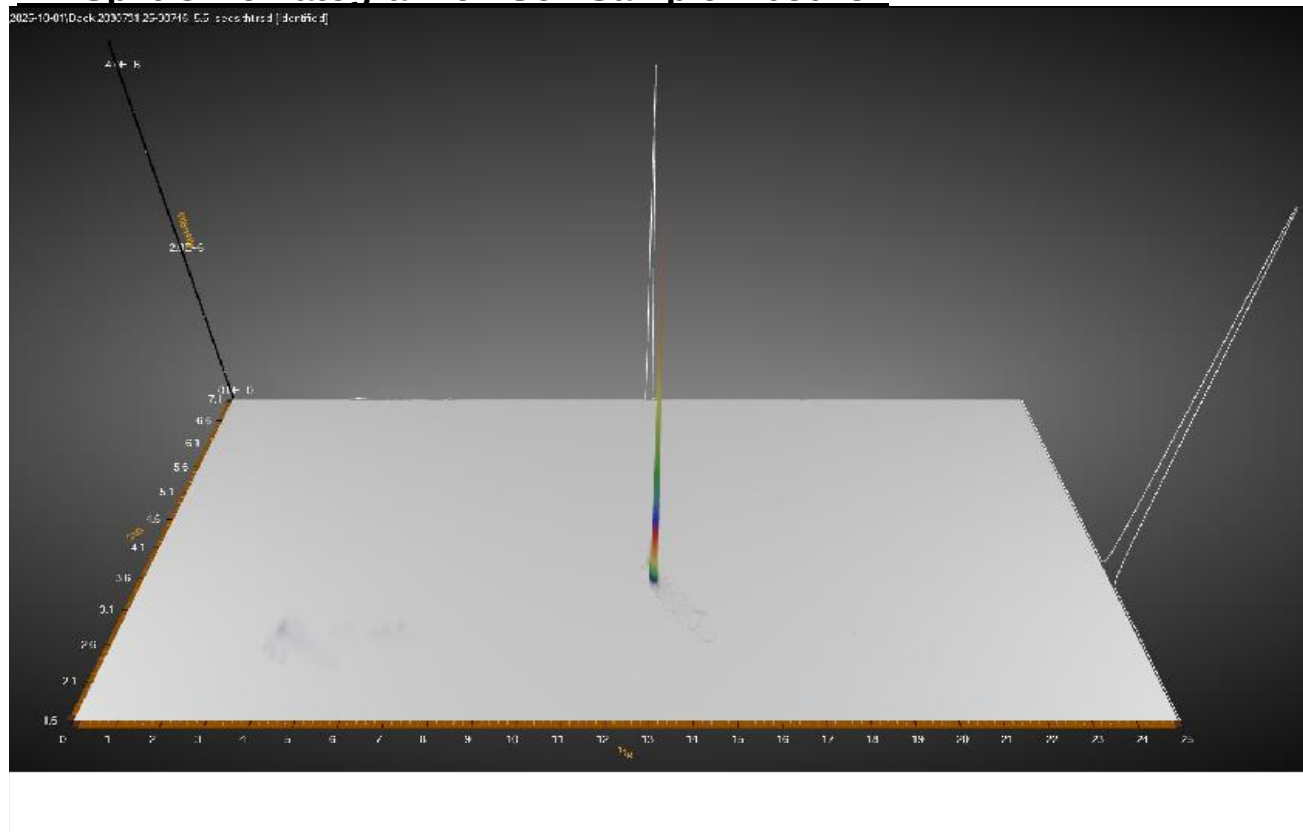
AA-Split Chromatogram on Soil Sample: 2030730



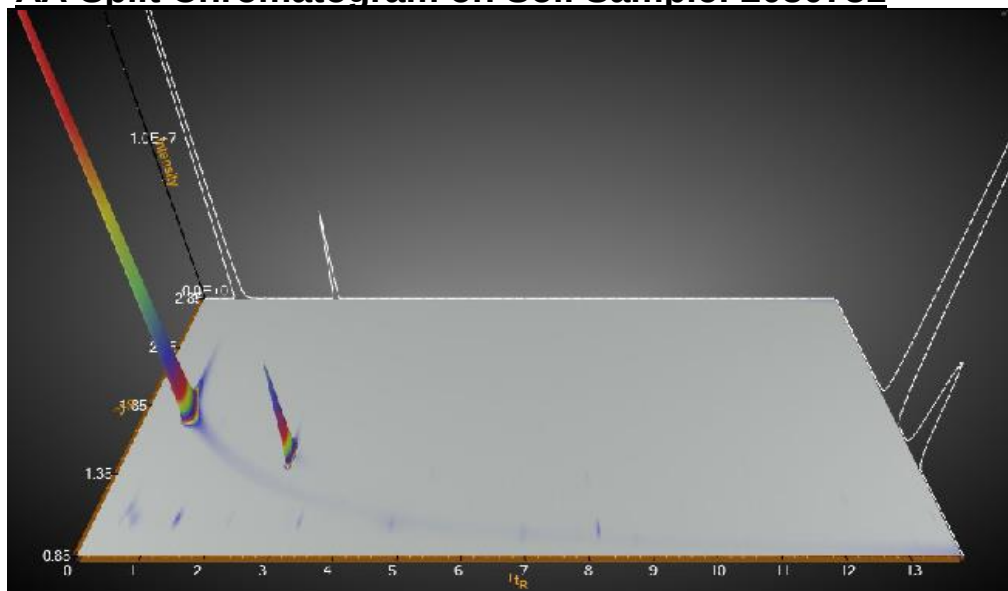
AA-Split Chromatogram on Soil Sample: 2030730



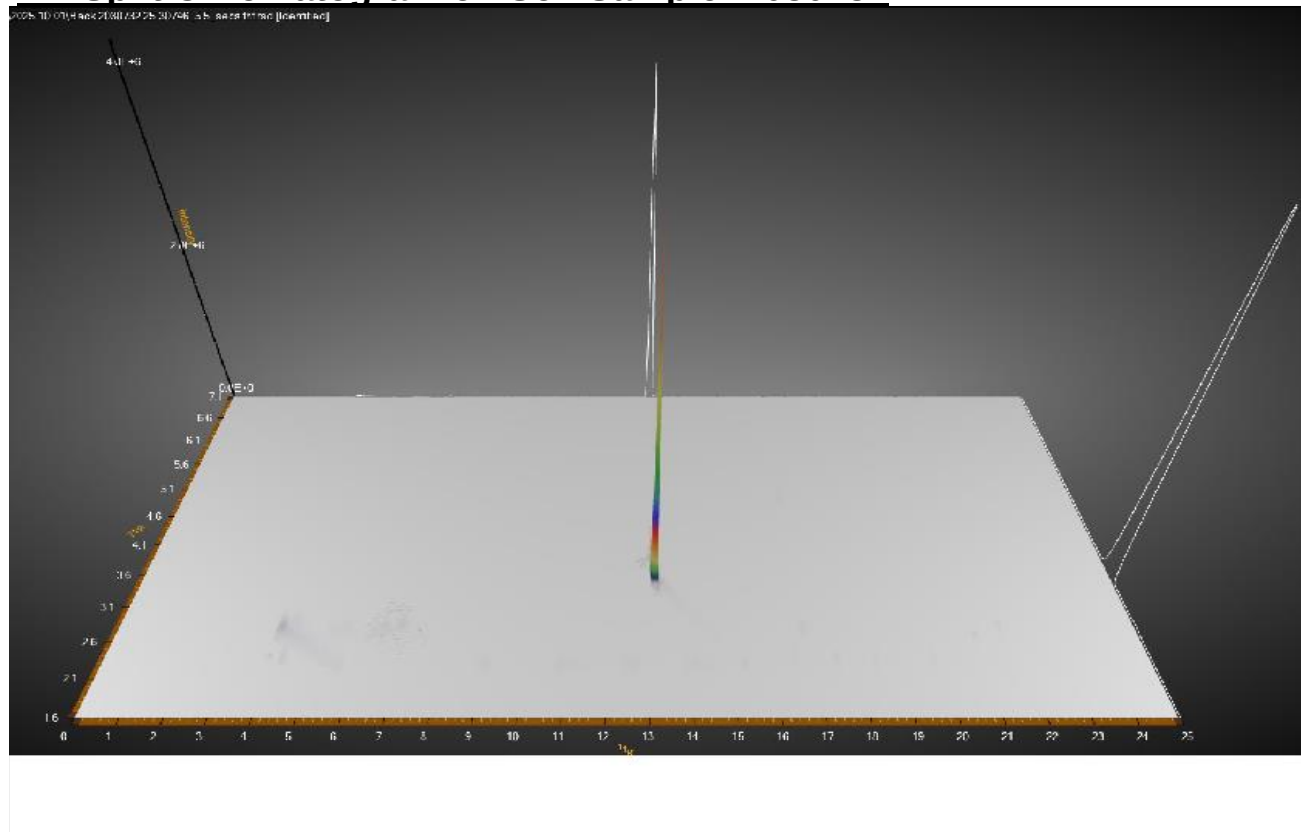
AA-Split Chromatogram on Soil Sample: 2030731



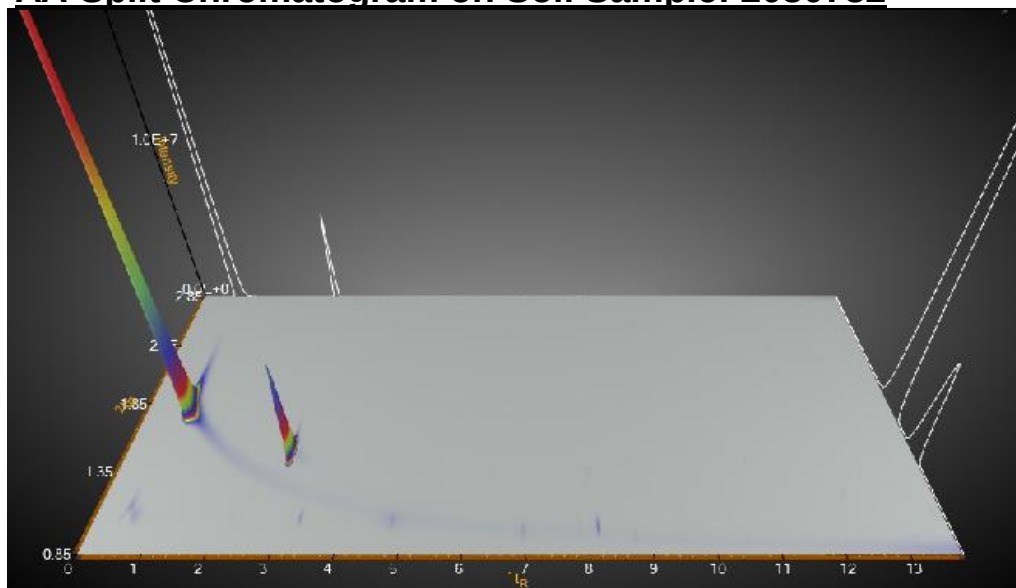
AA-Split Chromatogram on Soil Sample: 2030731



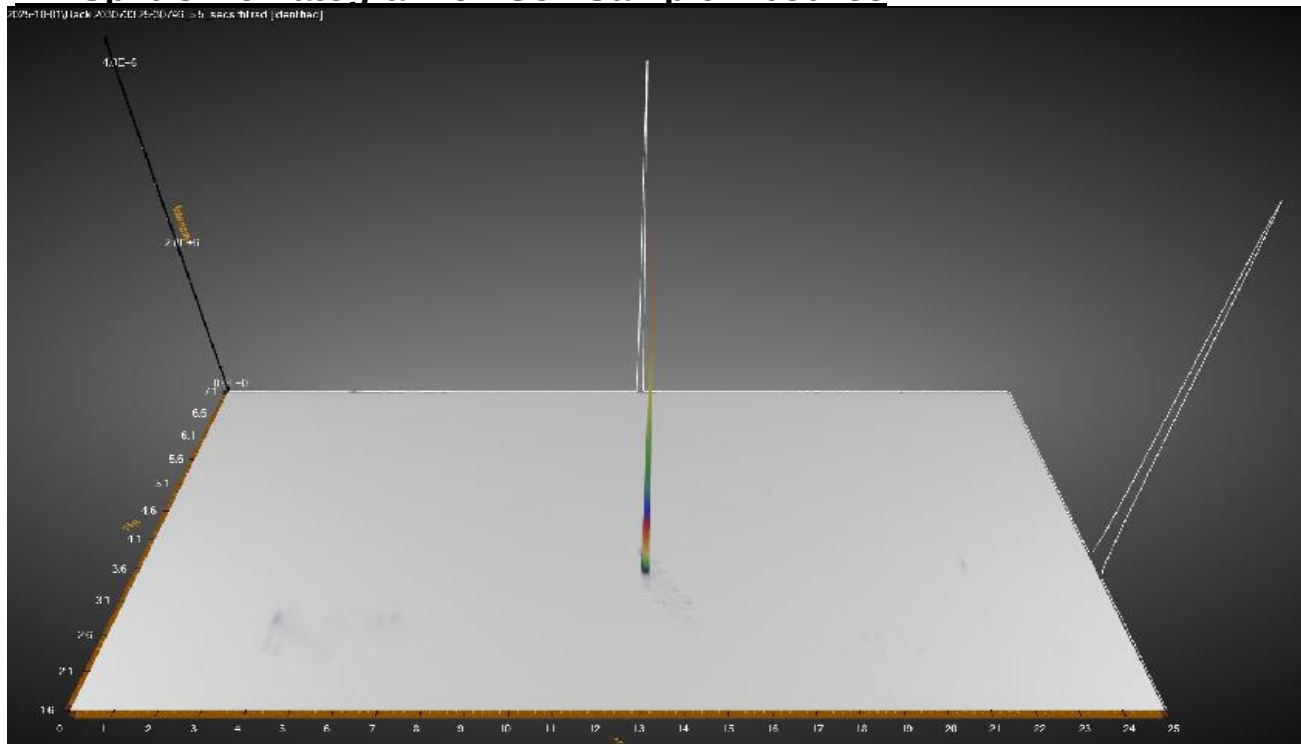
AA-Split Chromatogram on Soil Sample: 2030732



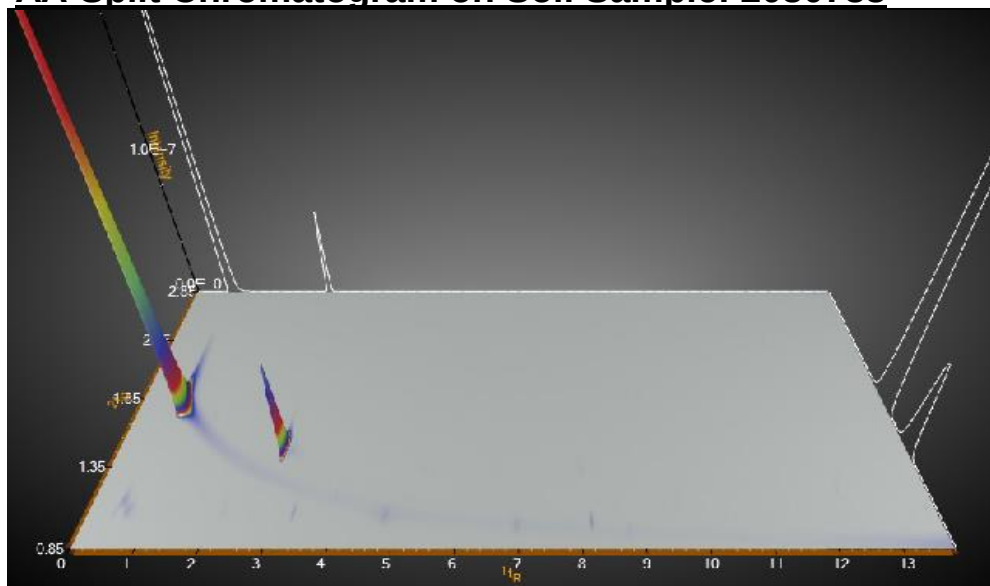
AA-Split Chromatogram on Soil Sample: 2030732



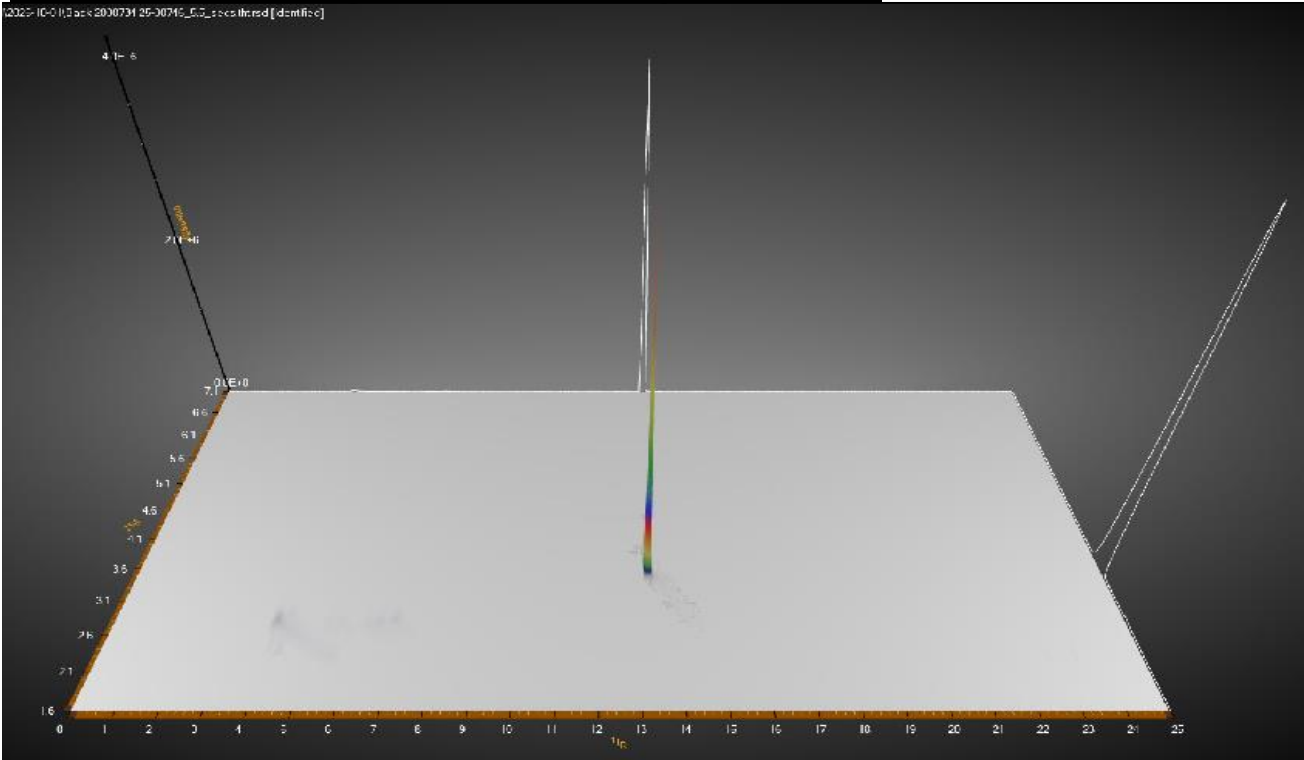
2020-10-11(jack ADD ZEN 2500/290) to h Jack third [dent hac]



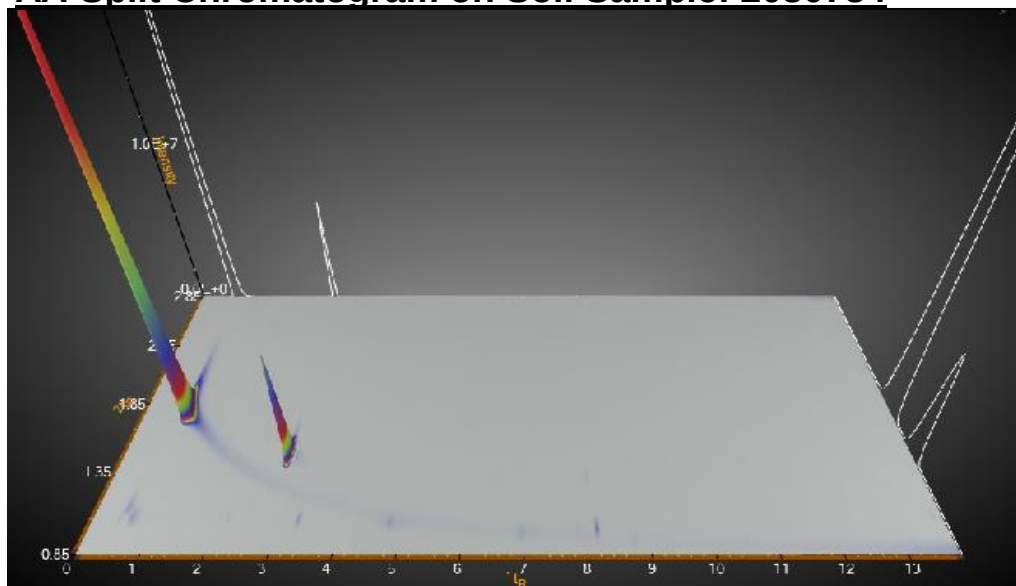
AA-Split Chromatogram on Soil Sample: 2030733



12025-10-01, Back 2000734 25-00746_5.5_secs.thrd [identified]

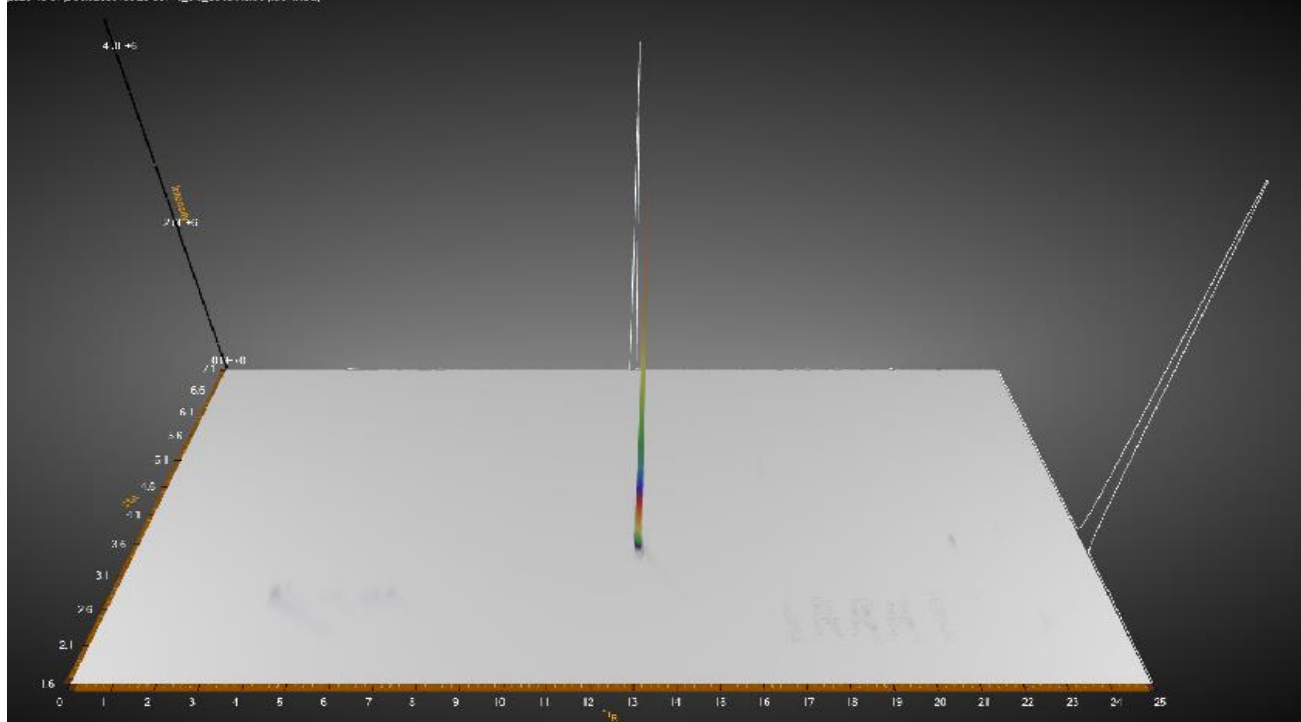


AA-Split Chromatogram on Soil Sample: 2030734

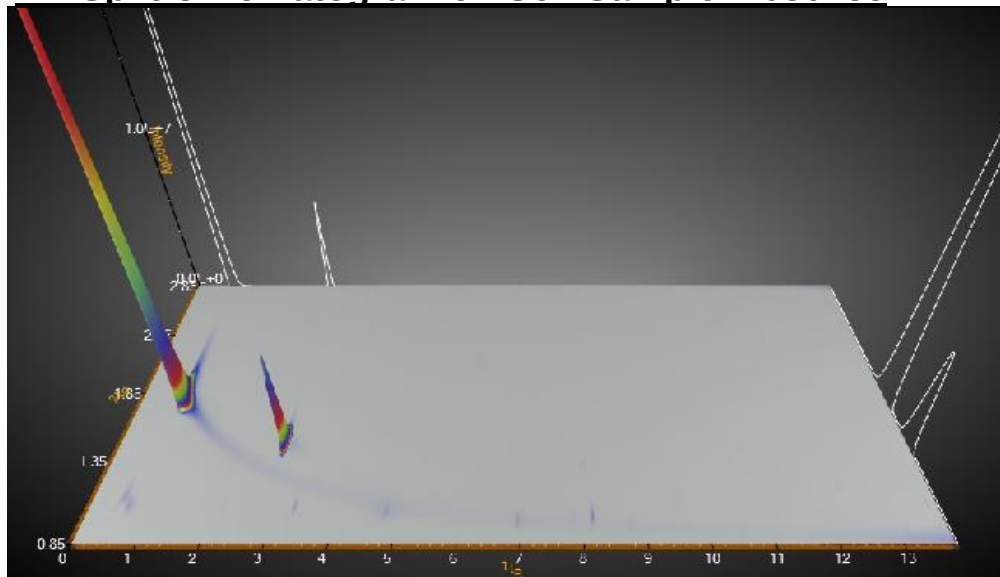


AA-Split Chromatogram on Soil Sample: 2030735

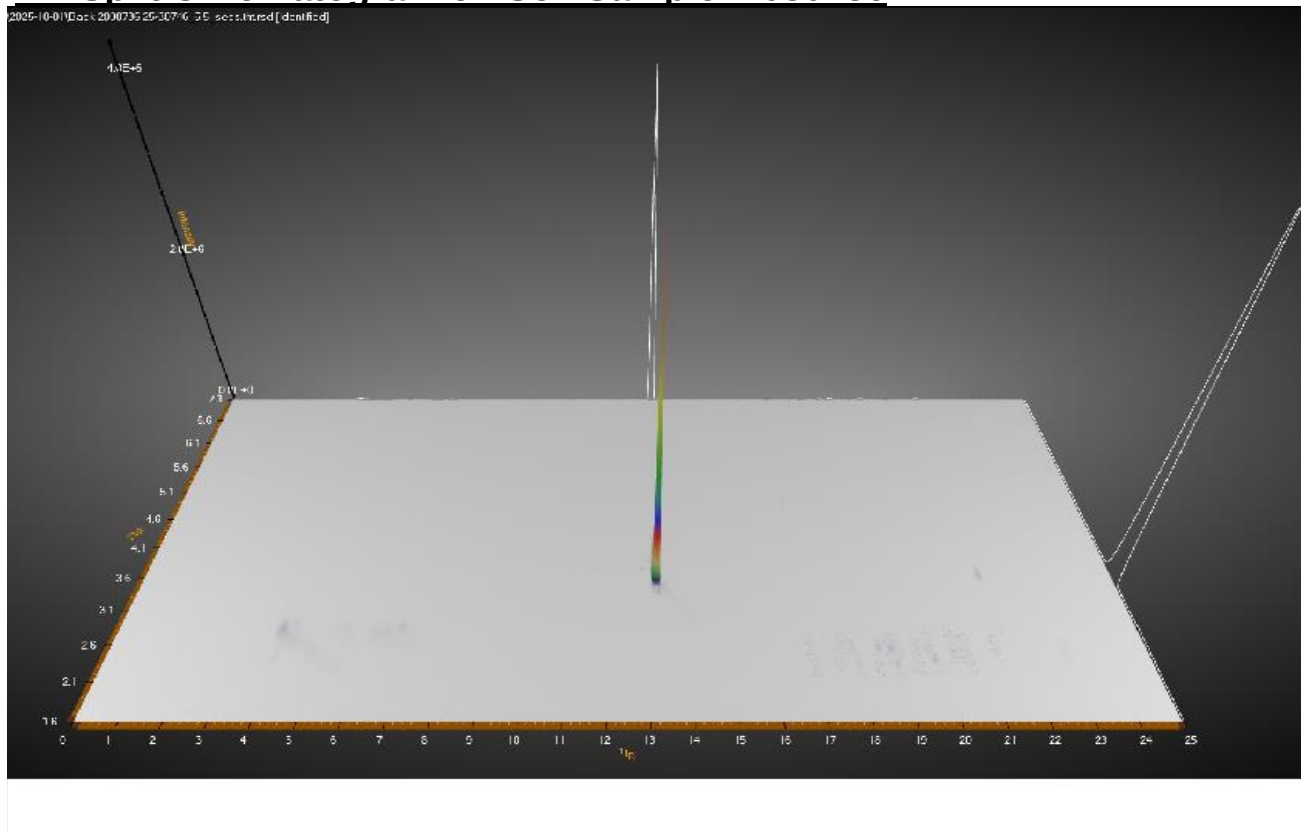
2023-10-01 Back 2030735 25-30735_6_5_areas.msp (Back 10:00)



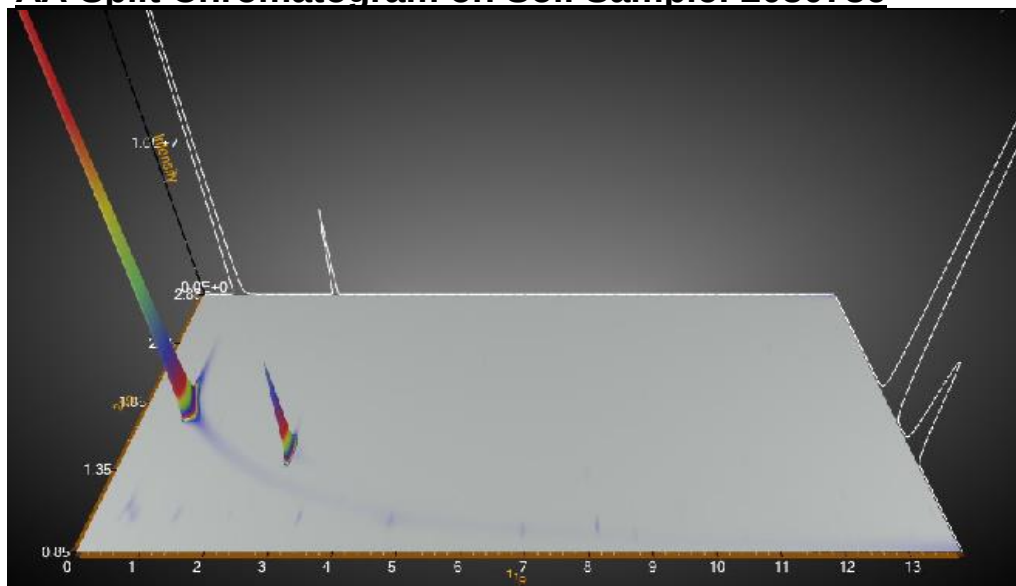
AA-Split Chromatogram on Soil Sample: 2030735



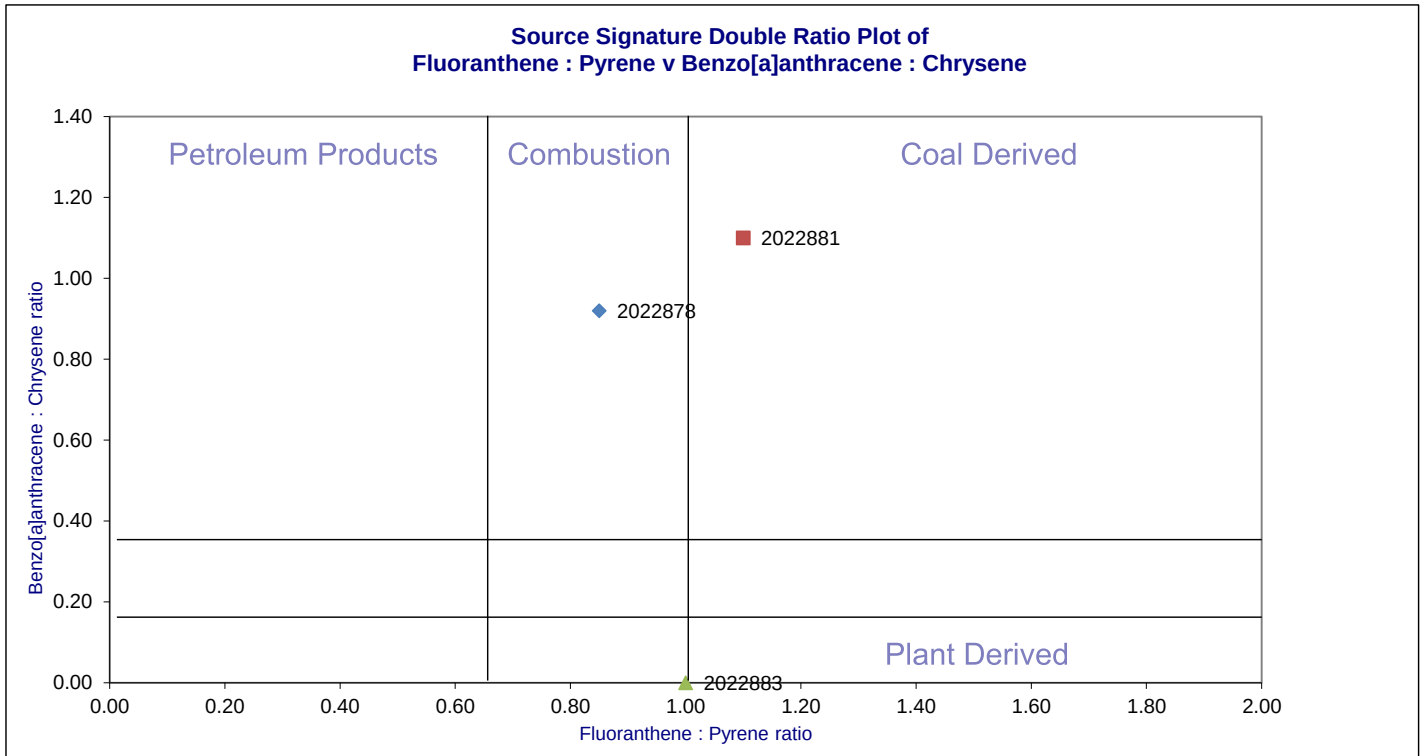
AA-Split Chromatogram on Soil Sample: 2030736



AA-Split Chromatogram on Soil Sample: 2030736



Double Ratio Plot



Sample No.	Fluoranthene	Pyrene	Benzo[a]Anthracene	Chrysene	Fluoranthene : Pyrene Ratio	Benzo[a]Anthracene : Chrysene Ratio
2022878					0.85	0.92
2022881					1.10	1.10
2022883					< 0.010	< 0.010

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request. The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTS accredited but the results may be compromised.

Chemtest Sample ID	Clients Sample Ref:	Clients Sample ID:	Clients Reference:	Sampled Date:	Deviation Code(s):	Containers Received:
2022878		Tarmac Sample	WS103	28-Aug-2025	C	Plastic Tub 500g
2022880			WS103	28-Aug-2025	C	Plastic Tub 500g
2022881		Tarmac Sample	WS102	28-Aug-2025	C	Plastic Tub 500g
2022882			WS102	28-Aug-2025	C	Plastic Tub 500g
2022883		Tarmac Sample	WS101	28-Aug-2025	C	Plastic Tub 500g
2022884			WS101	28-Aug-2025	C	Plastic Tub 500g

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazine.	
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection	
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8–C10 Aromatics: >C5–C7,>C7–C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

Report Information

Key	
U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Text example All items indicated in italic font represent customer-supplied information that may not be independently verified by the laboratory

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.

Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request .

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory .

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Where analysis is performed on a dried and crushed sample, it has been prepared by crushing all of the sample. If material has been removed prior to crushing, or by request of the client, this will be stated on the report.

NEW_ASB Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL

DURHAM Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

As a result of any of the below deviations applying, the test results may be unreliable

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - The required amount of sample for analysis was not received
- H - Appropriate cooling measures were not taken for sample transportation

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Report Information

Water Sample Category Key for Accreditation

DW - Drinking Water (Non-Regulatory)
GW - Ground Water
LE - Land Leachate
NA - Not Applicable
PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

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
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:
cs@etuki.eurofins.com

Appendix VI

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)



NU2F5-96R6H-UPMM8

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

HWOL_25-28760-20251006 172906[2]

Description/Comments

General Suite of Contaminants

Project

C4884

Site

Moorgate Point

Classified by

Name: **Timothy Gilbraith**
Date: **09 Oct 2025 15:44 GMT**
Telephone: **07943812462**
Company: **HSP Consulting Engineers Limited**
HSP Consulting Engineers
6 Bennetts Hill
Birmingham
B2 5ST

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

HazWasteOnline™ Certification:

CERTIFIED

Course
Hazardous Waste Classification

Date
08 Feb 2024

Next 3 year Refresher due by Feb 2027

Purpose of classification

2 - Material Characterisation

Address of the waste

Moorgate Road North, Knowsley

Post Code L33 7XW

SIC for the process giving rise to the waste

41100 Development of building projects

Description of industry/producer giving rise to the waste

Redevelopment of municipal waste depot and vacant land

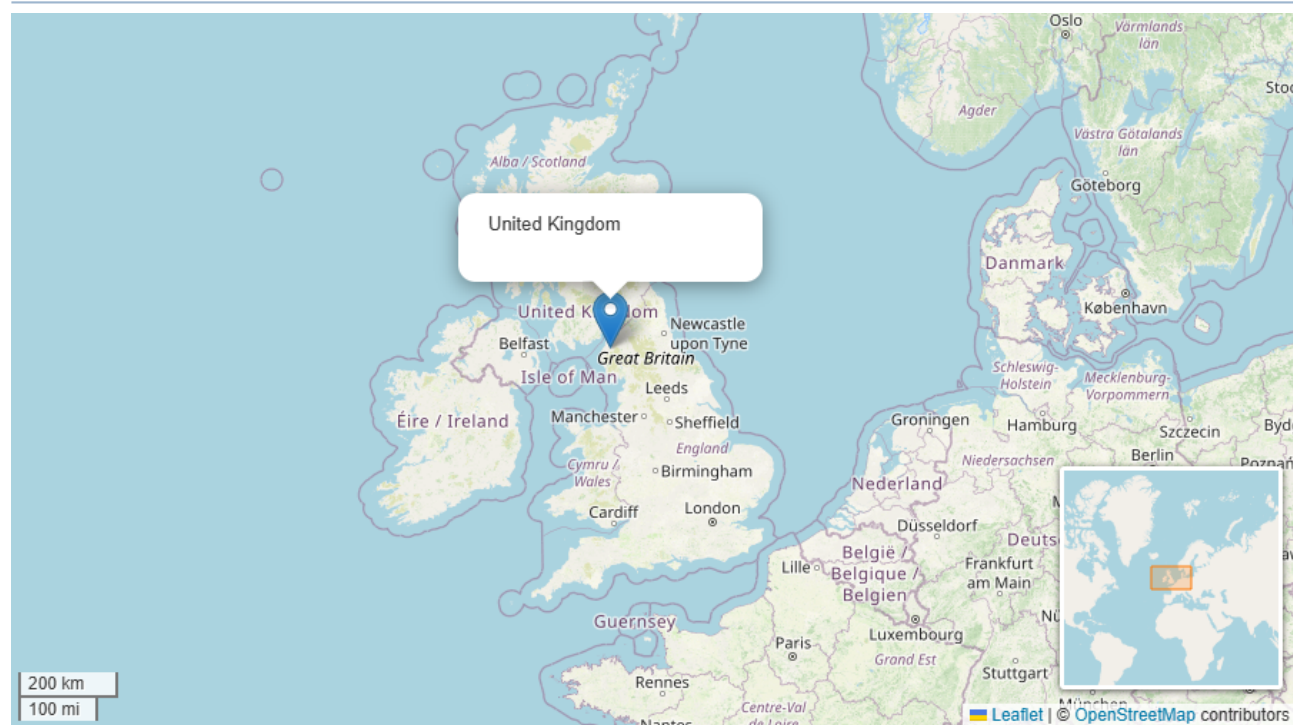
Description of the specific process, sub-process and/or activity that created the waste

Waste created during the excavation of ground for foundations

Description of the waste

Made Ground and natural soils

Waste Location



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS103-2022880-0.40	0.40	Non Hazardous		3
2	WS102-2022882-2.40	2.40	Non Hazardous		5
3	CP101-2030730-0.45	0.45	Non Hazardous		7
4	CP101-2030731-0.75	0.75	Non Hazardous		10
5	CP102-2030732-0.50	0.50	Non Hazardous		13
6	CP102-2030733-0.70	0.70	Non Hazardous		16
7	CP103-2030734-0.25	0.25	Non Hazardous		19
8	WS104-2030735-0.50	0.50	Non Hazardous		22
9	WS105-2030736-0.90	0.90	Non Hazardous		25
10	WS101-2022884-1.50	1.50	Non Hazardous		28

Related documents

#	Name	Description
1	HWOL_25-28760-20251006 172906.batch	Eurofins Chemtest .batch file used to populate the Job
2	HWOL_25-28760-20251006 172906[2].hwol	Eurofins Chemtest .hwol file used to populate the Job
3	HWOL_25-30746-20251003 173627.hwol	Eurofins Chemtest .hwol file used to populate the Job
4	HSP General Contamination Suite	waste stream template used to create this Job

Report

Created by: Timothy Gilbraith

Created date: 09 Oct 2025 15:44 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	30
Appendix B: Rationale for selection of metal species	31
Appendix C: Version	32

Classification of sample: WS103-2022880-0.40

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

Sample details

Sample name:	LoW Code:
WS103-2022880-0.40	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.40 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
9.9%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 9.9% 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	pH				8.8 pH		8.8 pH	8.8 pH		
2	arsenic { arsenic trioxide }				14 mg/kg	1.32	16.655 mg/kg	0.00167 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	boron { diboron trioxide }				<0.4 mg/kg	3.22	<1.288 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				11 mg/kg	1.462	14.485 mg/kg	0.00145 %	✓	
		215-160-9	1308-38-9							
6	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
7	copper { copper(II) oxide }				3.2 mg/kg	1.252	3.609 mg/kg	0.000361 %	✓	
	029-016-00-6	215-269-1	1317-38-0							
8	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	12 mg/kg		10.812 mg/kg	0.00108 %	✓	
	082-001-00-6									
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	080-002-00-6									
10	nickel { nickel(II) carbonate }				8 mg/kg	2.022	14.578 mg/kg	0.00146 %	✓	
	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	3333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]							
11	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }				<0.25 mg/kg	1.405	<0.351 mg/kg	<0.0000351 %		<LOD
	034-002-00-8									
12	vanadium { divanadium pentaoxide; vanadium pentoxide }				14 mg/kg	1.785	22.518 mg/kg	0.00225 %	✓	
	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								
13		zinc { zinc oxide }				14 mg/kg	1.245	15.701 mg/kg	0.00157 %	✓		
		030-013-00-7	215-222-5	1314-13-2								
14		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 }				0.9 mg/kg	1.884	1.528 mg/kg	0.000153 %	✓		
		006-007-00-5										
15		naphthalene				0.14 mg/kg		0.126 mg/kg	0.0000126 %	✓		
		601-052-00-2	202-049-5	91-20-3								
16		acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD	
			205-917-1	208-96-8								
17		acenaphthene				0.13 mg/kg		0.117 mg/kg	0.0000117 %	✓		
			201-469-6	83-32-9								
18		fluorene				0.12 mg/kg		0.108 mg/kg	0.0000108 %	✓		
			201-695-5	86-73-7								
19		phenanthrene				0.79 mg/kg		0.712 mg/kg	0.0000712 %	✓		
			201-581-5	85-01-8								
20		anthracene				0.19 mg/kg		0.171 mg/kg	0.0000171 %	✓		
			204-371-1	120-12-7								
21		fluoranthene				0.94 mg/kg		0.847 mg/kg	0.0000847 %	✓		
			205-912-4	206-44-0								
22		pyrene				0.83 mg/kg		0.748 mg/kg	0.0000748 %	✓		
			204-927-3	129-00-0								
23		benz[a]anthracene				0.35 mg/kg		0.315 mg/kg	0.0000315 %	✓		
		601-033-00-9	200-280-6	56-55-3								
24		chrysene				0.38 mg/kg		0.342 mg/kg	0.0000342 %	✓		
		601-048-00-0	205-923-4	218-01-9								
25		benzo[b]fluoranthene				0.49 mg/kg		0.441 mg/kg	0.0000441 %	✓		
		601-034-00-4	205-911-9	205-99-2								
26		benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD	
		601-036-00-5	205-916-6	207-08-9								
27		benzo[a]pyrene; benzo[def]chrysene				0.4 mg/kg		0.36 mg/kg	0.000036 %	✓		
		601-032-00-3	200-028-5	50-32-8								
28		indeno[123-cd]pyrene				0.26 mg/kg		0.234 mg/kg	0.0000234 %	✓		
			205-893-2	193-39-5								
29		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								
30		benzo[ghi]perylene				0.27 mg/kg		0.243 mg/kg	0.0000243 %	✓		
			205-883-8	191-24-2								
Total:									0.0105 %			

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: WS102-2022882-2.40

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

Sample details

Sample name:	LoW Code:
WS102-2022882-2.40	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
2.40 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
11%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 11% 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	pH				9 pH		9 pH	9pH		
2	arsenic { arsenic trioxide }				0.8 mg/kg	1.32	0.94 mg/kg	0.000094 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	boron { diboron trioxide }				<0.4 mg/kg	3.22	<1.288 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				12 mg/kg	1.462	15.609 mg/kg	0.00156 %	✓	
		215-160-9	1308-38-9							
6	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
7	copper { copper(II) oxide }				<0.5 mg/kg	1.252	<0.626 mg/kg	<0.0000626 %		<LOD
	029-016-00-6	215-269-1	1317-38-0							
8	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	1.2 mg/kg		1.068 mg/kg	0.000107 %	✓	
	082-001-00-6									
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	080-002-00-6									
10	nickel { nickel(II) carbonate }				2.7 mg/kg	2.022	4.86 mg/kg	0.000486 %	✓	
	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	3333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]							
11	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }				<0.25 mg/kg	1.405	<0.351 mg/kg	<0.0000351 %		<LOD
	034-002-00-8									
12	vanadium { divanadium pentaoxide; vanadium pentoxide }				4.9 mg/kg	1.785	7.785 mg/kg	0.000779 %	✓	
	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								
13		zinc { zinc oxide }				12 mg/kg	1.245	13.294 mg/kg	0.00133 %	✓		
		030-013-00-7	215-222-5	1314-13-2								
14		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 }				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD	
		006-007-00-5										
15		naphthalene				0.17 mg/kg		0.151 mg/kg	0.0000151 %	✓		
		601-052-00-2	202-049-5	91-20-3								
16		acenaphthylene				0.12 mg/kg		0.107 mg/kg	0.0000107 %	✓		
			205-917-1	208-96-8								
17		acenaphthene				0.8 mg/kg		0.712 mg/kg	0.0000712 %	✓		
			201-469-6	83-32-9								
18		fluorene				0.7 mg/kg		0.623 mg/kg	0.0000623 %	✓		
			201-695-5	86-73-7								
19		phenanthrene				7.9 mg/kg		7.031 mg/kg	0.000703 %	✓		
			201-581-5	85-01-8								
20		anthracene				2.1 mg/kg		1.869 mg/kg	0.000187 %	✓		
			204-371-1	120-12-7								
21		fluoranthene				14 mg/kg		12.46 mg/kg	0.00125 %	✓		
			205-912-4	206-44-0								
22		pyrene				12 mg/kg		10.68 mg/kg	0.00107 %	✓		
			204-927-3	129-00-0								
23		benz[a]anthracene				5.3 mg/kg		4.717 mg/kg	0.000472 %	✓		
		601-033-00-9	200-280-6	56-55-3								
24		chrysene				5.5 mg/kg		4.895 mg/kg	0.000489 %	✓		
		601-048-00-0	205-923-4	218-01-9								
25		benzo[b]fluoranthene				5.9 mg/kg		5.251 mg/kg	0.000525 %	✓		
		601-034-00-4	205-911-9	205-99-2								
26		benzo[k]fluoranthene				2.5 mg/kg		2.225 mg/kg	0.000223 %	✓		
		601-036-00-5	205-916-6	207-08-9								
27		benzo[a]pyrene; benzo[def]chrysene				4.1 mg/kg		3.649 mg/kg	0.000365 %	✓		
		601-032-00-3	200-028-5	50-32-8								
28		indeno[123-cd]pyrene				2.6 mg/kg		2.314 mg/kg	0.000231 %	✓		
			205-893-2	193-39-5								
29		dibenz[a,h]anthracene				0.61 mg/kg		0.543 mg/kg	0.0000543 %	✓		
		601-041-00-2	200-181-8	53-70-3								
30		benzo[ghi]perylene				2.8 mg/kg		2.492 mg/kg	0.000249 %	✓		
			205-883-8	191-24-2								
Total:									0.0103 %			

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: CP101-2030730-0.45

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

Sample details

Sample name:	LoW Code:
CP101-2030730-0.45	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.45 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
9.3%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 9.3% 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	pH				7.8 pH		7.8 pH	7.8 pH		
2	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
3	arsenic { arsenic trioxide }				5.9 mg/kg	1.32	7.065 mg/kg	0.000707 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
4	boron { diboron trioxide }				<0.4 mg/kg	3.22	<1.288 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
5	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
6	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				29 mg/kg	1.462	38.443 mg/kg	0.00384 %	✓	
		215-160-9	1308-38-9							
7	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
8	copper { copper(II) oxide }				18 mg/kg	1.252	20.437 mg/kg	0.00204 %	✓	
	029-016-00-6	215-269-1	1317-38-0							
9	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	13 mg/kg		11.791 mg/kg	0.00118 %	✓	
	082-001-00-6									
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	080-002-00-6									
11	nickel { nickel(II) carbonate }				35 mg/kg	2.022	64.202 mg/kg	0.00642 %	✓	
	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	3333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]							
12	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }				<0.25 mg/kg	1.405	<0.351 mg/kg	<0.0000351 %		<LOD
	034-002-00-8									

#		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									
13		vanadium { divanadium pentaoxide; vanadium pentoxide }				27	mg/kg	1.785	43.717	mg/kg	0.00437 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
14		zinc { zinc oxide }				38	mg/kg	1.245	42.9	mg/kg	0.00429 %	✓	
		030-013-00-7	215-222-5	1314-13-2									
15		cyanides {  salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<LOD
		006-007-00-5											
16		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
17		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
18		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
19		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
20		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
21		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
22		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
23		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
24		benz[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
25		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
26		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
27		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
28		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									
29		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
30		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									
31		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
32		TPH (C6 to C40) petroleum group				14	mg/kg		12.698	mg/kg	0.00127 %	✓	
				TPH									
33		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
34		benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
35		toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
36		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
37		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<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]									
38		monohydric phenols				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
				P1186									
Total:											0.0241 %		

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 10000 mg/kg (1%) because: It is highly unlikely that soils (generally a refractory matrix) will be classified as flammable at concentrations of 1.00% or less. (AGS, 2019). This property is thus disregarded as potentially flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00127%)

Classification of sample: CP101-2030731-0.75

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

Sample details

Sample name:	LoW Code:
CP101-2030731-0.75	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)
0.75 m	
Moisture content:	
10%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 10% 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	pH		PH		8.1 pH		8.1 pH	8.1 pH		
2	antimony { antimony trioxide }				2.1 mg/kg	1.197	2.263 mg/kg	0.000226 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
3	arsenic { arsenic trioxide }				6.6 mg/kg	1.32	7.843 mg/kg	0.000784 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
4	boron { diboron trioxide }				<0.4 mg/kg	3.22	<1.288 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
5	cadmium { cadmium oxide }				1.6 mg/kg	1.142	1.645 mg/kg	0.000164 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
6	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				21 mg/kg	1.462	27.623 mg/kg	0.00276 %	✓	
		215-160-9	1308-38-9							
7	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
8	copper { copper(II) oxide }				15 mg/kg	1.252	16.899 mg/kg	0.00169 %	✓	
	029-016-00-6	215-269-1	1317-38-0							
9	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	9.6 mg/kg		8.64 mg/kg	0.000864 %	✓	
	082-001-00-6									
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	080-002-00-6									
11	nickel { nickel(II) carbonate }				24 mg/kg	2.022	43.684 mg/kg	0.00437 %	✓	
	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	3333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]							
12	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }				0.73 mg/kg	1.405	0.923 mg/kg	0.0000923 %	✓	
	034-002-00-8									

#	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									
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				21	mg/kg	1.785	33.74	mg/kg	0.00337 %	✓	
	023-001-00-8	215-239-8	1314-62-1									
14	zinc { zinc oxide }				29	mg/kg	1.245	32.487	mg/kg	0.00325 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
15	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<LOD
	006-007-00-5											
16	naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
17	acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8									
18	acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9									
19	fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7									
20	phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-581-5	85-01-8									
21	anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		204-371-1	120-12-7									
22	fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-912-4	206-44-0									
23	pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		204-927-3	129-00-0									
24	benz[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-033-00-9	200-280-6	56-55-3									
25	chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-048-00-0	205-923-4	218-01-9									
26	benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-034-00-4	205-911-9	205-99-2									
27	benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-036-00-5	205-916-6	207-08-9									
28	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									
29	indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-893-2	193-39-5									
30	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									
31	benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-883-8	191-24-2									
32	TPH (C6 to C40) petroleum group				12	mg/kg		10.8	mg/kg	0.00108 %	✓	
			TPH									
33	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									
34	benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2									
35	toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3									
36	ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4									
37	xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<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]									
38	monohydric phenols				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			P1186									
Total:										0.0187 %		

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 10000 mg/kg (1%)

because: It is highly unlikely that soils (generally a refractory matrix) will be classified as flammable at concentrations of 1.00% or less. (AGS, 2019). This property is thus disregarded as potentially flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00108%)

Classification of sample: CP102-2030732-0.50

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

Sample details

Sample name:	LoW Code:
CP102-2030732-0.50	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.50 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
7.9%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 7.9% 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	pH				8.2 pH		8.2	pH	8.2 pH		
2	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394	mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4								
3	arsenic { arsenic trioxide }				11 mg/kg	1.32	13.376	mg/kg	0.00134 %	✓	
	033-003-00-0	215-481-4	1327-53-3								
4	boron { diboron trioxide }				<0.4 mg/kg	3.22	<1.288	mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2								
5	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114	mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0								
6	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				36 mg/kg	1.462	48.459	mg/kg	0.00485 %	✓	
		215-160-9	1308-38-9								
7	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135	mg/kg	<0.000113 %		<LOD
	024-017-00-8										
8	copper { copper(II) oxide }				26 mg/kg	1.252	29.975	mg/kg	0.003 %	✓	
	029-016-00-6	215-269-1	1317-38-0								
9	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	17 mg/kg		15.657	mg/kg	0.00157 %	✓	
	082-001-00-6										
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	080-002-00-6										
11	nickel { nickel(II) carbonate }				37 mg/kg	2.022	68.918	mg/kg	0.00689 %	✓	
	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	3333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]								
12	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }				0.59 mg/kg	1.405	0.763	mg/kg	0.0000763 %	✓	
	034-002-00-8										

#	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									
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				34	mg/kg	1.785	55.901	mg/kg	0.00559 %	✓	
	023-001-00-8	215-239-8	1314-62-1									
14	zinc { zinc oxide }				54	mg/kg	1.245	61.905	mg/kg	0.00619 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
15	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<LOD
	006-007-00-5											
16	naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
17	acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8									
18	acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9									
19	fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7									
20	phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-581-5	85-01-8									
21	anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		204-371-1	120-12-7									
22	fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-912-4	206-44-0									
23	pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		204-927-3	129-00-0									
24	benz[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-033-00-9	200-280-6	56-55-3									
25	chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-048-00-0	205-923-4	218-01-9									
26	benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-034-00-4	205-911-9	205-99-2									
27	benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-036-00-5	205-916-6	207-08-9									
28	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									
29	indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-893-2	193-39-5									
30	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									
31	benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-883-8	191-24-2									
32	TPH (C6 to C40) petroleum group				16	mg/kg		14.736	mg/kg	0.00147 %	✓	
			TPH									
33	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									
34	benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2									
35	toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3									
36	ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4									
37	xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<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]									
38	monohydric phenols				0.2	mg/kg		0.184	mg/kg	0.0000184 %	✓	
			P1186									
Total:										0.031 %		

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 10000 mg/kg (1%) because: It is highly unlikely that soils (generally a refractory matrix) will be classified as flammable at concentrations of 1.00% or less. (AGS, 2019). This property is thus disregarded as potentially flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00147%)

Classification of sample: CP102-2030733-0.70

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

Sample details

Sample name:	LoW Code:
CP102-2030733-0.70	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.70 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
8.7%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 8.7% 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	pH		PH		8.1 pH		8.1 pH	8.1 pH		
2	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
3	arsenic { arsenic trioxide }				6.7 mg/kg	1.32	8.077 mg/kg	0.000808 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
4	boron { diboron trioxide }				<0.4 mg/kg	3.22	<1.288 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
5	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
6	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				24 mg/kg	1.462	32.026 mg/kg	0.0032 %	✓	
		215-160-9	1308-38-9							
7	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
8	copper { copper(II) oxide }				18 mg/kg	1.252	20.572 mg/kg	0.00206 %	✓	
	029-016-00-6	215-269-1	1317-38-0							
9	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	14 mg/kg		12.782 mg/kg	0.00128 %	✓	
	082-001-00-6									
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	080-002-00-6									
11	nickel { nickel(II) carbonate }				23 mg/kg	2.022	42.469 mg/kg	0.00425 %	✓	
	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	3333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]							
12	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }				0.25 mg/kg	1.405	0.321 mg/kg	0.0000321 %	✓	
	034-002-00-8									

#	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									
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				23	mg/kg	1.785	37.487	mg/kg	0.00375 %	✓	
	023-001-00-8	215-239-8	1314-62-1									
14	zinc { zinc oxide }				38	mg/kg	1.245	43.184	mg/kg	0.00432 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
15	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<LOD
	006-007-00-5											
16	naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
17	acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8									
18	acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9									
19	fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7									
20	phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-581-5	85-01-8									
21	anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		204-371-1	120-12-7									
22	fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-912-4	206-44-0									
23	pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		204-927-3	129-00-0									
24	benz[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-033-00-9	200-280-6	56-55-3									
25	chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-048-00-0	205-923-4	218-01-9									
26	benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-034-00-4	205-911-9	205-99-2									
27	benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-036-00-5	205-916-6	207-08-9									
28	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									
29	indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-893-2	193-39-5									
30	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									
31	benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-883-8	191-24-2									
32	TPH (C6 to C40) petroleum group				15	mg/kg		13.695	mg/kg	0.00137 %	✓	
			TPH									
33	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									
34	benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2									
35	toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3									
36	ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4									
37	xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<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]									
38	monohydric phenols				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			P1186									
Total:										0.0211 %		

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 10000 mg/kg (1%) because: It is highly unlikely that soils (generally a refractory matrix) will be classified as flammable at concentrations of 1.00% or less. (AGS, 2019). This property is thus disregarded as potentially flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00137%)

Classification of sample: CP103-2030734-0.25

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

Sample details

Sample name:	LoW Code:
CP103-2030734-0.25	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.25 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
9.4%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 9.4% 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	pH				8.2 pH		8.2 pH	8.2 pH		
2	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
3	arsenic { arsenic trioxide }				6.4 mg/kg	1.32	7.656 mg/kg	0.000766 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
4	boron { diboron trioxide }				<0.4 mg/kg	3.22	<1.288 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
5	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
6	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				31 mg/kg	1.462	41.049 mg/kg	0.0041 %	✓	
		215-160-9	1308-38-9							
7	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
8	copper { copper(II) oxide }				19 mg/kg	1.252	21.548 mg/kg	0.00215 %	✓	
	029-016-00-6	215-269-1	1317-38-0							
9	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	10 mg/kg		9.06 mg/kg	0.000906 %	✓	
	082-001-00-6									
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	080-002-00-6									
11	nickel { nickel(II) carbonate }				32 mg/kg	2.022	58.634 mg/kg	0.00586 %	✓	
	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	3333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]							
12	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }				0.28 mg/kg	1.405	0.356 mg/kg	0.0000356 %	✓	
	034-002-00-8									

#		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									
13	 vanadium {  divanadium pentaoxide; vanadium pentoxide }				29	mg/kg	1.785	46.904	mg/kg	0.00469 %		✓	
	023-001-00-8	215-239-8	1314-62-1										
14	 zinc {  zinc oxide }				37	mg/kg	1.245	41.725	mg/kg	0.00417 %		✓	
	030-013-00-7	215-222-5	1314-13-2										
15	 cyanides {  salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %			<LOD
	006-007-00-5												
16	naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %			<LOD
	601-052-00-2	202-049-5	91-20-3										
17	 acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %			<LOD
		205-917-1	208-96-8										
18	 acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %			<LOD
		201-469-6	83-32-9										
19	 fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %			<LOD
		201-695-5	86-73-7										
20	 phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %			<LOD
		201-581-5	85-01-8										
21	 anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %			<LOD
		204-371-1	120-12-7										
22	 fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %			<LOD
		205-912-4	206-44-0										
23	 pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %			<LOD
		204-927-3	129-00-0										
24	benz[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %			<LOD
	601-033-00-9	200-280-6	56-55-3										
25	chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %			<LOD
	601-048-00-0	205-923-4	218-01-9										
26	benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %			<LOD
	601-034-00-4	205-911-9	205-99-2										
27	benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %			<LOD
	601-036-00-5	205-916-6	207-08-9										
28	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										
29	 indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %			<LOD
		205-893-2	193-39-5										
30	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										
31	 benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %			<LOD
		205-883-8	191-24-2										
32	 TPH (C6 to C40) petroleum group				11	mg/kg		9.966	mg/kg	0.000997 %		✓	
			TPH										
33	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %			<LOD
	603-181-00-X	216-653-1	1634-04-4										
34	benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %			<LOD
	601-020-00-8	200-753-7	71-43-2										
35	toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %			<LOD
	601-021-00-3	203-625-9	108-88-3										
36	 ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %			<LOD
	601-023-00-4	202-849-4	100-41-4										
37	xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %			<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]										
38	 monohydric phenols				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %			<LOD
			P1186										
Total:											0.0237 %		

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 10000 mg/kg (1%) because: It is highly unlikely that soils (generally a refractory matrix) will be classified as flammable at concentrations of 1.00% or less. (AGS, 2019). This property is thus disregarded as potentially flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00099%)

Classification of sample: WS104-2030735-0.50

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

Sample details

Sample name:	LoW Code:
WS104-2030735-0.50	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)
0.50 m	
Moisture content:	
11%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 11% 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	pH		PH		7.9 pH	7.9 pH		
2	antimony { antimony trioxide }				<2 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4	1.197	<2.394 mg/kg	<0.000239 %		<LOD
3	arsenic { arsenic trioxide }				7.1 mg/kg	0.000834 %	✓	
	033-003-00-0	215-481-4	1327-53-3	1.32	8.343 mg/kg	0.000834 %		
4	boron { diboron trioxide }				<0.4 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2	3.22	<1.288 mg/kg	<0.000129 %		<LOD
5	cadmium { cadmium oxide }				<0.1 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
6	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				25 mg/kg	0.00325 %	✓	
		215-160-9	1308-38-9	1.462	32.52 mg/kg	0.00325 %		
7	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	<0.000113 %		<LOD
	024-017-00-8			2.27	<1.135 mg/kg	<0.000113 %		<LOD
8	copper { copper(II) oxide }				25 mg/kg	0.00279 %	✓	
	029-016-00-6	215-269-1	1317-38-0	1.252	27.852 mg/kg	0.00279 %		
9	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	21 mg/kg	0.00187 %	✓	
	082-001-00-6				18.69 mg/kg	0.00187 %		
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	0.05 mg/kg	0.00000445 %	✓	
	080-002-00-6				0.0445 mg/kg	0.00000445 %		
11	nickel { nickel(II) carbonate }				21 mg/kg	0.00378 %	✓	
	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	3333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]	2.022	37.799 mg/kg	0.00378 %		
12	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }				<0.25 mg/kg	<0.0000351 %		<LOD
	034-002-00-8			1.405	<0.351 mg/kg	<0.0000351 %		<LOD

#	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								
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				23 mg/kg	1.785	36.543	mg/kg	0.00365 %	✓	
	023-001-00-8	215-239-8	1314-62-1								
14	zinc { zinc oxide }				40 mg/kg	1.245	44.312	mg/kg	0.00443 %	✓	
	030-013-00-7	215-222-5	1314-13-2								
15	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5 mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<LOD
	006-007-00-5										
16	naphthalene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3								
17	acenaphthylene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8								
18	acenaphthene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9								
19	fluorene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7								
20	phenanthrene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-581-5	85-01-8								
21	anthracene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		204-371-1	120-12-7								
22	fluoranthene				0.15 mg/kg		0.134	mg/kg	0.0000134 %	✓	
		205-912-4	206-44-0								
23	pyrene				0.14 mg/kg		0.125	mg/kg	0.0000125 %	✓	
		204-927-3	129-00-0								
24	benz[a]anthracene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-033-00-9	200-280-6	56-55-3								
25	chrysene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-048-00-0	205-923-4	218-01-9								
26	benzo[b]fluoranthene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-034-00-4	205-911-9	205-99-2								
27	benzo[k]fluoranthene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-036-00-5	205-916-6	207-08-9								
28	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								
29	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-893-2	193-39-5								
30	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								
31	benzo[ghi]perylene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-883-8	191-24-2								
32	TPH (C6 to C40) petroleum group				22 mg/kg		19.58	mg/kg	0.00196 %	✓	
			TPH								
33	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4								
34	benzene				<0.001 mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2								
35	toluene				<0.001 mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3								
36	ethylbenzene				<0.001 mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4								
37	xylene				<0.002 mg/kg		<0.002	mg/kg	<0.0000002 %		<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]								
38	monohydric phenols				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			P1186								
Total:									0.0226 %		

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 10000 mg/kg (1%) because: It is highly unlikely that soils (generally a refractory matrix) will be classified as flammable at concentrations of 1.00% or less. (AGS, 2019). This property is thus disregarded as potentially flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00196%)

Classification of sample: WS105-2030736-0.90

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

Sample details

Sample name:	LoW Code:
WS105-2030736-0.90	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.90 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
9%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 9% 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	pH				7.9 pH		7.9 pH	7.9 pH		
2	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
3	arsenic { arsenic trioxide }				6.3 mg/kg	1.32	7.569 mg/kg	0.000757 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
4	boron { diboron trioxide }				<0.4 mg/kg	3.22	<1.288 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
5	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
6	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				14 mg/kg	1.462	18.62 mg/kg	0.00186 %	✓	
		215-160-9	1308-38-9							
7	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
8	copper { copper(II) oxide }				17 mg/kg	1.252	19.365 mg/kg	0.00194 %	✓	
	029-016-00-6	215-269-1	1317-38-0							
9	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	23 mg/kg		20.93 mg/kg	0.00209 %	✓	
	082-001-00-6									
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	0.06 mg/kg		0.0546 mg/kg	0.00000546 %	✓	
	080-002-00-6									
11	nickel { nickel(II) carbonate }				10 mg/kg	2.022	18.404 mg/kg	0.00184 %	✓	
	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	3333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]							
12	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }				<0.25 mg/kg	1.405	<0.351 mg/kg	<0.0000351 %		<LOD
	034-002-00-8									

#	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							
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				16 mg/kg	1.785	25.992 mg/kg	0.0026 %	✓	
	023-001-00-8	215-239-8	1314-62-1							
14	zinc { zinc oxide }				33 mg/kg	1.245	37.379 mg/kg	0.00374 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
15	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
	006-007-00-5									
16	naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
17	acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8							
18	acenaphthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9							
19	fluorene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7							
20	phenanthrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-581-5	85-01-8							
21	anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		204-371-1	120-12-7							
22	fluoranthene				0.11 mg/kg		0.1 mg/kg	0.00001 %	✓	
		205-912-4	206-44-0							
23	pyrene				0.12 mg/kg		0.109 mg/kg	0.0000109 %	✓	
		204-927-3	129-00-0							
24	benz[a]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
25	chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
26	benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
27	benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
28	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							
29	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-893-2	193-39-5							
30	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							
31	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-883-8	191-24-2							
32	TPH (C6 to C40) petroleum group				23 mg/kg		20.93 mg/kg	0.00209 %	✓	
			TPH							
33	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							
34	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
35	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
36	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
37	xylene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<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]							
38	monohydric phenols				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			P1186							
Total:								0.0169 %		

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 10000 mg/kg (1%) because: It is highly unlikely that soils (generally a refractory matrix) will be classified as flammable at concentrations of 1.00% or less. (AGS, 2019). This property is thus disregarded as potentially flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00209%)

Classification of sample: WS101-2022884-1.50

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

Sample details

Sample name:	LoW Code:
WS101-2022884-1.50	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)
1.50 m	
Moisture content:	
19%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 19% 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	 pH					8.4 pH		8.4 pH	8.4 pH		
				PH							
2	 arsenic { arsenic trioxide }					11 mg/kg	1.32	11.764 mg/kg	0.00118 %	✓	
	033-003-00-0	215-481-4	1327-53-3								
3	 boron { diboron trioxide }					<0.4 mg/kg	3.22	<1.288 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2								
4	 cadmium { cadmium oxide }					<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
		048-002-00-0	215-146-2	1306-19-0							
5	 chromium in Cr(III) compounds { chromium(III) oxide (worst case) }					27 mg/kg	1.462	31.964 mg/kg	0.0032 %	✓	
			215-160-9	1308-38-9							
6	 chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }					<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
		024-017-00-8									
7	 copper { copper(II) oxide }					13 mg/kg	1.252	13.181 mg/kg	0.00132 %	✓	
		029-016-00-6	215-269-1	1317-38-0							
8	 lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }				1	7.4 mg/kg		5.994 mg/kg	0.000599 %	✓	
		082-001-00-6									
9	 mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }				1	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		080-002-00-6									
10	 nickel { nickel(II) carbonate }					27 mg/kg	2.022	44.23 mg/kg	0.00442 %	✓	
		028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	3333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]							
11	 selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }					<0.25 mg/kg	1.405	<0.351 mg/kg	<0.0000351 %		<LOD
		034-002-00-8									
12	 vanadium { divanadium pentaoxide; vanadium pentoxide }					26 mg/kg	1.785	37.596 mg/kg	0.00376 %	✓	
		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							
13		zinc { zinc oxide }				36 mg/kg	1.245	36.296 mg/kg	0.00363 %	✓	
		030-013-00-7	215-222-5	1314-13-2							
14		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 }				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
		006-007-00-5									
15		naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3							
16		acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8							
17		acenaphthene				0.25 mg/kg		0.203 mg/kg	0.0000203 %	✓	
			201-469-6	83-32-9							
18		fluorene				0.23 mg/kg		0.186 mg/kg	0.0000186 %	✓	
			201-695-5	86-73-7							
19		phenanthrene				1.7 mg/kg		1.377 mg/kg	0.000138 %	✓	
			201-581-5	85-01-8							
20		anthracene				0.48 mg/kg		0.389 mg/kg	0.0000389 %	✓	
			204-371-1	120-12-7							
21		fluoranthene				2.3 mg/kg		1.863 mg/kg	0.000186 %	✓	
			205-912-4	206-44-0							
22		pyrene				2 mg/kg		1.62 mg/kg	0.000162 %	✓	
			204-927-3	129-00-0							
23		benz[a]anthracene				0.96 mg/kg		0.778 mg/kg	0.0000778 %	✓	
		601-033-00-9	200-280-6	56-55-3							
24		chrysene				0.93 mg/kg		0.753 mg/kg	0.0000753 %	✓	
		601-048-00-0	205-923-4	218-01-9							
25		benzo[b]fluoranthene				1.2 mg/kg		0.972 mg/kg	0.0000972 %	✓	
		601-034-00-4	205-911-9	205-99-2							
26		benzo[k]fluoranthene				0.39 mg/kg		0.316 mg/kg	0.0000316 %	✓	
		601-036-00-5	205-916-6	207-08-9							
27		benzo[a]pyrene; benzo[def]chrysene				0.91 mg/kg		0.737 mg/kg	0.0000737 %	✓	
		601-032-00-3	200-028-5	50-32-8							
28		indeno[123-cd]pyrene				0.49 mg/kg		0.397 mg/kg	0.0000397 %	✓	
			205-893-2	193-39-5							
29		dibenz[a,h]anthracene				0.16 mg/kg		0.13 mg/kg	0.000013 %	✓	
		601-041-00-2	200-181-8	53-70-3							
30		benzo[ghi]perylene				0.53 mg/kg		0.429 mg/kg	0.0000429 %	✓	
			205-883-8	191-24-2							
Total:									0.0191 %		

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

■ pH (CAS Number: PH)

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

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

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

■ 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

■ 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

■ 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: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Skin Irrit. 2; H315

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

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

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

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

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

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

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

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

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

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

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

Description/Comments: Unknown Oil

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

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

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

▪ **monohydric phenols** (CAS Number: P1186)

Description/Comments: Combined hazards statements from harmonised entries in CLP for phenol, cresols and xylenols (604-001-00-2, 604-004-00-9, 604-006-00-X)
Data source: CLP combined data
Data source date: 26 Mar 2019
Hazard Statements: Muta. 2; H341 , Acute Tox. 3; H331 , Acute Tox. 3; H311 , Acute Tox. 3; H301 , STOT RE 2; H373 , Skin Corr. 1B; H314 , Skin Corr. 1B; H314 >= 3 % , Skin Irrit. 2; H315 1 <= conc. < 3 % , Eye Irrit. 2; H319 1 <= conc. < 3 % , Aquatic Chronic 2; H411

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds.

boron {diboron trioxide}

Diboron Trioxide. Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass.

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history. Mineralogy and site history show that Cadmium Sulfide is not likely to be present.

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

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass.

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

Worst case species

copper {copper(II) oxide}

Divalent Oxide. Reasonable case CLP entry based on Hazard Statements and low solubility. Oxidised form of Copper most likely to be present. Divalent copper is most likely to be bound to soils and organic matter. Copper (II) Oxide is found in ceramic glazes, wood preservatives, mining wastes, animal feed, welding wastes, alloy wastes, battery cells and some pigments. Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected.

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

There is an insufficient quantity of Chromium VI available to stoichiometrically form Chromate Compounds, as such the next most likely worse-case species has been selected for assessment. The concentration of Chromium VI is noted to be less than the detection limit of the analytical test.

mercury {inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex}

Reasonable case CLP selection as fulminate not likely to be present. Inorganic Mercury is more likely to be present. Dichloride is highly soluble and is unlikely to be present unless there are significant sources shown from Desk Study information.

nickel {nickel(II) carbonate}

Reasonable case CLP entry as halides, hexacyanoferrate, and sulfate are very soluble, thiocyanate is not likely to be present from industrial uses and is also soluble, insufficient Hexavalent Chromium to form the chromate species. Nickel Carbonate is largely insoluble and present in ceramics and potteries that may be present in Made Ground particularly.

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Reasonable case CLP compound unless Se is present in sufficient quantities to stoichiometrically form the Ni-Se compounds.

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case and also most reasonable CLP species to be present. The compound is usually present in slag materials from iron/steel production.

zinc {zinc oxide}

There is an insufficient quantity of Chromium VI available to stoichiometrically form Chromate Compounds, as such the next most likely worse-case species has been selected for assessment. The concentration of Chromium VI is noted to be less than the detection limit of the analytical test.

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}

Worst case species

antimony {antimony trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds.

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2025.275.6807.12324 (02 Oct 2025)
HazWasteOnline Database: 2025.273.6804.12320 (30 Sep 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

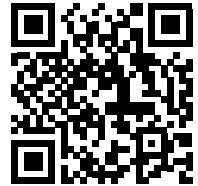
GB MCL List v5.0 - version 5.0 of 26th June 2024

GB MCL List v6.0 - version 6.0 of 15th February 2025

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)



2BK00-0SN37-JEN7K

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

HWOL_25-28760-20251006 172906[3]

Description/Comments

General Suite of Contaminants

Project

C4884

Site

Moorgate Point

Classified by

Name: **Timothy Gilbraith**
Date: **29 Oct 2025 10:48 GMT**
Telephone: **07943812462**
Company: **HSP Consulting Engineers Limited**
HSP Consulting Engineers
6 Bennetts Hill
Birmingham
B2 5ST

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

HazWasteOnline™ Certification:

CERTIFIED

Course
Hazardous Waste Classification

Date
08 Feb 2024

Next 3 year Refresher due by Feb 2027

Purpose of classification

2 - Material Characterisation

Address of the waste

Moorgate Road North, Knowsley

Post Code L33 7XW

SIC for the process giving rise to the waste

41100 Development of building projects

Description of industry/producer giving rise to the waste

Development of commercial units

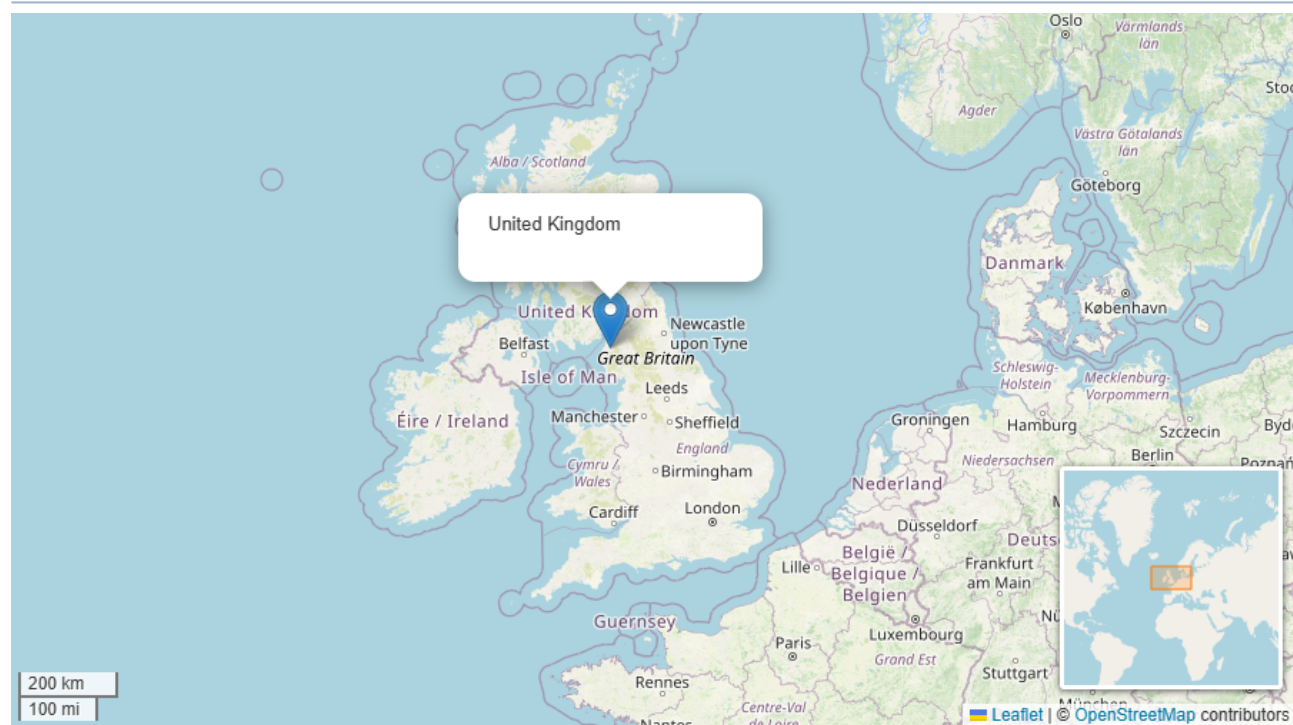
Description of the specific process, sub-process and/or activity that created the waste

Waste created by removing existing hardstanding

Description of the waste

Macadam surfacing

Waste Location



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS103-2022878-0.00	0.00-0.05	Non Hazardous		5
2	WS102-2022881-0.00	0.00-0.05	Non Hazardous		7
3	WS101-2022883-0.00	0.00-0.05	Hazardous	HP 7	9

Related documents

#	Name	Description
1	HWOL_25-28760-20251006 172906.batch	Eurofins Chemtest .batch file used to populate the Job
2	HWOL_25-28760-20251006 172906[2].hwol	Eurofins Chemtest .hwol file used to populate the Job
3	HWOL_25-30746-20251003 173627.hwol	Eurofins Chemtest .hwol file used to populate the Job
4	HSP General Contamination Suite	waste stream template used to create this Job

Report

Created by: Timothy Gilbraith

Created date: 29 Oct 2025 10:48 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	11
Appendix B: Rationale for selection of metal species	11
Appendix C: Version	11

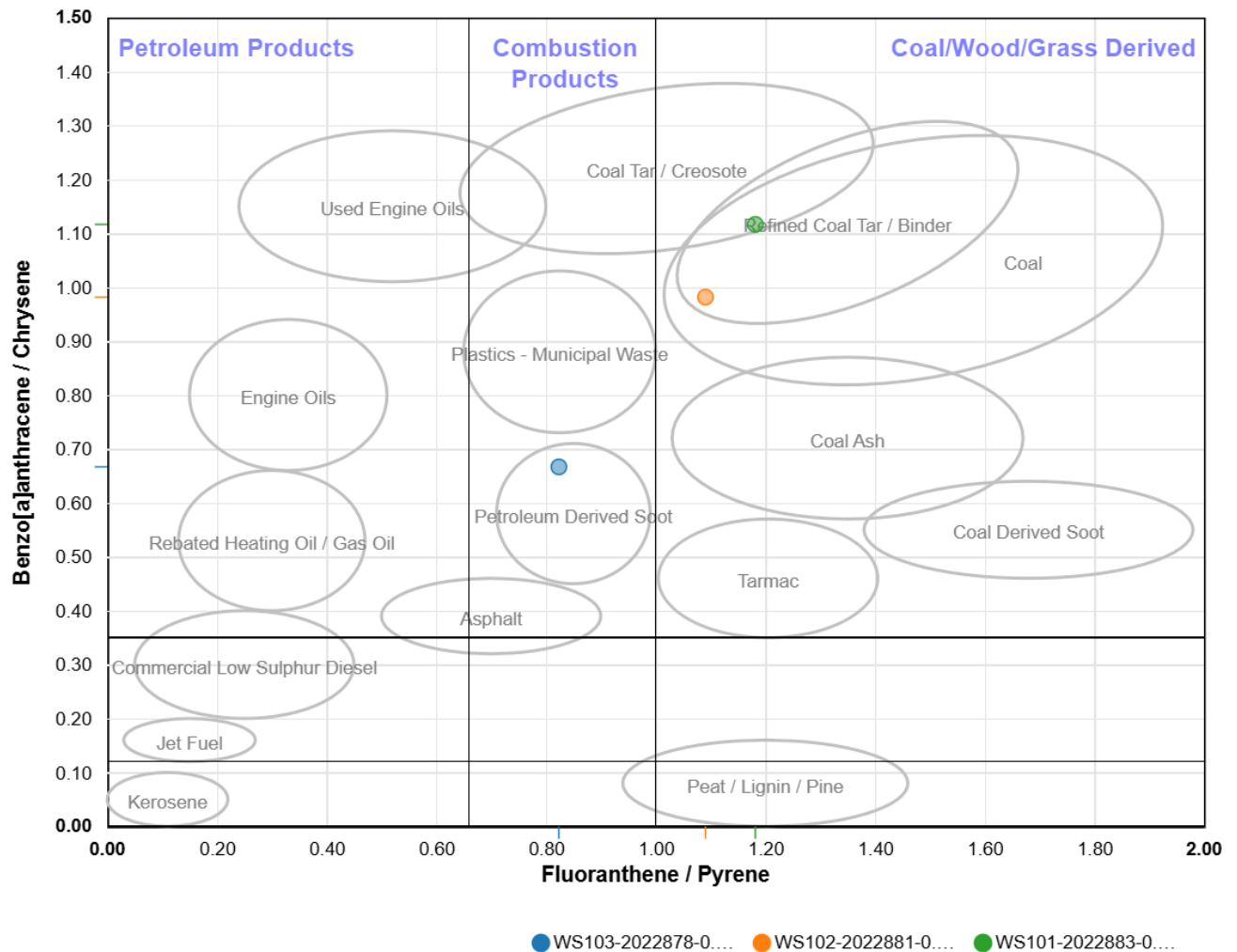
PAH Double Ratio Plots

Disclaimer

The domains, oval areas and the plotted points are **indicators only** and must be combined with other lines of evidence to form conclusions. Samples marked with an empty circle are not plotted as they fall outside of the graph's boundaries.

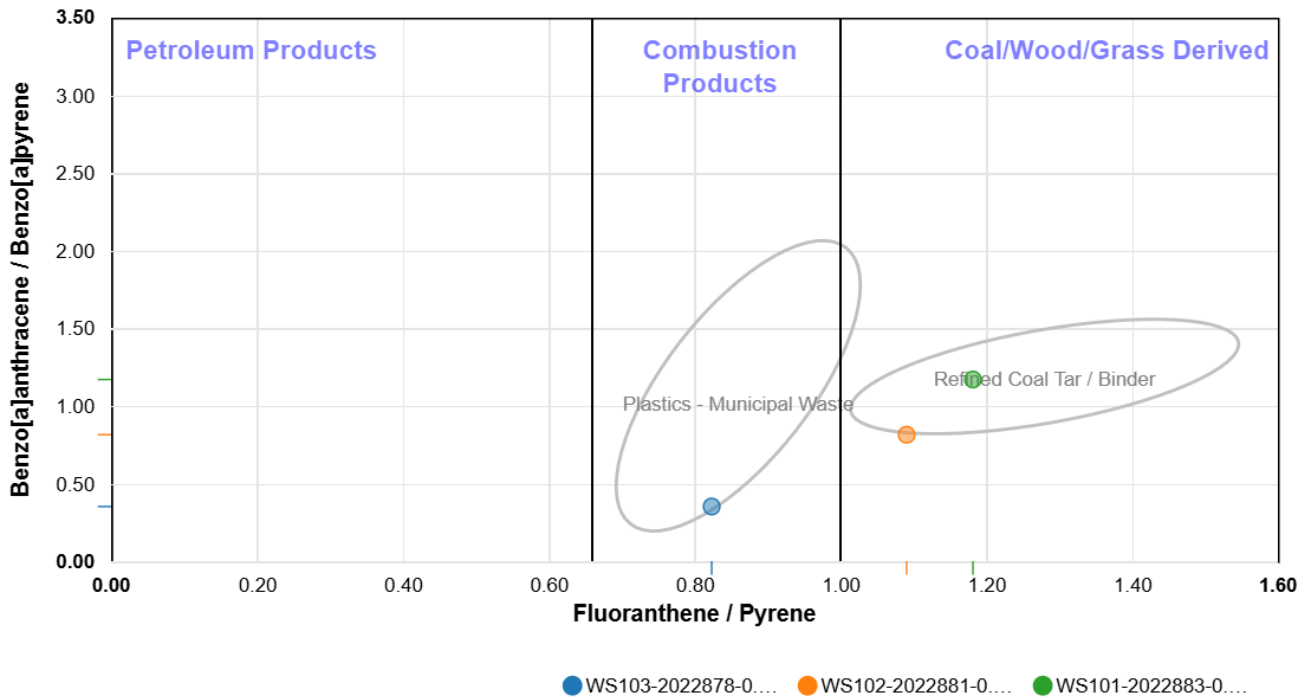
Credits

The domains and the horizontal and vertical lines are derived from Yunker et al. 2002 (Organic Geochemistry 33, 489-515)



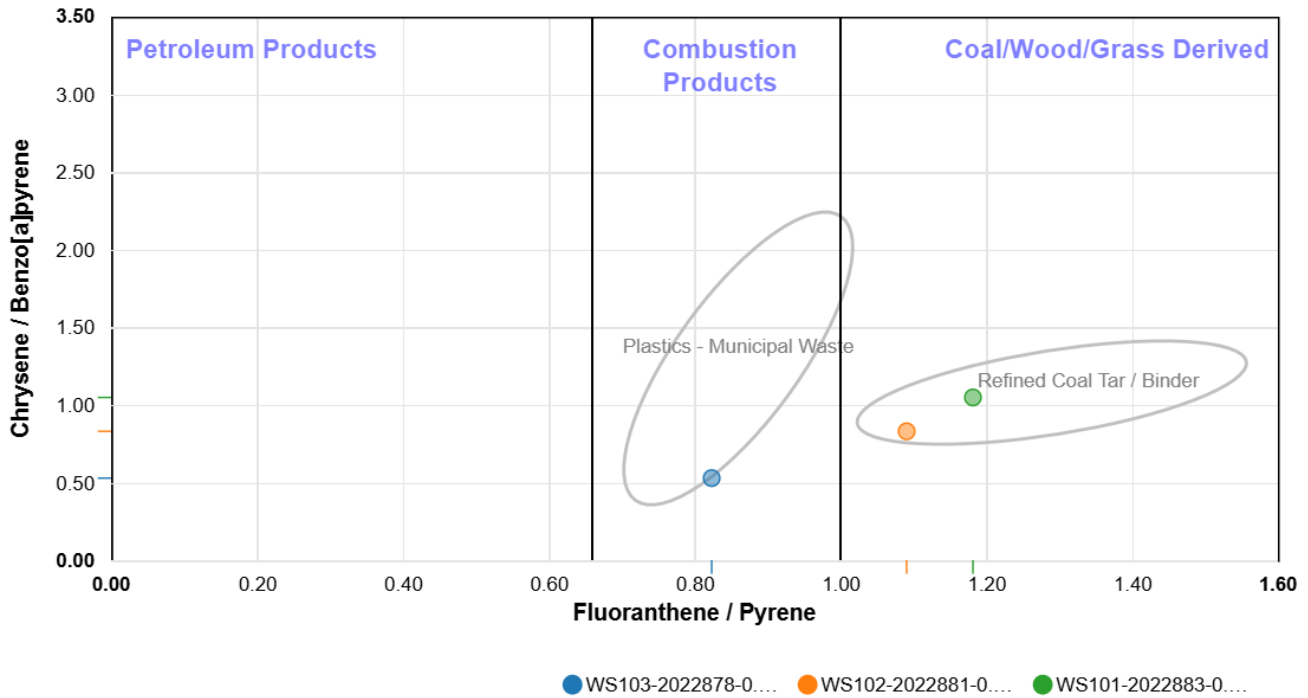
Credits for the oval areas and labels

HazWasteOnline, 2023; Jones Environmental Forensics, 2014



Credits for the oval areas and labels

HazWasteOnline, 2023



Credits for the oval areas and labels

HazWasteOnline, 2023

Classification of sample: WS103-2022878-0.00

✔ **Non Hazardous Waste**
Classified as **17 03 02**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS103-2022878-0.00	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.00-0.05 m	Entry:
Moisture content:	17 03 02 (Bituminous mixtures other than those mentioned in 17 03 01)
<0.1%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: <0.1% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	naphthalene				0.57 mg/kg		0.57 mg/kg	0.000057 %		
	601-052-00-2	202-049-5	91-20-3							
2	acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8							
3	acenaphthene				0.27 mg/kg		0.27 mg/kg	0.000027 %		
		201-469-6	83-32-9							
4	fluorene				0.1 mg/kg		0.1 mg/kg	0.00001 %		
		201-695-5	86-73-7							
5	phenanthrene				0.27 mg/kg		0.27 mg/kg	0.000027 %		
		201-581-5	85-01-8							
6	anthracene				0.27 mg/kg		0.27 mg/kg	0.000027 %		
		204-371-1	120-12-7							
7	fluoranthene				1.4 mg/kg		1.4 mg/kg	0.00014 %		
		205-912-4	206-44-0							
8	pyrene				1.7 mg/kg		1.7 mg/kg	0.00017 %		
		204-927-3	129-00-0							
9	benz[a]anthracene				1.2 mg/kg		1.2 mg/kg	0.00012 %		
	601-033-00-9	200-280-6	56-55-3							
10	chrysene				1.8 mg/kg		1.8 mg/kg	0.00018 %		
	601-048-00-0	205-923-4	218-01-9							
11	benzo[b]fluoranthene				4.8 mg/kg		4.8 mg/kg	0.00048 %		
	601-034-00-4	205-911-9	205-99-2							
12	benzo[k]fluoranthene				1.4 mg/kg		1.4 mg/kg	0.00014 %		
	601-036-00-5	205-916-6	207-08-9							
13	benzo[a]pyrene; benzo[def]chrysene				3.4 mg/kg		3.4 mg/kg	0.00034 %		
	601-032-00-3	200-028-5	50-32-8							
14	indeno[123-cd]pyrene				3.4 mg/kg		3.4 mg/kg	0.00034 %		
		205-893-2	193-39-5							
15	dibenz[a,h]anthracene				0.56 mg/kg		0.56 mg/kg	0.000056 %		
	601-041-00-2	200-181-8	53-70-3							
16	benzo[ghi]perylene				3.3 mg/kg		3.3 mg/kg	0.00033 %		
		205-883-8	191-24-2							
Total:								0.00244 %		

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)
<LOD	Below limit of detection

Classification of sample: WS102-2022881-0.00

✔ **Non Hazardous Waste**
Classified as **17 03 02**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS102-2022881-0.00	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.00-0.05 m	Entry:
Moisture content:	17 03 02 (Bituminous mixtures other than those mentioned in 17 03 01)
<0.1%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: <0.1% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
2	acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8							
3	acenaphthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9							
4	fluorene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7							
5	phenanthrene				0.56 mg/kg		0.56 mg/kg	0.000056 %		
		201-581-5	85-01-8							
6	anthracene				0.19 mg/kg		0.19 mg/kg	0.000019 %		
		204-371-1	120-12-7							
7	fluoranthene				1.2 mg/kg		1.2 mg/kg	0.00012 %		
		205-912-4	206-44-0							
8	pyrene				1.1 mg/kg		1.1 mg/kg	0.00011 %		
		204-927-3	129-00-0							
9	benz[a]anthracene				0.53 mg/kg		0.53 mg/kg	0.000053 %		
	601-033-00-9	200-280-6	56-55-3							
10	chrysene				0.54 mg/kg		0.54 mg/kg	0.000054 %		
	601-048-00-0	205-923-4	218-01-9							
11	benzo[b]fluoranthene				0.9 mg/kg		0.9 mg/kg	0.00009 %		
	601-034-00-4	205-911-9	205-99-2							
12	benzo[k]fluoranthene				0.37 mg/kg		0.37 mg/kg	0.000037 %		
	601-036-00-5	205-916-6	207-08-9							
13	benzo[a]pyrene; benzo[def]chrysene				0.65 mg/kg		0.65 mg/kg	0.000065 %		
	601-032-00-3	200-028-5	50-32-8							
14	indeno[123-cd]pyrene				0.54 mg/kg		0.54 mg/kg	0.000054 %		
		205-893-2	193-39-5							
15	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							
16	benzo[ghi]perylene				0.46 mg/kg		0.46 mg/kg	0.000046 %		
		205-883-8	191-24-2							
Total:								0.0007 %		

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)
<LOD	Below limit of detection

Classification of sample: WS101-2022883-0.00

 **Hazardous Waste**
Classified as **17 03 01 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WS101-2022883-0.00	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.00-0.05 m	Entry:
Moisture content:	17 03 01 * (Bituminous mixtures containing coal tar)
<0.1%	
(no correction)	

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

benzo[a]pyrene; benzo[def]chrysene (conc.: 0.041%)

Determinands

Moisture content: <0.1% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	naphthalene				19 mg/kg		19 mg/kg	0.0019 %		
	601-052-00-2	202-049-5	91-20-3							
2	acenaphthylene				4.5 mg/kg		4.5 mg/kg	0.00045 %		
		205-917-1	208-96-8							
3	acenaphthene				120 mg/kg		120 mg/kg	0.012 %		
		201-469-6	83-32-9							
4	fluorene				110 mg/kg		110 mg/kg	0.011 %		
		201-695-5	86-73-7							
5	phenanthrene				990 mg/kg		990 mg/kg	0.099 %		
		201-581-5	85-01-8							
6	anthracene				300 mg/kg		300 mg/kg	0.03 %		
		204-371-1	120-12-7							
7	fluoranthene				1300 mg/kg		1300 mg/kg	0.13 %		
		205-912-4	206-44-0							
8	pyrene				1100 mg/kg		1100 mg/kg	0.11 %		
		204-927-3	129-00-0							
9	benz[a]anthracene				480 mg/kg		480 mg/kg	0.048 %		
	601-033-00-9	200-280-6	56-55-3							
10	chrysene				430 mg/kg		430 mg/kg	0.043 %		
	601-048-00-0	205-923-4	218-01-9							
11	benzo[b]fluoranthene				510 mg/kg		510 mg/kg	0.051 %		
	601-034-00-4	205-911-9	205-99-2							
12	benzo[k]fluoranthene				190 mg/kg		190 mg/kg	0.019 %		
	601-036-00-5	205-916-6	207-08-9							
13	benzo[a]pyrene; benzo[def]chrysene				410 mg/kg		410 mg/kg	0.041 %		
	601-032-00-3	200-028-5	50-32-8							

#	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	indeno[123-cd]pyrene	205-893-2	193-39-5		230 mg/kg		230 mg/kg	0.023 %		
15	dibenz[a,h]anthracene	601-041-00-2	200-181-8		53 mg/kg		53 mg/kg	0.0053 %		
16	benzo[ghi]perylene	205-883-8	191-24-2		200 mg/kg		200 mg/kg	0.02 %		
Total:								0.645 %		

Key

	User supplied data
	Hazardous result
•	Determinand defined or amended by HazWasteOnline (see Appendix A)

Appendix A: Classifier defined and non GB MCL determinands

• 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

None used in this classification

Appendix C: Version

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

HazWasteOnline Classification Engine Version: 2025.301.6836.12374 (28 Oct 2025)

HazWasteOnline Database: 2025.301.6836.12374 (28 Oct 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

Appendix VII

**GROUND GAS AND WATER LEVEL
MONITORING REPORT**



Client: Indurent Management Ltd

Project Name: Moorgate Point, Knowsley

Project Reference:

C4884

Date: 8th September 2025

Round of Monitoring:

1 of 6

Monitoring Point Reference	Flow Rate (l/hr)	Methane (CH ₄ % v/v) LOD 0.1%		Oxygen (O ₂ % v/v) LOD 0.1%		Carbon Dioxide (CO ₂ % v/v) LOD 0.1%		Carbon Monoxide (CO ppm)	Hydrogen Sulphide (H ₂ S ppm)	Atmospheric Pressure (mBar)	Relative Pressure (mBar)	Borehole Depth (mbgl)	Water Depth (mbgl)	VOC (ppm)	Product Thickness (mm)
	LOD 0.1l/hr	Peak	Steady	Min	Steady	Peak	Steady	LOD 1 ppm	LOD 1 ppm					LOD 1 ppm	
CP101	2.7	<0.1	<0.1	17.4	18.1	2.2	1.9	<1	<1	1006	-	3.50	2.62	-	-
CP103	<0.1	<0.1	<0.1	19.5	19.6	0.9	0.9	<1	<1	1006	-	2.95	2.02	-	-
WS101	2.7	<0.1	<0.1	17.4	18.1	2.2	1.9	<1	<1	1006	-	2.90	2.42	-	-
WS103	2.5	<0.1	<0.1	10.7	10.8	2.4	2.4	<1	<1	1006	-	1.90	1.60	-	-
WS104	0.7	<0.1	<0.1	14.6	15.9	6.0	4.9	<1	<1	1006	-	1.90	DRY	-	-

Environmental Conditions	
Ground Conditions:	Wet
Weather:	Slight Rain
Ambient Oxygen:	20.7%
Wind Speed:	Calm
Ambient Temperature (°C):	18
Pressure Trend:	Steady
Borehole Condition:	OK

Comments:	
Instrument:	GM25-4
Calibration Date:	N/A
Serial Number:	14386
Technician:	NC

**GROUND GAS AND WATER LEVEL
MONITORING REPORT**



Client: Indurent Management Ltd

Project Name: Moorgate Point, Knowsley

Date: 15th September 2025

Project Reference:

C4884

Round of Monitoring:

2 of 6

Monitoring Point Reference	Flow Rate (l/hr)	Methane (CH ₄ % v/v) LOD 0.1%		Oxygen (O ₂ % v/v) LOD 0.1%		Carbon Dioxide (CO ₂ % v/v) LOD 0.1%		Carbon Monoxide (CO ppm)	Hydrogen Sulphide (H ₂ S ppm)	Atmospheric Pressure (mBar)	Relative Pressure (mBar)	Borehole Depth (mbgl)	Water Depth (mbgl)	VOC (ppm) LOD 1 ppm	Product Thickness (mm)
	LOD 0.1l/hr	Peak	Steady	Min	Steady	Peak	Steady	LOD 1 ppm	LOD 1 ppm						
CP101	3.8	<0.1	<0.1	19.5	19.5	1.0	1.0	<1	<1	992	-	3.47	2.34	-	-
CP103	<0.1	<0.1	<0.1	19.1	19.8	1.2	1.2	<1	<1	992	-	2.71	1.66	-	-
WS101	<0.1	<0.1	<0.1	15.9	15.9	1.5	1.5	<1	<1	992	-	2.90	2.39	-	-
WS103	<0.1	<0.1	<0.1	11.0	18.5	2.0	0.5	<1	<1	992	-	1.90	1.67	-	-
WS104	<0.1	<0.1	<0.1	12.9	12.9	6.8	6.7	<1	<1	992	-	1.90	DRY	-	-

Environmental Conditions	
Ground Conditions:	Wet
Weather:	Heavy Rain
Ambient Oxygen:	20.7%
Wind Speed:	Moderate
Ambient Temperature (°C):	14°
Pressure Trend:	Steady
Borehole Condition:	OK

Comments:	
Instrument:	GM25-4
Calibration Date:	N/A
Serial Number:	14386
Technician:	NC

**GROUND GAS AND WATER LEVEL
MONITORING REPORT**



Client: Indurent Management Ltd

Project Name: Moorgate Point, Knowsley

Date: 22nd September 2025

Project Reference:

C4884

Round of Monitoring:

3 of 6

Monitoring Point Reference	Flow Rate (l/hr)	Methane (CH ₄ % v/v) LOD 0.1%		Oxygen (O ₂ % v/v) LOD 0.1%		Carbon Dioxide (CO ₂ % v/v) LOD 0.1%		Carbon Monoxide (CO ppm)	Hydrogen Sulphide (H ₂ S ppm)	Atmospheric Pressure (mBar)	Relative Pressure (mBar)	Borehole Depth (mbgl)	Water Depth (mbgl)	VOC (ppm)	Product Thickness (mm)
	LOD 0.1l/hr	Peak	Steady	Min	Steady	Peak	Steady	LOD 1 ppm	LOD 1 ppm					LOD 1 ppm	
CP101	<0.1	<0.1	<0.1	19.0	19.7	1.6	1.6	<1	<1	1022	-	3.49	2.17	<1	-
CP103	<0.1	<0.1	<0.1	18.8	18.8	0.9	0.9	<1	<1	1022	-	2.62	1.15	<1	-
WS101	1.3	<0.1	<0.1	18.1	18.5	0.8	0.6	<1	<1	1022	-	2.90	2.25	2.90	-
WS103	<0.1	<0.1	<0.1	6.6	15.5	2.6	0.9	<1	<1	1022	-	1.90	1.47	<1	-
WS104	<0.1	<0.1	<0.1	20.4	20.5	0.3	0.2	<1	<1	1022	-	1.90	0.96	7.10	-

Environmental Conditions	
Ground Conditions:	Wet
Weather:	Fine
Ambient Oxygen:	20.7%
Wind Speed:	Calm
Ambient Temperature (°C):	13°
Pressure Trend:	Steady
Borehole Condition:	OK

Comments:	
Instrument:	GM25-4
Calibration Date:	N/A
Serial Number:	14386
Technician:	NC

**GROUND GAS AND WATER LEVEL
MONITORING REPORT**



Client: Indurent Management Ltd

Project Name: Moorgate Point, Knowsley

Date: 29th September 2025

Project Reference:

C4884

Round of Monitoring:

4 of 6

Monitoring Point Reference	Flow Rate (l/hr)	Methane (CH ₄ % v/v) LOD 0.1%		Oxygen (O ₂ % v/v) LOD 0.1%		Carbon Dioxide (CO ₂ % v/v) LOD 0.1%		Carbon Monoxide (CO ppm)	Hydrogen Sulphide (H ₂ S ppm)	Atmospheric Pressure (mBar)	Relative Pressure (mBar)	Borehole Depth (mbgl)	Water Depth (mbgl)	VOC (ppm)	Product Thickness (mm)
	LOD 0.1l/hr	Peak	Steady	Min	Steady	Peak	Steady	LOD 1 ppm	LOD 1 ppm					LOD 1 ppm	
CP101	2.7	<0.1	<0.1	18.9	18.9	1.1	0.9	<1	<1	1025	-	3.45	2.04	<1	-
CP103	<0.1	<0.1	<0.1	18.4	18.4	1.1	1.1	<1	<1	1025	-	2.61	1.10	<1	-
WS101	3.0	<0.1	<0.1	18.7	19.9	1.4	0.9	<1	<1	1025	-	2.90	2.25	2.90	-
WS103	<0.1	<0.1	<0.1	18.6	20.7	0.8	0.2	<1	<1	1025	-	1.90	1.49	1.0	-
WS104	<0.1	<0.1	<0.1	19.9	19.9	0.8	0.5	<1	<1	1025	-	1.90	1.32	6.0	-

Environmental Conditions	
Ground Conditions:	Wet
Weather:	Overcast
Ambient Oxygen:	20.7%
Wind Speed:	Calm
Ambient Temperature (°C):	14°
Pressure Trend:	Steady
Borehole Condition:	OK

Comments:	
Instrument:	GM25-4
Calibration Date:	N/A
Serial Number:	14386
Technician:	NC

**GROUND GAS AND WATER LEVEL
MONITORING REPORT**



Client: Indurent Management Ltd

Project Name: Moorgate Point, Knowsley

Date: 7th October 2025

Project Reference:

C4884

Round of Monitoring:

5 of 6

Monitoring Point Reference	Flow Rate (l/hr)	Methane (CH ₄ % v/v) LOD 0.1%		Oxygen (O ₂ % v/v) LOD 0.1%		Carbon Dioxide (CO ₂ % v/v) LOD 0.1%		Carbon Monoxide (CO ppm)	Hydrogen Sulphide (H ₂ S ppm)	Atmospheric Pressure (mBar)	Relative Pressure (mBar)	Borehole Depth (mbgl)	Water Depth (mbgl)	VOC (ppm) LOD 1 ppm	Product Thickness (mm)
	LOD 0.1l/hr	Peak	Steady	Min	Steady	Peak	Steady	LOD 1 ppm	LOD 1 ppm						
CP101	<0.1	<0.1	<0.1	14.7	14.9	2.1	2.1	<1	<1	1013	-	3.50	N/A	<1	-
CP103	<0.1	<0.1	<0.1	20.4	20.4	0.4	0.4	<1	<1	1013	-	2.60	0.50	<1	-
WS101	<0.1	<0.1	<0.1	18.6	18.6	1.4	1.4	<1	<1	1013	-	2.90	N/A	3.8	-
WS103	0.3	<0.1	<0.1	6.8	6.8	2.4	2.4	<1	<1	1013	-	1.90	N/A	<1	-
WS104	<0.1	<0.1	<0.1	20.3	20.5	0.3	0.2	<1	<1	1013	-	1.90	N/A	4.5	-

Environmental Conditions	
Ground Conditions:	Wet
Weather:	Overcast
Ambient Oxygen:	20.7%
Wind Speed:	Calm
Ambient Temperature (°C):	17°
Pressure Trend:	Steady
Borehole Condition:	OK

Comments:	
Instrument:	GM25-4
Calibration Date:	N/A
Serial Number:	14386
Technician:	NC

**GROUND GAS AND WATER LEVEL
MONITORING REPORT**



Client: Indurent Management Ltd

Project Name: Moorgate Point, Knowsley

Project Reference:

C4884

Date: 17th October 2025

Round of Monitoring:

6 of 6

Monitoring Point Reference	Flow Rate (l/hr)	Methane (CH ₄ % v/v) LOD 0.1%		Oxygen (O ₂ % v/v) LOD 0.1%		Carbon Dioxide (CO ₂ % v/v) LOD 0.1%		Carbon Monoxide (CO ppm)	Hydrogen Sulphide (H ₂ S ppm)	Atmospheric Pressure (mBar)	Relative Pressure (mBar)	Borehole Depth (mbgl)	Water Depth (mbgl)	VOC (ppm)	Product Thickness (mm)
	LOD 0.1l/hr	Peak	Steady	Min	Steady	Peak	Steady	LOD 1 ppm	LOD 1 ppm					LOD 1 ppm	
CP101	1.0	<0.1	<0.1	18.6	18.7	1.4	1.4	<1	<1	1026	-	3.50	2.00	<1	-
CP103	<0.1	<0.1	<0.1	20.1	20.5	0.2	0.1	<1	<1	1026	-	2.61	1.07	<1	-
WS101	<0.1	<0.1	<0.1	17.8	18.7	2.0	1.5	<1	<1	1026	-	2.90	2.15	6.40	-
WS103	2.7	<0.1	<0.1	11.3	11.3	2.3	2.3	<1	<1	1026	-	1.90	1.33	<1	-
WS104	0.9	<0.1	<0.1	20.5	20.5	0.2	0.2	<1	<1	1026	-	1.90	1.18	3.2	-

Environmental Conditions	
Ground Conditions:	Dry
Weather:	Overcast
Ambient Oxygen:	20.7%
Wind Speed:	Calm
Ambient Temperature (°C):	13°
Pressure Trend:	Steady
Borehole Condition:	OK

Comments:	CP103 & WS104 monitored following bailing of high water levels.
Instrument:	GM25-4
Calibration Date:	N/A
Serial Number:	14386
Technician:	NC

Appendix VIII



Client: HSP Consulting Engineers Ltd
Lawrence House
6 Meadowbank Way
Eastwood
Nottinghamshire
NG16 3SB

Date: 28/08/2025

Lab Ref: 270825-03

Originator: Tim Gilbraith

Order Ref: SC16090/C4884/TG

Site: Moorgate Point
Knowsley
Liverpool
L33 7XW

Kiwa CMT
Unit 5 Prime Park Way
Prime Enterprise Park
Derby
DE1 3QB

T +44 (0)1332 383333
E uk.cmt.enquiries@kiwa.com

www.kiwa.co.uk/cmt

Requirements:

Attend the above site on 27/08/2025 in order to carry out 5 Plate bearings for equivalent CBR% tests to evaluate the modulus of sub-grade reaction 'k' and estimate the equivalent CBR percentage in accordance with Interim Advice Note (IAN) 73/06 Revision 1 (2009).

Results:

The individual result sheets may be viewed on pages 2 to 6 of this report.

Kiwa CMT

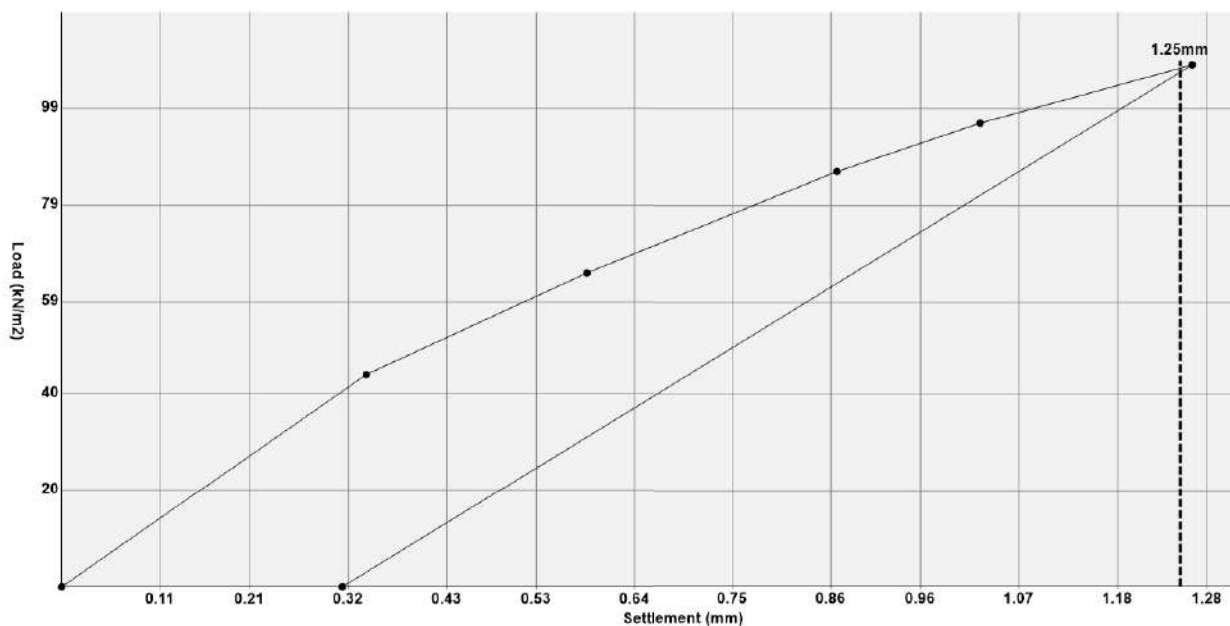
A handwritten signature in black ink, appearing to read "Stewart Robinson".

Checked and Authorised by: Stewart Robinson
Technical Administrator

450mm Diameter Plate Test

Client:	HSP Consulting Engineers Ltd	Material Type:	Brown/red Clay
Site:	Moorgate Point Knowsley Liverpool	Test No:	CBR Test 1
Lab Ref.:	270825-03	^ Test Location:	CBR104
Kentledge:	13 tonne excavator	Layer:	Formation
Conditions:	Dry	^ Road No:	^ Chainage:
		Date of Test:	27/08/2025

Pressure (kN/m ²)	Settlement (mm)
0	0.00
44	0.34
65	0.59
86	0.87
96	1.03
108	1.26
0	0.31



Test Method: Interim Advice Note (IAN) 73/06 Revision 1 (2009)

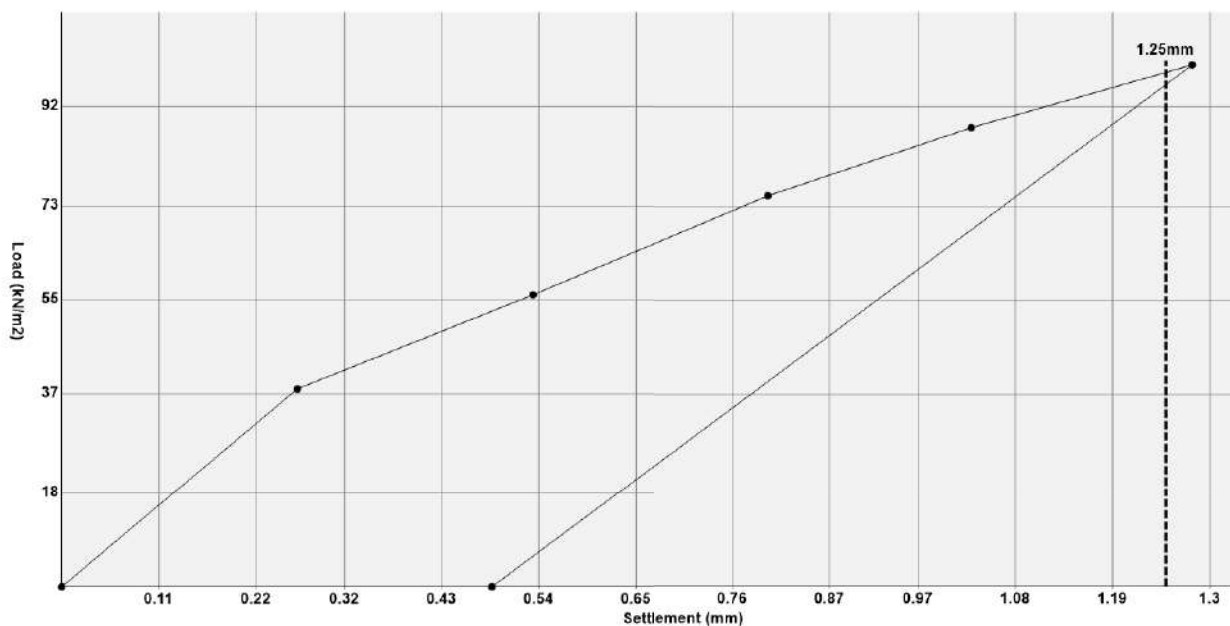
Result: Modulus of Sub grade Reaction k_{762} = 53437 kN/m²/m
Equivalent CBR = 9.5 %

Comments: Information marked by ^ supplied by the client can affect the validity of the results, these apply only to the locations provided.

450mm Diameter Plate Test

Client:	HSP Consulting Engineers Ltd	Material Type:	Light brown Clay
Site:	Moorgate Point Knowsley Liverpool	Test No:	CBR Test 2
Lab Ref.:	270825-03	^ Test Location:	CBR105
Kentledge:	13 tonne excavator	Layer:	Formation
Conditions:	Dry	^ Road No:	^ Chainage:
		Date of Test:	27/08/2025

Pressure (kN/m ²)	Settlement (mm)
0	0.00
38	0.27
56	0.53
75	0.80
88	1.03
100	1.28
0	0.49



Test Method: Interim Advice Note (IAN) 73/06 Revision 1 (2009)

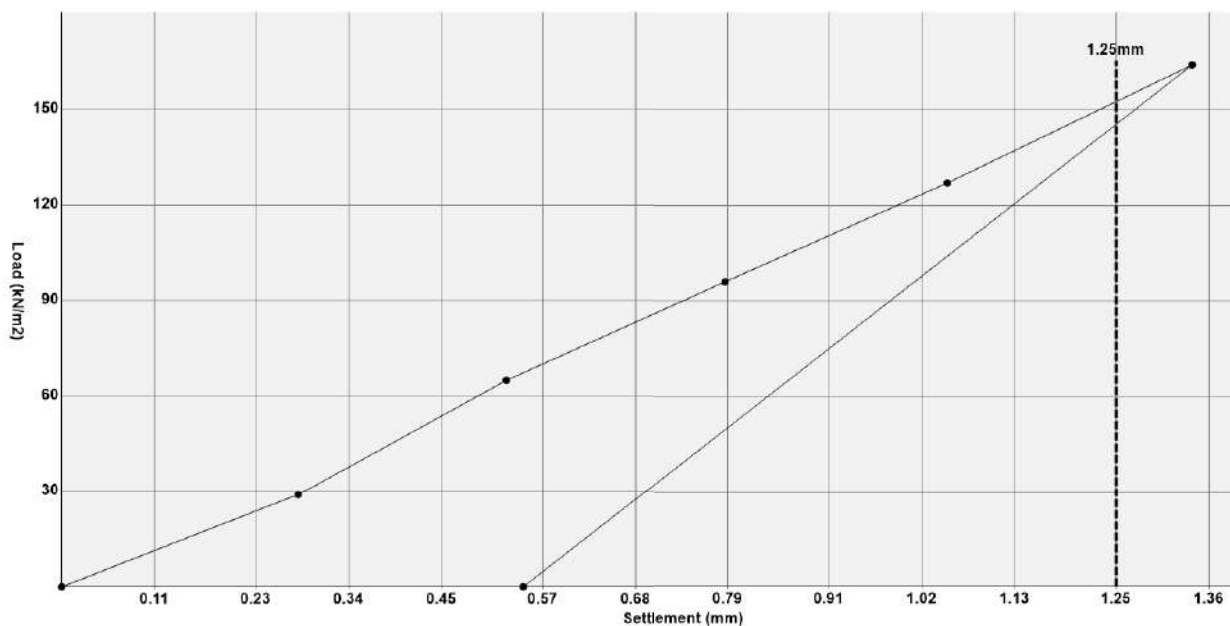
Result: Modulus of Sub grade Reaction k_{762} = 49441 kN/m²/m
Equivalent CBR = 8.3 %

Comments: Information marked by ^ supplied by the client can affect the validity of the results, these apply only to the locations provided.

450mm Diameter Plate Test

Client:	HSP Consulting Engineers Ltd	Material Type:	Brown/red Clay
Site:	Moorgate Point Knowsley Liverpool	Test No:	CBR Test 3
Lab Ref.:	270825-03	^ Test Location:	CBR103
Kentledge:	13 tonne excavator	Layer:	Formation
Conditions:	Dry	^ Road No:	^ Chainage:
		Date of Test:	27/08/2025

Pressure (kN/m ²)	Settlement (mm)
0	0.00
29	0.28
65	0.53
96	0.79
127	1.05
164	1.34
0	0.55



Test Method: Interim Advice Note (IAN) 73/06 Revision 1 (2009)

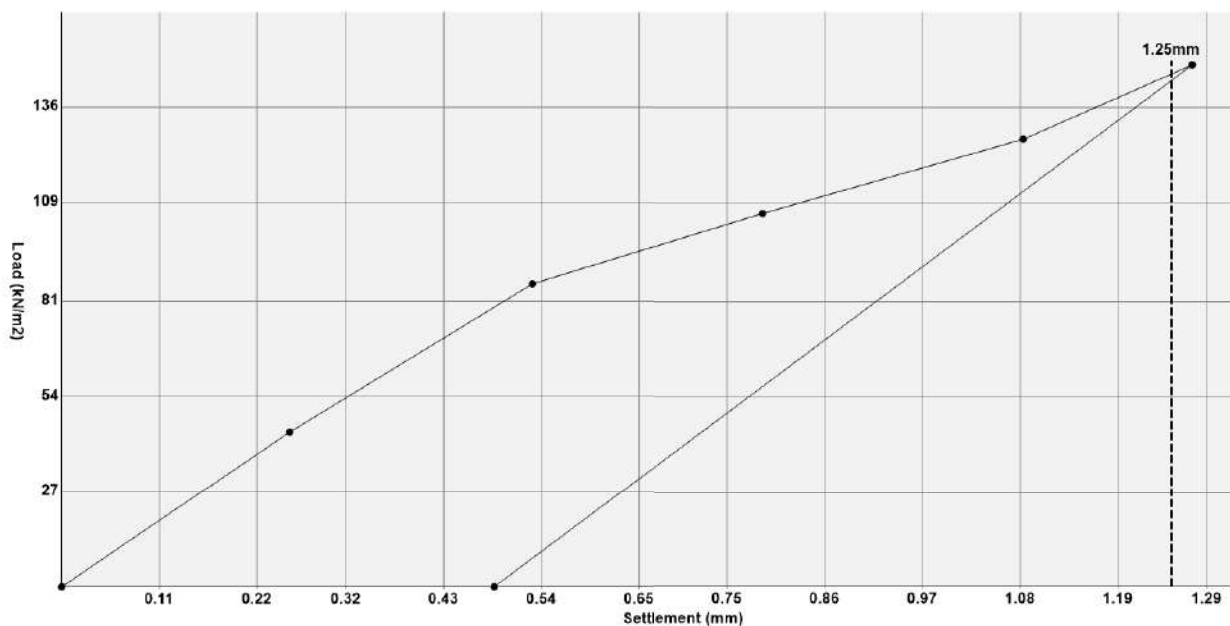
Result: Modulus of Sub grade Reaction k_{762} = 76409 kN/m²/m
Equivalent CBR = 17.7 %

Comments: Information marked by ^ supplied by the client can affect the validity of the results, these apply only to the locations provided.

450mm Diameter Plate Test

Client:	HSP Consulting Engineers Ltd	Material Type:	Brown Clay
Site:	Moorgate Point Knowsley Liverpool	Test No:	CBR Test 4
Lab Ref.:	270825-03	^ Test Location:	CBR102
Kentledge:	13 tonne excavator	Layer:	Formation
Conditions:	Dry	^ Road No:	^ Chainage:
		Date of Test:	27/08/2025

Pressure (kN/m ²)	Settlement (mm)
0	0.00
44	0.26
86	0.53
106	0.79
127	1.08
148	1.27
0	0.49



Test Method: Interim Advice Note (IAN) 73/06 Revision 1 (2009)

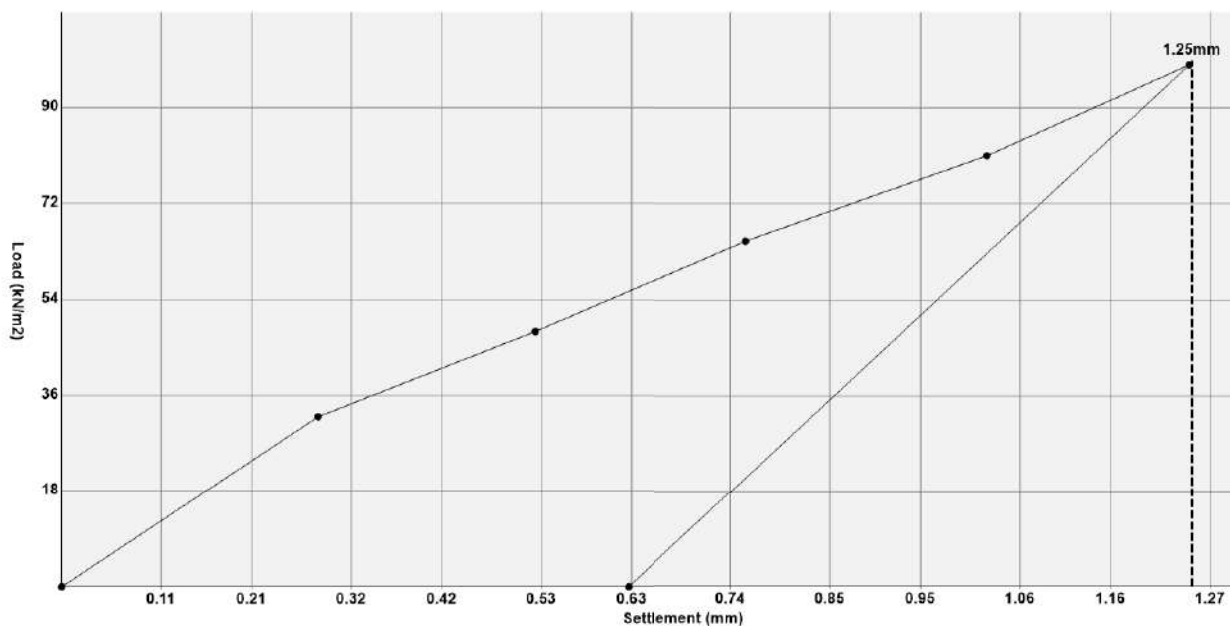
Result: Modulus of Sub grade Reaction k_{762} = 72414 kN/m²/m
Equivalent CBR = 16.1 %

Comments: Information marked by ^ supplied by the client can affect the validity of the results, these apply only to the locations provided.

450mm Diameter Plate Test

Client:	HSP Consulting Engineers Ltd	Material Type:	Brown/red Clay
Site:	Moorgate Point Knowsley Liverpool	Test No:	CBR Test 5
Lab Ref.:	270825-03	^ Test Location:	CBR101
Kentledge:	13 tonne excavator	Layer:	Formation
Conditions:	Dry	^ Road No:	^ Chainage:
		Date of Test:	27/08/2025

Pressure (kN/m ²)	Settlement (mm)
0	0.00
32	0.28
48	0.52
65	0.76
81	1.02
98	1.25
0	0.63



Test Method: Interim Advice Note (IAN) 73/06 Revision 1 (2009)

Result: Modulus of Sub grade Reaction k_{762} = >48942 kN/m²/m
Equivalent CBR = >8.2 %

Comments: Information marked by ^ supplied by the client can affect the validity of the results, these apply only to the locations provided.

Appendix IX

**INDURENT PARK
SOIL RESOURCES ASSESSMENT**

Report 2714/1

29th September 2025

Land
Research
ASSOCIATES
www.lra.co.uk

INDURENT PARK
SOIL RESOURCES ASSESSMENT

M W Palmer, PhD, MISoilSci

Report 2714/1
Land Research Associates Ltd
Tapton Park Innovation Centre
Brimington Road
Chesterfield
S41 0TZ
www.lra.co.uk

29th September 2025

SUMMARY

A soil resources survey has been carried out on greenspace adjacent to Moorgate Point Industrial Park, intended for development.

The land has high quality topsoil resources, suitable for a range of landscape uses.

Useful subsoil resources are available on the site but may be difficult to recover in reusable condition.

1.0 Introduction

1.1 This report provides information on the soils of land adjacent to Moorgate Point, Knowsley Industrial Park. The site is proposed for redevelopment as a logistics hub, with associated landscape planting. The report is based on a survey of the land in August 2025.

1.2 Proposed soft landscaping includes:

- Tree planting
- Hedgerow and ornamental shrub planting
- General grass and wildflower meadow
- SUDS wetland planting

SITE ENVIRONMENT

1.3 The site comprises a single area of tall grass and scrub, with some small pioneer trees, chiefly birch and alder.

Photo 1: Current site conditions (view looking south)



1.4 The underlying surface geology is recorded as glacial till, with Shirdley Hill Sand on the northern boundary. However, the whole Site has been modified during construction of adjoining industrial areas (made ground).

1.5 Historic aerial imagery indicates that most of the Site was previously under dense woody scrub, which was cleared in 2023/24, apparently using tracked machinery. The current land surface is heavily rutted as a result.

2.0 Soils

- 2.1 A detailed soil resource survey was carried out in August 2025. It was based on observations at selected representative points equally spaced across the landscaping areas. During the survey, soils were examined by hand augerings. Due to the absence of information on buried services, investigations were terminated at a maximum depth of 55 cm.
- 2.2 Two representative topsoil samples were collected from across the site. They were sent to a UKAS accredited laboratory for British Standards analysis. One representative subsoil sample was also collected and submitted for nutrient analysis. A map showing observation locations and sample areas is in an appendix to this report, along with full investigation logs and laboratory testing reports.
- 2.3 The soils were found to vary across the site: the topsoils are medium to coarse loams, lighter textured in the south and between 250 and 300 mm in thickness on average. The whole site appears (from open soakaway test pits observed during the survey) to be underlain by compacted reddish clay/clay loam material. In places this directly underlies the topsoil but in the south a moderately structured loamy upper layer occurs above the clay.

Photo 1: Observation point 1 (see Map 1)



Photo 2: Compacted red clay subsoil near observation point 3 (see Map 1)



Photo 3: Thin loamy upper subsoil layer above clay near observation point 1



3.0 Soil resources and their use

- 3.1 Two resource types have been identified for reuse in landscaping: one topsoil and one subsoil (see Map 2).

TOPSOIL

- 3.2 The topsoils are a high quality resource for use in landscaping, being of loamy texture with low stone content. They have low nutrient concentrations and relatively low organic matter. Stripped to a standard thickness of 250 mm this would give a maximum yield of approximately **2,500 m³**.

SUBSOIL

- 3.3 While parts of the Site have moderately well structured subsurface layers, it is not clear to what degree this is practically recoverable during construction. If attempts are made to recover the loamy material from excavations, the southern half of the Site appears more likely to have recoverable resource. Where excavated the loamy upper subsoils should be stripped to 250 mm thickness and stockpiled for reuse separately to topsoil.
- 3.4 The underlying compacted clay is not a useable resource for landscaping, other than as an impermeable base for wetland areas.

Table 3.1: Soil nutrient status

Sample ID*	pH	Texture class	Loss on ignition %	P	K	Mg
				MAFF indices		
Topsoil A	6.1	Sandy loam	4.8	0	1	3
Topsoil B	6.1	Sandy clay loam	4.5	0	1	3
Subsoil	7.2	Sandy loam	3.5	1	1	3

*See Map 1 for locations

4.0 Soils and landscape design

- 4.1. Proposed landscaping within the site involves grass, hedges and shrubs, tree and wetland (SUDS) planting.

GRASSLAND PLANTING

- 4.2. The topsoils have low nutrient concentrations and are well suited to creation of species-rich habitat. These soils are also likely suitable for general grassland landscaping without addition of fertiliser, as high nutrient levels are not necessary for general landscaping turf. They should be emplaced to a minimum thickness of 150 mm. Emplacement up to a thickness of 450 mm is possible where on-site reuse of excess topsoils is seen as the most sustainable option.

HEDGROWS AND SHRUBS

- 4.3. It is recommended that hedgerows are planted in trenches back-filled with 450 mm depth of site-won topsoil. General shrubs should employ at least 300 mm depth of topsoil, potentially deepened to 450 mm if the underlying subsoil is compacted clay.

TREE PLANTING

- 4.4. Tree pits (standards and heavy standards) will require permeable subsoil backfill of 450 to 600 mm depth. Suitable materials are available on-site but may not be recoverable (in which case suitable BS 8601 compliant material would need to be imported). 300 mm of site-won topsoil should form the surface layer.

SUDS WETLAND

- 4.5. True wetland habitats would be best prepared using subsoils (SS1) as a planting medium to prevent water enrichment with topsoil nutrients. If wet grassland/reeds are proposed, TS1 may be suitably employed, emplaced to a thickness of 150-300 mm.

EXCESS SOIL RESOURCES

This material meets British Standard BS 3882 for low nutrient topsoil. If there is an excess of resource for reuse on-site this may well represent a saleable asset.

5.0 Soil Handling

- 5.1. The soils are of moderately high clay content and susceptible to damage from machinery handling. This is most likely during the period from the end of October to the end of April, when particular care should be taken to ensure the soils are not in a plastic state when they are likely to be damaged by handling. Whether soils are at an appropriate moisture content for handling to be checked by a simple 'plasticity test': this involves the following:
- Take a small amount of soil that is due to be handled
 - Attempt to roll soil into a 3 mm thread between the palms
 - If the soil will roll into a thread then they are plastic and should not be handled with machinery.
- 5.2. Handling should be avoided during heavy rainfall (greater than 12 mm in 24 hours) and in the 48 hours after heavy rain at all times of year.
- 5.3. If stockpiled, soil resources should be stored in separate bunds to other resources of no more than 4 m high, and kept free from construction traffic until required for reuse. The Construction Code of Practice for Sustainable Use of Soils on Construction Sites (Defra 2009) guidance on good practice in soil handling will be fully adhered to.
- 5.4. The soils should be removed from storage and replaced by excavator using the loose tipping technique, which avoids traffic on the restored surfaces.
- 5.5. Upper subsoils on stripped areas intended for planting should be loosened before topsoil is replaced. De-compaction would be best performed with a tined ripper pulled by an earth-mover or excavator.

APPENDIX
DETAILS OF OBSERVATIONS
MAPS
LABORATORY TESTING

Indurent Park: Soils survey – Details of observations at each sampling point

Obs	Topsoil			Upper subsoil			Lower subsoil		
No	Depth (cm)	Texture	Stones (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling
1	0-25	MSL	0	25-47	MSL	o	47-55+	mst MSL ((grey)	-
2	0-33	SCL	0	<u>33</u> -50+	C(r)	xxx			
3	0-24	SCL	<5	24-43	mst SCL	xxx	43+	Stopped on stones	
4	0-25	SCL	0	<u>25</u> -43	C(r)	xxx	43-55+	slst MS	-
5	0-30	MSL	0	30-55+	MSL(r)	xx			
6	0-32	MSL	0	32-55+	SCL(r)	xxx			

Key to table

Mottle intensity:

- o unmottled
- x few to common rusty root mottles (topsoils)
or a few ochreous mottles (subsoils)
- xx common to many ochreous mottles and/or dull structure faces
- xxx common to many greyish or pale mottles (gleyed horizon)
- xxxx dominantly grey, often with some ochreous mottles (gleyed horizon)

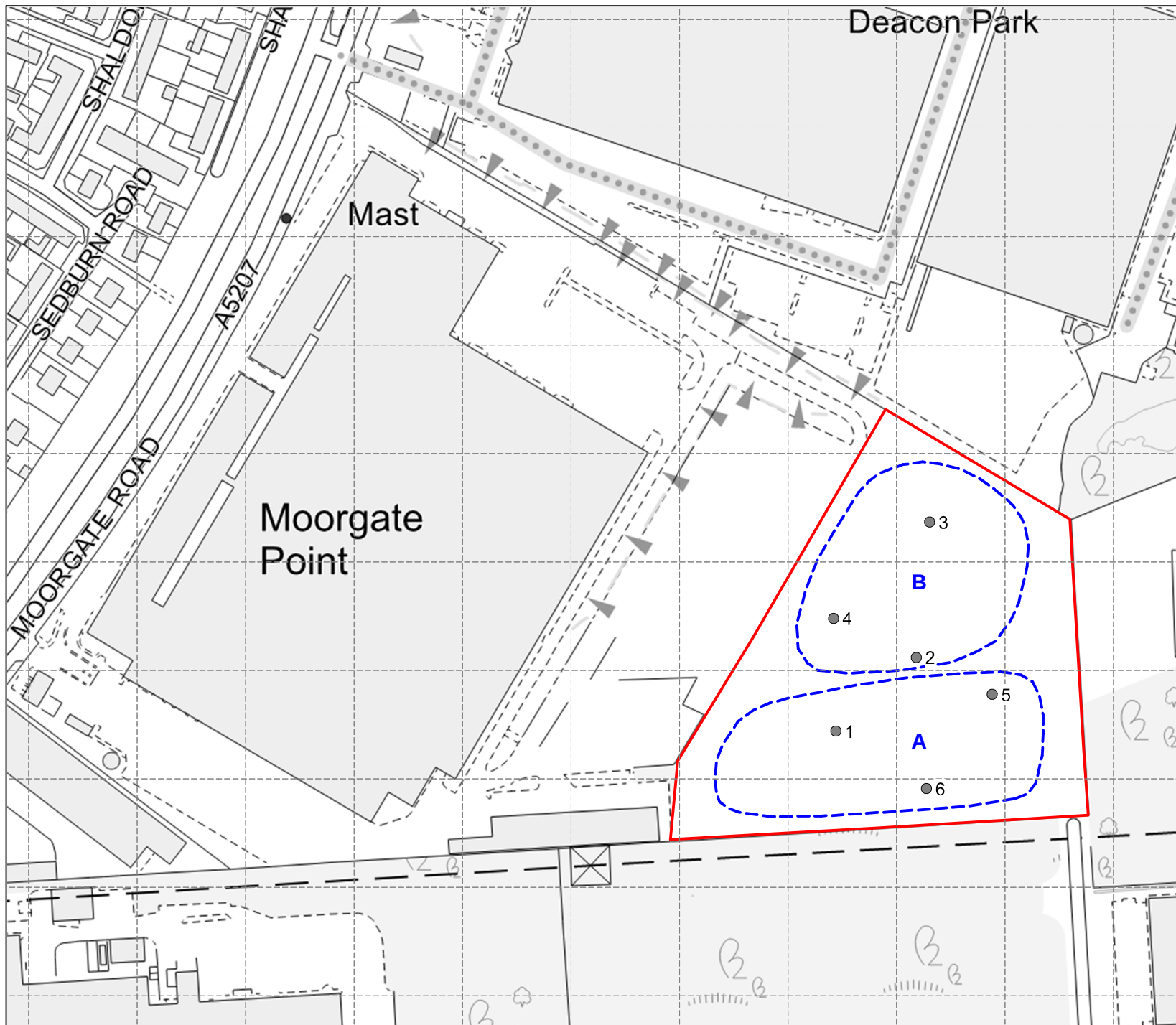
Texture:

- C - clay
- ZC - silty clay
- SC - sandy clay
- CL - clay loam (H-heavy, M-medium)
- ZCL - silty clay loam (H-heavy, M-medium)
- SCL - sandy clay loam
- SZL - sandy silt loam (F-fine, M-medium, C-coarse)
- SL - sandy loam (F-fine, M-medium, C-coarse)
- LS - loamy sand (F-fine, M-medium, C-coarse)
- S - sand (F-fine, M-medium, C-coarse)
- P - peat (H-humified, SF-semi-fibrous, F-fibrous)
- LP - loamy peat; PL - peaty loam

Texture suffixes & prefixes:

- r – reddish; (m)st – (moderately) stony; sdst - sandstone
- dist - disturbed soil layer; mdst – mudstone; Lst – limestone

a depth underlined (e.g. 50) indicates the top of a slowly permeable layer
(a wavy underline indicates the top of a layer borderline to slowly permeable)



KEY

- Auger observations
- Pits
- Sample areas
- Site boundary

Site:

Indurent Park

Map title:

MAP 1
Observations

**Land
Research**
ASSOCIATES

Tapton Innovation Centre
Brimington Road
Chesterfield
S41 0TZ
www.lra.co.uk

Date: 29/09/2025

Scale: 1:2,500



Certificate of Analysis

Client: MR MIKE PALMER
(H579) LAND RESEARCH ASSOCIATES
 TAPTON PARK INNOVATION
 CENTRE
 BRIMINGTON ROAD
 CHESTERFIELD S41 0TZ

Originator: INDURENT PARK
 SOIL

Lab ID: 17143 - 763823
Sample ID: A
Sample Weight: 1143g

Date Received: 04/09/2025
Date Reported: 25/09/2025

BS 3882 : 2015 SPECIFICATION FOR TOPSOIL Specific Purpose: Low Fertility

				Compliant with range (Y/N)					
				Multi-P	Acid	Calc	Low-F	Low-F Acid	Low-F Calc
Texture:	Clay	% w/w	18						
	Silt	% w/w	20						
	Sand	% w/w	62						
	Textural Class		Sandy Loam	Y	Y	Y	Y	Y	Y
				<i>See area of permitted soil textural classes in Fig. 1.</i>					
Organic Matter:		% w/w	4.8	Y	Y	Y	Y	Y	Y
Coarse	>2 mm	% w/w	0.9	Y	Y	Y	Y	Y	Y
Fragment	>20 mm	% w/w	0.0	Y	Y	Y	Y	Y	Y
Content:	>50 mm	% w/w	0.0	Y	Y	Y	Y	Y	Y
Soil pH:			6.1	Y	N	N	Y	N	N
Carbonate:		% w/w	1.1			Y			Y
Available	Nitrogen	% w/w	0.190	Y	Y	Y			
Plant	Phosphorus	mg/l	5.8 (0)*	N	N	N	Y	Y	Y
Nutrients:	Potassium	mg/l	70.9 (1)*	N	N	N			
	Magnesium	mg/l	145.9 (3)*	Y	Y	Y			
Carbon:Nitrogen Ratio:		:1	14.6	Y	Y	Y	Y	Y	Y
Exchangeable Sodium Percentage:		%	1.1						
Phytotoxic	Total Zinc	mg/kg	48.9	Y	Y	Y	Y	Y	Y
Contaminants:	Total Copper	mg/kg	38.6	Y	Y	Y	Y	Y	Y
	Total Nickel	mg/kg	14.4	Y	Y	Y	Y	Y	Y
Visible	> 2mm	% w/w	0.00	Y	Y	Y	Y	Y	Y
Contaminants:	Plastics	% w/w	0.00	Y	Y	Y	Y	Y	Y
	Number of Sharps		0	Y	Y	Y	Y	Y	Y
Additional	Available Sodium	mg/l	19.5						
Analysis:	Available Calcium	mg/l	1210.0						
	Conductivity	uS/cm	2170	Y					
Compliance:				N	N	N	Y	N	N

Results are expressed on a dry matter basis.

* Soil indices from RB209

Released by:

Joe Cherrie

Date: 25/09/2025

DECLARATION:

I certify that this sample has been analysed by NRM in accordance with BS 3882 Specification for Topsoil (2015).

NRM Coopers Bridge, Braziers Lane, Bracknell, Berkshire RG42 6NS

Tel: +44 (0) 1344 886338 **Fax:** +44 (0) 1344 890972 **Email:** enquiries@nrm.uk.com **www:** nrm.uk.com

Analytical Report

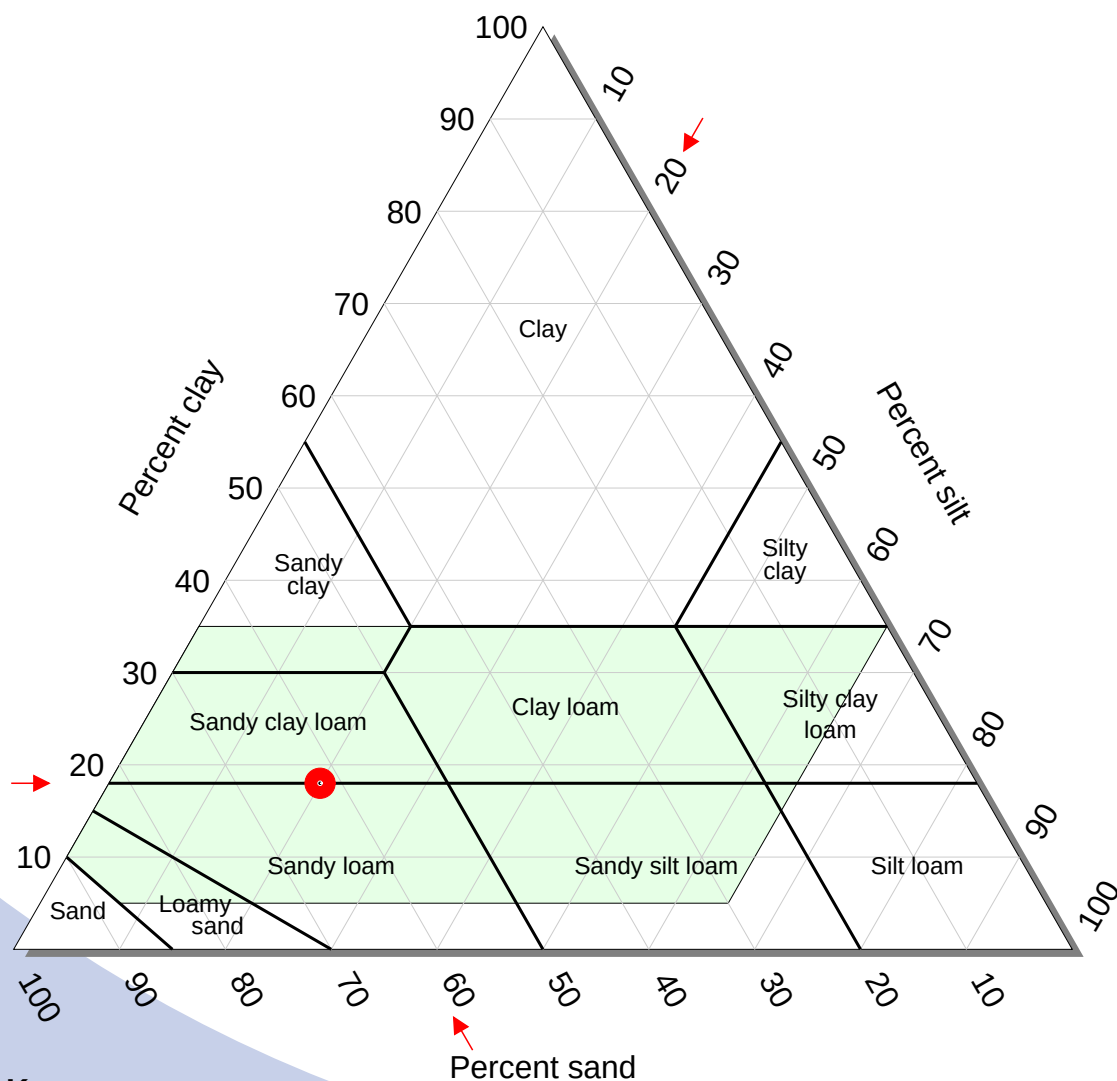
Client: MR MIKE PALMER
(H579) LAND RESEARCH ASSOCIATES
TAPTON PARK INNOVATION
CENTRE
BRIMINGTON ROAD
CHESTERFIELD S41 0TZ

Originator: INDURENT PARK
SOIL

Lab ID: 17143 - 763823
Sample ID: A
Sample Weight: 1143g

Date Received: 04/09/2025
Date Reported: 25/09/2025

Fig. 1. Textural Class: Sandy Loam (compliant)



Key



Area within which texture of topsoil is required to fall.



Certificate of Analysis

Client: MR MIKE PALMER
(H579) LAND RESEARCH ASSOCIATES
 TAPTON PARK INNOVATION
 CENTRE
 BRIMINGTON ROAD
 CHESTERFIELD S41 0TZ

Originator: INDURENT PARK
 SOIL

Lab ID: 17143 - 763824
Sample ID: B
Sample Weight: 1264g

Date Received: 04/09/2025
Date Reported: 25/09/2025

BS 3882 : 2015 SPECIFICATION FOR TOPSOIL Specific Purpose: Low Fertility

				Compliant with range (Y/N)					
				Multi-P	Acid	Calc	Low-F	Low-F Acid	Low-F Calc
Texture:	Clay	% w/w	20						
	Silt	% w/w	22						
	Sand	% w/w	58						
	Textural Class		Sandy Clay Loam	Y	Y	Y	Y	Y	Y
				<i>See area of permitted soil textural classes in Fig. 1.</i>					
Organic Matter:		% w/w	4.5	Y	Y	Y	Y	Y	Y
Coarse	>2 mm	% w/w	1.3	Y	Y	Y	Y	Y	Y
Fragment	>20 mm	% w/w	0.2	Y	Y	Y	Y	Y	Y
Content:	>50 mm	% w/w	0.0	Y	Y	Y	Y	Y	Y
Soil pH:			6.1	Y	N	N	Y	N	N
Carbonate:		% w/w	1.1			Y			Y
Available	Nitrogen	% w/w	0.148	N	N	N			
Plant	Phosphorus	mg/l	5.0 (0)*	N	N	N	Y	Y	Y
Nutrients:	Potassium	mg/l	96.7 (1)*	N	N	N			
	Magnesium	mg/l	170.2 (3)*	Y	Y	Y			
Carbon:Nitrogen Ratio:		:1	17.6	Y	Y	Y	Y	Y	Y
Exchangeable Sodium Percentage:		%	1.0						
Phytotoxic	Total Zinc	mg/kg	53.4	Y	Y	Y	Y	Y	Y
Contaminants:	Total Copper	mg/kg	36.3	Y	Y	Y	Y	Y	Y
	Total Nickel	mg/kg	18.1	Y	Y	Y	Y	Y	Y
Visible	> 2mm	% w/w	0.01	Y	Y	Y	Y	Y	Y
Contaminants:	Plastics	% w/w	0.00	Y	Y	Y	Y	Y	Y
	Number of Sharps		0	Y	Y	Y	Y	Y	Y
Additional	Available Sodium	mg/l	17.0						
Analysis:	Available Calcium	mg/l	1185.0						
	Conductivity	uS/cm	2152	Y					
Compliance:				N	N	N	Y	N	N

Results are expressed on a dry matter basis.

* Soil indices from RB209

Released by:

Joe Cherrie

Date: 25/09/2025

DECLARATION:

I certify that this sample has been analysed by NRM in accordance with BS 3882 Specification for Topsoil (2015).

NRM Coopers Bridge, Braziers Lane, Bracknell, Berkshire RG42 6NS

Tel: +44 (0) 1344 886338 **Fax:** +44 (0) 1344 890972 **Email:** enquiries@nrm.uk.com **www:** nrm.uk.com

Analytical Report

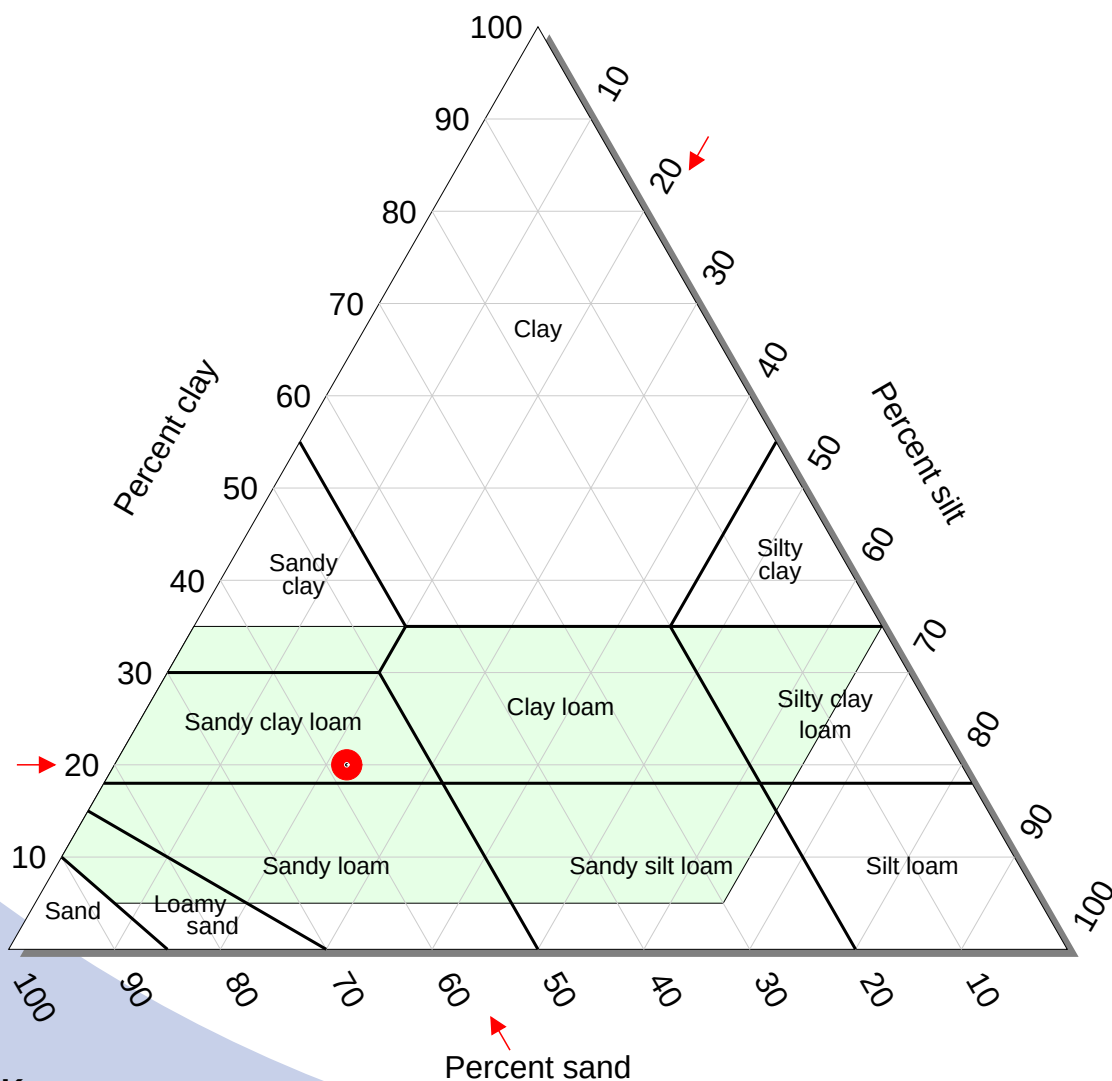
Client: MR MIKE PALMER
(H579) LAND RESEARCH ASSOCIATES
TAPTON PARK INNOVATION
CENTRE
BRIMINGTON ROAD
CHESTERFIELD S41 0TZ

Originator: INDURENT PARK
SOIL

Lab ID: 17143 - 763824
Sample ID: B
Sample Weight: 1264g

Date Received: 04/09/2025
Date Reported: 25/09/2025

Fig. 1. Textural Class: Sandy Clay Loam (compliant)



Key



Area within which texture of topsoil is required to fall.

Analytical Notes

Final page must indicate end of report. Page 5

Accreditation and method details

NRM is a UKAS-accredited testing laboratory (No 2334), accredited to BS EN ISO 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF communique dated April 2017). <http://ilac.org/?download=120917>

NRM is accredited for particular determinands in specific matrices as set out in the laboratory's current UKAS schedule of accreditation https://www.ukas.com/wp-content/uploads/schedule_uplds/00002/2334Testing_Multiple.pdf

Accreditation applies to the following parameters in this report and is applicable to SOIL samples only. All other tests within this report are unaccredited.

Test	Analysis SOP	Method Description
Fluoride	JAS-487	Sulphuric acid extraction (1:10 ratio) and determination by ion selective electrode
Arsenic	JAS-510 / JAS-300	Aqua regia digest on hot block and determination by ICP-OES
Barium		
Beryllium		
Cadmium		
Chromium		
Cobalt		
Copper		
Lead		
Molybdenum		
Mercury		
Nickel		
Vanadium		
Zinc		
Selenium	JAS-510 / JAS-455	Aqua regia digest on hot block and determination by AFS

Analysis Notes

Analysis is carried out on the air-dried (<30°C) and ground sample.

The results as reported relate only to the item(s) submitted for testing.

The results are presented on a dry matter basis.

Indices are derived solely from the numerical value and test result without reference to measurement uncertainty.

Document Control

This test report shall not be reproduced, except in full, without the written approval of the laboratory.

We cannot offer interpretation or opinions for results.

Sampling information

BS ISO 18512:2007 (Soil quality – Guidance on long and short-term storage of soil samples) states that for pH the period of stability and therefore holding time for a wet or 'fresh' soil sample is one week from sampling. Other determinants in the fresh sample may be considered stable for up to a month. Once the sample has been dried the sample may then be considered stable for up to 3 years. No records are maintained by NRM on date sampled or date dried so all samples within this report are considered not to be meeting the requirements of this BS / ISO. Consequently, all pH results given are those of the as-received sample and may not reflect the pH value of the sample when taken.

END OF REPORT

ANALYSIS REPORT

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Please quote the above code for all enquiries

Client : INDURENT PARK

Sample Matrix : Agricultural Soil

Laboratory Reference

Card Number 72751/25

Date Received 03-Sep-25

Date Reported 09-Sep-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details		Soil pH	Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details		P	K	Mg	P	K	Mg
386303/25	1	INDURENT PARK SS <i>No cropping details given</i>	7.2	1	1	3	10.2	69	159

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.

The analytical methods used are as described in DEFRA Reference Book 427

The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Samples were submitted using NRM Parcel Post.

Released by Sandy Cameron

On behalf of NRM

Date 09/09/25

ANALYSIS REPORT

DATE 9th September 2025

SAMPLES FROM INDURENT PARK

Report Reference: 72751/25

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Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
386303	1	INDURENT PARK SS	3.5

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

Appendix X

INSITU SOAKAWAY TEST RESULTS

Page 1 of 1

Trialpit No.: SK101

Soil Profile:

Depth (m)	Description
From: 0.00	To: 0.60
0.00	0.60
0.60	2.20
	MADE GROUND: Grass over brown sandy gravelly silt and anthropogenic material
	Reddish brown slightly sandy slightly gravelly CLAY

Sketch plan of test zone

Not to scale
All dimensions in metres.

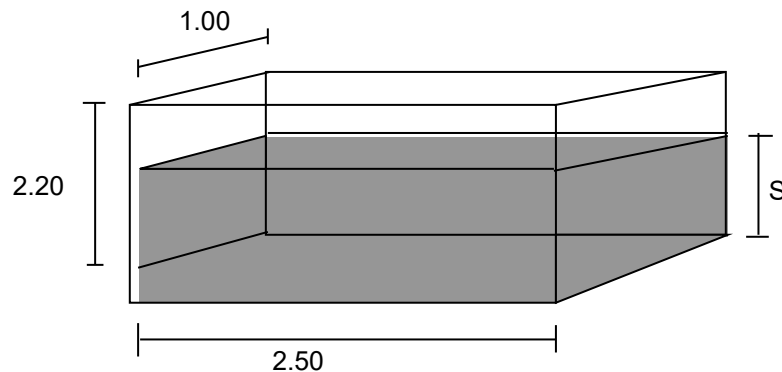
porosity (N) = 1
(measured in laboratory)
S= Storage depth (m)
Water level from 1.30 to 2.20
No Groundwater was encountered

Gives the Figures

$$S = 0.90 \text{ m}$$

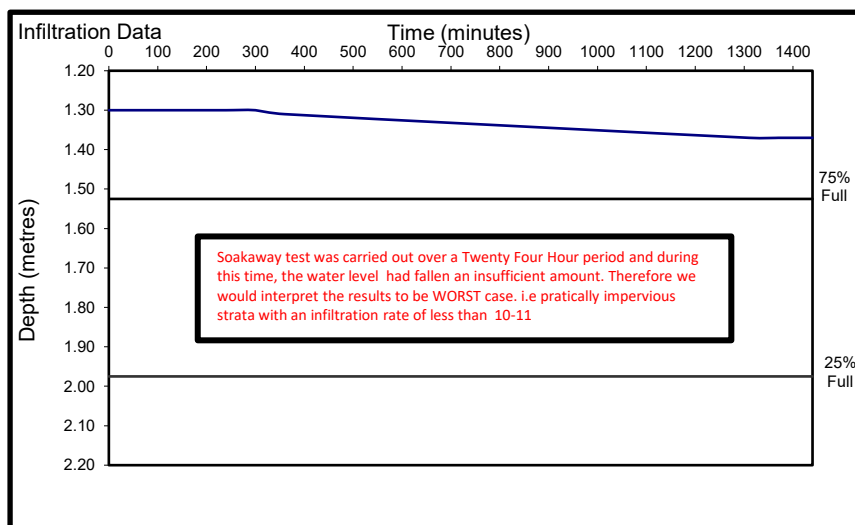
$$a_{p50} = 5.65 \text{ m}^2$$

$$V_{p75-25} = 1.13 \text{ m}^3$$



Soakaway Test Run 1

Test Date: 27.08.2025



Time (minutes)	Depth (m)
0	1.30
2	1.30
4	1.30
6	1.30
8	1.30
10	1.30
20	1.30
40	1.30
60	1.30
90	1.30
120	1.30
180	1.30
240	1.30
300	1.30
360	1.31
1310	1.37
1370	1.37
1440	1.37

From the above graph,

$$t_{p75} = \text{N/A} \text{ (min)} \quad t_{p25} = \text{N/A} \text{ (min)}$$

$$\text{Soil Infiltration Rate: } f = \frac{V_{p75-25} \times N}{a_{p50} \times t_{p75-25}} = \text{N/A} \quad f_{\text{run1}} = \text{N/A} \text{ m/s}$$

Test and analysis carried out in general accordance with BRE Digest 365 : 2016

Job No: C4884
Site: Moorgate Point
Client: Indurent



Page 1 of 1



INSITU SOAKAWAY TEST RESULTS

Page 1 of 1

Trialpit No.: SK103

Soil Profile:

Depth (m)	Description
From: 0.00 To: 0.60	MADE GROUND: Grass over brown sandy gravelly silt and anthropogenic material
0.60 To: 2.10	Reddish brown slightly sandy slightly gravelly CLAY

Sketch plan of test zone

Not to scale
All dimensions in metres.

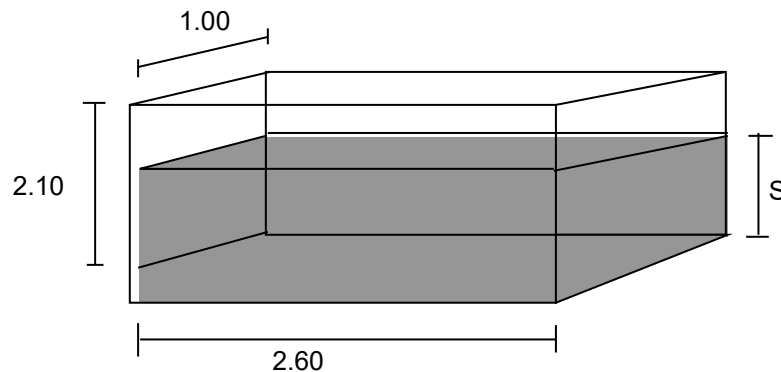
porosity (N) = 1
(measured in laboratory)
S= Storage depth (m)
Water level from 1.30 to 2.10
No Groundwater was encountered

Gives the Figures

$$S = 0.80 \text{ m}$$

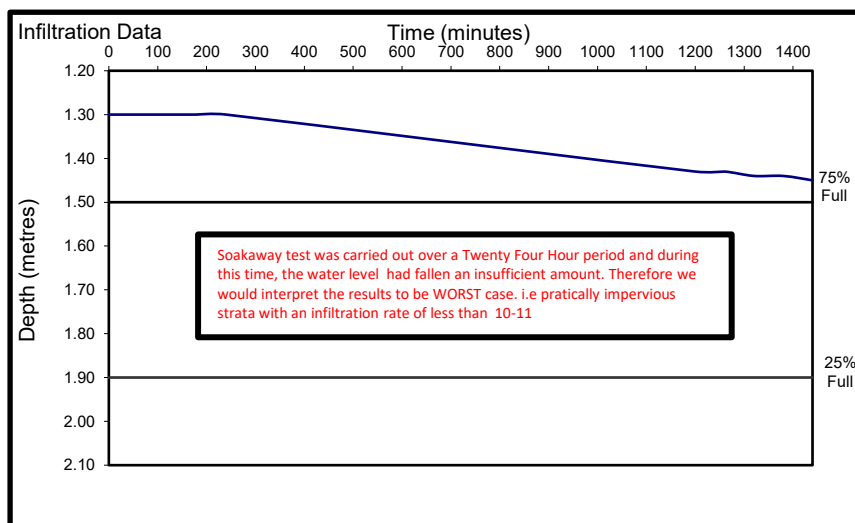
$$a_{p50} = 5.48 \text{ m}^2$$

$$V_{p75-25} = 1.04 \text{ m}^3$$



Soakaway Test Run 1

Test Date: 27.08.2025



Time (minutes)	Depth (m)
0	1.30
2	1.30
4	1.30
6	1.30
8	1.30
10	1.30
20	1.30
40	1.30
60	1.30
90	1.30
120	1.30
180	1.30
240	1.30
1200	1.43
1260	1.43
1320	1.44
1380	1.44
1440	1.45

From the above graph,

$$t_{p75} = \text{N/A} \text{ (min)} \quad t_{p25} = \text{N/A} \text{ (min)}$$

$$\text{Soil Infiltration Rate: } f = \frac{V_{p75-25} \times N}{a_{p50} \times t_{p75-25}} = \text{N/A} \quad f_{\text{run1}} = \text{N/A} \text{ m/s}$$

Test and analysis carried out in general accordance with BRE Digest 365 : 2016

Job No: C4884
Site: Moorgate Point
Client: Indurent





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