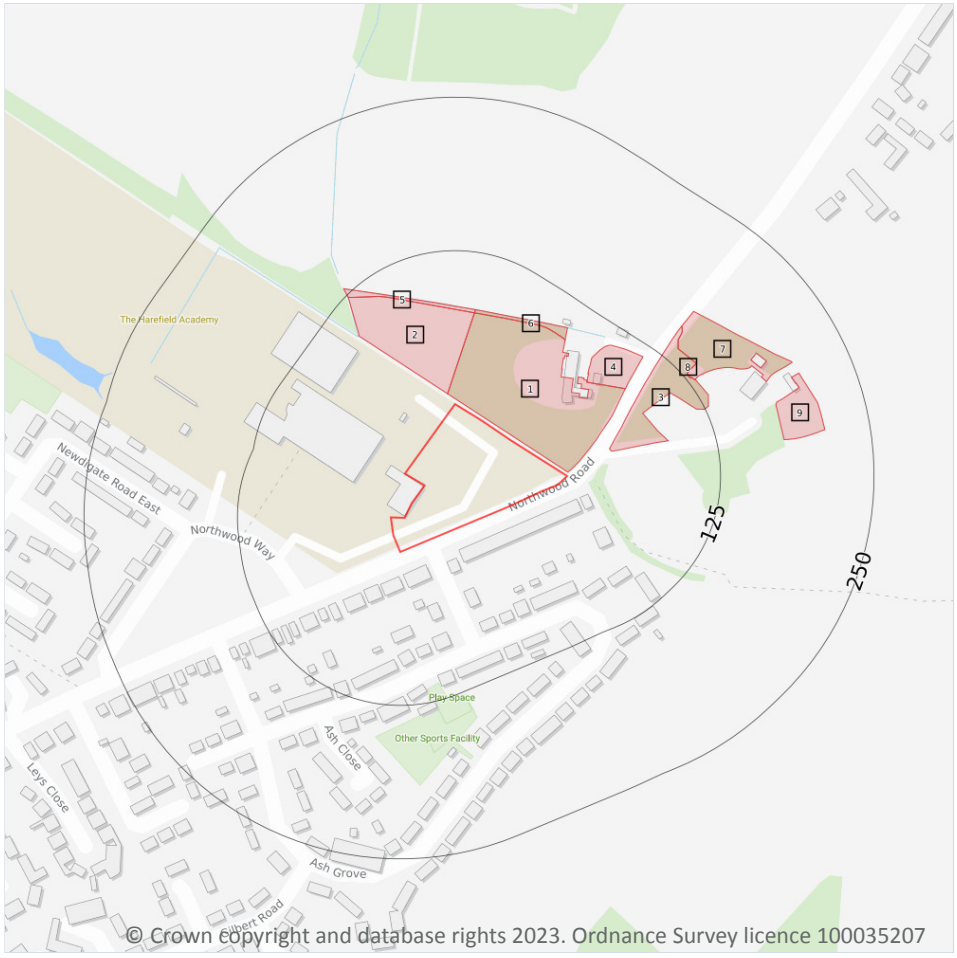
13 Habitat designations



Site Outline

Search buffers in metres (m)

Priority Habitat Inventory
Open Mosaic Habitat
Limestone Pavement Orders

Habitat Networks
Primary Habitat
Restorable Habitat
Associated Habitats
Habitat Restoration-Creation
Network Enhancement Zone 1
Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m	9

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

Features are displayed on the Habitat designations map on **page 64**

ID	Location	Main Habitat	Other habitats
1	3m E	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
2	10m N	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
3	41m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	73m NE	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset

ID	Location	Main Habitat	Other habitats
5	76m N	Traditional orchard	Main habitat: TORCH (INV > 50%)
6	76m N	Traditional orchard	Main habitat: TORCH (INV > 50%)
7	128m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
8	130m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
9	179m E	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

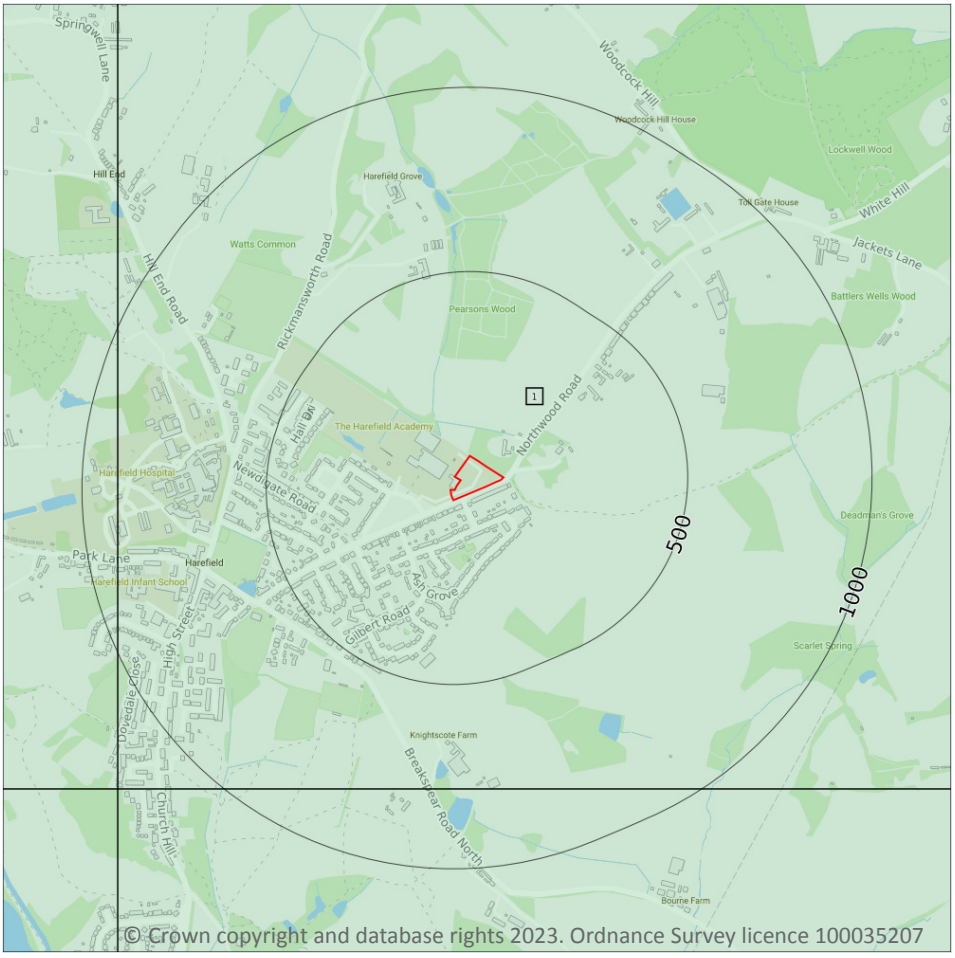
13.4 Limestone Pavement Orders

Records within 250m	0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

Full coverage

Partial coverage

No coverage

14.1 10k Availability

Records within 500m	1

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 66**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**TQ09SE**

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Artificial and made ground

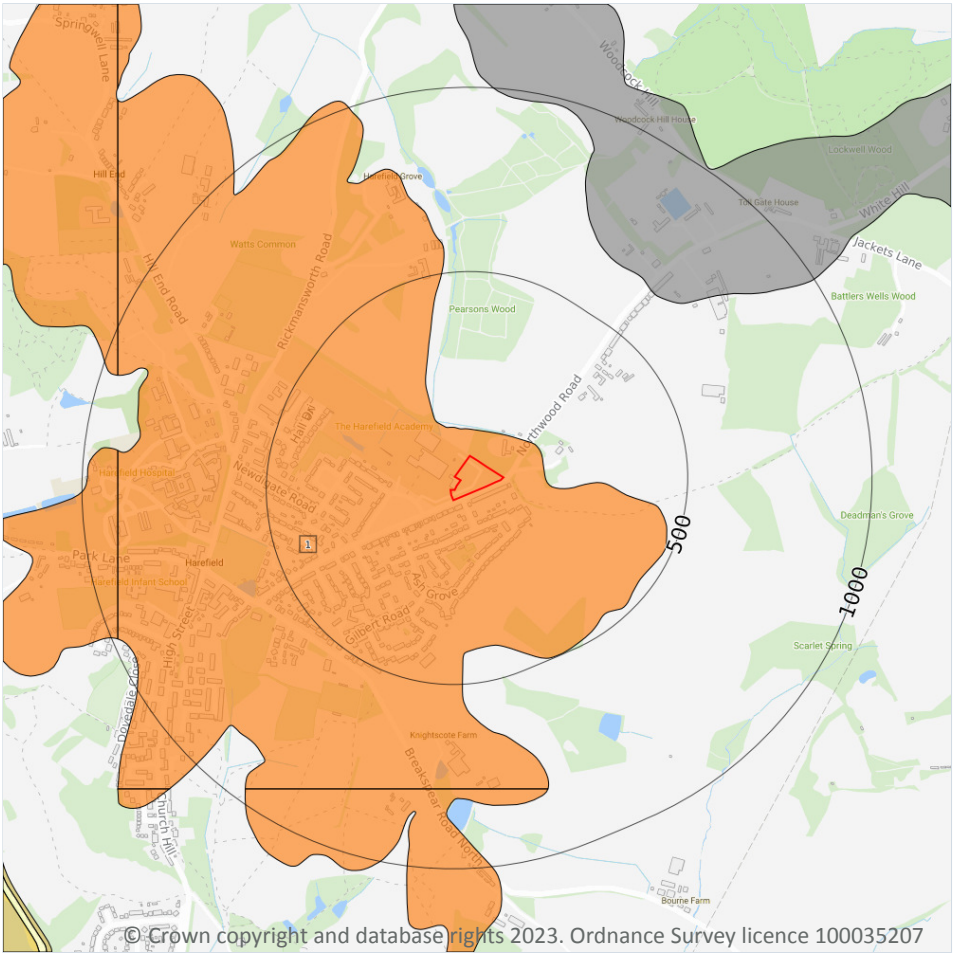
14.2 Artificial and made ground (10k)

Records within 500m	0

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m	1

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 68**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**GCGR-XSV**	**Gerrards Cross Gravel - Sand And Gravel**	**Sand And Gravel**

This data is sourced from the British Geological Survey.

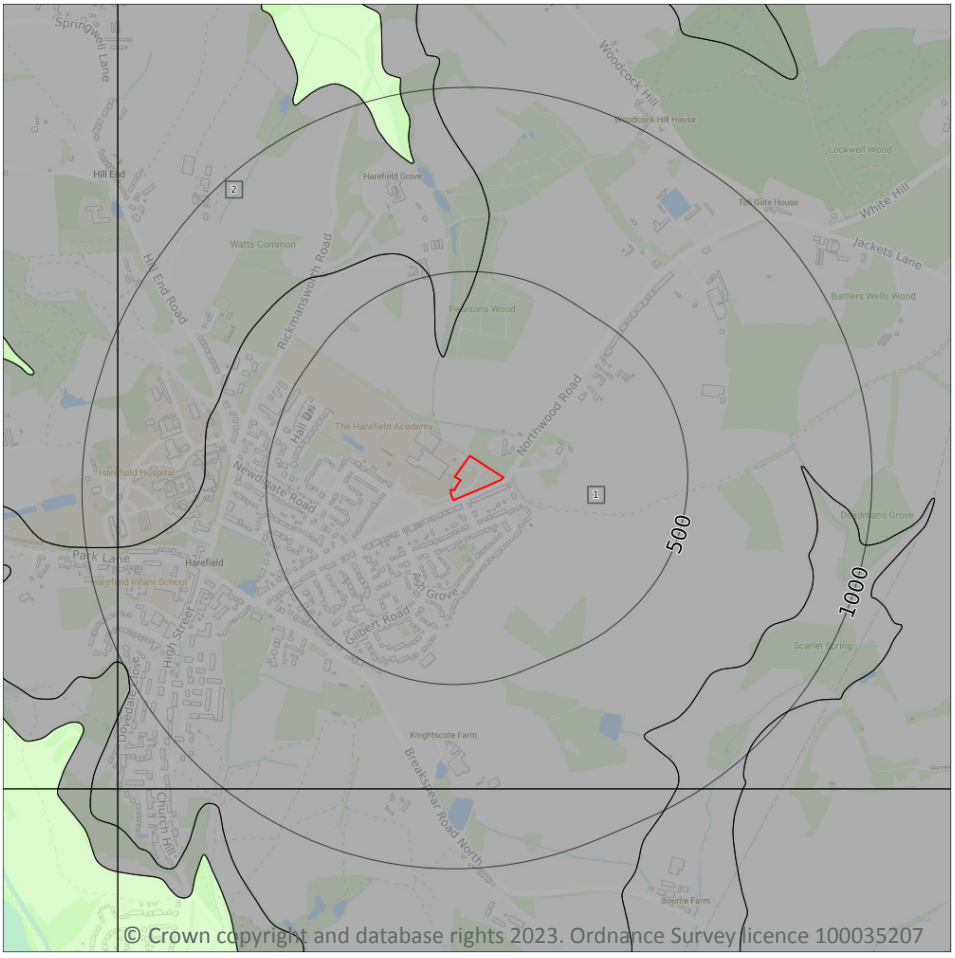
14.4 Landslip (10k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m	2

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 70**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**LC-CLSISA**	**London Clay Formation - Clay, Silt And Sand**	**Eocene Epoch**
2	278m N	LMBE-CLSISA	Lambeth Group - Clay, Silt And Sand	Paleocene Epoch

This data is sourced from the British Geological Survey.

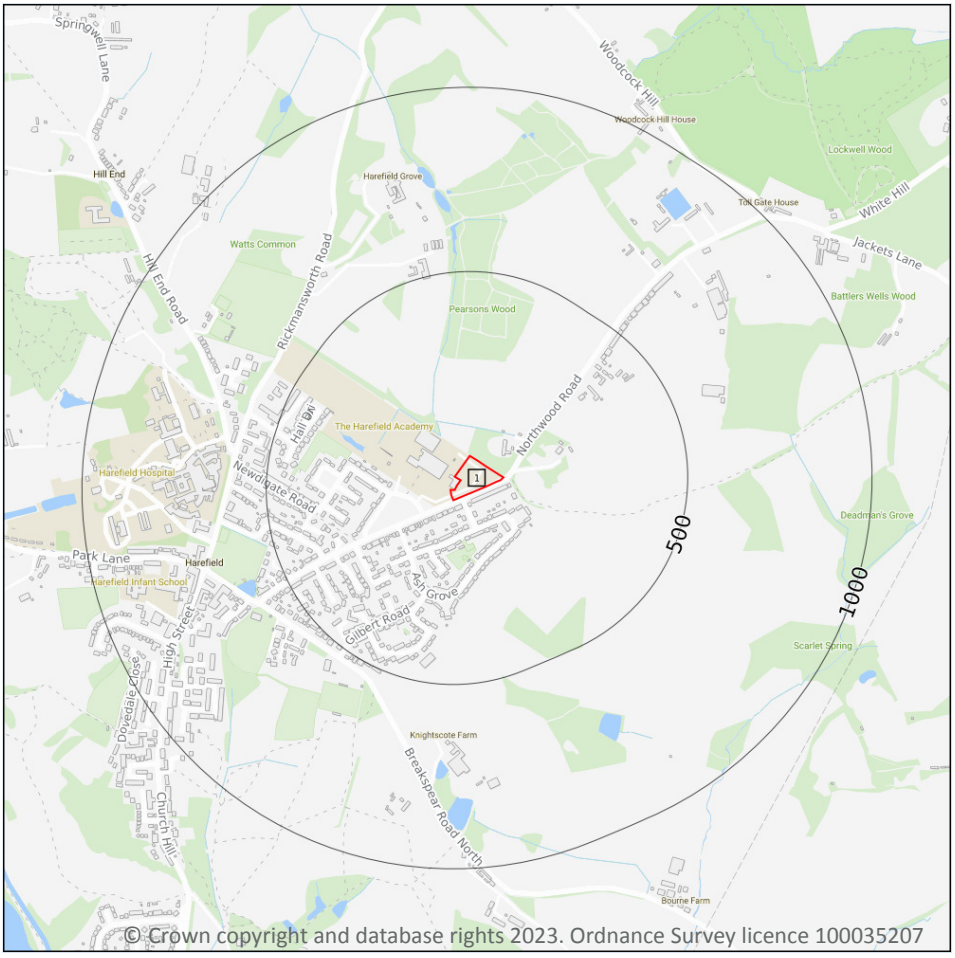
14.6 Bedrock faults and other linear features (10k)

Records within 500m	0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 72**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW255_beaconsfield_v4**

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Artificial and made ground

15.2 Artificial and made ground (50k)

Records within 500m	0

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

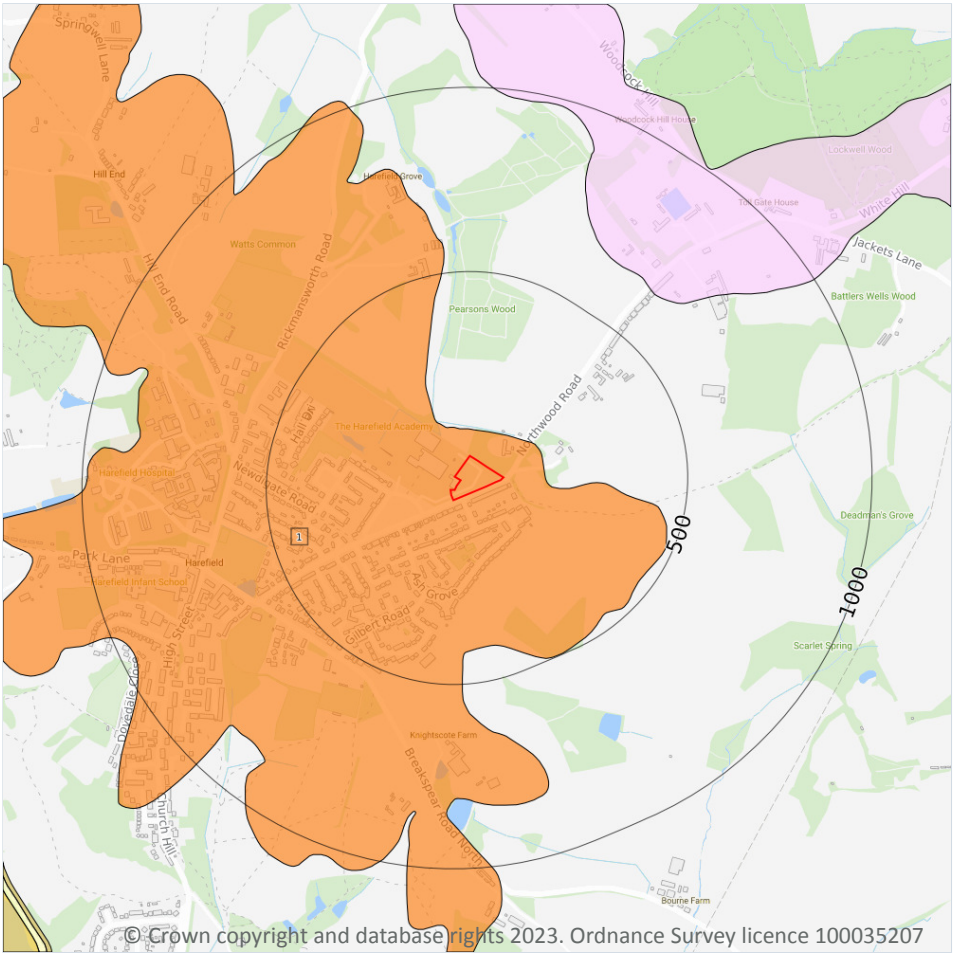
15.3 Artificial ground permeability (50k)

Records within 50m	0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m	1

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 74**

ID	Location	LEX Code	Description	Rock description
1	On site	GCGR-XSV	GERRARDS CROSS GRAVEL	SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Intergranular**	**Very High**	**High**

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

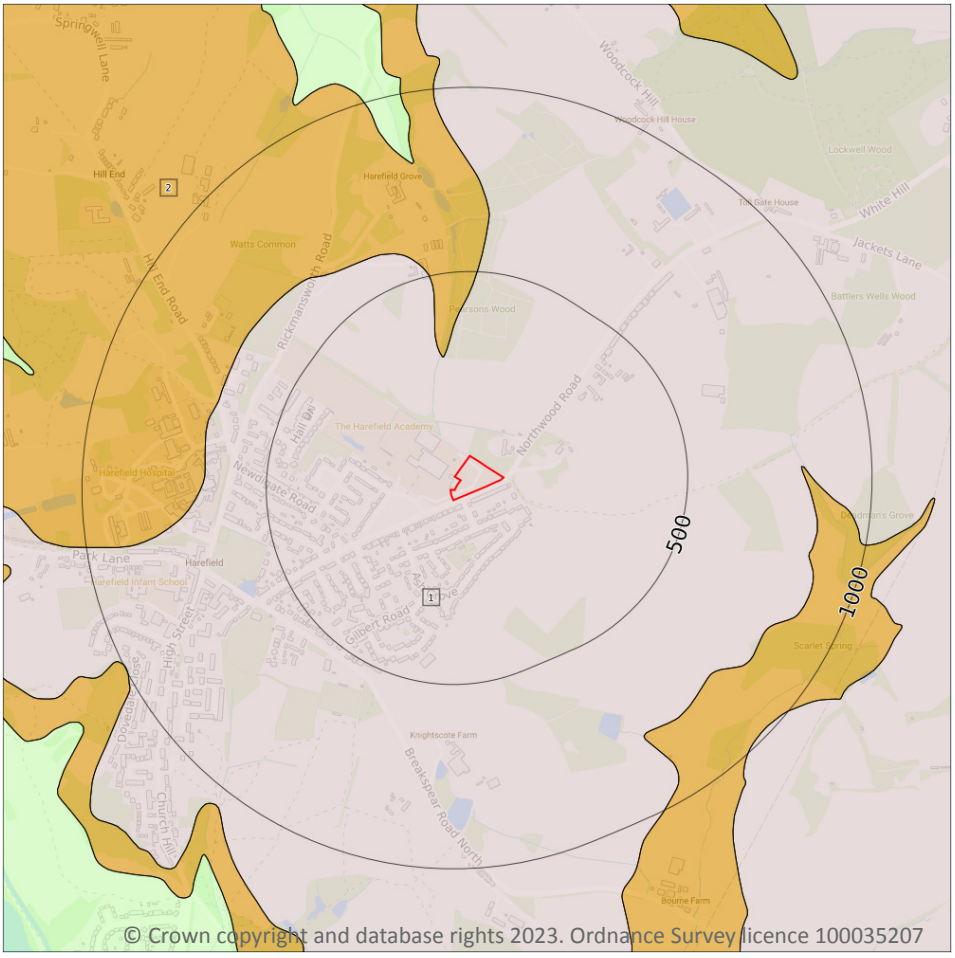
15.7 Landslip permeability (50k)

Records within 50m	0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m	2

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 76**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**LC-XCZS**	**LONDON CLAY FORMATION - CLAY, SILT AND SAND**	**YPRESIAN**
2	278m N	LMBE-XCZS	LAMBETH GROUP - CLAY, SILT AND SAND	THANETIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Mixed**	**Moderate**	**Very Low**

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	0

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.

16 Boreholes

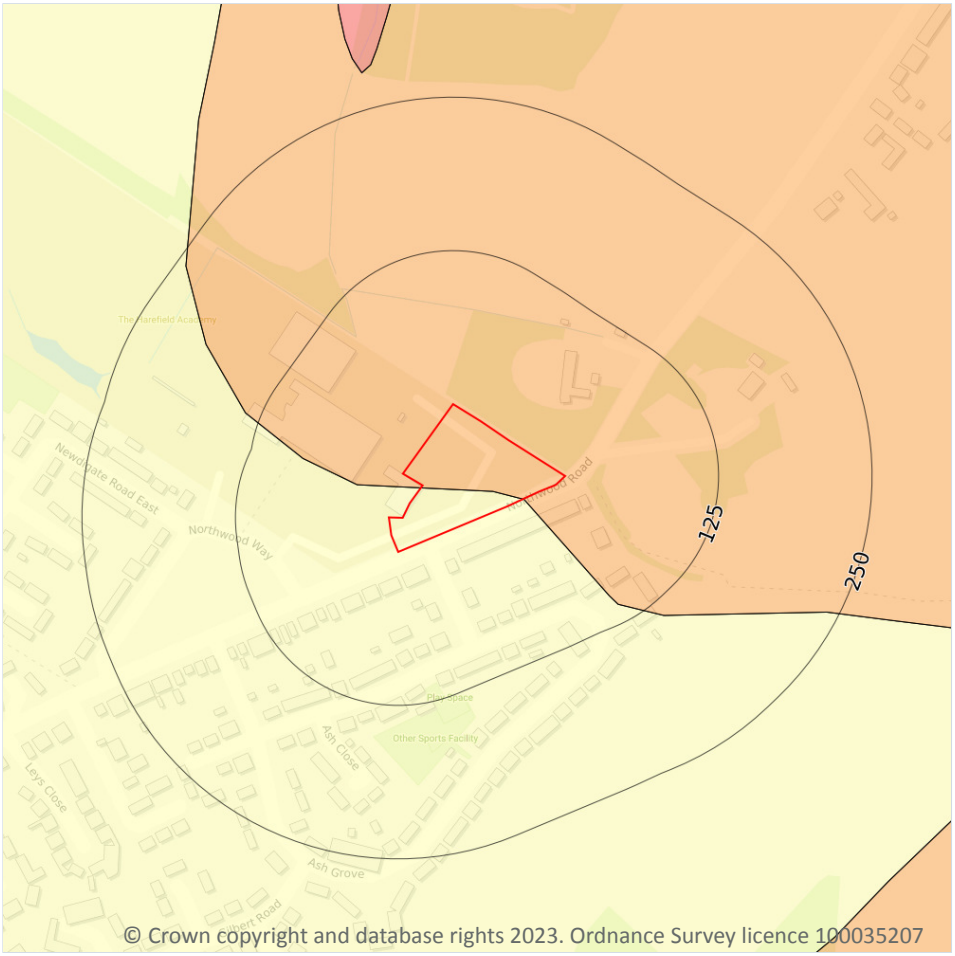
16.1 BGS Boreholes

Records within 250m	0

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.1 Shrink swell clays

Records within 50m	2

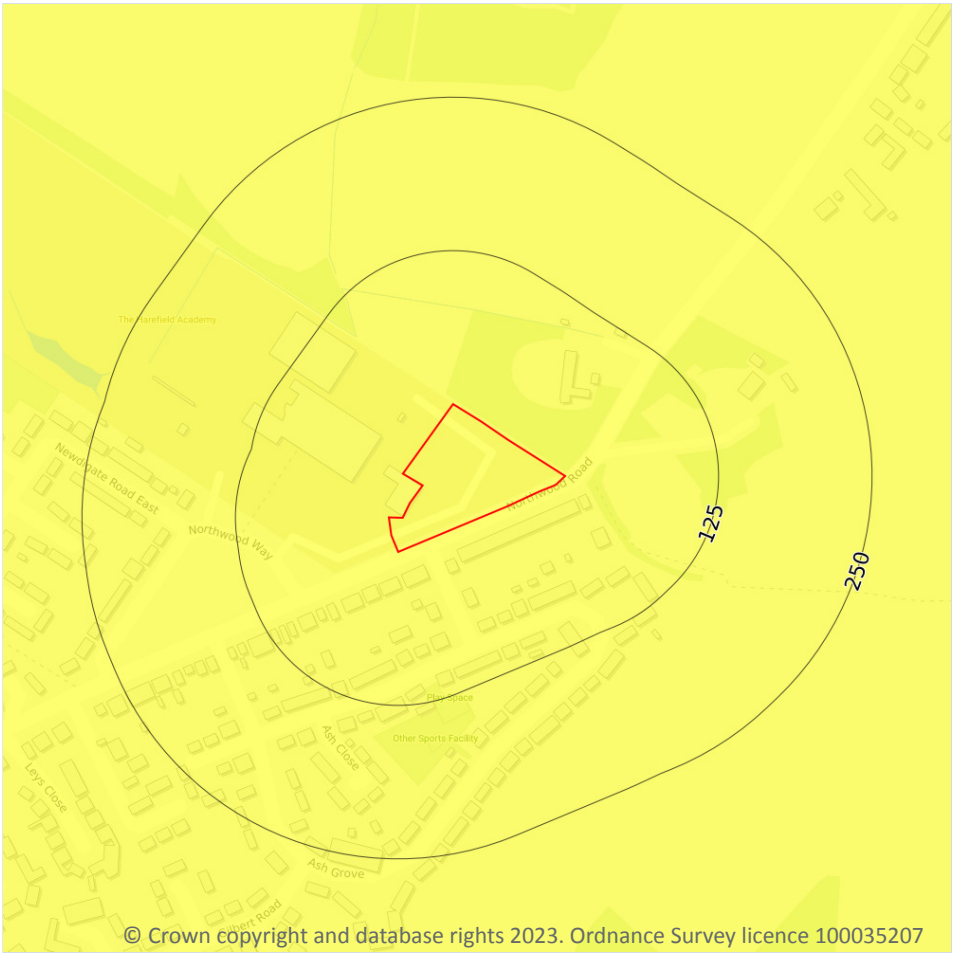
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 79**

Location	Hazard rating	Details
On site	**Negligible**	**Ground conditions predominantly non-plastic.**
On site	**Low**	**Ground conditions predominantly medium plasticity.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.2 Running sands

Records within 50m	1

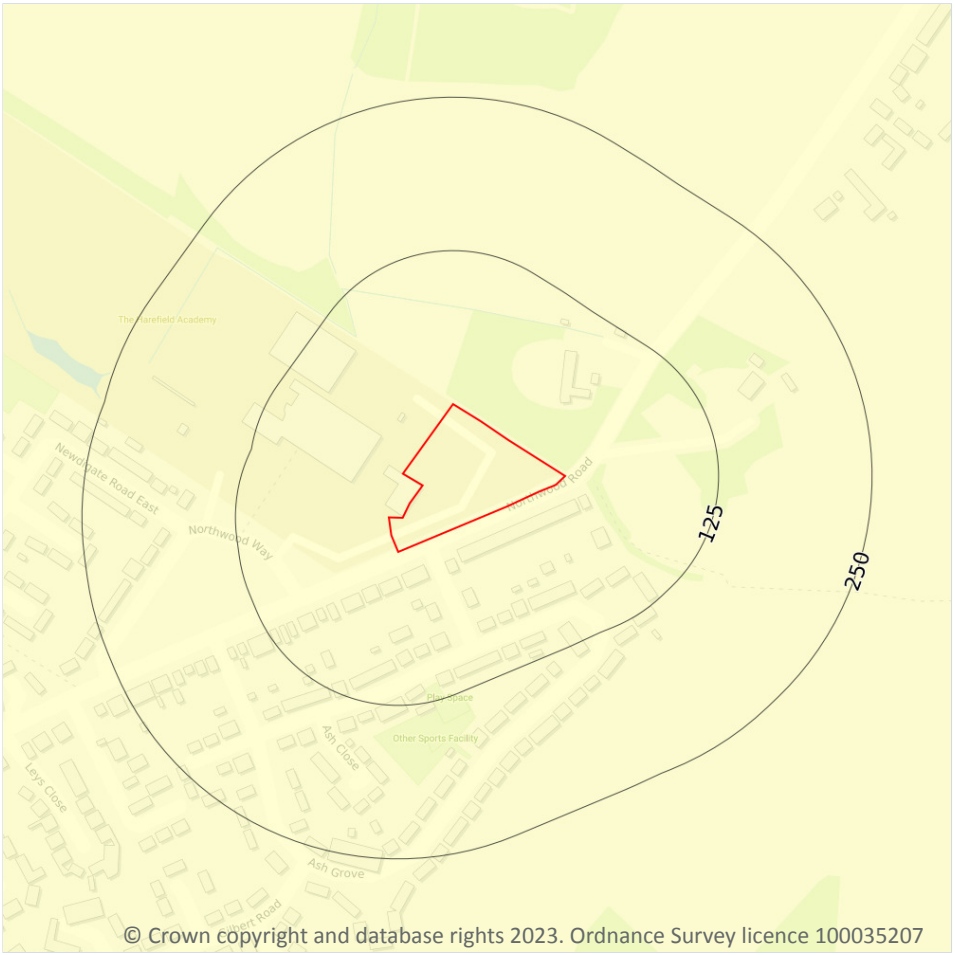
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on **page 80**

Location	Hazard rating	Details
On site	**Very low**	**Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.3 Compressible deposits

Records within 50m	1

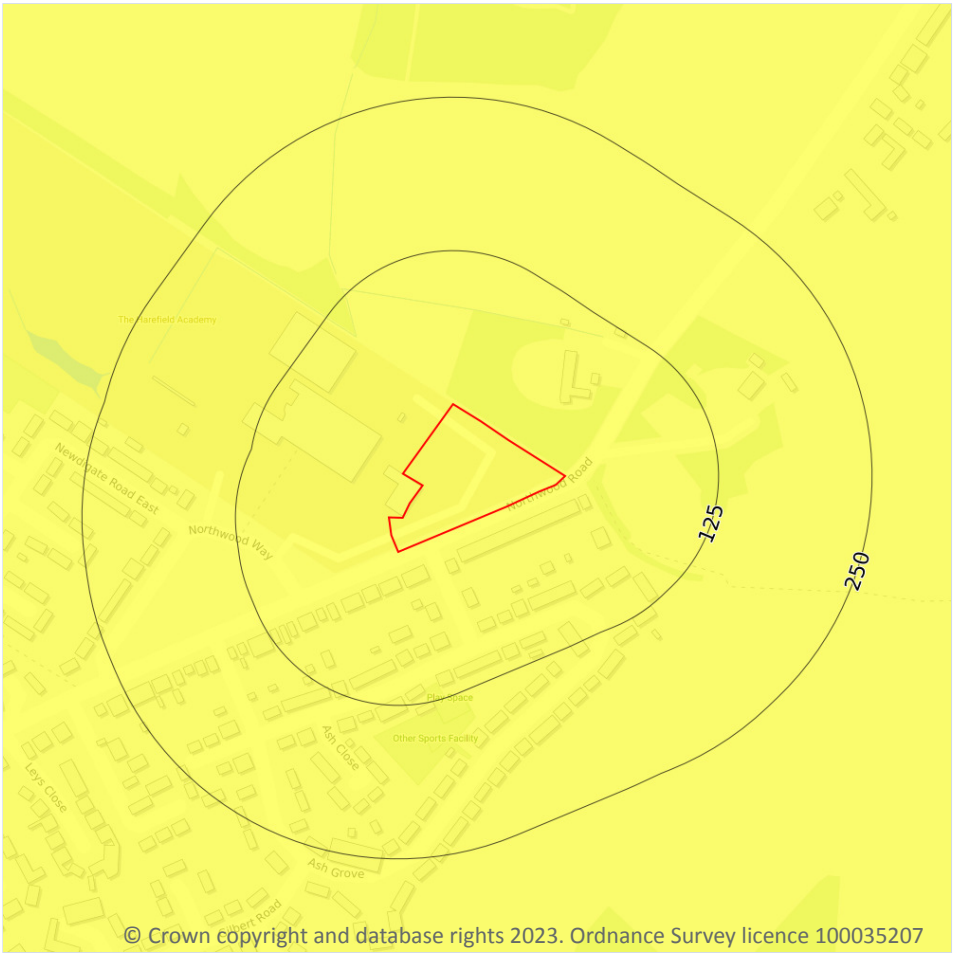
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 81**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.4 Collapsible deposits

Records within 50m	1

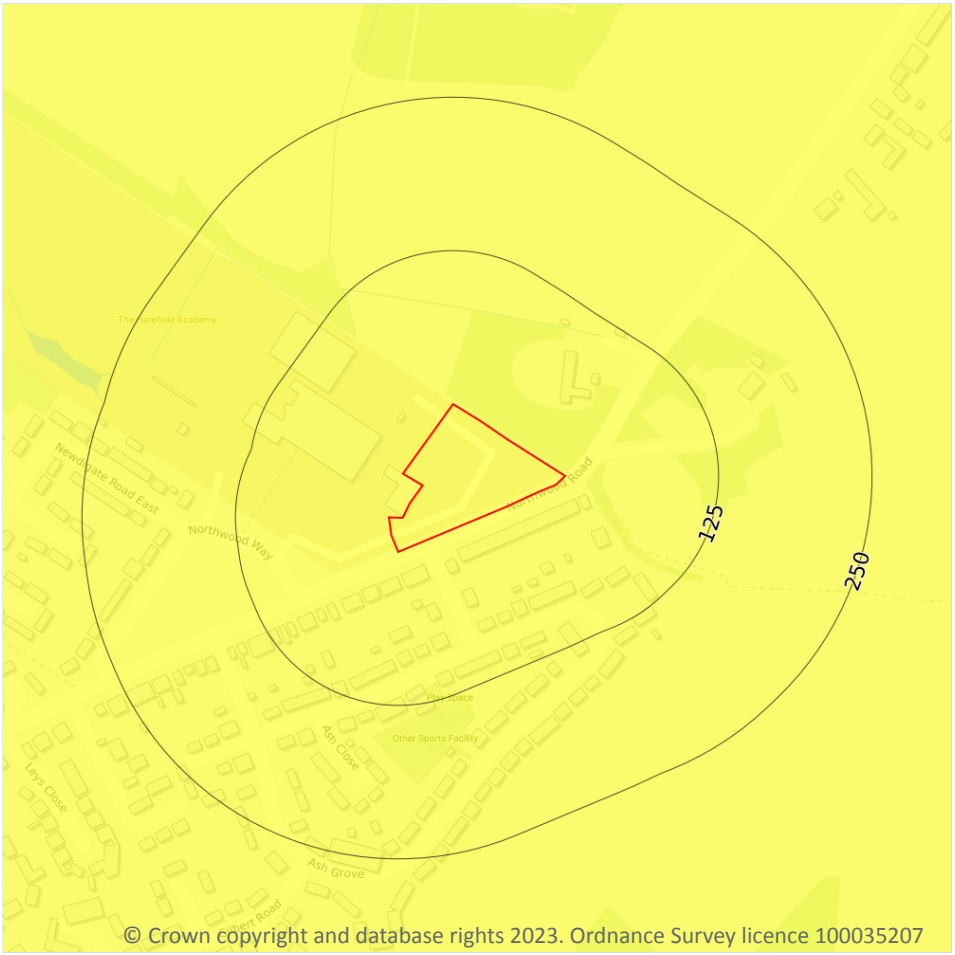
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 82**

Location	Hazard rating	Details
On site	**Very low**	**Deposits with potential to collapse when loaded and saturated are unlikely to be present.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.5 Landslides

Records within 50m	1

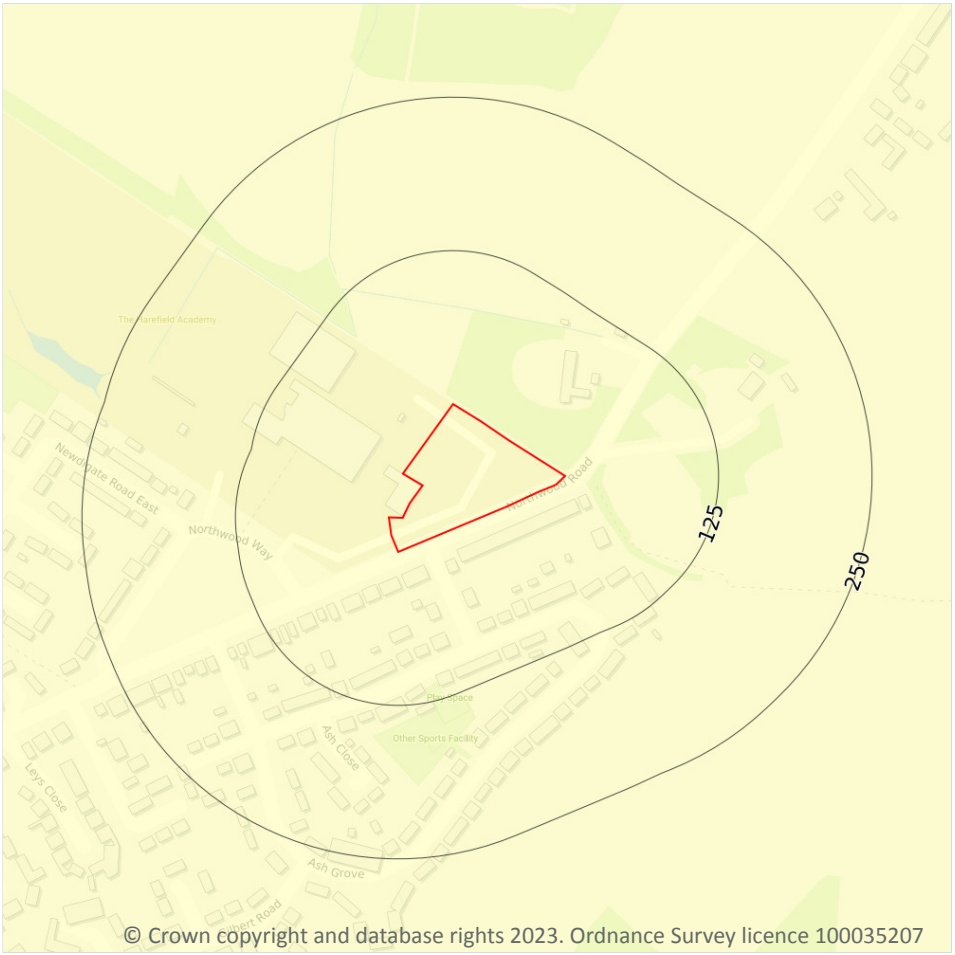
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 83**

Location	Hazard rating	Details
On site	**Very low**	**Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.6 Ground dissolution of soluble rocks

Records within 50m	1

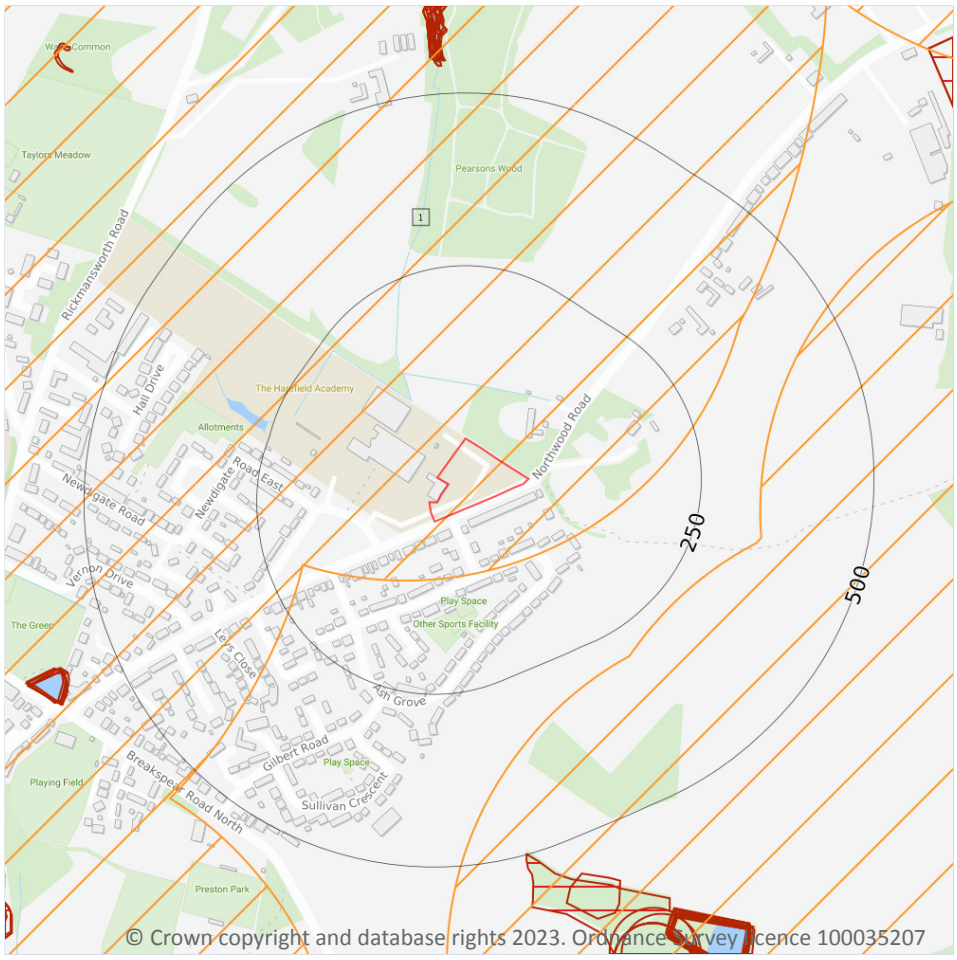
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 84**

Location	Hazard rating	Details
On site	**Negligible**	**Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.**

This data is sourced from the British Geological Survey.

18 Mining, ground workings and natural cavities



Site Outline

Search buffers in metres (m)

Natural cavities (Area)

Natural cavities (Point)

BritPits

Surface ground workings

Underground workings

Historical Mineral Planning Areas

Mining Cavities

Non Coal Mining

Sporadic underground mining of restricted extent possible

Localised small scale underground mining possible

Small scale mining possible

Underground mining known or likely within or in close proximity

Underground mining known within or in very close proximity

18.1 Natural cavities

Records within 500m	0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m	0

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	0

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m	0

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	4

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

Features are displayed on the Mining, ground workings and natural cavities map on **page 85**

ID	Location	Name	Commodity	Class	Likelihood
1	**On site**	**Not available**	**Chalk**	**C**	**Small scale underground mining may have occurred; mine adits, shafts and tunnels may be present. Potential for localised difficult ground conditions are at a level where they should be considered**
-	784m S	Not available	Chalk	C	Small scale underground mining may have occurred; mine adits, shafts and tunnels may be present. Potential for localised difficult ground conditions are at a level where they should be considered
-	809m N	Not available	Chalk	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
-	903m W	Not available	Chalk	C	Small scale underground mining may have occurred; mine adits, shafts and tunnels may be present. Potential for localised difficult ground conditions are at a level where they should be considered

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m	**0**

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

18.8 JPB mining areas

Records on site	**0**

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site	**0**

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site	0

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.11 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.13 Clay mining

Records on site	0

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).

19 Radon

Site Outline

Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

19.1 Radon

Records on site	1

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on **page 89**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Less than 1%**	**None**

This data is sourced from the British Geological Survey and UK Health Security Agency.

20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m **3**

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km^2. In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km^2; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**No data**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**No data**	**No data**
On site	**No data**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**No data**	**No data**
On site	**No data**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**No data**	**No data**

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m **9**

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km^2).

Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
On site	**10**	**1.8**	**67**	**46**	**0.6**	**60**	**20**	**13**	**5**
On site	**10**	**1.8**	**67**	**46**	**0.6**	**61**	**20**	**13**	**6**
On site	**11**	**1.9**	**67**	**46**	**0.6**	**62**	**21**	**13**	**6**
On site	**11**	**1.9**	**67**	**46**	**0.6**	**58**	**23**	**13**	**6**
3m SW	10	1.8	67	46	0.6	61	18	13	5
4m SW	10	1.8	68	47	0.6	60	18	13	5

Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
19m SE	10	1.8	68	47	0.6	57	24	13	6
21m NE	11	1.9	68	47	0.6	62	23	14	6
43m NW	10	1.8	67	46	0.6	63	19	13	5

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m	**0**

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km^2.

This data is sourced from the British Geological Survey.

21 Railway infrastructure and projects

21.1 Underground railways (London)

Records within 250m	0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m	0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m	0

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m	0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m	0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m	0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m	0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m	0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m	0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 ltd.

Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see https://www.groundsure.com/sources-reference.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: https://www.groundsure.com/terms-and-conditions-jan-2020/.

Department of the Environment CIVIL ENGINEERING LABORATORY Cardington	Investigation No. FGE/1357	Appendix A Sheet No. 2

New Office Block

HAREFIELD A.Q.D.

BOREHOLE LOG

TQ 09 SE/31

052 903

Borehole No 1

Ground Level 87·7m A O D (approx)

Date 21st November — 1st December 1980

Note:-
1. Light Cable Percussion Boring to 20·0m.
2. Casing: 200mm. dia. installed to 5·63m.
   150 mm. dia. installed to 18·48m.
3. Standpipe installed, response zone, From 13·00 to 20·00 m

Description of Strata	Legend	Sample	Depth (m)	O.D (m)	Remarks
TOPSOIL: Brown, sandy, clayey silt with some rounded gravel and abundant recent roots	T		G.L.	87·7	Water added to assist boring from 0·7 to 4·6m
			0·5	87·2	
GRAVEL: Dense, brown becoming light brown, rounded, sandy, silty, clayey, coarse, medium and fine. (GLACIAL GRAVEL)	A1	(35)	0·9		Water entry masked by presence of added water
		W	1·5		
			2·0	85·7	
GRAVEL/SAND: Dense to very dense, light brown, rounded and sub angular, silty, very sandy, coarse, medium and fine, gravel tending to very gravelly, coarse and medium sand with depth. Slightly clayey to 3·5m. (GLACIAL GRAVEL)	A2	(62)	2·2		
			2·6	85·1	Standing water level 4 - 12 - 80
		(43)	3·7		
CLAY: Firm, poorly laminated, mottled brown and light brown, silty (WEATHERED LONDON CLAY)	B1		4·6	83·1	
CLAY: Firm, becoming stiff, poorly laminated, grey mottled with brown, silty, occasionally with small, hard, light brown concretions (SLIGHTLY WEATHERED LONDON CLAY)	B2		5·0	82·7	Undisturbed sample attempted from 5·0 to 5·5m. No recovery, bag sample taken
			5·5		
			6·0		
			7·0		
CLAY: Very stiff, laminated and fissured, grey, silty, with occasional thin partings of light brown, silty fine sand becoming evident from 9·0m. Occasional scattered traces of pyrite present (LONDON CLAY)	B3		7·5	80·2	
			8·5		
		W	9·0		
			10·0	77·7	

continued

Department of the Environment CIVIL ENGINEERING LABORATORY Cardington	Investigation No. FGE/1357	Appendix A Sheet No 3
New Office Block	HAREFIELD A.Q.D.	

BOREHOLE LOG

TQ 09 SE/31

052 903

Borehole No 1 (continued)

Ground Level

Date

Note:-

Description of Strata	Legend	Sample	Depth (m)	O.D. (m)	Remarks
CLAY: As described on sheet 2 (LONDON CLAY)	B3		10·0	77·7	
			10·5		← Water entry occurred when borehole left standing over-night at 10·5m. Water level rose to 9·0m
			11·5		
			12·0		
			13·0		Undisturbed sample attempted from 13·0 to 13·5m. No recovery.
CLAY/SILT: Very stiff, grey, sandy, very silty clay with abundant irregular pockets and laminations of light brown silty fine sand and some shell fragments, grading to a friable, becoming sandy clayey silt with depth (SANDY LONDON CLAY)	B4		13·5	74·2	
			14·0		Persistent entry of water from 14·0 to 16·5m.
			15·0		
			15·5		
			16·5		Borehole collapsed from 15·5m to 16·5m over-night
CLAY: Very stiff to hard, highly fissured, mottled light blue grey, light brown and brown, silty. Shiny slickensided surfaces are present along fissures, chipping at approximately 45° from 18·5m. (READING BEDS)	C		16·8	70·9	
			17·0		
			18·0		
			18·5		
			19·5		
			20·0	67·7	End of borehole

UNEXPLODED BOMB RISK MAP

zeticaUXO

SITE LOCATION

Map Centre: 505777,190902

LEGEND

London Bomb Risk

miltary	industry	UXO find	Other
transport	dock	Luftwaffe targets	
utilities	abandoned bombs	Bombing decoy	

How to use your Unexploded Bomb (UXB) risk map?

The map indicates the potential for Unexploded Bombs (UXB) to be present as a result of World War Two (WWII) bombing.

You can incorporate the map into your preliminary risk assessment* for potential Unexploded Ordnance (UXO) for a site. Using this map, you can make an informed decision as to whether more in-depth detailed risk assessment* is necessary.

Relative UXB risk across London

The relative risk for the London area is established by plotting the recorded bombing densities.

These are represented as counts of high explosive bombs in km2 area. The areas coloured green represent a record of less than 10 bombs per km2.

Compared to other areas of the UK, this still represents a significant density. However, this is much lower than parts of Central London, where the red colouration indicates in excess of 150 bombs falling per km2, representing a very significant bombing density.

What do I do if my site is in a moderate or high density area?

Generally, we recommend that a detailed UXO desk study and risk assessment is undertaken for sites with a moderate or high bombing density.

Similarly, if your site is near to a designated Luftwaffe target or bombing decoy then additional detailed research is recommended.

More often than not, this further detailed research will conclude that the potential for a significant UXO hazard to be present on your site is actually low.

Never plan site work or undertake a risk assessment using these maps alone. More detail is required, particularly where there may be a source of UXO from other military operations which are not reflected on these maps.

If my site is in a low risk area, do I need to do anything?

If both the map and other research confirms that there is a low potential for UXO to be present on your site then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

A low risk really means that there is no greater probability of encountering UXO than anywhere else in the UK.

If you are unsure whether other sources of UXO may be present, you can ask for one of our **pre-desk study assessments (PDSA)**

If I have any questions, who do I contact?

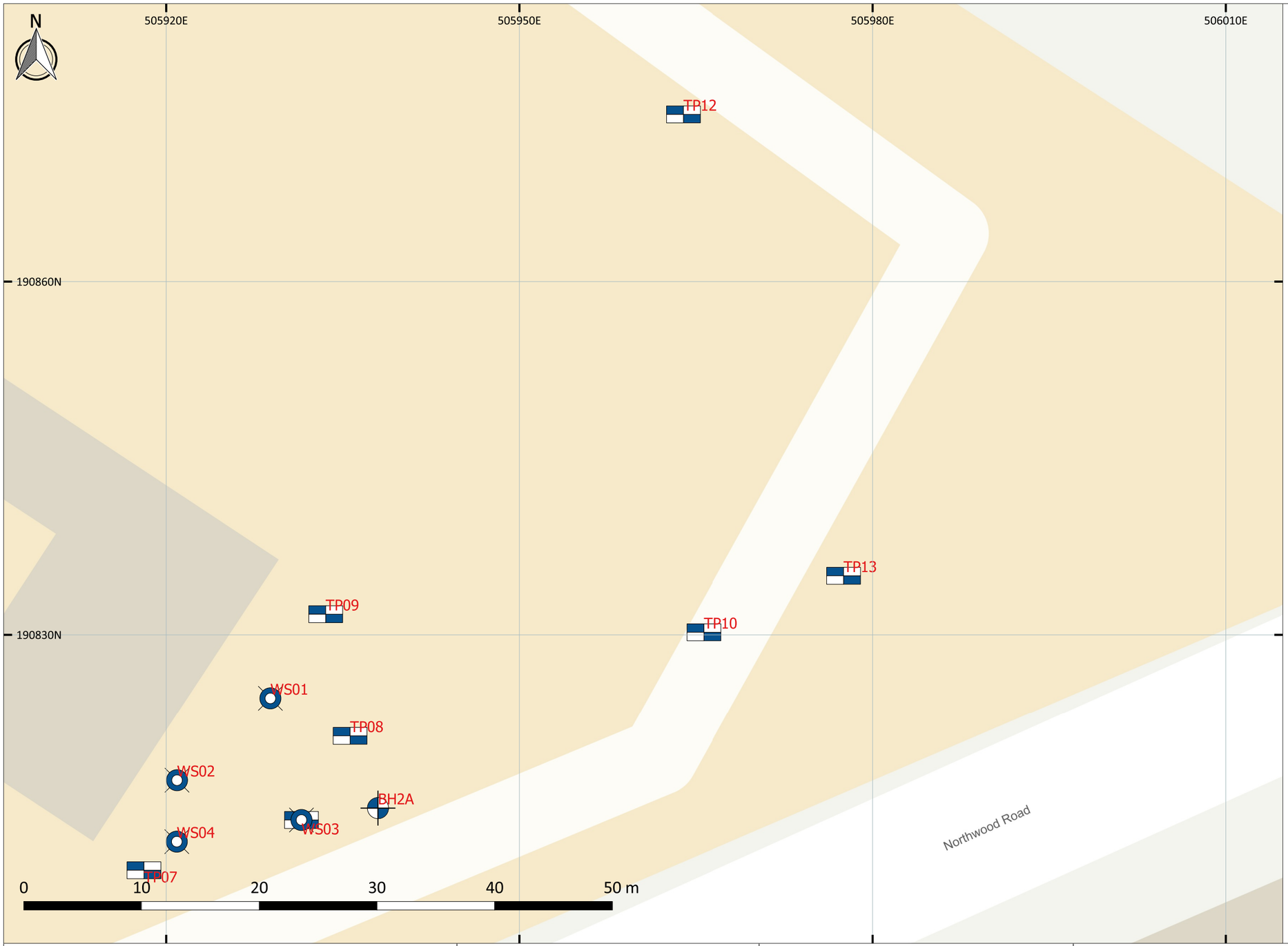
tel: **+44 (0) 1993 886682**
email: **uxo@zetica.com**
web: **www.zeticauxo.com**

The information in this UXB risk map is derived from a number of sources and should be used in conjunction with the accompanying notes on our website: **(https://zeticauxo.com/downloads-and-resources/risk-maps/)**

It is important to note that this map is not a UXO risk assessment and should not be reported as such when reproduced.

*Preliminary and detailed UXO risk assessments are advocated as good practice by industry guidance such as CIRIA C681 'Unexploded Ordnance (UXO), a guide for the construction industry'.

Appendix D Exploratory hole location plan, exploratory hole logs and photographs



LOCATION ID	LOCATION TYPE	PROPOSED DEPTH

KEY PLAN

GI Coordinates WS TP

BH

NOTES

1. Contains OS data © Crown copyright and database right (2022)

REVISIONS

REV.	DRAWN BY INITIALS	CHECKED BY INITIALS	DATE	REVISION NOTES/COMMENTS
P01	JF	EJ	28/04/23	First issue

Hydrock

TITLE
PROPOSED GROUND INVESTIGATION PLAN

HYDROCK PROJECT NO.
27471

SCALE @ A3
1:359

CLIENT
ISG

PURPOSE OF ISSUE
SUITABLE FOR INFORMATION

STATUS
S2

PROJECT
Harefield Academy

DRAWING NO.
XXXXX-HYD-XX-XX-DR-GE-000X or FIGURE PX

REVISION
P01

Hydrock

Project: Harefield Academy

Borehole No
BH2A
Page No. 1 of 2

Method: Cable Percussion	Date(s): 17/03/2023 - 18/03/2023	Logged By: JF	Drilled By: Endeavour Drilling
Client: ISG	Co-ords: 505937.98, 190815.28	Checked By: EJ	Flush: None
Hydrock Project No: 27471	Ground Level: 86.04m OD		Scale: 1:50

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend	Instrumentation / Backfill
Depth (m)	Type	Results							
				Dark brown gravelly, slightly sandy CLAY. (TOPSOIL)	0.30	(0.30)	85.74		
				Dark brown to grey clayey GRAVEL (MADE GROUND). Gravel is coarse to fine, angular to subangular brick and flint. (MADE GROUND)	1.00	(0.70)	85.04		
1.20 - 1.65	U			Orange to brown slightly silty SAND and GRAVEL. Sand is sub angular and medium. Gravel is fine to coarse, rounded to sub angular flint and quartz. (Gerrards Cross Gravels)					
1.70	D					(1.50)			
2.00	SPT	N=18 (10,12,8,4,3,3)			2				
2.00	B								
2.00	D								
2.00 - 2.50	B				2.50		83.54		
				Dark grey with orange mottled firm weathered CLAY. (Weathered London Clay Formation)					
3.00	SPT	N=7 (1,1,1,1,2,3)			3				
3.00	D								
3.00	D					(2.00)			
4.00	D				4				
4.00	U								
4.00 - 4.45	U								
4.50	D				4.50		81.54		
				Dark grey firm CLAY. (London Clay Formation)					
5.00	SPT	N=13 (1,1,3,3,3,4)			5				
5.00	D								
6.00	D				6				
6.00 - 6.45	U								
6.50	D								
7.00	D				7				
7.00	D								
7.50	SPT	N=27 (1,3,3,10,8,6)							
8.00	D				8				
9.00	D				9				
9.00	U								
9.00 - 9.45	U								
9.50	D								
10.00	D				10				

Progress and Observations

Rig	Date	Time	Borehole Depth (m)	Casing Depth (m)	Casing Diam.(mm)	Water Depth (m)	Flush Type	Returns (colour)
							None	

Chiselling

From (m)	To (m)	Duration (HH:MM)

General Remarks:
1. Location cleared by 3rd party utilities specialist and set out with survey quality GPS. 2. Handpit to 1.2m. 3. Installed to 1.80m, GL to 0.8m bgl plain pipe. 0.8 to 1.8m bgl slotted pipe with gravel surround. Installed flush well top. Groundwater not encountered. Response zone within Gerrards Cross Gravels.

Logged in general accordance with BS5930:2015

Hydrock	Project: Harefield Academy	Borehole No BH2A Page No. 2 of 2

Method: Cable Percussion	Date(s): 17/03/2023 - 18/03/2023	Logged By: JF	Drilled By: Endeavour Drilling
Client: ISG	Co-ords: 505937.98, 190815.28	Checked By: EJ	Flush: None
Hydrock Project No: 27471	Ground Level: 86.04m OD		Scale: 1:50

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend	Instrumentation / Backfill
Depth (m)	Type	Results							
10.00	D			Dark grey firm CLAY. (London Clay Formation)					
10.50	SPT	N=24 (3,4,5,6,6,7)							
11.00	D				11	(13.50)			
12.00	D				12				
12.00	D								
12.00 - 12.45	U								
12.50	D								
13.00	D				13				
13.50	SPT	N=24 (1,4,4,6,6,8)							
14.00	D				14				
14.00	D								
15.00	D				15				
15.00	U								
15.00 - 15.45	U								
15.50	D								
16.50	SPT	N=27 (2,4,6,6,6,9)			16				
					17				
18.00	D				18.00		68.04		
				End of Borehole at 18.00m	18				
					19				
					20				

Progress and Observations

Rig	Date	Time	Borehole Depth (m)	Casing Depth (m)	Casing Diam.(mm)	Water Depth (m)	Flush Type	Returns (colour)

Chiselling

From (m)	To (m)	Duration (HH:MM)

General Remarks:
1. Location cleared by 3rd party utilities specialist and set out with survey quality GPS. 2. Handpit to 1.2m. 3. Installed to 1.80m, GL to 0.8m bgl plain pipe. 0.8 to 1.8m bgl slotted pipe with gravel surround. Installed flush well top. Groundwater not encountered. Response zone within Gerrards Cross Gravels.

Logged in general accordance with BS5930:2015

Hydrock

Project: Harefield Academy

Trialpit No
TP07
Page No. 1 of 1

Method: Trial Pit	Date(s): 14/03/2023	Logged By: JS	Checked By: EJ
Client: ISG	Co-ords: 505918.10, 190810.00	Stability: Stable	Dimensions: 1.80m x 0.60m; Scale: 1:25
Hydrock Project No: 27471	Ground Level: 85.98m OD	Plant: JCB 3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
0.20	D			Dark brown slightly clayey sand with grass rootlets. (TOPSOIL)	0.25	(0.25)	85.73	
0.50	D			Yellowish brown to grey gravelly, slightly sandy CLAY. Gravel is coarse to fine, angular to subangular brick and flint. (MADE GROUND)	0.70	(0.45)	85.28	
1.00	B			Yellowish greyish brown clayey sandy GRAVEL. Gravel is coarse and subrounded flint. (Gerrards Cross Gravels)	1.40	(0.70)	84.58	
				Base of Excavation at 1.40m				

General Remarks:
1. Location cleared by 3rd party utilities specialist and set out with survey quality GPS. 2. Groundwater not encountered. Terminated at 1.4m due to obstruction.

Logged in general accordance with BS5930:2015

Hydrock	Project: Harefield Academy	Trialpit No TP08 Page No. 1 of 1

Method: Trial Pit	Date(s): 14/03/2023	Logged By: JS	Checked By: EJ
Client: ISG	Co-ords: 505935.61, 190821.42	Stability: Stable	Dimensions: 1.80m x 0.60m / Scale: 1:25
Hydrock Project No: 27471	Ground Level: 86.14m OD	Plant: JCB 3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
0.30	D			Dark brown gravelly, slightly sandy CLAY. (TOPSOIL)	0.50	(0.50)	85.64	
0.80	D			Firm orangish brown mottled bluish grey gravelly CLAY. Gravel is coarse to fine, angular to subangular brick and flint. (MADE GROUND)	0.90	(0.40)	85.24	
0.80	D							
1.00	B			Light grey to yellowish brown gravelly SAND. Gravel is fine to coarse, rounded to sub angular flint and quartz. (Gerrards Cross Gravels)	1.60	(0.70)	84.54	
1.20	ES			Base of Excavation at 1.60m				

General Remarks:
1. Location cleared by 3rd party utilities specialist and set out with survey quality GPS. 2. Groundwater not encountered. Terminated at 1.6m due to obstruction.

Logged in general accordance with BS5930:2015

Hydrock

Project: Harefield Academy

Trialpit No
TP09
Page No. 1 of 1

Method: Trial Pit	Date(s): 14/03/2023	Logged By: JS	Checked By: EJ
Client: ISG	Co-ords: 505933.54, 190831.75	Stability: Stable	Dimensions: 1.80m x 0.60m; Scale: 1:25
Hydrock Project No: 27471	Ground Level: 86.02m OD	Plant: JCB 3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
0.20	ES			Dark brown gravelly, slightly sandy CLAY. (TOPSOIL)	0.30	(0.30)	85.72	
				Yellowish to greyish brown sandy GRAVEL. Gravel is sub angular flint and brick. (MADE GROUND)	0.50	(0.20)	85.52	
				Base of Excavation at 0.50m				

General Remarks:
1. Location cleared by 3rd party utilities specialist and set out with survey quality GPS. 2. Groundwater not encountered. Terminated at 0.5m due to adjacent services.

Logged in general accordance with BS5930:2015

Hydrock	Project: Harefield Academy	Trialpit No TP10 Page No. 1 of 1

Method: Trial Pit	Date(s): 14/03/2023	Logged By: JS	Checked By: EJ
Client: ISG	Co-ords: 505965.67, 190830.21	Stability: Stable	Dimensions: 1.80m x 0.60m
Hydrock Project No: 27471	Ground Level: 86.08m OD	Plant: JCB 3CX	Scale: 1:25

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
0.20	ES			Grass over dark brown slightly gravelly sandy CLAY. Gravel is sub angular flint and brick. (MADE GROUND)	0.25	(0.25)	85.83	
0.50	ES			Yellowish/greyish brown sandy GRAVEL. Gravel is sub angular flint and brick. (MADE GROUND)	0.80	(0.55)	85.28	
				Base of Excavation at 0.80m				

General Remarks:
1. Location cleared by 3rd party utilities specialist and set out with survey quality GPS. 2. Groundwater not encountered. Terminated at 0.8m due to adjacent services.

Logged in general accordance with BS5930:2015

Hydrock

Project: Harefield Academy

Trialpit No
TP12
Page No. 1 of 1

Method: Trial Pit	Date(s): 14/03/2023	Logged By: JS	Checked By: EJ
Client: ISG	Co-ords: 505963.93, 190874.20	Stability: Stable	Dimensions: 1.80m / 0.60m; Scale: 1:25
Hydrock Project No: 27471	Ground Level: 85.89m OD	Plant: JCB 3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
0.10	ES			Grass over dark brown slightly graelly sandy CLAY. Gravel is sub angular flint and brick. (MADE GROUND)	0.20	(0.20)	85.69	
0.30	ES			Yellowish/greyish brown sandy GRAVEL. Gravel is sub angular flint and brick. (MADE GROUND)	0.40	(0.20)	85.49	
				Base of Excavation at 0.40m				

General Remarks:
1. Location cleared by 3rd party utilities specialist and set out with survey quality GPS. 2. Groundwater not encountered. Terminated at 0.4m due to obstruction.

Logged in general accordance with BS5930:2015

Hydrock

Project: Harefield Academy

Trialpit No
TP13
Page No. 1 of 1

Method: Trial Pit	Date(s): 14/03/2023	Logged By: JS	Checked By: EJ
Client: ISG	Co-ords: 505977.53, 190835.01	Stability: Stable	Dimensions: 1.80m x 0.60m; Scale: 1:25
Hydrock Project No: 27471	Ground Level: 86.30m OD	Plant: JCB 3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
0.10	D			Grass over dark brown slightly graelly sandy CLAY. Gravel is sub angular flint and brick. (MADE GROUND)	0.20	(0.20)	86.10	
				Yellowish/greyish brown sandy GRAVEL. Gravel is sub angular flint and brick. (MADE GROUND)	0.40	(0.20)	85.90	
				Base of Excavation at 0.30m				
0.50	D							
1.20	D							
2.50	D							

General Remarks:
1. Location cleared by 3rd party utilities specialist and set out with survey quality GPS. 2. Groundwater not encountered. Terminated at 0.3m due to obstruction.

Logged in general accordance with BS5930:2015

Hydrock

Project: Harefield Academy

Trialpit No
TPWS3
Page No. 1 of 1

Method: Trial Pit	Date(s): 14/03/2023	Logged By: JS	Checked By: EJ
Client: ISG	Co-ords: 505931.48, 190814.27	Stability: Stable	Dimensions: 1.80m x 0.60m
Hydrock Project No: 27471	Ground Level: 86.43m OD	Plant: JCB 3CX	Scale: 1:25

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
				Dark brown gravelly, slightly sandy CLAY. (TOPSOIL)	0.30	(0.30)	86.13	
				Yellowish/greyish brown sandy GRAVEL. Gravel is sub angular flint and brick. (MADE GROUND)	1.00	(0.70)	85.43	
1.20	D			Soft light yellowish brown mottled bluish grey CLAY. (Weathered London Clay Formation)	3.00	(2.00)	83.43	
				Base of Excavation at 3.00m				

General Remarks:
1. Location cleared by 3rd party utilities specialist and set out with survey quality GPS. 2. Groundwater not encountered.

Logged in general accordance with BS5930:2015

Hydrock

Project: Harefield Academy

Borehole No
WS01
Page No. 1 of 2

Method: Dynamic (Windowless) Sampler	Date(s): 17/03/2023	Logged By: JF	Drilled By: Endeavour Drilling
Client: ISG	Co-ords: 505928.84, 190824.60	Checked By: EJ	Rig: Terrier
Hydrock Project No: 27471	Ground Level: 85.96m OD		Scale: 1:30

Sample Run Info			Testing			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend	Instrumentation / Backfill
Sample Run	Run Ø	Recovery	Depth (m)	Type	Results							
			0.10	ES			Dark brown gravelly, slightly sandy CLAY. (TOPSOIL)	0.30	(0.30)	85.66		
			0.50	ES			Dark brown to grey gravelly CLAY. Gravel is coarse to fine, angular to subangular brick and flint. (MADE GROUND)		(1.20)			
			1.00	SPT	N=0 (1,0,0,0,0,0)		1					
1.20 - 2.00	87mm	100%						1.50		84.46		
			1.60	ES			Orange to brown clayey SAND and GRAVEL. Sand is sub angular and medium. Gravel is fine to coarse, rounded to sub angular flint and quartz. (Gerrards Cross Gravels)					
2.00 - 3.00	87mm	100%	2.00	SPT	N=11 (3,1,2,3,3,3)		2		(1.00)			
			2.00	D								
			2.00	D				2.50		83.46		
							Dark grey with orange mottled firm weathered CLAY. (London Clay Formation)					
3.00 - 4.00	77mm	100%	3.00	SPT	N=15 (2,3,4,4,4,3)		3					
			3.00	D								
			3.00	D								
4.00 - 5.00	67mm	100%	4.00	SPT	N=10 (2,3,2,3,3,2)		4		(3.50)			
			4.00	D								
			5.00	SPT	N=24 (2,3,5,6,6,7)		5					
							6	6.00		79.96		

General Remarks:
1. Location cleared by 3rd party utilities specialist and set out with survey quality GPS. 2. Handpit to 1.20m. 3. Installed to 1.30m, GL to 0.50m bgl plain pipe. 0.50 to 1.30m bgl slotted pipe with gravel surround. Installed flush well top. Response zone within MADE GROUND. Groundwater not encountered.

Logged in general accordance with BS5930:2015

Hydrock	Project: Harefield Academy	Borehole No WS01 Page No. 2 of 2

Method: Dynamic (Windowless) Sampler	Date(s): 17/03/2023	Logged By: JF	Drilled By: Endeavour Drilling
Client: ISG	Co-ords: 505928.84, 190824.60	Checked By: EJ	Rig: Terrier
Hydrock Project No: 27471	Ground Level: 85.96m OD		Scale: 1:30

Sample Run Info			Testing			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend	Instrumentation / Backfill
Sample Run	Run Ø	Recovery	Depth (m)	Type	Results							
			6.00	SPT	N=37 (5,7,9,9,9,10)		End of Borehole at 6.00m					

General Remarks:
1. Location cleared by 3rd party utilities specialist and set out with survey quality GPS. 2. Handpit to 1.20m. 3. Installed to 1.30m, GL to 0.50m bgl plain pipe. 0.50 to 1.30m bgl slotted pipe with gravel surround. Installed flush well top. Response zone within MADE GROUND. Groundwater not encountered.

Logged in general accordance with BS5930:2015

Hydrock

Project: Harefield Academy

Borehole No
WS02
Page No. 1 of 2

Method: Dynamic (Windowless) Sampler	Date(s): 17/03/2023	Logged By: JF	Drilled By: Endeavour Drilling
Client: ISG	Co-ords: 505920.91, 190817.65	Checked By: EJ	Rig: Terrier
Hydrock Project No: 27471	Ground Level: 85.90m OD		Scale: 1:30

Sample Run Info			Testing			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend	Instrumentation / Backfill
Sample Run	Run Ø	Recovery	Depth (m)	Type	Results							
							Dark brown gravelly, slightly sandy CLAY. (TOPSOIL)	0.30	(0.30)	85.60		
			0.50	ES			Dark brown to grey gravelly CLAY. Gravel is coarse to fine, angular to subangular brick and flint. (MADE GROUND)		(0.90)			
			1.00	SPT	N=19 (2,4,5,6,4,4)		1	1.20		84.70		
1.20 - 2.00	87mm	100%	1.30	ES			Orange to brown clayey SAND and GRAVEL. Sand is sub angular and medium. Gravel is fine to coarse, rounded to sub angular flint and quartz. (Gerrards Cross Gravels)	1.80	(0.60)	84.10		
2.00 - 3.00	87mm	100%	2.00	SPT	N=16 (2,6,6,4,3,3)		Dark grey with orange mottled firm weathered CLAY. (London Clay Formation)					
			2.00	D			2					
			2.00	D								
3.00 - 4.00	77mm	100%	3.00	SPT	N=15 (3,6,4,3,3,5)		3					
			3.00	D								
									(4.20)			
4.00 - 5.00	67mm	100%	4.00	SPT	N=17 (3,2,6,3,4,4)		4					
			4.00	D								
			5.00	SPT	N=21 (3,3,3,5,6,7)		5					
							6	6.00		79.90		

General Remarks:
1. Location cleared by 3rd party utilities specialist and set out with survey quality GPS. 2. Handpit to 1.20m. 3. Installed to 1.80m, GL to 1.30m bgl plain pipe. 1.30 to 1.80m bgl slotted pipe with gravel surround. Installed flush well top. Groundwater not encountered. Response zone within Gerrards Cross Gravels.

Logged in general accordance with BS5930:2015

Hydrock	Project: Harefield Academy	Borehole No WS02 Page No. 2 of 2

Method: Dynamic (Windowless) Sampler	Date(s): 17/03/2023	Logged By: JF	Drilled By: Endeavour Drilling
Client: ISG	Co-ords: 505920.91, 190817.65	Checked By: EJ	Rig: Terrier
Hydrock Project No: 27471	Ground Level: 85.90m OD		Scale: 1:30

Sample Run Info			Testing			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend	Instrumentation / Backfill
Sample Run	Run Ø	Recovery	Depth (m)	Type	Results							
			6.00	SPT	N=27 (3,4,6,6,7,8)		End of Borehole at 6.00m					

General Remarks:
1. Location cleared by 3rd party utilities specialist and set out with survey quality GPS. 2. Handpit to 1.20m. 3. Installed to 1.80m, GL to 1.30m bgl plain pipe. 1.30 to 1.80m bgl slotted pipe with gravel surround. Installed flush well top. Groundwater not encountered. Response zone within Gerrards Cross Gravels.

Logged in general accordance with BS5930:2015

Hydrock

Project: Harefield Academy

Borehole No
WS03
Page No. 1 of 1

Method: Dynamic (Windowless) Sampler	Date(s): 17/03/2023	Logged By: JF	Drilled By: Endeavour Drilling
Client: ISG	Co-ords: 505931.48, 190814.27	Checked By: EJ	Rig:
Hydrock Project No: 27471	Ground Level: 86.43m OD		Scale: 1:30

Sample Run Info			Testing			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend	Instrumentation / Backfill
Sample Run	Run Ø	Recovery	Depth (m)	Type	Results							
							Dark brown gravelly, slightly sandy CLAY. (TOPSOIL)	0.30	(0.30)	86.13		
			0.40	ES			Dark brown to grey gravelly CLAY. Gravel is coarse to fine, angular to subangular brick and flint. (MADE GROUND)		(0.90)			
			1.00	SPT	N=8 (1,2,1,2,2,3)			1				
1.20 - 2.00	87mm	100%	1.00	ES				1.20		85.23		
							Dark greyish orange mottled firm weathered CLAY. (Weathered London Clay Formation)					
			2.00	SPT	N=15 (1,2,3,4,4,4)			2	(1.80)			
			2.00	D								
			3.00	SPT	N=21 (2,4,5,6,5,5)		End of Borehole at 3.00m	3.00		83.43		
								4				
								5				
								6				

General Remarks:
1. Location cleared by 3rd party utilities specialist and set out with survey quality GPS. 2. Handpit to 1.20m. 3. Installed to 1.20m, GL to 0.50m bgl plain pipe, 0.50 to 1.20m bgl slotted pipe with gravel surround. Installed flush well top. Response zone within MADE GROUND. Groundwater not encountered.

Logged in general accordance with BS5930:2015

Hydrock

Project: Harefield Academy

Borehole No
WS04
Page No. 1 of 1

Method: Dynamic (Windowless) Sampler	Date(s): 17/03/2023	Logged By: JF	Drilled By: Endeavour Drilling
Client: ISG	Co-ords: 505920.89, 190812.43	Checked By: EJ	Rig:
Hydrock Project No: 27471	Ground Level: 86.24m OD		Scale: 1:30

Sample Run Info			Testing			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend	Instrumentation / Backfill
Sample Run	Run Ø	Recovery	Depth (m)	Type	Results							
			0.10	ES			Dark brown gravelly, slightly sandy CLAY. (TOPSOIL)	0.30	(0.30)	85.94		
			0.50	ES			Dark brown to grey gravelly CLAY. Gravel is coarse to fine, angular to subangular brick and flint. (MADE GROUND)	1.00	(0.70)	85.24		
			1.00	SPT	N=5 (3,2,1,1,1,2)							
1.20 - 2.00	87mm	100%					Orange to brown clayey SAND and GRAVEL. Sand is sub angular and medium. Gravel is fine to coarse, rounded to sub angular flint and quartz. (Gerrards Cross Gravels)		(1.00)			
2.00 - 2.50	87mm	100%	2.00	SPT	N=56 (15,17,13,12,18, 13)		End of Borehole at 2.00m	2.00		84.24		
			2.00	D								

General Remarks:
1. Location cleared by 3rd party utilities specialist and set out with survey quality GPS. 2. Handpit to 1.20m. 3. Installed to 1.20m, GL to 0.50m bgl plain pipe. 0.50 to 1.20m bgl slotted pipe with gravel surround. Installed flush well top. Response zone within Made Ground & Gerrards Cross Gravels. Groundwater not encountered.

Logged in general accordance with BS5930:2015

endeavour drilling

Dynamic Probe No. DP 1

Depth (m)	(N 100)	Remarks	Depth (m)	(N 100)	Remarks
G.L - 0.1	-		5.0 - 5.1	4	
0.1 - 0.2	1		5.1 - 5.2	5	
0.2 - 0.3	-		5.2 - 5.3	5	
0.3 - 0.4	-		5.3 - 5.4	5	
0.4 - 0.5	1		5.4 - 5.5	4	
0.5 - 0.6	2		5.5 - 5.6	4	
0.6 - 0.7	3		5.6 - 5.7	5	
0.7 - 0.8	6		5.7 - 5.8	5	
0.8 - 0.9	7		5.8 - 5.9	5	
0.9 - 1.0	3	Torque -	5.9 - 6.0	7	Torque -
1.0 - 1.1	1		6.0 - 6.1	6	
1.1 - 1.2	-		6.1 - 6.2	6	
1.2 - 1.3	1		6.2 - 6.3	7	
1.3 - 1.4	2		6.3 - 6.4	8	
1.4 - 1.5	1		6.4 - 6.5	6	
1.5 - 1.6	2		6.5 - 6.6	7	
1.6 - 1.7	2		6.6 - 6.7	7	
1.7 - 1.8	2		6.7 - 6.8	7	
1.8 - 1.9	1		6.8 - 6.9	7	
1.9 - 2.0	2	Torque -	6.9 - 7.0	10	Torque -
2.0 - 2.1	2		7.0 - 7.1	21	
2.1 - 2.2	1		7.1 - 7.2	29	
2.2 - 2.3	2		7.2 - 7.3	13	
2.3 - 2.4	1		7.3 - 7.4	13	
2.4 - 2.5	2		7.4 - 7.5	12	
2.5 - 2.6	2		7.5 - 7.6	10	
2.6 - 2.7	2		7.6 - 7.7	10	
2.7 - 2.8	1		7.7 - 7.8	10	
2.8 - 2.9	2		7.8 - 7.9	9	
2.9 - 3.0	2	Torque -	7.9 - 8.0	9	Torque -
3.0 - 3.1	1		8.0 - 8.1		
3.1 - 3.2	2		8.1 - 8.2		
3.2 - 3.3	3		8.2 - 8.3		
3.3 - 3.4	1		8.3 - 8.4		
3.4 - 3.5	1		8.4 - 8.5		
3.5 - 3.6	2		8.5 - 8.6		
3.6 - 3.7	3		8.6 - 8.7		
3.7 - 3.8	2		8.7 - 8.8		
3.8 - 3.9	2		8.8 - 8.9		
3.9 - 4.0	2	Torque -	8.9 - 9.0		Torque -
4.0 - 4.1	3		9.0 - 9.1		
4.1 - 4.2	4		9.1 - 9.2		
4.2 - 4.3	3		9.2 - 9.3		
4.3 - 4.4	4		9.3 - 9.4		
4.4 - 4.5	3		9.4 - 9.5		
4.5 - 4.6	4		9.5 - 9.6		
4.6 - 4.7	5		9.6 - 9.7		
4.7 - 4.8	6		9.7 - 9.8		
4.8 - 4.9	5		9.8 - 9.9		
4.9 - 5.0	5	Torque -	9.9 - 10.0		Torque -

Notes: N100 = blows per 100mm

Sacrificial cone (YES)/NO

Rig: Archway/(Terrier)/Lightweight

Type: Heavy(DPH)/Superheavy(DPSH)

Client: hydrock

Site: harefield academy

Date: 15/3/23

Crew: Dean

endeavour drilling

Dynamic Probe No. DP 2

Depth (m)	(N 100)	Remarks	Depth (m)	(N 100)	Remarks
G.L. - 0.1	9		5.0 - 5.1	12	
0.1 - 0.2	6		5.1 - 5.2	13	
0.2 - 0.3	4		5.2 - 5.3	10	
0.3 - 0.4	4		5.3 - 5.4	10	
0.4 - 0.5	3		5.4 - 5.5	8	
0.5 - 0.6	2		5.5 - 5.6	7	
0.6 - 0.7	2		5.6 - 5.7	10	
0.7 - 0.8	—		5.7 - 5.8	10	
0.8 - 0.9	1		5.8 - 5.9	12	
0.9 - 1.0	—	Torque -	5.9 - 6.0	9	Torque -
1.0 - 1.1	3		6.0 - 6.1	12	
1.1 - 1.2	5		6.1 - 6.2	11	
1.2 - 1.3	6		6.2 - 6.3	12	
1.3 - 1.4	4		6.3 - 6.4	12	
1.4 - 1.5	5		6.4 - 6.5	11	
1.5 - 1.6	7		6.5 - 6.6	12	
1.6 - 1.7	15		6.6 - 6.7	14	
1.7 - 1.8	16		6.7 - 6.8	15	
1.8 - 1.9	20		6.8 - 6.9	10	
1.9 - 2.0	44	Torque -	6.9 - 7.0	11	Torque -
2.0 - 2.1	33		7.0 - 7.1	10	
2.1 - 2.2	26		7.1 - 7.2	16	
2.2 - 2.3	15		7.2 - 7.3	17	
2.3 - 2.4	12		7.3 - 7.4	21	
2.4 - 2.5	8		7.4 - 7.5	50	+ 60mm remains
2.5 - 2.6	7		7.5 - 7.6		
2.6 - 2.7	7		7.6 - 7.7		
2.7 - 2.8	12		7.7 - 7.8		
2.8 - 2.9	12		7.8 - 7.9		
2.9 - 3.0	16	Torque -	7.9 - 8.0		Torque -
3.0 - 3.1	12		8.0 - 8.1		
3.1 - 3.2	12		8.1 - 8.2		
3.2 - 3.3	8		8.2 - 8.3		
3.3 - 3.4	6		8.3 - 8.4		
3.4 - 3.5	4		8.4 - 8.5		
3.5 - 3.6	5		8.5 - 8.6		
3.6 - 3.7	6		8.6 - 8.7		
3.7 - 3.8	6		8.7 - 8.8		
3.8 - 3.9	5		8.8 - 8.9		
3.9 - 4.0	7	Torque -	8.9 - 9.0		Torque -
4.0 - 4.1	7		9.0 - 9.1		
4.1 - 4.2	6		9.1 - 9.2		
4.2 - 4.3	8		9.2 - 9.3		
4.3 - 4.4	6		9.3 - 9.4		
4.4 - 4.5	6		9.4 - 9.5		
4.5 - 4.6	7		9.5 - 9.6		
4.6 - 4.7	9		9.6 - 9.7		
4.7 - 4.8	8		9.7 - 9.8		
4.8 - 4.9	8		9.8 - 9.9		
4.9 - 5.0	10	Torque -	9.9 - 10.0		Torque -

Notes: N100 = blows per 100mm

Rig: Archway/(Terrier)/Lightweight

Sacrificial cone (YES)/NO

Type: Heavy(DPH)/(Superheavy(DPSH))

Client: hydrok.	**Date:** 15/3/23
Site:	**Crew:** Deen.

endeavour drilling

Dynamic Probe No. DP 3

Depth (m)	(N 100)	Remarks	Depth (m)	(N 100)	Remarks
G.L. - 0.1	1		5.0 - 5.1	8	
0.1 - 0.2	2		5.1 - 5.2	7	
0.2 - 0.3	1		5.2 - 5.3	6	
0.3 - 0.4	4		5.3 - 5.4	6	
0.4 - 0.5	2		5.4 - 5.5	6	
0.5 - 0.6	2		5.5 - 5.6	6	
0.6 - 0.7	1		5.6 - 5.7	5	
0.7 - 0.8	–		5.7 - 5.8	6	
0.8 - 0.9	–		5.8 - 5.9	6	
0.9 - 1.0	–	Torque -	5.9 - 6.0	5	Torque -
1.0 - 1.1	1		6.0 - 6.1	6	
1.1 - 1.2	–		6.1 - 6.2	6	
1.2 - 1.3	–		6.2 - 6.3	6	
1.3 - 1.4	–		6.3 - 6.4	7	
1.4 - 1.5	–		6.4 - 6.5	7	
1.5 - 1.6	1		6.5 - 6.6	6	
1.6 - 1.7	1		6.6 - 6.7	6	
1.7 - 1.8	1		6.7 - 6.8	6	
1.8 - 1.9	1		6.8 - 6.9	7	
1.9 - 2.0	1	Torque -	6.9 - 7.0	7	Torque -
2.0 - 2.1	1		7.0 - 7.1	9	
2.1 - 2.2	1		7.1 - 7.2	7	
2.2 - 2.3	1		7.2 - 7.3	7	
2.3 - 2.4	1		7.3 - 7.4	7	
2.4 - 2.5	1		7.4 - 7.5	7	
2.5 - 2.6	1		7.5 - 7.6	6	
2.6 - 2.7	1		7.6 - 7.7	7	
2.7 - 2.8	1		7.7 - 7.8	7	
2.8 - 2.9	1		7.8 - 7.9	7	
2.9 - 3.0	2	Torque -	7.9 - 8.0	7	Torque -
3.0 - 3.1	2		8.0 - 8.1		
3.1 - 3.2	3		8.1 - 8.2		
3.2 - 3.3	4		8.2 - 8.3		
3.3 - 3.4	3		8.3 - 8.4		
3.4 - 3.5	3		8.4 - 8.5		
3.5 - 3.6	4		8.5 - 8.6		
3.6 - 3.7	5		8.6 - 8.7		
3.7 - 3.8	8		8.7 - 8.8		
3.8 - 3.9	6		8.8 - 8.9		
3.9 - 4.0	6	Torque -	8.9 - 9.0		Torque -
4.0 - 4.1	6		9.0 - 9.1		
4.1 - 4.2	6		9.1 - 9.2		
4.2 - 4.3	5		9.2 - 9.3		
4.3 - 4.4	6		9.3 - 9.4		
4.4 - 4.5	7		9.4 - 9.5		
4.5 - 4.6	8		9.5 - 9.6		
4.6 - 4.7	7		9.6 - 9.7		
4.7 - 4.8	6		9.7 - 9.8		
4.8 - 4.9	7		9.8 - 9.9		
4.9 - 5.0	6	Torque -	9.9 - 10.0		Torque -

Notes: N100 = blows per 100mm

Sacrificial cone YES/NO

Rig: Archway/Terrier/Lightweight

Type: Heavy(DPH)/Superheavy(DPSH)

Client: Nudok	**Date:** 15/3/23
Site: horefield academy	**Crew:** Dean

endeavour drilling

Dynamic Probe No 4

Depth (m)	(N 100)	Remarks	Depth (m)	(N 100)	Remarks
G.L. - 0.1	4		5.0 - 5.1	12	
0.1 - 0.2	2		5.1 - 5.2	10	
0.2 - 0.3	9		5.2 - 5.3	11	
0.3 - 0.4	12		5.3 - 5.4	12	
0.4 - 0.5	4		5.4 - 5.5	12	
0.5 - 0.6	2		5.5 - 5.6	10	
0.6 - 0.7	2		5.6 - 5.7	12	
0.7 - 0.8	3		5.7 - 5.8	10	
0.8 - 0.9	2		5.8 - 5.9	12	
0.9 - 1.0	1	Torque -	5.9 - 6.0	12	Torque -
1.0 - 1.1	1		6.0 - 6.1	10	
1.1 - 1.2	12		6.1 - 6.2	9	
1.2 - 1.3	10		6.2 - 6.3	15	
1.3 - 1.4	10		6.3 - 6.4	15	
1.4 - 1.5	8		6.4 - 6.5	12	
1.5 - 1.6	7		6.5 - 6.6	12	
1.6 - 1.7	8		6.6 - 6.7	13	
1.7 - 1.8	14		6.7 - 6.8	12	
1.8 - 1.9	14		6.8 - 6.9	13	
1.9 - 2.0	33	Torque -	6.9 - 7.0	13	Torque -
2.0 - 2.1	13		7.0 - 7.1	13	
2.1 - 2.2	6		7.1 - 7.2	14	
2.2 - 2.3	4		7.2 - 7.3	16	
2.3 - 2.4	3		7.3 - 7.4	15	
2.4 - 2.5	3		7.4 - 7.5	15	
2.5 - 2.6	2		7.5 - 7.6	16	
2.6 - 2.7	3		7.6 - 7.7	16	
2.7 - 2.8	2		7.7 - 7.8	16	
2.8 - 2.9	3		7.8 - 7.9	16	
2.9 - 3.0	3	Torque -	7.9 - 8.0	17	Torque -
3.0 - 3.1	4		8.0 - 8.1		
3.1 - 3.2	3		8.1 - 8.2		
3.2 - 3.3	2		8.2 - 8.3		
3.3 - 3.4	3		8.3 - 8.4		
3.4 - 3.5	4		8.4 - 8.5		
3.5 - 3.6	4		8.5 - 8.6		
3.6 - 3.7	4		8.6 - 8.7		
3.7 - 3.8	4		8.7 - 8.8		
3.8 - 3.9	4		8.8 - 8.9		
3.9 - 4.0	4	Torque -	8.9 - 9.0		Torque -
4.0 - 4.1	7		9.0 - 9.1		
4.1 - 4.2	10		9.1 - 9.2		
4.2 - 4.3	8		9.2 - 9.3		
4.3 - 4.4	10		9.3 - 9.4		
4.4 - 4.5	11		9.4 - 9.5		
4.5 - 4.6	12		9.5 - 9.6		
4.6 - 4.7	12		9.6 - 9.7		
4.7 - 4.8	12		9.7 - 9.8		
4.8 - 4.9	12		9.8 - 9.9		
4.9 - 5.0	12	Torque -	9.9 - 10.0		Torque -

Notes: N100 = blows per 100mm

Rig: Archway/Terrier/Lightweight

Sacrificial cone YES/NO

Type: Heavy(DPH)/Superheavy(DPSH)

Client: hydrok	**Date:** 15/3/23
Site: harefield academy	**Crew:** Dean

Appendix E Geotechnical test results and geotechnical plots

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.3 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

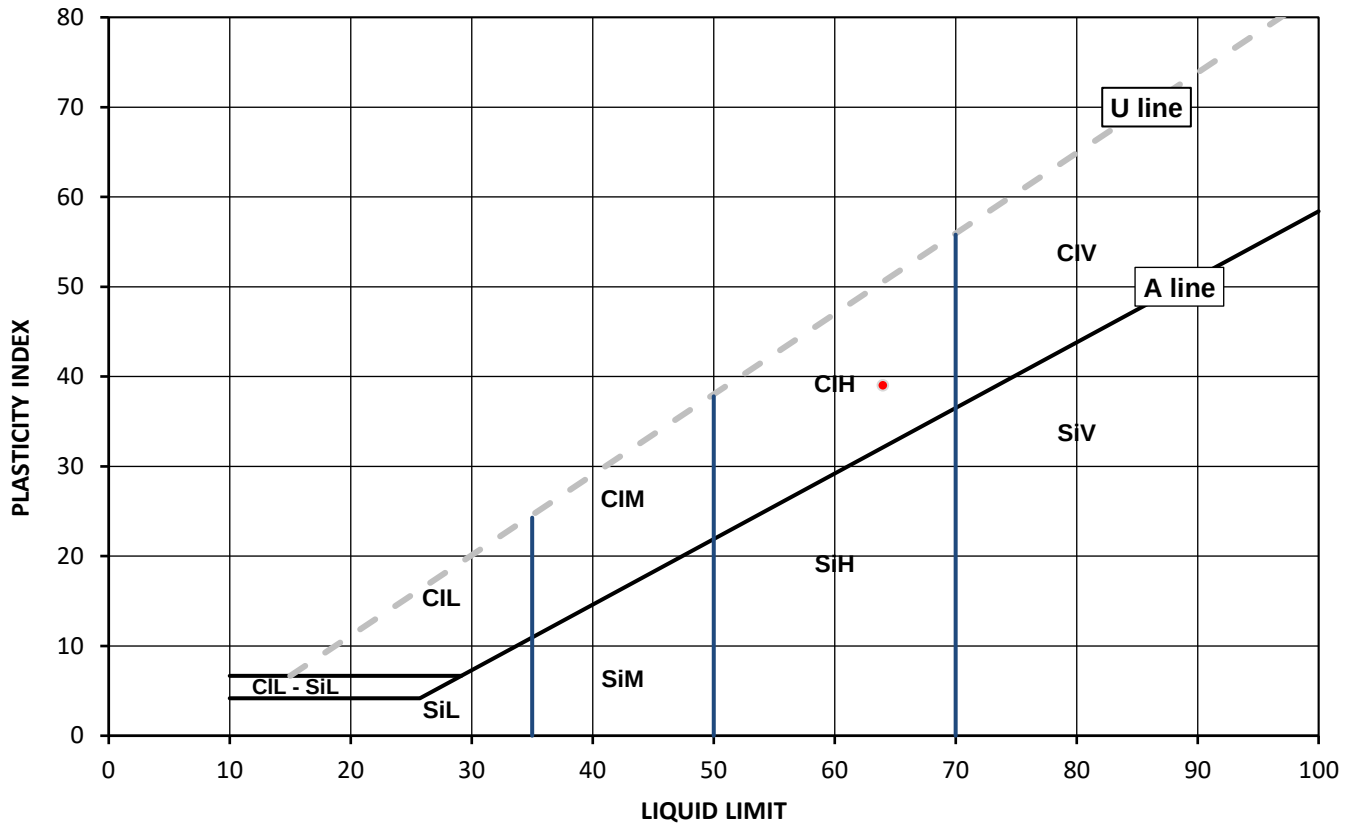
Client:	Hydrock Consultants Ltd	Client Reference:	27471
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	23-25414-1
		Date Sampled:	Not Given
		Date Received:	17/03/2023
Contact:	Joe Sparks	Date Tested:	03/04/2023
Site Address:	Harefield Academy	Sampled By:	Client - JF

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2632067	Depth Top [m]:	3.00
Hole No.:	BH2A	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brownish grey slightly gravelly CLAY		
Sample Preparation:	Tested after >425um removed by hand		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
25	64	25	39	99



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

 Date Reported: 13/04/2023 **GF 236.12**

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.3 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

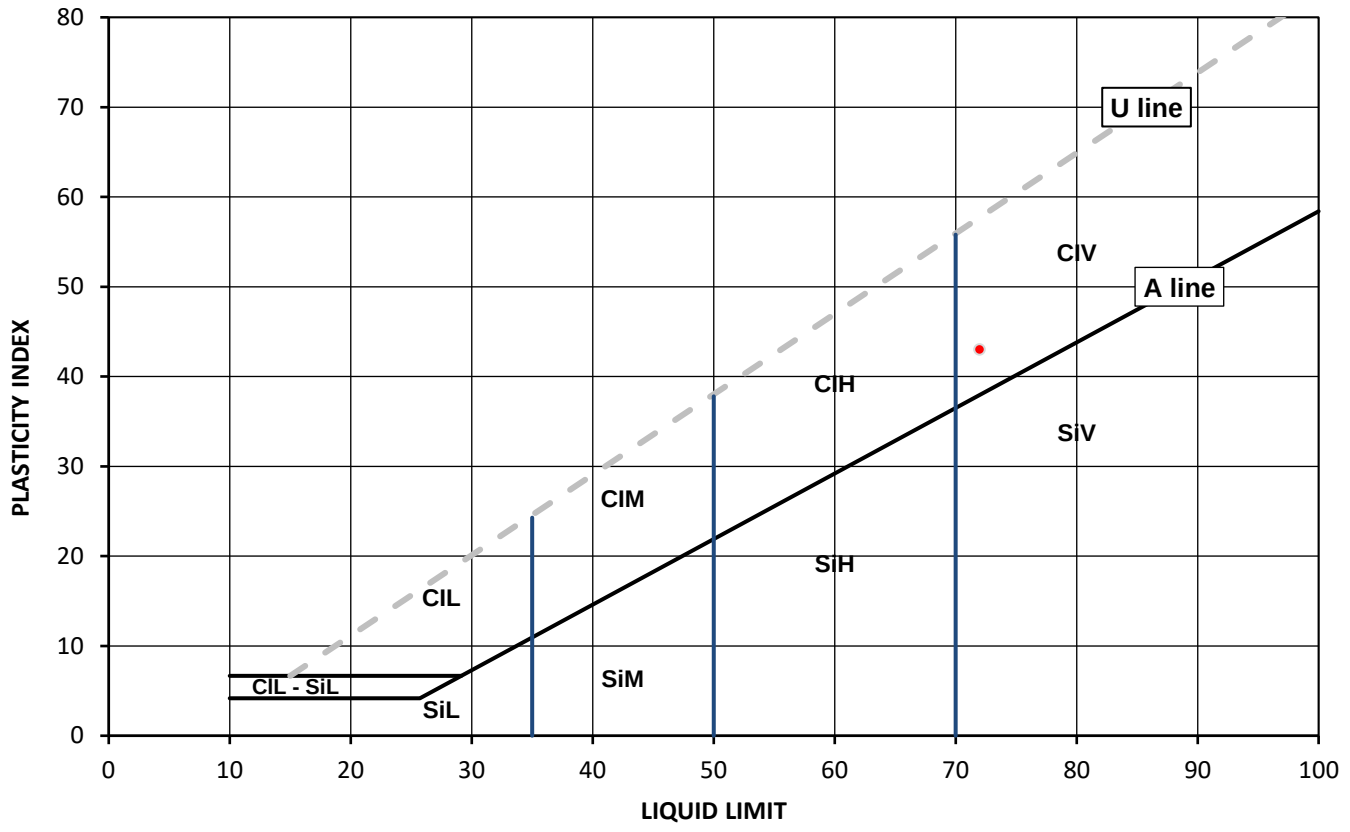
Client:	Hydrock Consultants Ltd	Client Reference:	27471
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	23-25414-1
		Date Sampled:	Not Given
		Date Received:	17/03/2023
Contact:	Joe Sparks	Date Tested:	03/04/2023
Site Address:	Harefield Academy	Sampled By:	Client - JF

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2632068	Depth Top [m]:	7.00
Hole No.:	BH2A	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brownish grey CLAY		
Sample Preparation:	Tested in natural condition		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
27	72	29	43	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

 Date Reported: 13/04/2023 **GF 236.12**

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with:BS 1377-2:1990:Clause 4.3 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

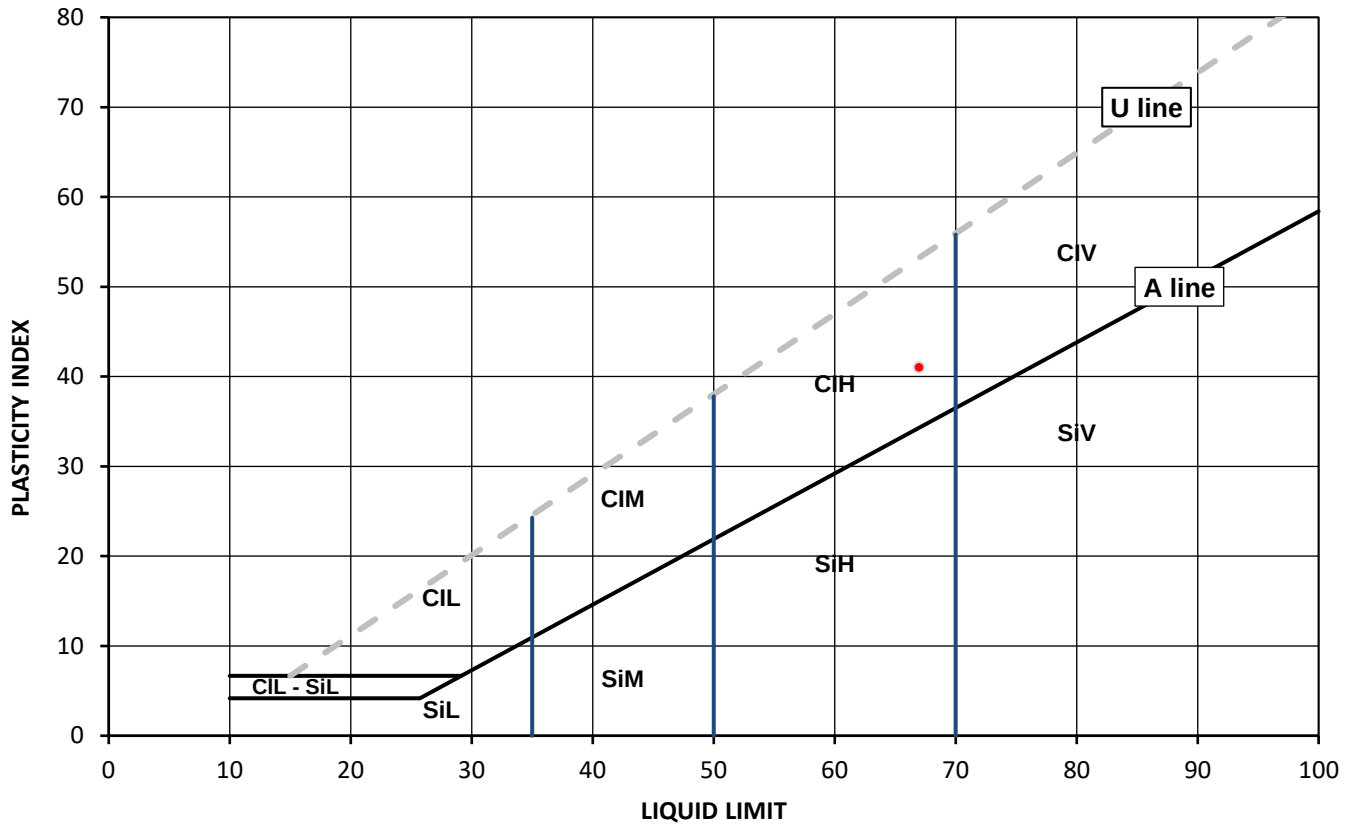
Client:	Hydrock Consultants Ltd	Client Reference:	27471
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	23-25414-1
		Date Sampled:	Not Given
		Date Received:	17/03/2023
Contact:	Joe Sparks	Date Tested:	03/04/2023
Site Address:	Harefield Academy	Sampled By:	Client - JF

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2632069	Depth Top [m]:	10.00
Hole No.:	BH2A	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brownish grey CLAY		
Sample Preparation:	Tested in natural condition		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
27	67	26	41	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 13/04/2023

GF 236.12

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.3 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

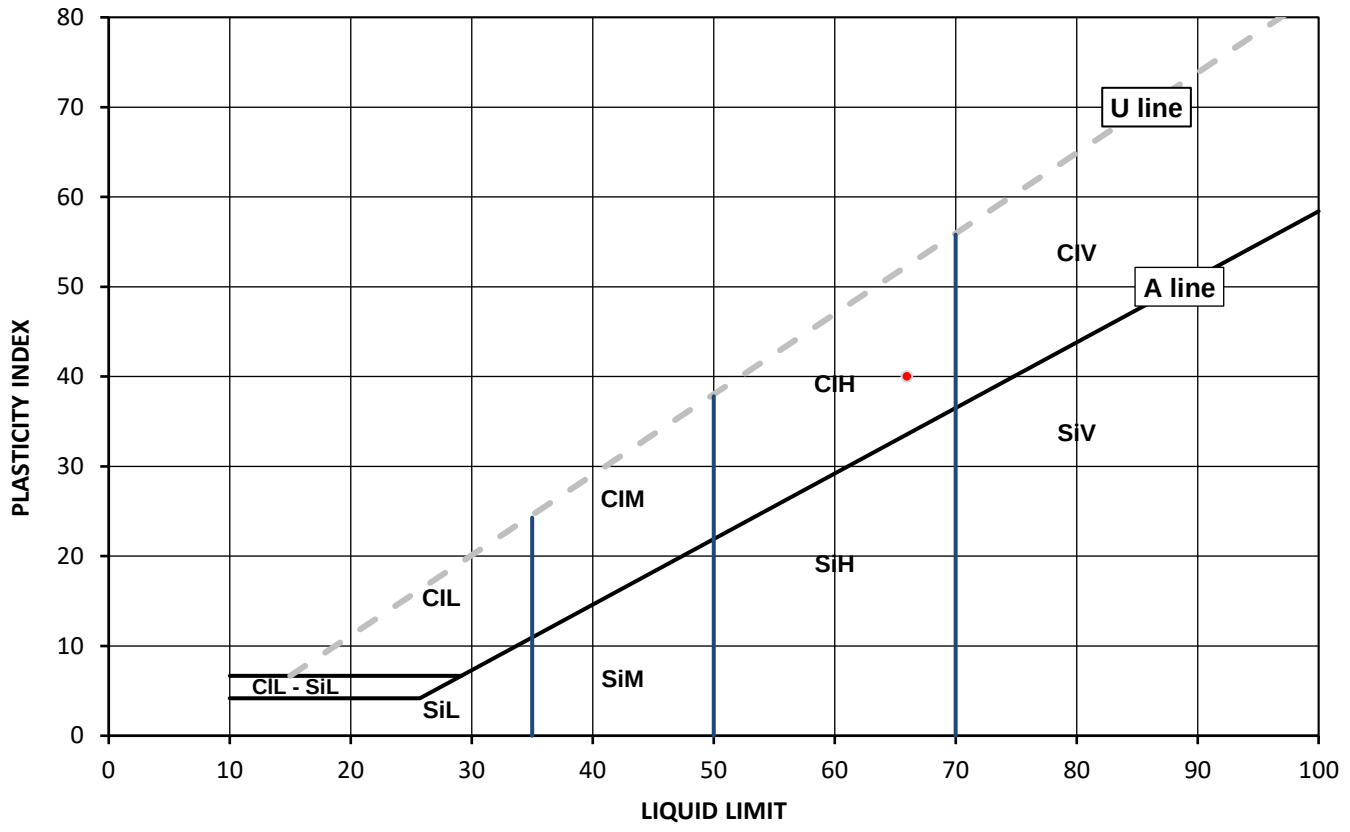
Client:	Hydrock Consultants Ltd	Client Reference:	27471
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	23-25414-1
		Date Sampled:	Not Given
		Date Received:	17/03/2023
Contact:	Joe Sparks	Date Tested:	03/04/2023
Site Address:	Harefield Academy	Sampled By:	Client - JF

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2632070	Depth Top [m]:	14.00
Hole No.:	BH2A	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brownish grey CLAY		
Sample Preparation:	Tested in natural condition		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
25	66	26	40	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

 Date Reported: 13/04/2023 **GF 236.12**

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.3 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

UKAS TESTING
4041

Environmental Science

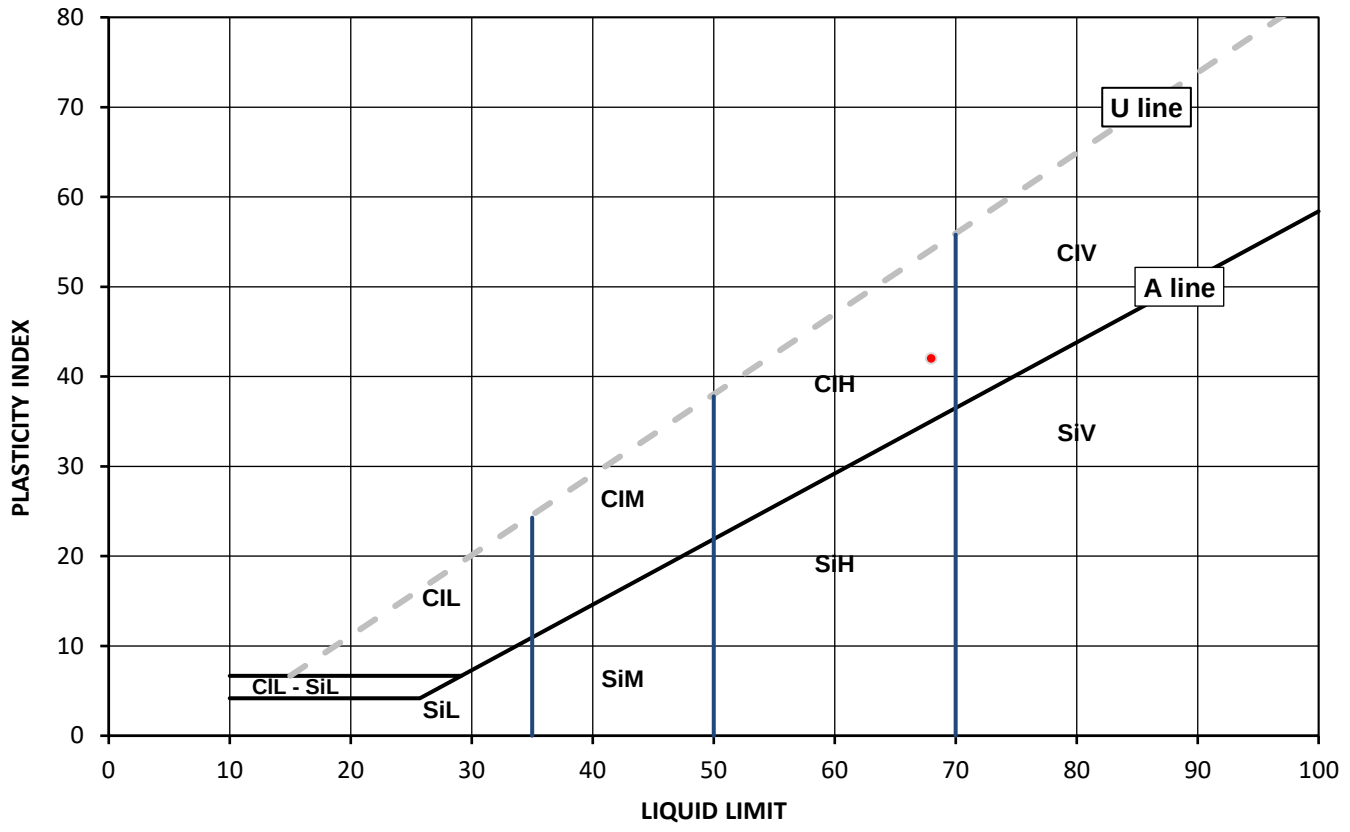
Client:	Hydrock Consultants Ltd	Client Reference:	27471
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	23-25414-1
		Date Sampled:	Not Given
		Date Received:	17/03/2023
Contact:	Joe Sparks	Date Tested:	03/04/2023
Site Address:	Harefield Academy	Sampled By:	Client - JF

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2632076	Depth Top [m]:	3.00
Hole No.:	WS1	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Greyish brown CLAY		
Sample Preparation:	Tested in natural condition		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
29	68	26	42	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 13/04/2023

GF 236.12

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.3 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

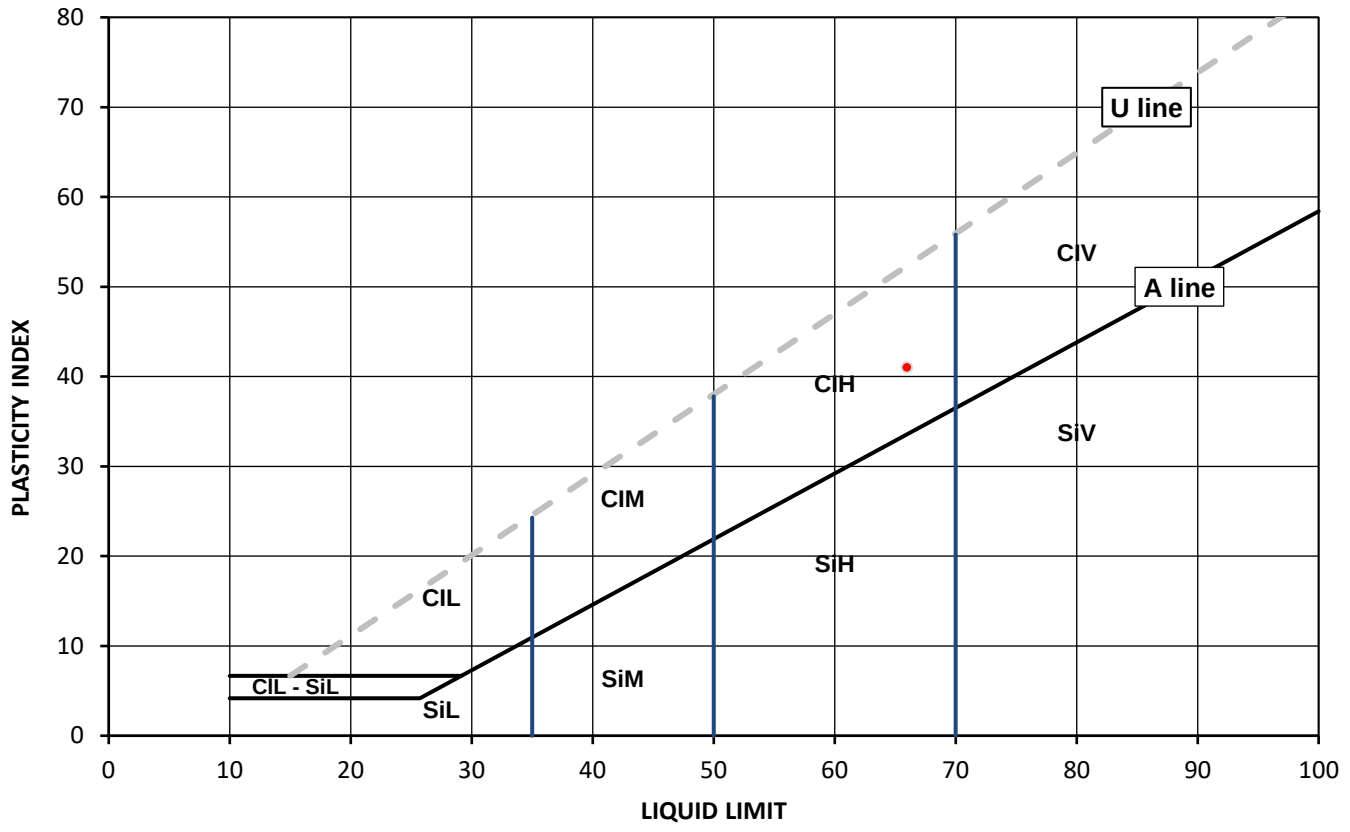
Client:	Hydrock Consultants Ltd	Client Reference:	27471
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	23-25414-1
		Date Sampled:	Not Given
		Date Received:	17/03/2023
Contact:	Joe Sparks	Date Tested:	03/04/2023
Site Address:	Harefield Academy	Sampled By:	Client - JF

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2632078	Depth Top [m]:	2.00
Hole No.:	WS2	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brownish grey slightly gravelly CLAY		
Sample Preparation:	Tested after >425um removed by hand		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
31	66	25	41	72



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 13/04/2023

GF 236.12

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with:BS 1377-2:1990:Clause 4.3 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

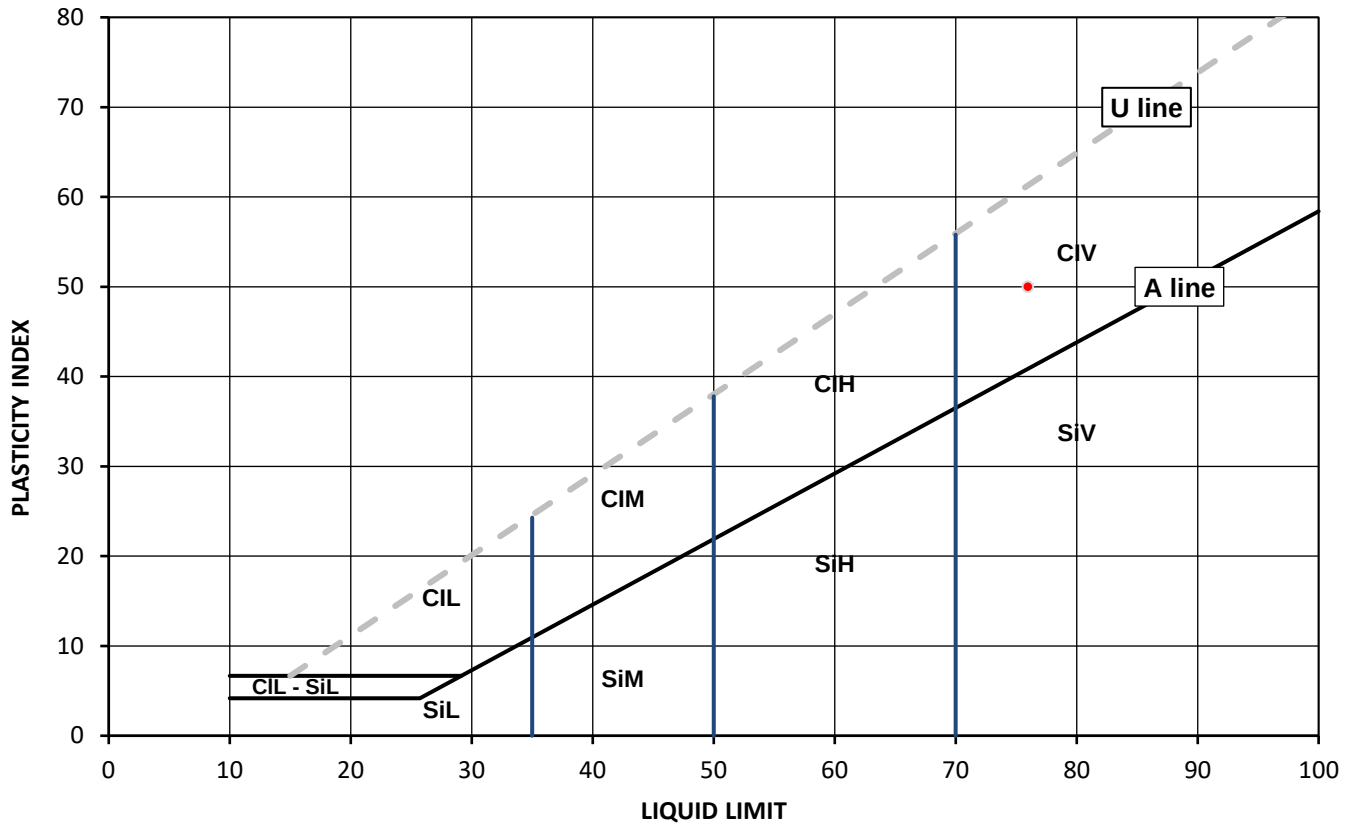
Client:	Hydrock Consultants Ltd	Client Reference:	27471
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	23-25414-1
		Date Sampled:	Not Given
		Date Received:	17/03/2023
Contact:	Joe Sparks	Date Tested:	03/04/2023
Site Address:	Harefield Academy	Sampled By:	Client - JF

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2632079	Depth Top [m]:	1.20
Hole No.:	TP@WS3	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brownish grey CLAY		
Sample Preparation:	Tested in natural condition		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
34	76	26	50	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 13/04/2023

GF 236.12

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.3 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

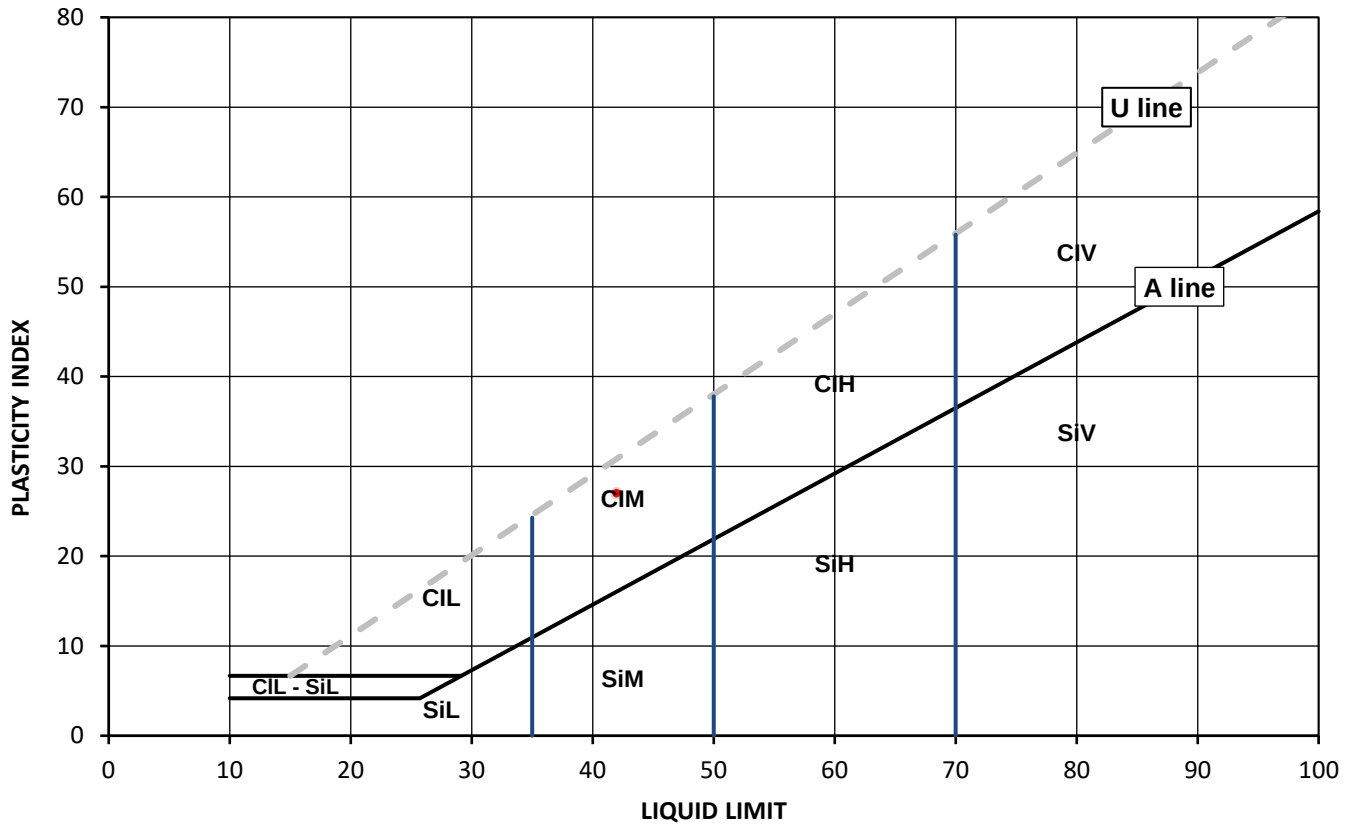
Client:	Hydrock Consultants Ltd	Client Reference:	27471
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	23-25414-1
		Date Sampled:	Not Given
		Date Received:	17/03/2023
Contact:	Joe Sparks	Date Tested:	03/04/2023
Site Address:	Harefield Academy	Sampled By:	Client - JF

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2632080	Depth Top [m]:	0.80
Hole No.:	TP8	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brownish grey slightly gravelly sandy CLAY		
Sample Preparation:	Tested after >425um removed by hand		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
18	42	15	27	91



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

 Date Reported: 13/04/2023 **GF 236.12**

SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

Tested in Accordance with:

Water Content by BS 1377-2:1990: Clause 3.2Atterberg by BS 1377-2: 1990: Clause 4.3 (4 Point Test), Clause 4.4 (1 Point Test) and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: Hydrock Consultants Ltd

Client Address: 5-7 Tanner Street, London, SE1 3LE

Contact: Joe Sparks

Site Address: Harefield Academy

Client Reference: 27471
Job Number: 23-25414-1
Date Sampled: Not Given
Date Received: 17/03/2023
Date Tested: 03/04/2023
Sampled By: Client - JF

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	Water Content BS 1377-2 [W]	Water Content BS EN ISO 17892-2 [W]	Atterberg				Density			Total Porosity#		
		Reference	Depth Top	Depth Base	Type					% Passing 425um	WL	Wp	Ip	bulk	dry	PD			
			m	m				%	%	%	%	%	%	Mg/m3	Mg/m3	Mg/m3	%		
2632067	BH2A	Not Given	3.00	Not Given	D	Brownish grey slightly gravelly CLAY	Atterberg 4 Point	25		99	64	25	39						
2632068	BH2A	Not Given	7.00	Not Given	D	Brownish grey CLAY	Atterberg 4 Point	27		100	72	29	43						
2632069	BH2A	Not Given	10.00	Not Given	D	Brownish grey CLAY	Atterberg 4 Point	27		100	67	26	41						
2632070	BH2A	Not Given	14.00	Not Given	D	Brownish grey CLAY	Atterberg 4 Point	25		100	66	26	40						
2632076	WS1	Not Given	3.00	Not Given	D	Greyish brown CLAY	Atterberg 4 Point	29		100	68	26	42						
2632078	WS2	Not Given	2.00	Not Given	D	Brownish grey slightly gravelly CLAY	Atterberg 4 Point	31		72	66	25	41						
2632079	TP@WS3	Not Given	1.20	Not Given	D	Brownish grey CLAY	Atterberg 4 Point	34		100	76	26	50						
2632080	TP8	Not Given	0.80	Not Given	D	Brownish grey slightly gravelly sandy CLAY	Atterberg 4 Point	18		91	42	15	27						

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 13/04/2023

GF 238.15

SUMMARY REPORT

DETERMINATION OF WATER CONTENT

Tested in Accordance with: BS 1377-2: 1990: Clause 3.2

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: Hydrock Consultants Ltd

Client Address: 5-7 Tanner Street, London, SE1 3LE

Contact: Joe Sparks

Site Address: Harefield Academy

Client Reference: 27471
Job Number: 23-25414-1
Date Sampled: Not Given
Date Received: 17/03/2023
Date Tested: 03/04/2023
Sampled By: Client - JF

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC	Sample preparation / Oven temperature at the time of testing			
		Reference	Depth Top m	Depth Base m	Type			%				
2632067	BH2A	Not Given	3.00	Not Given	D	Brownish grey slightly gravelly CLAY		25	Sample was quartered, oven dried at 107.1 °C			
2632068	BH2A	Not Given	7.00	Not Given	D	Brownish grey CLAY		27	Sample was quartered, oven dried at 107.1 °C			
2632069	BH2A	Not Given	10.00	Not Given	D	Brownish grey CLAY		27	Sample was quartered, oven dried at 107.1 °C			
2632070	BH2A	Not Given	14.00	Not Given	D	Brownish grey CLAY		25	Sample was quartered, oven dried at 107.1 °C			
2632076	WS1	Not Given	3.00	Not Given	D	Greyish brown CLAY		29	Sample was quartered, oven dried at 107.1 °C			
2632078	WS2	Not Given	2.00	Not Given	D	Brownish grey slightly gravelly CLAY		31	Sample was quartered, oven dried at 107.1 °C			
2632079	TP@WS3	Not Given	1.20	Not Given	D	Brownish grey CLAY		34	Sample was quartered, oven dried at 107.1 °C			
2632080	TP8	Not Given	0.80	Not Given	D	Brownish grey slightly gravelly sandy CLAY		18	Sample was quartered, oven dried at 107.1 °C			

Comments:

Signed:

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 13/04/2023

GF 099.16

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

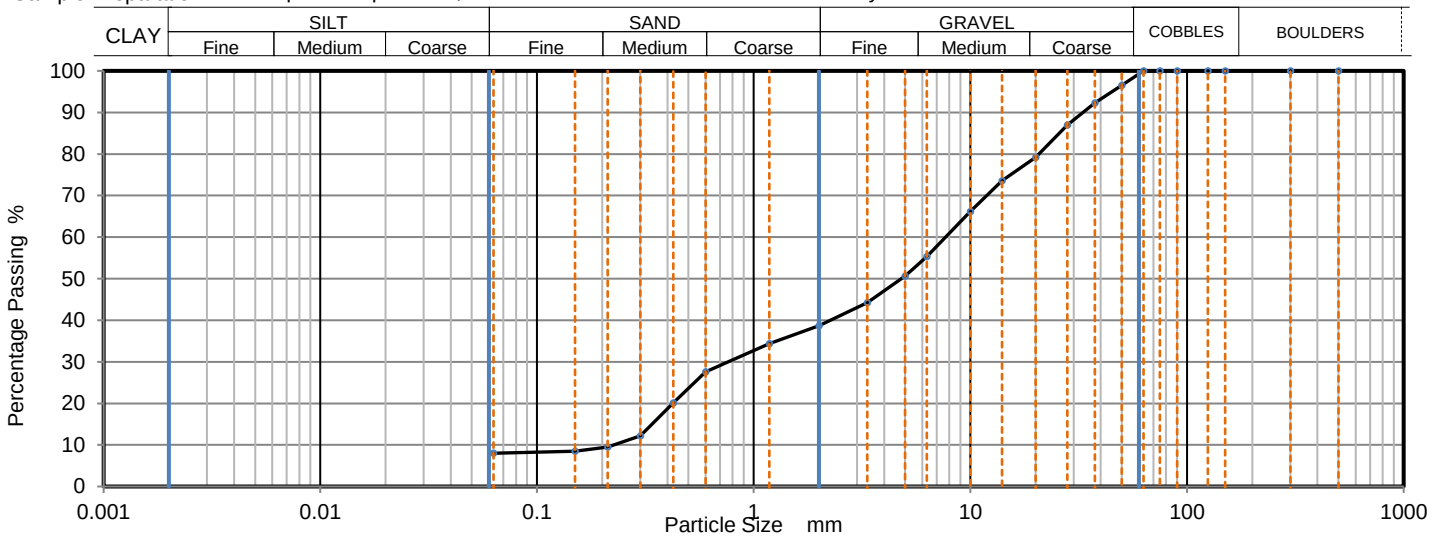
4041

Client:	Hydrock Consultants Ltd	Client Reference:	27471
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	23-25414-1
		Date Sampled:	Not Given
		Date Received:	17/03/2023
Contact:	Joe Sparks	Date Tested:	06/04/2023
Site Address:	Harefield Academy	Sampled By:	Client - JF

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2632071	Depth Top [m]:	2.00
Hole No.:	BH2A	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Yellowish brown sandy GRAVEL		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	97		
37.5	92		
28	87		
20	79		
14	74		
10	66		
6.3	55		
5	51		
3.35	44		
2	39		
1.18	34		
0.6	28		
0.425	20		
0.3	12		
0.212	10		
0.15	9		
0.063	8		

Sample Proportions	% dry mass
Very coarse	0
Gravel	61
Sand	31
Fines <0.063mm	8

Grading Analysis		
D100	mm	63
D60	mm	7.7
D30	mm	0.762
D10	mm	0.226
Uniformity Coefficient		34
Curvature Coefficient		0.33

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 13/04/2023

GF 100.22

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

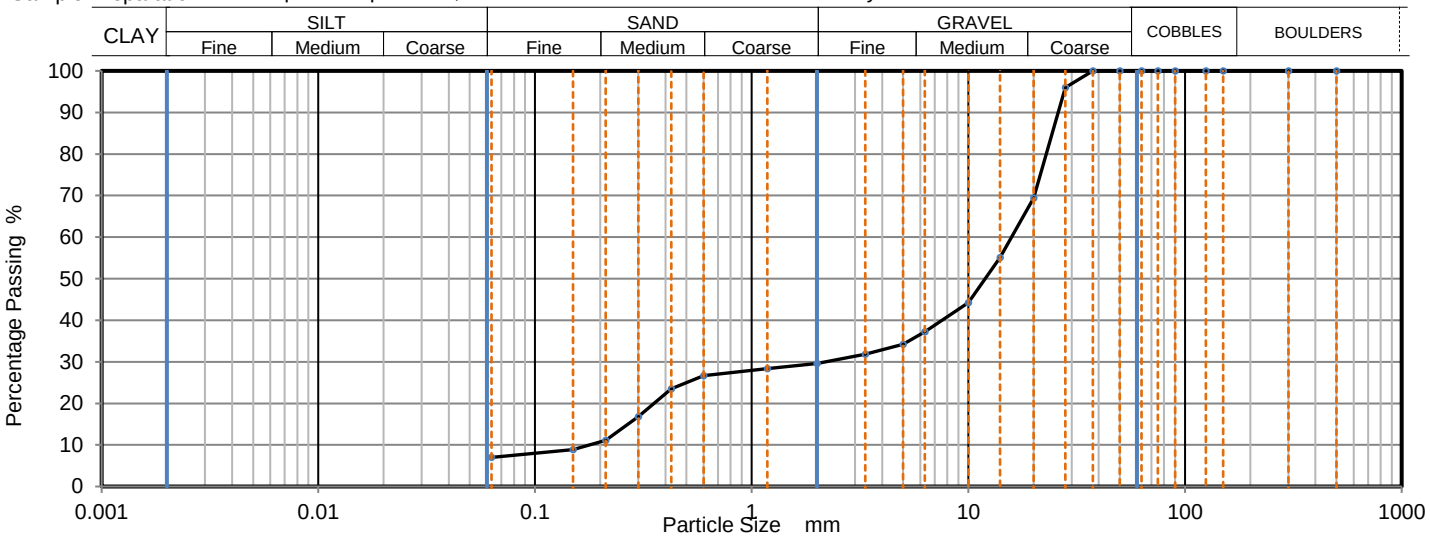
4041

Client:	Hydrock Consultants Ltd	Client Reference:	27471
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	23-25414-1
		Date Sampled:	Not Given
		Date Received:	17/03/2023
Contact:	Joe Sparks	Date Tested:	03/04/2023
Site Address:	Harefield Academy	Sampled By:	Client - JF

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2632077	Depth Top [m]:	2.00
Hole No.:	WS1	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown sandy GRAVEL		
Sample Preparation:	Sample was quartered, oven dried at 107.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	96		
20	69		
14	55		
10	44		
6.3	37		
5	34		
3.35	32		
2	30		
1.18	28		
0.6	27		
0.425	24		
0.3	17		
0.212	11		
0.15	9		
0.063	8		

Sample Proportions	% dry mass
Very coarse	0
Gravel	70
Sand	22
Fines <0.063mm	8

Grading Analysis		
D100	mm	37.5
D60	mm	15.8
D30	mm	2.21
D10	mm	0.179
Uniformity Coefficient		89
Curvature Coefficient		1.7

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks: The material submitted - fails to meet the minimum mass requirements as stated in BS1377 Part 2 Table 3

Signed: Dudzinska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 13/04/2023

GF 100.22

TEST CERTIFICATE

DETERMINATION OF THE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

Tested in Accordance with: BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

UKAS TESTING 4041

Environmental Science

Client:	Hydrock Consultants Ltd	Client Reference:	27471
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	23-25414-1
		Date Sampled:	Not Given
		Date Received:	17/03/2023
Contact:	Joe Sparks	Date Tested:	11/04/2023
Site Address:	Harefield Academy	Sampled By:	Client - JF

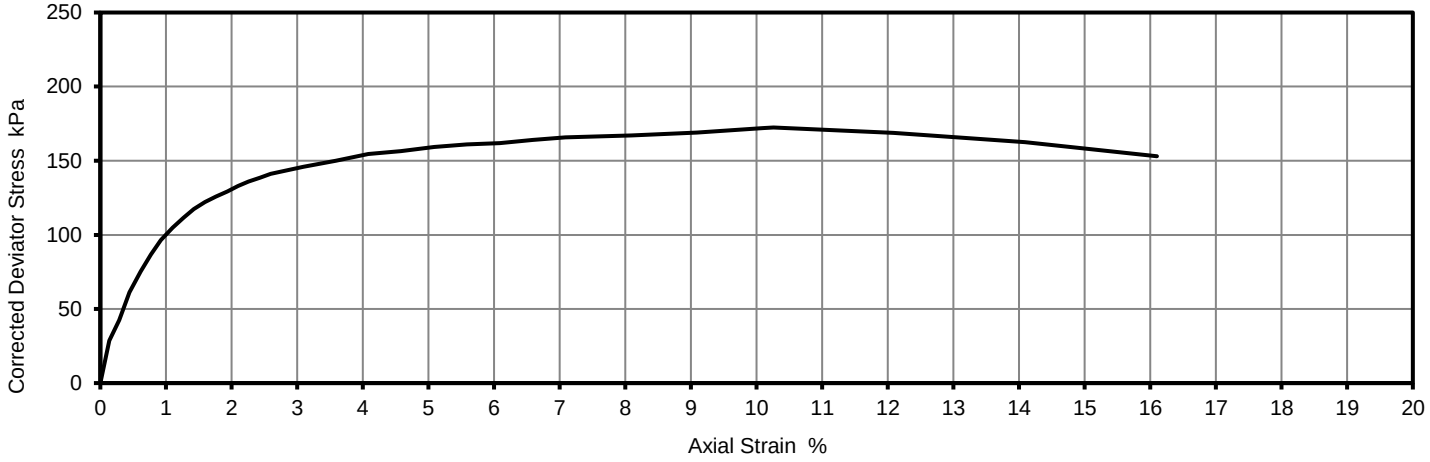
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

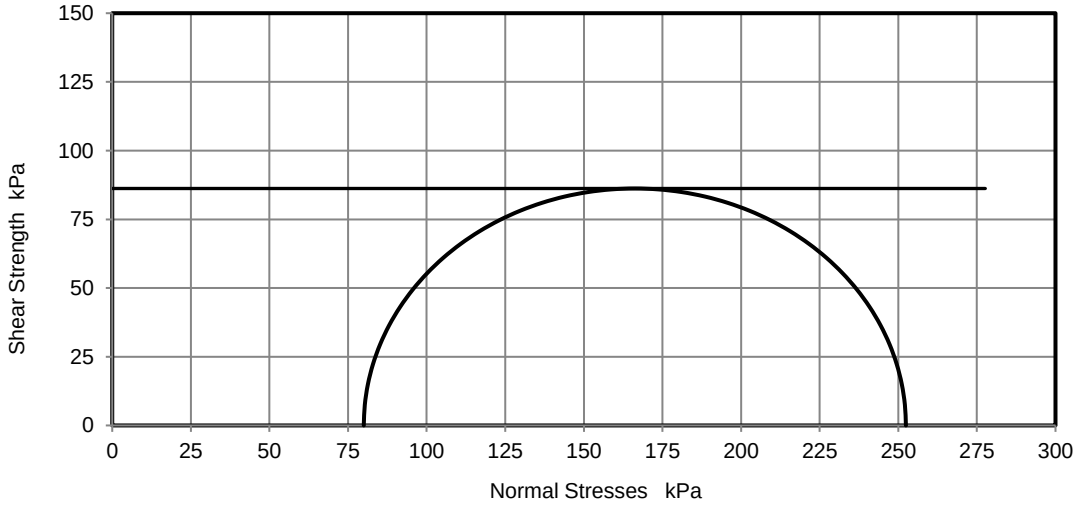
Laboratory Reference:	2632072	Depth Top [m]:	4.00
Hole No.:	BH2A	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	U
Sample Description:	Brown CLAY		
Sample Preparation:	Sample prepared in accordance with BS 1377-1:2016 Clause 9.1.1.		

Test Number	1		Rate of Strain	2.00	%/min
Length	139.81	mm	Cell Pressure	80	kPa
Diameter	68.68	mm	Axial Strain at failure	10.3	%
Bulk Density	1.99	Mg/m3	Deviator Stress, (σ1 - σ3)f	172	kPa
Moisture Content	29	%	Undrained Shear Strength, cu	86	kPa ½(σ1 - σ3)f
Dry Density	1.54	Mg/m3	Mode of Failure	Compound	
Membrane Correction	0.79	kPa	Latex membrane thickness	0.24	mm

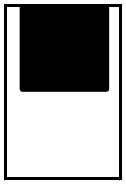
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 13/04/2023

GF 184.13

UKAS TESTING
4041

TEST CERTIFICATE

DETERMINATION OF THE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

Tested in Accordance with: BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

Client:	Hydrock Consultants Ltd	Client Reference:	27471
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	23-25414-1
		Date Sampled:	Not Given
		Date Received:	17/03/2023
Contact:	Joe Sparks	Date Tested:	11/04/2023
Site Address:	Harefield Academy	Sampled By:	Client - JF

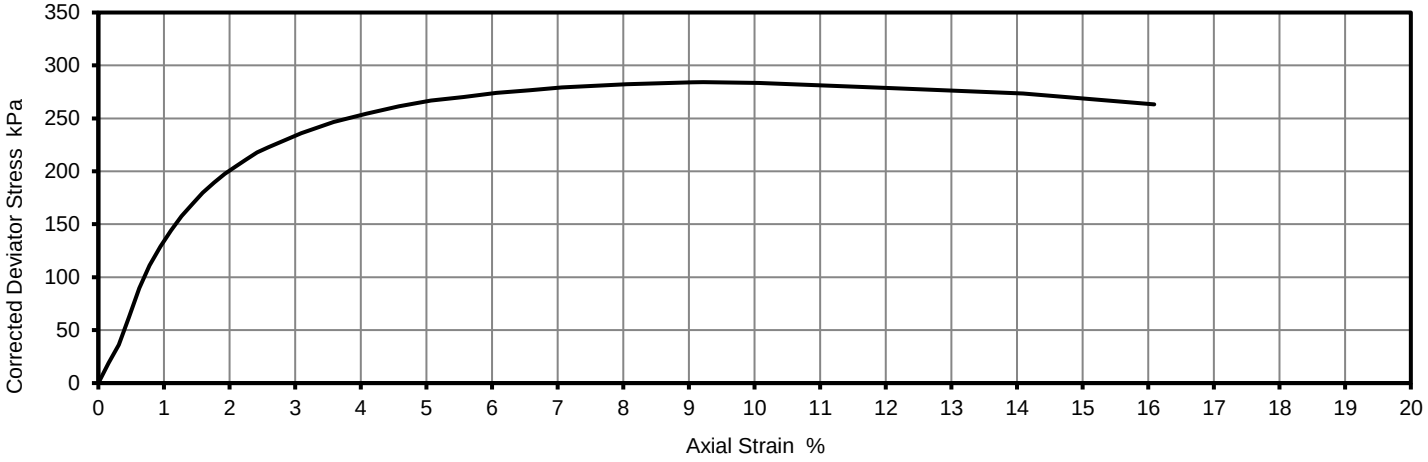
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

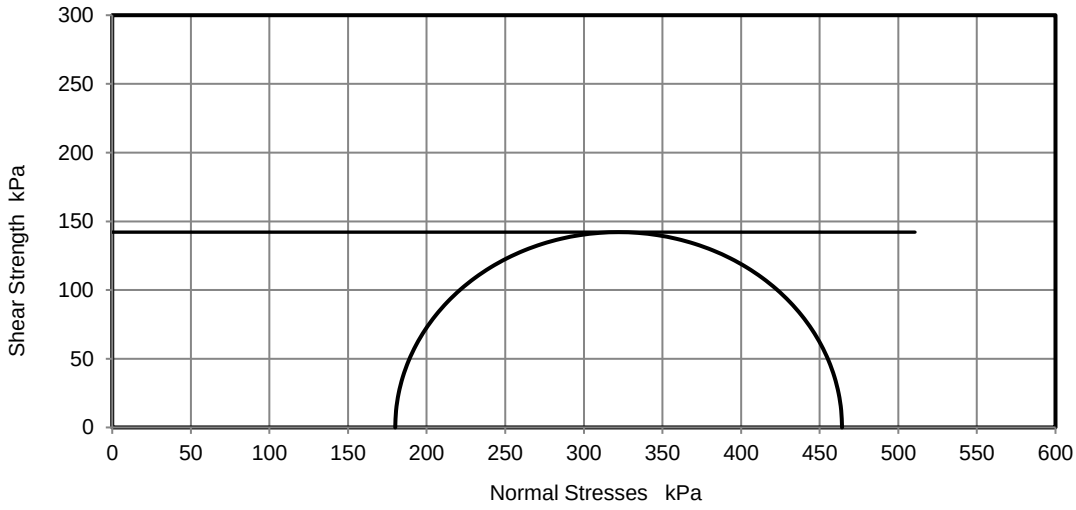
Laboratory Reference:	2632073	Depth Top [m]:	9.00
Hole No.:	BH2A	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	U
Sample Description:	Greyish brown CLAY		
Sample Preparation:	Sample prepared in accordance with BS 1377-1:2016 Clause 9.1.1.		

Test Number	1		Rate of Strain	2.00	%/min
Length	199.75	mm	Cell Pressure	180	kPa
Diameter	102.93	mm	Axial Strain at failure	9.2	%
Bulk Density	2.03	Mg/m3	Deviator Stress, (σ1 - σ3)f	284	kPa
Moisture Content	23	%	Undrained Shear Strength, cu	142	kPa ½(σ1 - σ3)f
Dry Density	1.66	Mg/m3	Mode of Failure	Compound	
Membrane Correction	0.53	kPa	Latex membrane thickness	0.26	mm

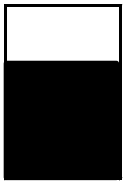
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 13/04/2023

GF 184.13

TEST CERTIFICATE

DETERMINATION OF THE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

Tested in Accordance with: BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

UKAS TESTING 4041

Environmental Science

Client:	Hydrock Consultants Ltd	Client Reference:	27471
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	23-25414-1
		Date Sampled:	Not Given
		Date Received:	17/03/2023
Contact:	Joe Sparks	Date Tested:	11/04/2023
Site Address:	Harefield Academy	Sampled By:	Client - JF

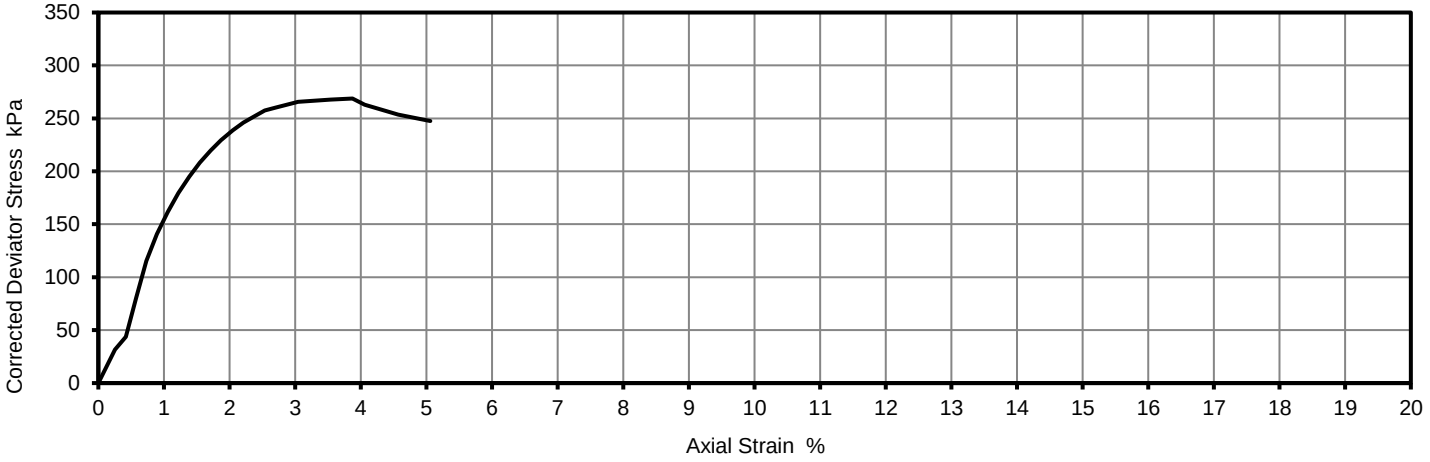
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

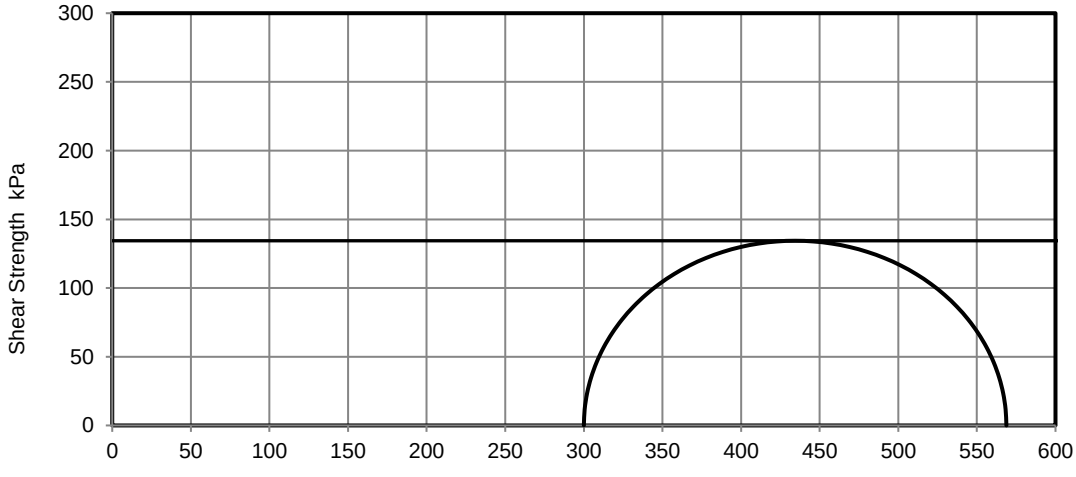
Laboratory Reference:	2632075	Depth Top [m]:	15.00
Hole No.:	BH2A	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	U
Sample Description:	Greyish brown CLAY		
Sample Preparation:	Sample prepared in accordance with BS 1377-1:2016 Clause 9.1.1.		

Test Number	1		Rate of Strain	2.00	%/min
Length	199.85	mm	Cell Pressure	300	kPa
Diameter	102.36	mm	Axial Strain at failure	3.9	%
Bulk Density	2.04	Mg/m3	Deviator Stress, (σ1 - σ3)f	269	kPa
Moisture Content	24	%	Undrained Shear Strength, cu	134	kPa ½(σ1 - σ3)f
Dry Density	1.65	Mg/m3	Mode of Failure	Brittle	
Membrane Correction	0.28	kPa	Latex membrane thickness	0.27	mm

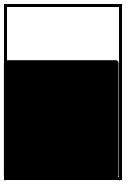
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 13/04/2023

GF 184.13

TEST CERTIFICATE

DETERMINATION OF THE ONE-DIMENSIONAL CONSOLIDATION PROPERTIES

Tested in Accordance with: BS 1377-5:1990: Clause 3

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

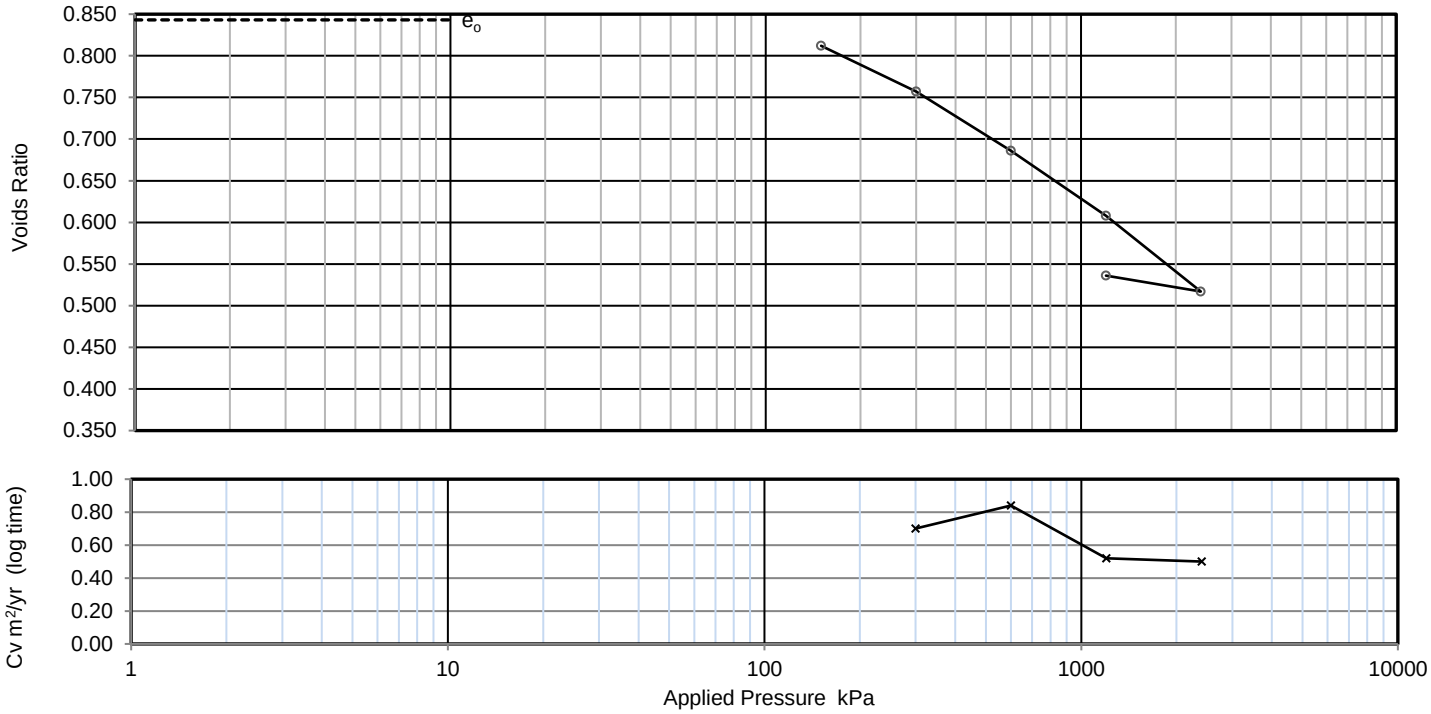
4041

Client:	Hydrock Consultants Ltd	Client Reference:	27471
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	23-25414-1
		Date Sampled:	Not Given
		Date Received:	17/03/2023
Contact:	Joe Sparks	Date Tested:	04/04/2023
Site Address:	Harefield Academy	Sampled By:	Client - JF

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2632074	Depth Top [m]:	12.00
Hole No.:	BH2A	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown CLAY		



Applied Pressure kPa	Voids ratio	Mv m2/MN	Cv (t50, log) m2/yr	Cv (t90, root m2/yr	Csec
0	0.843	-	-	-	-
150	0.812	0.11	N/A	N/A	N/A
300	0.757	0.2	0.7	5.8	0.0013
600	0.686	0.13	0.84	2.1	0.0019
1 200	0.608	0.078	0.52	0.54	0.0025
2 400	0.517	0.047	0.5	0.7	0.0025
1 200	0.536	0.011			

Preparation: Sample carried out on lump

Index tests			
Orientation of the sample	N/A		
Particle density	assumed	2.65	Mg/m3
Liquid limit	N/A		%
Plastic limit	N/A		%

Specimen details	Initial	Final	
Diameter	50.02	-	mm
Height	20.10	16.75	mm
Moisture Content	28	25	%
Bulk density	1.83	2.16	Mg/m3
Dry density	1.44	1.73	Mg/m3
Voids Ratio	0.843	0.536	
Saturation	87	126	%
Avg. temperature for test	22.0		°C
Swelling Pressure	Not measured		kPa
Settlement on saturation			%
Total test time	5		days

Note: Cv corrected to 20°C

Remarks: Stage 1 - swelling

Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 13/04/2023

GF 172.16

Joe Sparks
Hydrock Consultants Ltd
5-7 Tanner Street
London
SE1 3LE

e: joesparks@hydrock.com

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

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 23-25420-2

Replaces Analytical Report Number: 23-25420, issue no. 1
Client sampling date amended.
Sampling date added for all samples as per client's request

Project / Site name:	Harefield Academy	**Samples received on:**	17/03/2023
Your job number:	27471	**Samples instructed on/ Analysis started on:**	28/03/2023
Your order number:	PO25017	**Analysis completed by:**	05/04/2023
Report Issue Number:	2	**Report issued on:**	11/04/2023
Samples Analysed:	4 soil samples		

Signed:

Dominika Warjan
Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

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

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

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

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

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

Analytical Report Number: 23-25420
Project / Site name: Harefield Academy
Your Order No: PO25017

Lab Sample Number				2632115	2632116	2632117	2632118
Sample Reference				BH2A	BH2A	BH2A	WS2
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.00	7.00	14.00	2.00
Date Sampled				17/03/2023	17/03/2023	17/03/2023	16/03/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	11	13	7.6	10
Total mass of sample received	kg	0.001	NONE	0.6	0.6	0.6	0.6

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.5	8.4	8.1	7.4
Total Sulphate as SO4	mg/kg	50	MCERTS	390	670	1800	320
Total Sulphate as SO4	%	0.005	MCERTS	0.039	0.067	0.183	0.032
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.11	0.42	0.82	0.086
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	110	416	822	85.8
Water Soluble Chloride (2:1)	mg/kg	1	MCERTS	8	33	110	11
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	4	17	56	5.5
Total Sulphur	mg/kg	50	MCERTS	210	3100	7500	93
Total Sulphur	%	0.005	MCERTS	0.021	0.307	0.749	0.009
Ammoniacal Nitrogen as NH4	mg/kg	0.5	MCERTS	< 0.5	0.7	1.1	< 0.5
Ammonium as NH4 (10:1 leachate equivalent)	mg/l	0.05	MCERTS	< 0.05	0.07	0.11	< 0.05
Water Soluble Nitrate (2:1) as NO3	mg/kg	2	NONE	< 2.0	< 2.0	2.5	< 2.0
Water Soluble Nitrate (2:1) as NO3 (leachate equivalent)	mg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0

Heavy Metals / Metalloids

Magnesium (water soluble)	mg/kg	5	NONE	39	64	130	26
Magnesium (leachate equivalent)	mg/l	2.5	NONE	20	32	65	13

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

Analytical Report Number : 23-25420
Project / Site name: Harefield Academy

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2632115	BH2A	None Supplied	3	Brown clay and sand.
2632116	BH2A	None Supplied	7	Brown clay.
2632117	BH2A	None Supplied	14	Brown clay.
2632118	WS2	None Supplied	2	Light brown clay and sand.

Analytical Report Number : 23-25420
Project / Site name: Harefield Academy

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser.	In house method.	L082-PL	D	MCERTS
Magnesium, water soluble, in soil	Determination of water soluble magnesium by extraction with water followed by ICP-OES.	In-house method based on TRL 447	L038-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Nitrate, water soluble, in soil	Determination of nitrate by reaction with sodium salicylate and colorimetry.	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08, 2:1 extraction.	L078-PL	D	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Ammonium as NH4 in soil	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method, 10:1 water extraction.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	MCERTS
Total Sulphate in soil as %	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Total Sulphur in soil as %	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Water Soluble Nitrate (leachate equivalent)	Determination of nitrate by reaction with sodium salicylate and colorimetry.	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08, 2:1 extraction.	L078-PL	D	NONE
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

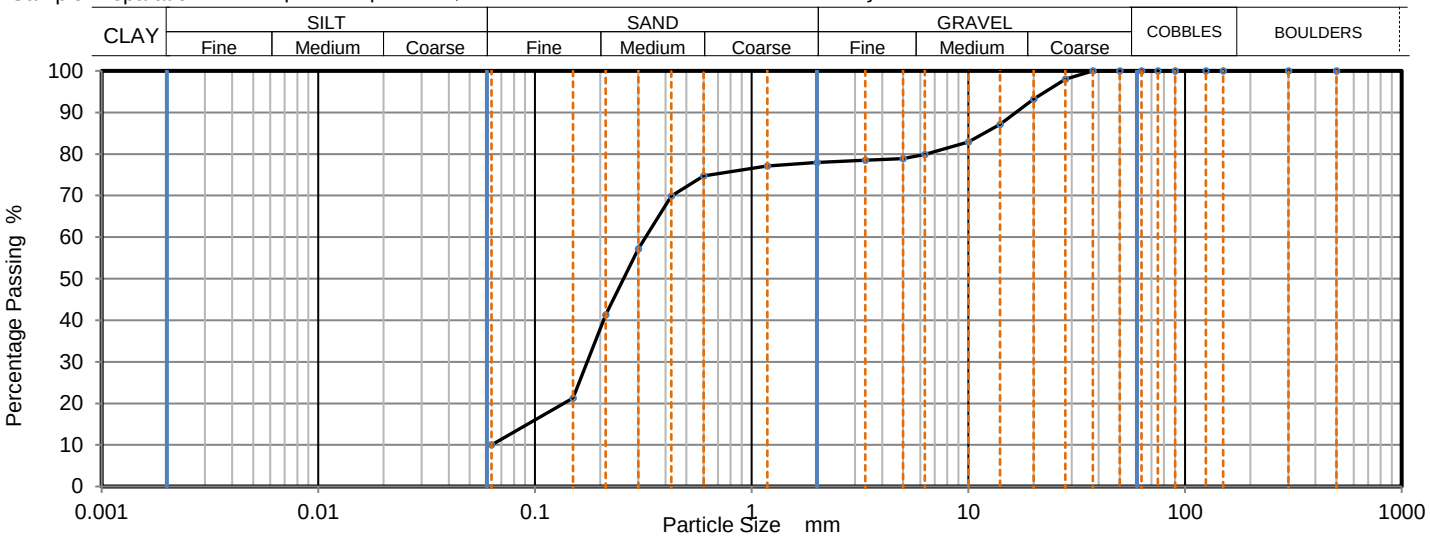
4041

Client:	Hydrock Consultants Ltd	Client Reference:	27471
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	23-26885-1
		Date Sampled:	Not Given
		Date Received:	17/03/2023
Contact:	Joe Sparks	Date Tested:	14/04/2023
Site Address:	Harefield Academy	Sampled By:	Client - JF

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2640057	Depth Top [m]:	1.00
Hole No.:	TP8	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brownish grey gravelly SAND		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	98		
20	93		
14	87		
10	83		
6.3	80		
5	79		
3.35	79		
2	78		
1.18	77		
0.6	75		
0.425	70		
0.3	57		
0.212	41		
0.15	21		
0.063	10		

Sample Proportions	% dry mass
Very coarse	0
Gravel	22
Sand	68
Fines <0.063mm	10

Grading Analysis		
D100	mm	37.5
D60	mm	0.324
D30	mm	0.174
D10	mm	
Uniformity Coefficient		> 5.1
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed:

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 20/04/2023

GF 100.22

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

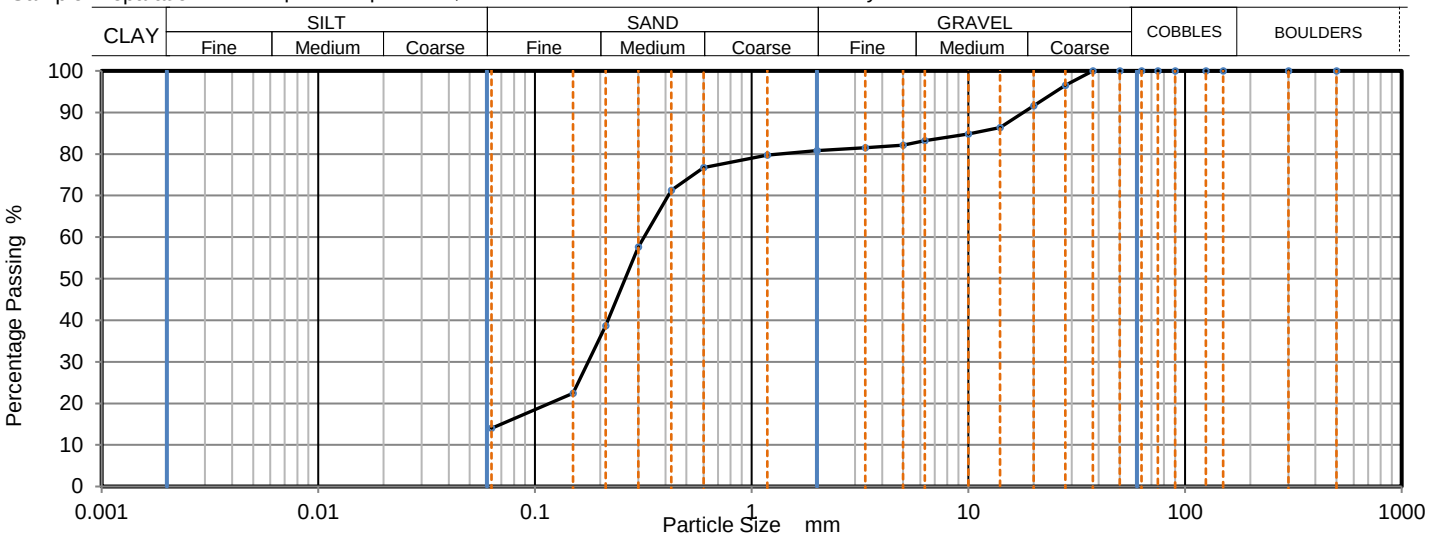
4041

Client:	Hydrock Consultants Ltd	Client Reference:	27471
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	23-26885-1
		Date Sampled:	Not Given
		Date Received:	17/03/2023
Contact:	Joe Sparks	Date Tested:	14/04/2023
Site Address:	Harefield Academy	Sampled By:	Client - JF

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2640058	Depth Top [m]:	1.00
Hole No.:	TP7	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brownish grey clayey SAND		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	97		
20	92		
14	86		
10	85		
6.3	83		
5	82		
3.35	82		
2	81		
1.18	80		
0.6	77		
0.425	71		
0.3	58		
0.212	39		
0.15	22		
0.063	15		

Sample Proportions	% dry mass
Very coarse	0
Gravel	19
Sand	66
Fines <0.063mm	15

Grading Analysis		
D100	mm	37.5
D60	mm	0.319
D30	mm	0.176
D10	mm	
Uniformity Coefficient		> 5.1
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed:

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 20/04/2023

GF 100.22

TEST CERTIFICATE

Determination of TRL Dynamic Cone Penetrometer

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

4041

Client:	Hydrock Consultants Ltd	Client Reference:	PO24500
Client Address:	Northern Assurance Buildings	Job Number:	23-22742_1
	9-21 Princess Street, Albert Square	Date Tested:	16/03/2023
	Manchester	Tested By:	JK
	M2 4DN		
Contact:	Kate Hayward	Weather Conditions:	Clear

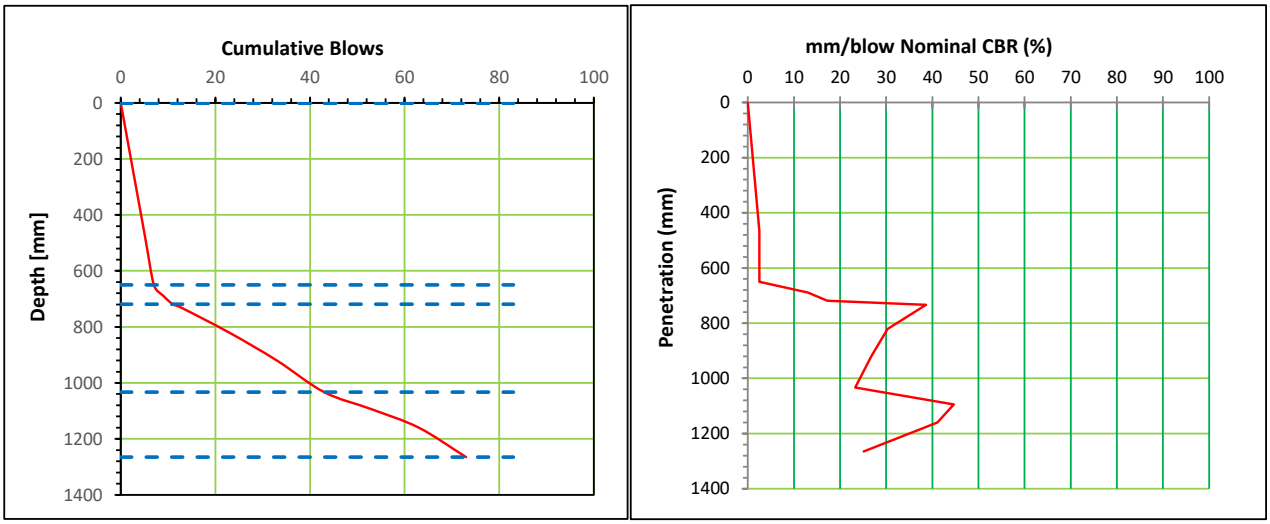
Testing Carried Out At: Harefield Academy, Harefield, Uxbridge, UB9 6ET

Test Results

Test Reference: DCP 1
Test Location: DCP 1
Material Description: Sub-base

DCP Zero at G/L Check [mm]: 0
Self Penetration [mm]: 0
Total Start Depth [mm]: 120

Layer	No of Blows	Cumulative Blows	CBR %	Layer Thickness mm	Total Depth mm
1	7	7	3	650	650
2	4	11	15	69	719
3	32	43	27	314	1033
4	30	73	35	232	1265



Notice: SHW Series 800 Clause 882 Equation 8/1 : Log10(CBR) = 2.480 - 1.057 x Log10(Strength)

Total Thickness Nominal CBR: Calculated from Cumulative blows of 73 and overall penetration of 1265mm = **14.8 %**

Remarks: G/L = Ground Level

SSF82A.8

Date Reported: **20/03/2023**

Signed:

Craig Hawkes
Site Services Operations Supervisor
for and on behalf of i2 Analytical Ltd

TEST CERTIFICATE

Determination of TRL Dynamic Cone Penetrometer

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

4041

Client:	Hydrock Consultants Ltd	Client Reference:	PO24500
Client Address:	Northern Assurance Buildings	Job Number:	23-22742_2
	9-21 Princess Street, Albert Square	Date Tested:	16/03/2023
	Manchester	Tested By:	RK
	M2 4DN		
Contact:	Kate Hayward	Weather Conditions:	Clear

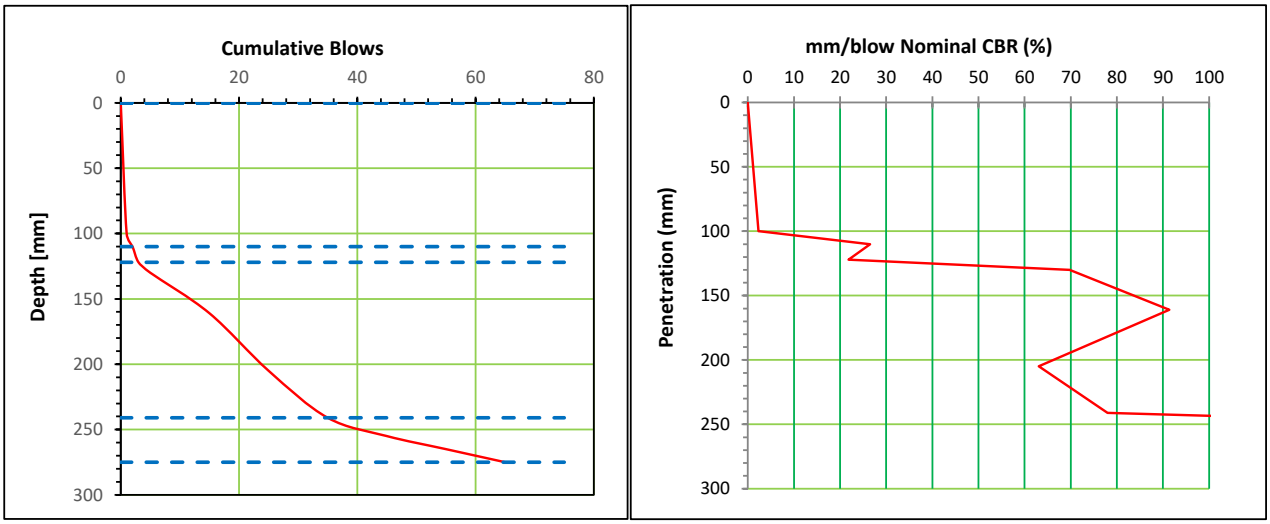
Testing Carried Out At: Harefield Academy, Harefield, Uxbridge, UB9 6ET

Test Results

Test Reference: DCP 2
Test Location: DCP 2
Material Description: Top Soil

DCP Zero at G/L Check [mm]: 0
Self Penetration [mm]: 0
Total Start Depth [mm]: 125

Layer	No of Blows	Cumulative Blows	CBR %	Layer Thickness mm	Total Depth mm
1	2	2	4	110	110
2	1	3	22	12	122
3	32	35	75	119	241
4	30	65	>100	34	275



Notice: SHW Series 800 Clause 882 Equation 8/1 : Log10(CBR) = 2.480 - 1.057 x Log10(Strength)

Total Thickness Nominal CBR: Calculated from Cumulative blows of 65 and overall penetration of 275mm = **65.7 %**

Remarks: G/L = Ground Level. Test stopped due to equipment exceeding 45° angle

SSF82A.8

Date Reported: **20/03/2023**

Signed:

Craig Hawkes
Site Services Operations Supervisor
for and on behalf of i2 Analytical Ltd

TEST CERTIFICATE

Determination of TRL Dynamic Cone Penetrometer

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

4041

Client:	Hydrock Consultants Ltd	Client Reference:	PO24500
Client Address:	Northern Assurance Buildings	Job Number:	23-22742_3
	9-21 Princess Street, Albert Square	Date Tested:	16/03/2023
	Manchester	Tested By:	JK
	M2 4DN		
Contact:	Kate Hayward	Weather Conditions:	Clear

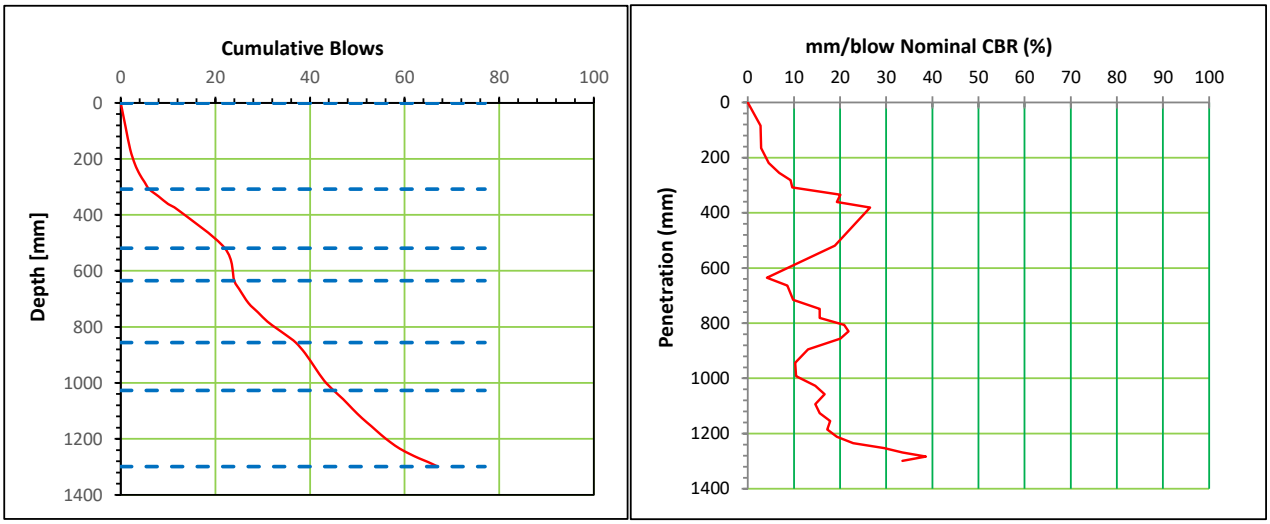
Testing Carried Out At: Harefield Academy, Harefield, Uxbridge, UB9 6ET

Test Results

Test Reference: DCP 3
Test Location: DCP 3
Material Description: Top Soil

DCP Zero at G/L Check [mm]: 0
Self Penetration [mm]: 0
Total Start Depth [mm]: 129

Layer	No of Blows	Cumulative Blows	CBR %	Layer Thickness mm	Total Depth mm
1	6	6	5	308	308
2	16	22	20	211	519
3	2	24	4	116	635
4	13	37	15	221	856
5	8	45	12	171	1027
6	22	67	21	272	1299



Notice: SHW Series 800 Clause 882 Equation 8/1 : Log10(CBR) = 2.480 - 1.057 x Log10(Strength)

Total Thickness Nominal CBR: Calculated from Cumulative blows of 67 and overall penetration of 1299mm = **13.2 %**

Remarks: G/L = Ground Level

SSF82A.8

Date Reported: **20/03/2023**

Signed:

Craig Hawkes
Site Services Operations Supervisor
for and on behalf of i2 Analytical Ltd

TEST CERTIFICATE

Determination of TRL Dynamic Cone Penetrometer

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

4041

Client:	Hydrock Consultants Ltd	Client Reference:	PO24500
Client Address:	Northern Assurance Buildings	Job Number:	23-22742_4
	9-21 Princess Street, Albert Square	Date Tested:	16/03/2023
	Manchester	Tested By:	JK
	M2 4DN		
Contact:	Kate Hayward	Weather Conditions:	Clear

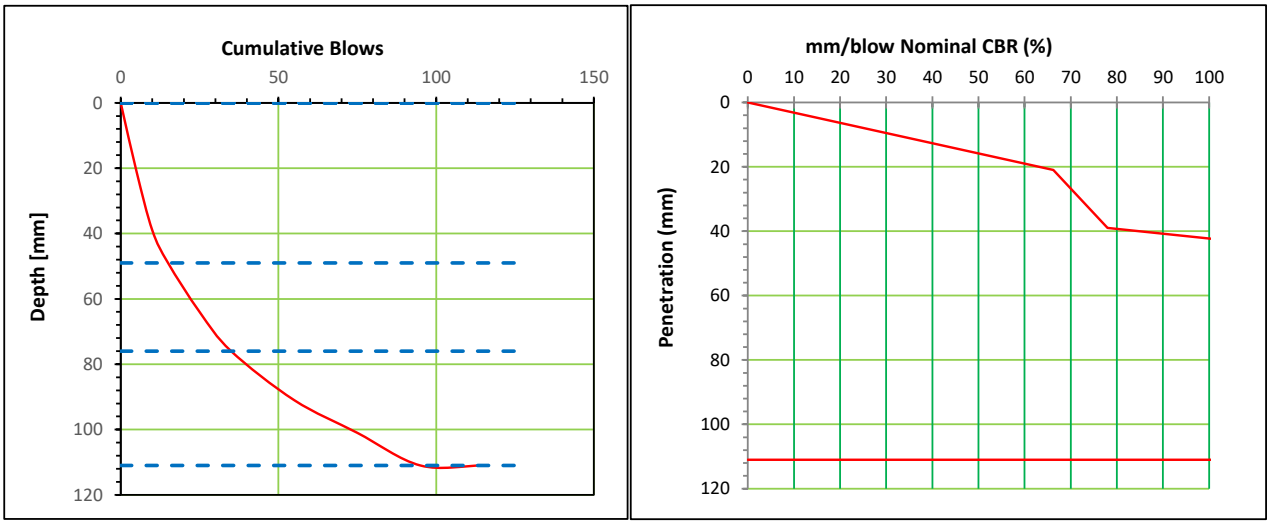
Testing Carried Out At: Harefield Academy, Harefield, Uxbridge, UB9 6ET

Test Results

Test Reference: DCP 4
Test Location: DCP 4
Material Description: Sub-base

DCP Zero at G/L Check [mm]: 0
Self Penetration [mm]: 0
Total Start Depth [mm]: 136

Layer	No of Blows	Cumulative Blows	CBR %	Layer Thickness mm	Total Depth mm
1	15	15	86	49	49
2	20	35	>100	27	76
3	80	115	>100	35	111



Notice: SHW Series 800 Clause 882 Equation 8/1 : Log10(CBR) = 2.480 - 1.057 x Log10(Strength)

Total Thickness Nominal CBR: Calculated from Cumulative blows of 115 and overall penetration of 111mm = **313.5 %**

Remarks: G/L = Ground Level

SSF82A.8
Date Reported: **20/03/2023**

Signed:

Craig Hawkes
Site Services Operations Supervisor
for and on behalf of i2 Analytical Ltd

TEST CERTIFICATE

Determination of TRL Dynamic Cone Penetrometer

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

4041

Client:	Hydrock Consultants Ltd	Client Reference:	PO24500
Client Address:	Northern Assurance Buildings	Job Number:	23-22742_5
	9-21 Princess Street, Albert Square	Date Tested:	16/03/2023
	Manchester	Tested By:	JK/ RK
	M2 4DN		
Contact:	Kate Hayward	Weather Conditions:	Clear

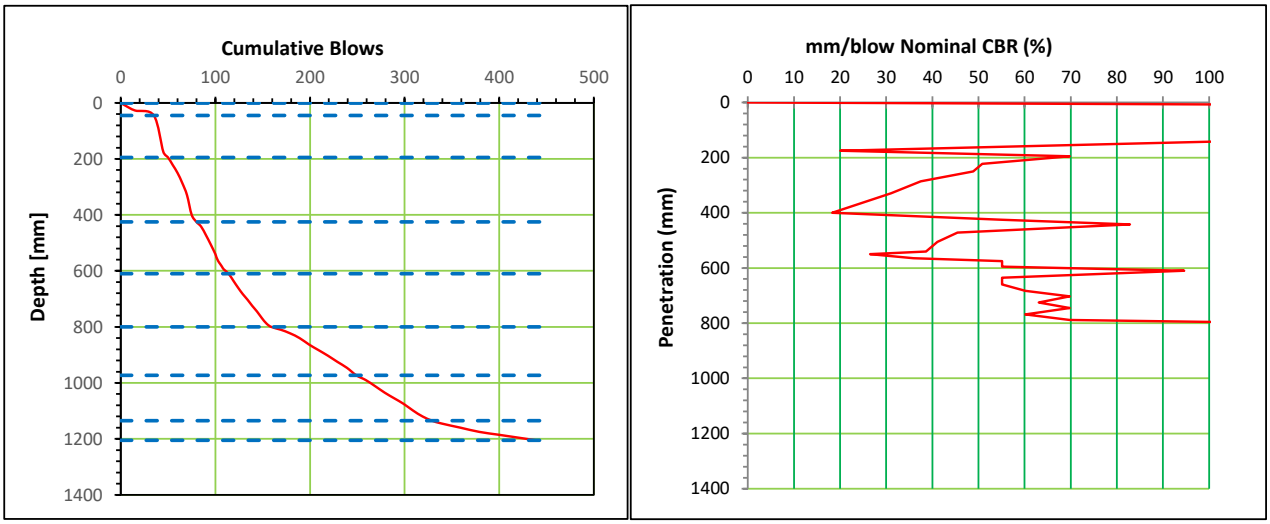
Testing Carried Out At: Harefield Academy, Harefield, Uxbridge, UB9 6ET

Test Results

Test Reference: DCP 5
Test Location: DCP 5
Material Description: Sub-base

DCP Zero at G/L Check [mm]: 0
Self Penetration [mm]: 0
Total Start Depth [mm]: 185

Layer	No of Blows	Cumulative Blows	CBR %	Layer Thickness mm	Total Depth mm
1	35	35	>100	45	45
2	15	50	26	150	195
3	30	80	35	230	425
4	34	114	50	185	610
5	45	159	66	190	800
6	90	249	>100	173	973
7	80	329	>100	162	1135
8	110	439	>100	70	1205



Notice: SHW Series 800 Clause 882 Equation 8/1 : Log10(CBR) = 2.480 - 1.057 x Log10(Strength)

Total Thickness Nominal CBR: Calculated from Cumulative blows of 439 and overall penetration of 1205mm : **103.9 %**

Remarks: G/L = Ground Level

SSF82A.8

Date Reported: **20/03/2023**

Signed:

Craig Hawkes
Site Services Operations Supervisor
for and on behalf of i2 Analytical Ltd

TEST CERTIFICATE

Determination of TRL Dynamic Cone Penetrometer

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

4041

Client:	Hydrock Consultants Ltd	Client Reference:	PO24500
Client Address:	Northern Assurance Buildings	Job Number:	23-22742_6
	9-21 Princess Street, Albert Square	Date Tested:	16/03/2023
	Manchester	Tested By:	JK/ RK
	M2 4DN		
Contact:	Kate Hayward	Weather Conditions:	Clear

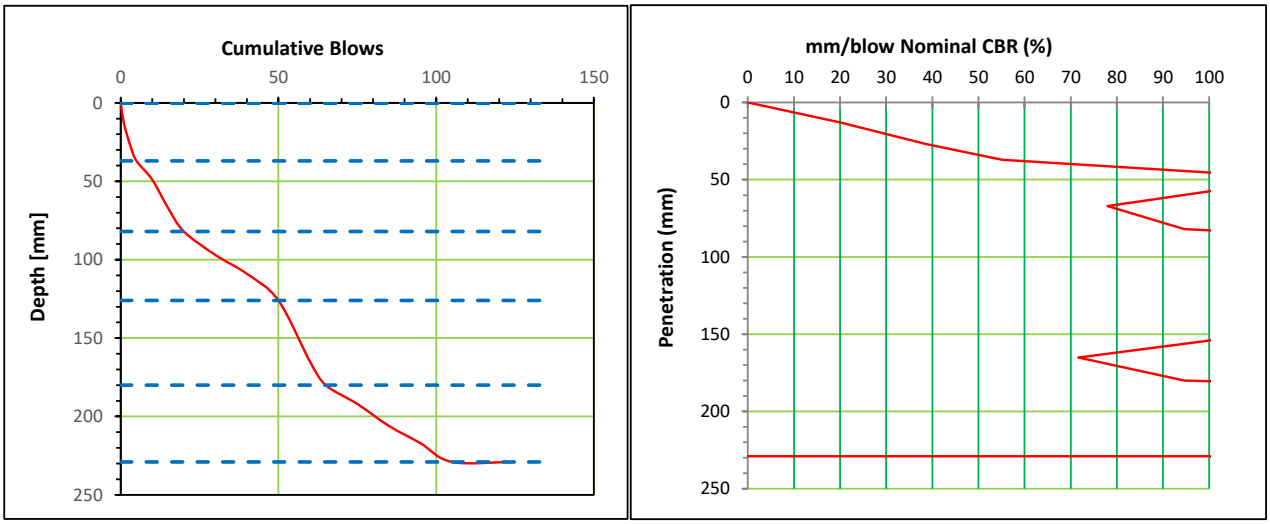
Testing Carried Out At: Harefield Academy, Harefield, Uxbridge, UB9 6ET

Test Results

Test Reference: DCP 6
Test Location: DCP 6
Material Description: Sub-base

DCP Zero at G/L Check [mm]: 0
Self Penetration [mm]: 0
Total Start Depth [mm]: 138

Layer	No of Blows	Cumulative Blows	CBR %	Layer Thickness mm	Total Depth mm
1	5	5	36	37	37
2	15	20	95	45	82
3	30	50	>100	44	126
4	15	65	78	54	180
5	60	125	>100	49	229



Notice: SHW Series 800 Clause 882 Equation 8/1 : Log10(CBR) = 2.480 - 1.057 x Log10(Strength)

Total Thickness Nominal CBR: Calculated from Cumulative blows of 125 and overall penetration of 229mm = **159.3 %**

Remarks: G/L = Ground Level. Test stopped as unable to penetrate any further

SSF82A.8

Date Reported: **20/03/2023**

Signed:

Craig Hawkes
Site Services Operations Supervisor
for and on behalf of i2 Analytical Ltd

TEST CERTIFICATE

Determination of TRL Dynamic Cone Penetrometer

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

4041

Client:	Hydrock Consultants Ltd	Client Reference:	PO24500
Client Address:	Northern Assurance Buildings	Job Number:	23-22742_7
	9-21 Princess Street, Albert Square	Date Tested:	16/03/2023
	Manchester	Tested By:	JK/ RK
	M2 4DN		
Contact:	Kate Hayward	Weather Conditions:	Clear

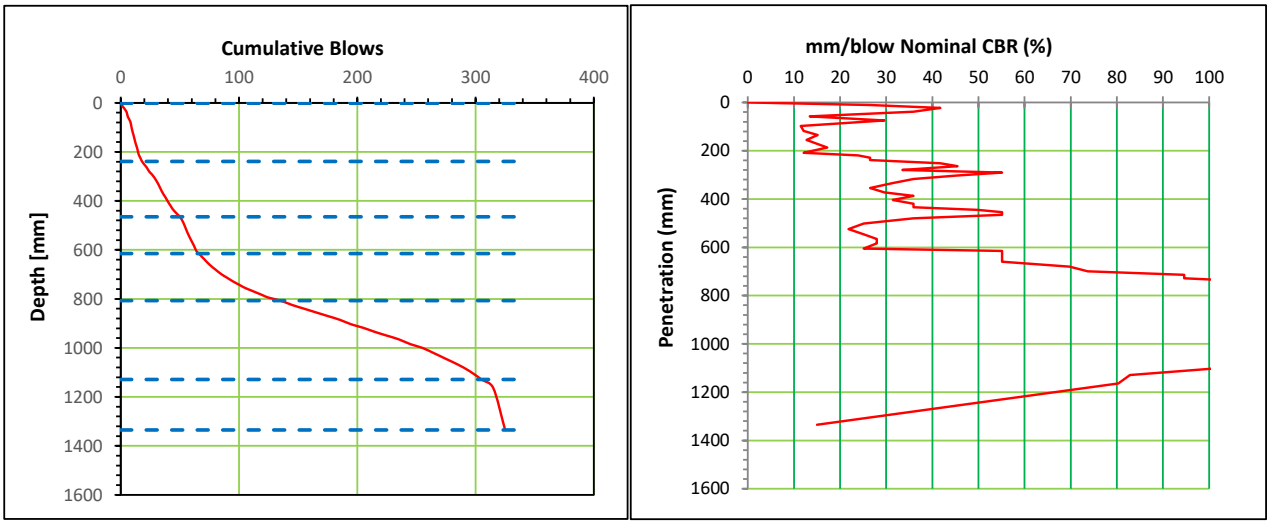
Testing Carried Out At: Harefield Academy, Harefield, Uxbridge, UB9 6ET

Test Results

Test Reference: DCP 7
Test Location: DCP 7
Material Description: Sub-base

DCP Zero at G/L Check [mm]: 0
Self Penetration [mm]: 0
Total Start Depth [mm]: 165

Layer	No of Blows	Cumulative Blows	CBR %	Layer Thickness mm	Total Depth mm
1	18	18	20	239	239
2	32	50	38	226	465
3	16	66	28	150	615
4	69	135	>100	192	807
5	170	305	>100	322	1129
6	20	325	26	206	1335



Notice: SHW Series 800 Clause 882 Equation 8/1 : Log10(CBR) = 2.480 - 1.057 x Log10(Strength)

Total Thickness Nominal CBR: Calculated from Cumulative blows of 325 and overall penetration of 1335mm : **67.8 %**

Remarks: G/L = Ground Level

SSF82A.8

Date Reported: **20/03/2023**

Signed:

Craig Hawkes
Site Services Operations Supervisor
for and on behalf of i2 Analytical Ltd

Appendix F Site monitoring data and ground gas risk assessment

Hydrock

Site: Harefield Academy
Job number: 27471
Client: ISG Construction

Notes:
LEL = lower explosive limit = 5%v/v.
Where the flow is less than the limit of detection of the instrument, the detection limit is reported.
GSVs are rounded to 3 places.

Notes on site conditions:	
22/03/23	Dry mild day
04/04/23	
13/04/23	
00/01/00	
00/01/00	
00/01/00	

Gas analyser:	GFM 436
Equipment check OK:	Y
Service in date:	Y
Calibration check OK:	
Name of person monitoring:	BJ

Monitoring round		Borehole details							Pressure and flow			Gas concentrations										GSV		Local conditions
Date	Time	Borehole	Ground level	Single or dual gas tap	Response zone depth (m)	Depth to water or depth of hole if dry (m)	groundwater elevation	D denotes dry hole	Atmospheric pressure (hPa)	Relative BH pressure (hPa)	Gas flow* (l/hr)	CH_4 (%v/v)		CH_4 (%LEL)		CO_2 (%v/v)		O_2 (%v/v)		Other Gases		Gas Screening Value (CH_4) (l/hr)	Gas Screening Value (CO_2) (l/hr)	Notes on condition of borehole and surrounding ground
												Initial	Steady	Initial	Steady	Initial	Steady	Initial	Steady	CO	H2S			
									ax. individual values:				0.0		0.0		2.2		20.4			#VALUE!	#VALUE!	Summary statistics for this monitoring period.
									Min. individual values:				0.0		0.0		0.1		11.4			#VALUE!	#VALUE!	
									Worst-case GSVs based on max. individual flow and max. individual conc. over the duration of this table:													0	1.4014	
22/03/23	10:53	WS01	85.96	S	1.62	0.79	85.17		991	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.6	20.3	19.2	0	0	0.000	0.000	
	11:10	BH1	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to monitor, BH has been filled.
	11:22	BH2	86.04	S	2.00	0.81	85.23		992	0.00	0.00	0.0	0.0	0.0	0.0	0.0	2.2	20.3	13.8	53	0	0.000	0.000	High peak flow, stable at no flow after 2 mins
	11:32	WS03	86.43	S	1.36	0.75	85.68		992	0.00	0.00	0.0	0.0	0.0	0.0	0.1	0.7	20.1	17.9	10	0	0.000	0.000	Hih peak flow, stable at no flow in less than 1 min
	11:45	WS04	86.24	S	1.32	0.76	85.48		992	0.00	0.00	0.0	0.0	0.0	0.0	0.1	0.7	20.2	11.4	0	0	0.000	0.000	
	11:54	WS02	85.90	S	1.75	0.79	85.11		992	0.00	0.00	0.0	0.0	0.0	0.0	0.1	0.3	20.1	19.6	0	0	0.000	0.000	
04/04/23	11:51	WS01	85.96	S	1.64	0.74	85.22		1020	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.6	20.0	15.9	0	0	0.000	0.000	
	12:47	BH2	86.04	S	1.99	0.42	85.62		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Monitoring well flooded, caused by nearby boiler leak. Borehole opened to drain water, and plugged, but well would flood within 15 seconds.
	12:05	WS03	86.43	S	1.35	0.44	85.99		1020	0.00	0.00	0.0	0.0	0.0	0.0	0.1	0.9	20.1	18.2	10	0	0.000	0.000	
	12:16	WS04	86.24	S	1.33	0.75	85.49		1020	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.2	20.2	20.0	0	0	0.000	0.000	
	12:30	WS02	85.90	S	1.72	0.76	85.14		1020	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.5	20.1	19.3	0	0	0.000	0.000	
13/04/23	09:59	WS01	85.96	S	1.60	0.69	85.27		993	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.7	20.0	17.9	0	0	0.000	0.000	
	12:01	BH2	86.04	S	2.00	0.39	85.65		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	As above, conditions have worsened since last visit
	11:30	WS03	86.43	S	1.33	0.37	86.06		995	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.7	20.6	18.8	10	0	0.000	0.000	
	10:48	WS04	86.24	S	1.31	0.67	85.57		994	0.00	0.00	0.0	0.0	0.0	0.0	0.1	0.1	20.4	20.4	0	0	0.000	0.000	
	10:40	WS02	85.90	S	1.72	0.66	85.24		994	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.6	20.5	19.1	0	0	0.000	0.000	

Appendix G Contamination test results and GQRA

Joe Sparks
Hydrock Consultants Ltd
5-7 Tanner Street
London
SE1 3LE

e: joesparks@hydrock.com

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

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 23-24042-2

Replaces Analytical Report Number: 23-24042, issue no. 1
Client sampling date amended.
Sampling date added for all samples as per client's request

Project / Site name:	Harefield Academy	**Samples received on:**	21/03/2023
Your job number:	27471	**Samples instructed on/ Analysis started on:**	21/03/2023
Your order number:	PO25017	**Analysis completed by:**	30/03/2023
Report Issue Number:	2	**Report issued on:**	11/04/2023
Samples Analysed:	10 soil samples		

Signed:

Dominika Warjan
Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

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

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

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

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

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

Analytical Report Number: 23-24042
Project / Site name: Harefield Academy
Your Order No: PO25017

Lab Sample Number				2623671	2623672	2623673	2623674	2623675
Sample Reference				WS1	WS1	WS1	WS3	WS3
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.50	1.60	0.40	1.00
Date Sampled				16/03/2023	16/03/2023	16/03/2023	16/03/2023	16/03/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	12	14	15	12	17
Total mass of sample received	kg	0.001	NONE	0.8	0.8	0.8	0.8	0.8
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DSO	DSO	DSO	DSO	DSO
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	7.7	10.4	8.2	8.9	7.7
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.067	0.28	0.09	0.12	0.28
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.035	0.022	< 0.0010	0.012	0.025
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	3.5	2.2	-	1.2	2.4
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.18	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.07	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.33	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.41	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.06	< 0.05	3.2	0.16
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.93	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.08	0.14	< 0.05	4.9	0.77
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.13	< 0.05	4.2	0.61
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.07	< 0.05	2.5	0.52
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.09	< 0.05	2.4	0.62
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.11	< 0.05	2.7	0.62
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.05	< 0.05	1.7	0.28
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.07	< 0.05	2.7	0.42
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	1.3	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.29	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	1.6	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	29.4	4

Analytical Report Number: 23-24042
Project / Site name: Harefield Academy
Your Order No: PO25017

Lab Sample Number				2623671	2623672	2623673	2623674	2623675
Sample Reference				WS1	WS1	WS1	WS3	WS3
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.50	1.60	0.40	1.00
Date Sampled				16/03/2023	16/03/2023	16/03/2023	16/03/2023	16/03/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	9.6	1.6	11	13
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.46	0.47	0.35	0.75	0.9
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6	0.8	0.5	0.5	0.9
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	22	20	15	23	32
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	22	20	16	23	33
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15	14	5.9	15	18
Lead (aqua regia extractable)	mg/kg	1	MCERTS	16	14	6.1	40	22
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	11	13	6.7	12	20
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	54	41	17	41	52
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	44	38	17	95	53
Monoaromatics & Oxygenates								
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	19	< 8.0
TPH-CWG - Aliphatic >EC16 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	10	MCERTS	< 10	< 10	< 10	19	< 10
TPH-CWG - Aliphatic > EC35 - EC44 $_{EH\_CU\_1D\_AL}$	mg/kg	8.4	NONE	17	< 8.4	< 8.4	38	< 8.4
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10	< 10	< 10	19	15
TPH-CWG - Aliphatic (EC5 - EC44) $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	22	< 10	< 10	57	15
TPH-CWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	3.6	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10	11	< 10
TPH-CWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10	28	< 10
TPH-CWG - Aromatic > EC35 - EC44 $_{EH\_CU\_1D\_AR}$	mg/kg	8.4	NONE	38	< 8.4	< 8.4	36	< 8.4
TPH-CWG - Aromatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	< 10	< 10	< 10	43	< 10
TPH-CWG - Aromatic (EC5 - EC44) $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	45	< 10	< 10	79	< 10
TPH Total C5 - C44 $_{EH\_CU+HS\_1D\_TOTAL}$	mg/kg	10	NONE	67	< 10	< 10	140	15

Analytical Report Number: 23-24042
Project / Site name: Harefield Academy
Your Order No: PO25017

Lab Sample Number				2623671	2623672	2623673	2623674	2623675
Sample Reference				WS1	WS1	WS1	WS3	WS3
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.50	1.60	0.40	1.00
Date Sampled				16/03/2023	16/03/2023	16/03/2023	16/03/2023	16/03/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Chloroethane	µg/kg	5	NONE	-	< 5.0	< 5.0	-	-
Bromomethane	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Vinyl Chloride	µg/kg	5	NONE	-	< 5.0	< 5.0	-	-
Trichlorofluoromethane	µg/kg	5	NONE	-	< 5.0	< 5.0	-	-
1,1-Dichloroethene	µg/kg	5	NONE	-	< 5.0	< 5.0	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	NONE	-	< 5.0	< 5.0	-	-
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	-	< 5.0	< 5.0	-	-
1,1-Dichloroethane	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
2,2-Dichloropropane	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Trichloromethane	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
1,1,1-Trichloroethane	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
1,2-Dichloroethane	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
1,1-Dichloropropene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Trans-1,2-dichloroethene	µg/kg	5	NONE	-	< 5.0	< 5.0	-	-
Benzene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	-	-
Tetrachloromethane	µg/kg	5	NONE	-	< 5.0	< 5.0	-	-
1,2-Dichloropropane	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Trichloroethene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Dibromomethane	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Bromodichloromethane	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Cis-1,3-dichloropropene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Trans-1,3-dichloropropene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Toluene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	-	-
1,1,2-Trichloroethane	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
1,3-Dichloropropane	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Dibromochloromethane	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Tetrachloroethene	µg/kg	5	NONE	-	< 5.0	< 5.0	-	-
1,2-Dibromoethane	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Chlorobenzene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
1,1,1,2-Tetrachloroethane	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Ethylbenzene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	-	-
p & m-Xylene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	-	-
Styrene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Tribromomethane	µg/kg	5	NONE	-	< 5.0	< 5.0	-	-
o-Xylene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	-	-
1,1,2,2-Tetrachloroethane	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Isopropylbenzene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Bromobenzene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
n-Propylbenzene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
2-Chlorotoluene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
4-Chlorotoluene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
1,3,5-Trimethylbenzene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
tert-Butylbenzene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
1,2,4-Trimethylbenzene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
sec-Butylbenzene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
1,3-Dichlorobenzene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
p-Isopropyltoluene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
1,2-Dichlorobenzene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
1,4-Dichlorobenzene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Butylbenzene	µg/kg	5	NONE	-	< 5.0	< 5.0	-	-

Analytical Report Number: 23-24042
Project / Site name: Harefield Academy
Your Order No: PO25017

Lab Sample Number				2623671	2623672	2623673	2623674	2623675
Sample Reference				WS1	WS1	WS1	WS3	WS3
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.50	1.60	0.40	1.00
Date Sampled				16/03/2023	16/03/2023	16/03/2023	16/03/2023	16/03/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
1,2-Dibromo-3-chloropropane	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
1,2,4-Trichlorobenzene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-
Hexachlorobutadiene	µg/kg	5	NONE	-	< 5.0	< 5.0	-	-
1,2,3-Trichlorobenzene	µg/kg	5	ISO 17025	-	< 5.0	< 5.0	-	-

SVOCs

Aniline	mg/kg	0.1	NONE	-	1.1	0.5	-	-
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	< 0.2	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Hexachloroethane	mg/kg	0.05	ISO 17025	-	< 0.05	< 0.05	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	< 0.2	-	-
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
2-Nitrophenol	mg/kg	0.3	NONE	-	< 0.3	< 0.3	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	NONE	-	< 0.2	< 0.2	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	3.4	< 0.1	-	-
2,6-Dinitrotoluene	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	-
2,4-Dinitrotoluene	mg/kg	0.2	NONE	-	< 0.2	< 0.2	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
4-Nitroaniline	mg/kg	0.2	NONE	-	< 0.2	< 0.2	-	-
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	-
Azobenzene	mg/kg	0.3	NONE	-	< 0.3	< 0.3	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	0.06	< 0.05	-	-
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	-
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Dibutyl phthalate	mg/kg	0.2	NONE	-	< 0.2	< 0.2	-	-
Anthraquinone	mg/kg	0.3	NONE	-	< 0.3	< 0.3	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	0.14	< 0.05	-	-
Pyrene	mg/kg	0.05	MCERTS	-	0.13	< 0.05	-	-
Butyl benzyl phthalate	mg/kg	0.3	NONE	-	< 0.3	< 0.3	-	-

Analytical Report Number: 23-24042
Project / Site name: Harefield Academy
Your Order No: PO25017

Lab Sample Number				2623671	2623672	2623673	2623674	2623675
Sample Reference				WS1	WS1	WS1	WS3	WS3
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.50	1.60	0.40	1.00
Date Sampled				16/03/2023	16/03/2023	16/03/2023	16/03/2023	16/03/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	0.07	< 0.05	-	-
Chrysene	mg/kg	0.05	MCERTS	-	0.09	< 0.05	-	-
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	-	0.11	< 0.05	-	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	-	0.05	< 0.05	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	0.07	< 0.05	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	-

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

Analytical Report Number: 23-24042
Project / Site name: Harefield Academy
Your Order No: PO25017

Lab Sample Number				2623676	2623677	2623678	2623679	2623680
Sample Reference				TP9	WS4	TP10	TP12	TP13
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.10	0.50	0.10	0.10
Date Sampled				14/03/2023	16/03/2023	14/03/2023	14/03/2023	14/03/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	56	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	11	16	13	13	11
Total mass of sample received	kg	0.001	NONE	0.5	0.8	0.5	0.5	0.5
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DSO	DSO	DSO	DSO	DSO

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.4	7.9	10.4	9	8.7
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.14	0.21	0.31	0.14	0.026
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.031	0.022	0.004	0.019	0.038
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	3	2.2	-	-	-

Total Phenols

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

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	0.16	< 0.05	0.08	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.21	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.32	< 0.05	0.14	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	0.4	< 0.05	0.2	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	4.4	0.26	2.7	0.18
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.81	< 0.05	1.1	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.12	6.3	0.83	4.6	0.44
Pyrene	mg/kg	0.05	MCERTS	0.12	5.2	0.75	3.9	0.43
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.08	2.8	0.54	2.3	0.28
Chrysene	mg/kg	0.05	MCERTS	0.1	2.7	0.53	2.5	0.27
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	3.2	0.67	2.7	0.35
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	1.5	0.37	1.5	0.21
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	2.8	0.6	2.6	0.29
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	1.5	0.38	1.6	0.18
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.42	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	1.8	0.41	1.8	0.23

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	34.2	5.34	27.8	2.86

Analytical Report Number: 23-24042
Project / Site name: Harefield Academy
Your Order No: PO25017

Lab Sample Number				2623676	2623677	2623678	2623679	2623680
Sample Reference				TP9	WS4	TP10	TP12	TP13
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.10	0.50	0.10	0.10
Date Sampled				14/03/2023	16/03/2023	14/03/2023	14/03/2023	14/03/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	18	13	12	16	14
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.59	0.82	0.64	0.9	0.51
Boron (water soluble)	mg/kg	0.2	MCERTS	1.1	1.1	1.1	0.4	0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	25	27	19	30	26
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	26	27	19	30	27
Copper (aqua regia extractable)	mg/kg	1	MCERTS	11	39	11	34	11
Lead (aqua regia extractable)	mg/kg	1	MCERTS	19	100	26	120	24
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	14	16	13	21	13
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	79	45	37	51	62
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	74	140	50	110	54
Monoaromatics & Oxygenates								
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC16 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic > EC35 - EC44 $_{EH\_CU\_1D\_AL}$	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (EC5 - EC44) $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	22	< 10	16	< 10
TPH-CWG - Aromatic > EC35 - EC44 $_{EH\_CU\_1D\_AR}$	mg/kg	8.4	NONE	< 8.4	15	< 8.4	10	< 8.4
TPH-CWG - Aromatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	< 10	30	11	25	< 10
TPH-CWG - Aromatic (EC5 - EC44) $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	< 10	45	11	35	< 10
TPH Total C5 - C44 $_{EH\_CU+HS\_1D\_TOTAL}$	mg/kg	10	NONE	< 10	45	11	35	< 10

Analytical Report Number: 23-24042
Project / Site name: Harefield Academy
Your Order No: PO25017

Lab Sample Number				2623676	2623677	2623678	2623679	2623680
Sample Reference				TP9	WS4	TP10	TP12	TP13
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.10	0.50	0.10	0.10
Date Sampled				14/03/2023	16/03/2023	14/03/2023	14/03/2023	14/03/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	5	ISO 17025	-	-	-	-	-
Chloroethane	µg/kg	5	NONE	-	-	-	-	-
Bromomethane	µg/kg	5	ISO 17025	-	-	-	-	-
Vinyl Chloride	µg/kg	5	NONE	-	-	-	-	-
Trichlorofluoromethane	µg/kg	5	NONE	-	-	-	-	-
1,1-Dichloroethene	µg/kg	5	NONE	-	-	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	NONE	-	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	-	-	-	-	-
1,1-Dichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
2,2-Dichloropropane	µg/kg	5	ISO 17025	-	-	-	-	-
Trichloromethane	µg/kg	5	ISO 17025	-	-	-	-	-
1,1,1-Trichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
1,2-Dichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
1,1-Dichloropropene	µg/kg	5	ISO 17025	-	-	-	-	-
Trans-1,2-dichloroethene	µg/kg	5	NONE	-	-	-	-	-
Benzene	µg/kg	5	MCERTS	-	-	-	-	-
Tetrachloromethane	µg/kg	5	NONE	-	-	-	-	-
1,2-Dichloropropane	µg/kg	5	ISO 17025	-	-	-	-	-
Trichloroethene	µg/kg	5	ISO 17025	-	-	-	-	-
Dibromomethane	µg/kg	5	ISO 17025	-	-	-	-	-
Bromodichloromethane	µg/kg	5	ISO 17025	-	-	-	-	-
Cis-1,3-dichloropropene	µg/kg	5	ISO 17025	-	-	-	-	-
Trans-1,3-dichloropropene	µg/kg	5	ISO 17025	-	-	-	-	-
Toluene	µg/kg	5	MCERTS	-	-	-	-	-
1,1,2-Trichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
1,3-Dichloropropane	µg/kg	5	ISO 17025	-	-	-	-	-
Dibromochloromethane	µg/kg	5	ISO 17025	-	-	-	-	-
Tetrachloroethene	µg/kg	5	NONE	-	-	-	-	-
1,2-Dibromoethane	µg/kg	5	ISO 17025	-	-	-	-	-
Chlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
Ethylbenzene	µg/kg	5	MCERTS	-	-	-	-	-
p & m-Xylene	µg/kg	5	MCERTS	-	-	-	-	-
Styrene	µg/kg	5	ISO 17025	-	-	-	-	-
Tribromomethane	µg/kg	5	NONE	-	-	-	-	-
o-Xylene	µg/kg	5	MCERTS	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
Isopropylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
Bromobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
n-Propylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
2-Chlorotoluene	µg/kg	5	ISO 17025	-	-	-	-	-
4-Chlorotoluene	µg/kg	5	ISO 17025	-	-	-	-	-
1,3,5-Trimethylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
tert-Butylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,2,4-Trimethylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
sec-Butylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,3-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
p-Isopropyltoluene	µg/kg	5	ISO 17025	-	-	-	-	-
1,2-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,4-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
Butylbenzene	µg/kg	5	NONE	-	-	-	-	-

Analytical Report Number: 23-24042
Project / Site name: Harefield Academy
Your Order No: PO25017

Lab Sample Number				2623676	2623677	2623678	2623679	2623680
Sample Reference				TP9	WS4	TP10	TP12	TP13
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.10	0.50	0.10	0.10
Date Sampled				14/03/2023	16/03/2023	14/03/2023	14/03/2023	14/03/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
1,2-Dibromo-3-chloropropane	µg/kg	5	ISO 17025	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
Hexachlorobutadiene	µg/kg	5	NONE	-	-	-	-	-
1,2,3-Trichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	ISO 17025	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	NONE	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	NONE	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	NONE	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	NONE	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	MCERTS	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	NONE	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-
Azobenzene	mg/kg	0.3	NONE	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	NONE	-	-	-	-	-
Anthraquinone	mg/kg	0.3	NONE	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	NONE	-	-	-	-	-

Analytical Report Number: 23-24042
Project / Site name: Harefield Academy
Your Order No: PO25017

Lab Sample Number				2623676	2623677	2623678	2623679	2623680
Sample Reference				TP9	WS4	TP10	TP12	TP13
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.10	0.50	0.10	0.10
Date Sampled				14/03/2023	16/03/2023	14/03/2023	14/03/2023	14/03/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-

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

Analytical Report Number : 23-24042
Project / Site name: Harefield Academy

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2623671	WS1	None Supplied	0.1	Brown clay and sand with gravel and vegetation.
2623672	WS1	None Supplied	0.5	Brown clay and sand with gravel and vegetation.
2623673	WS1	None Supplied	1.6	Brown clay and sand with gravel.
2623674	WS3	None Supplied	0.4	Brown clay and sand with gravel.
2623675	WS3	None Supplied	1	Brown clay and sand with gravel and vegetation.
2623676	TP9	None Supplied	0.2	Brown loam and sand with gravel and vegetation.
2623677	WS4	None Supplied	0.1	Brown clay and sand with gravel and vegetation.
2623678	TP10	None Supplied	0.5	Brown sand with gravel and stones.
2623679	TP12	None Supplied	0.1	Brown loam and clay with gravel and vegetation.
2623680	TP13	None Supplied	0.1	Brown loam and sand with vegetation.

Analytical Report Number : 23-24042
Project / Site name: Harefield Academy

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Free cyanide in soil	Determination of free cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPH Chromatogram in Soil	TPH Chromatogram in Soil.	In-house method	L064-PL	D	NONE
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS

Analytical Report Number : 23-24042
Project / Site name: Harefield Academy

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	MCERTS
Fraction Organic Carbon FOC Automated	Determination of fraction of organic carbon in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method	L009	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Sample Deviation Report

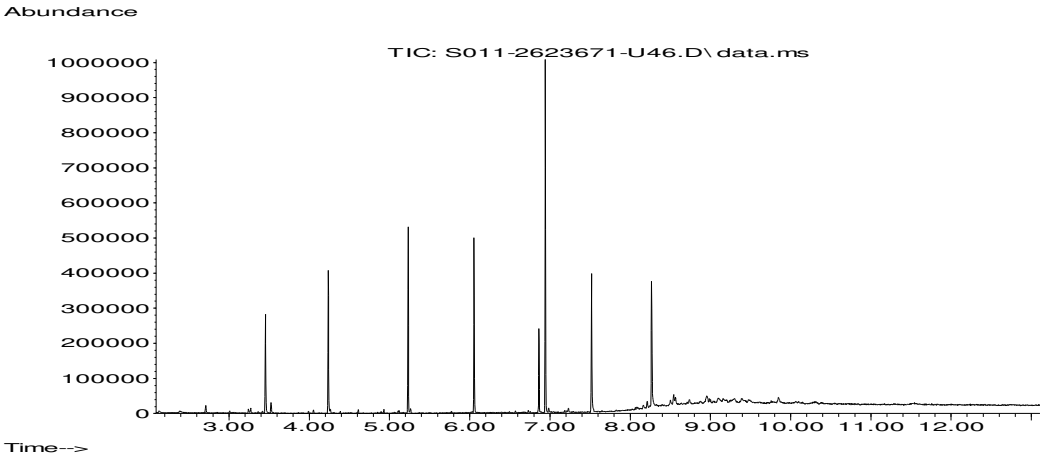
Analytical Report Number : 23-24042

Project / Site name: Harefield Academy

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis.Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
TP10	None Supplied	S	2623678	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP10	None Supplied	S	2623678	b	Monohydric phenols in soil	L080-PL	b
TP10	None Supplied	S	2623678	b	Speciated EPA-16 PAHs in soil	L064-PL	b
TP10	None Supplied	S	2623678	b	TPH Chromatogram in Soil	L064-PL	b
TP10	None Supplied	S	2623678	b	TPH in (Soil)	L076-PL	b
TP10	None Supplied	S	2623678	b	TPHCWG (Soil)	L088/76-PL	b
TP12	None Supplied	S	2623679	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP12	None Supplied	S	2623679	b	Monohydric phenols in soil	L080-PL	b
TP12	None Supplied	S	2623679	b	Speciated EPA-16 PAHs in soil	L064-PL	b
TP12	None Supplied	S	2623679	b	TPH Chromatogram in Soil	L064-PL	b
TP12	None Supplied	S	2623679	b	TPH in (Soil)	L076-PL	b
TP12	None Supplied	S	2623679	b	TPHCWG (Soil)	L088/76-PL	b
TP13	None Supplied	S	2623680	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP13	None Supplied	S	2623680	b	Monohydric phenols in soil	L080-PL	b
TP13	None Supplied	S	2623680	b	Speciated EPA-16 PAHs in soil	L064-PL	b
TP13	None Supplied	S	2623680	b	TPH Chromatogram in Soil	L064-PL	b
TP13	None Supplied	S	2623680	b	TPH in (Soil)	L076-PL	b
TP13	None Supplied	S	2623680	b	TPHCWG (Soil)	L088/76-PL	b
TP9	None Supplied	S	2623676	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP9	None Supplied	S	2623676	b	Monohydric phenols in soil	L080-PL	b
TP9	None Supplied	S	2623676	b	Speciated EPA-16 PAHs in soil	L064-PL	b
TP9	None Supplied	S	2623676	b	TPH Chromatogram in Soil	L064-PL	b
TP9	None Supplied	S	2623676	b	TPH in (Soil)	L076-PL	b
TP9	None Supplied	S	2623676	b	TPHCWG (Soil)	L088/76-PL	b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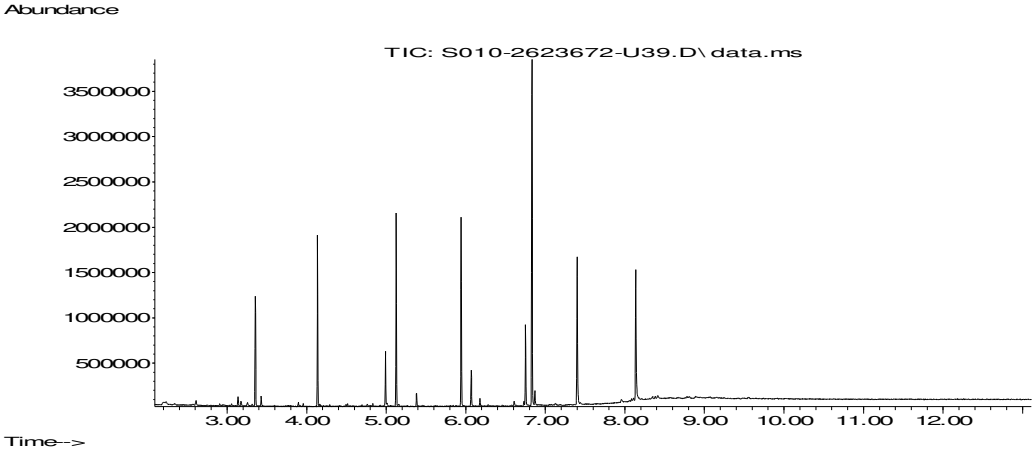
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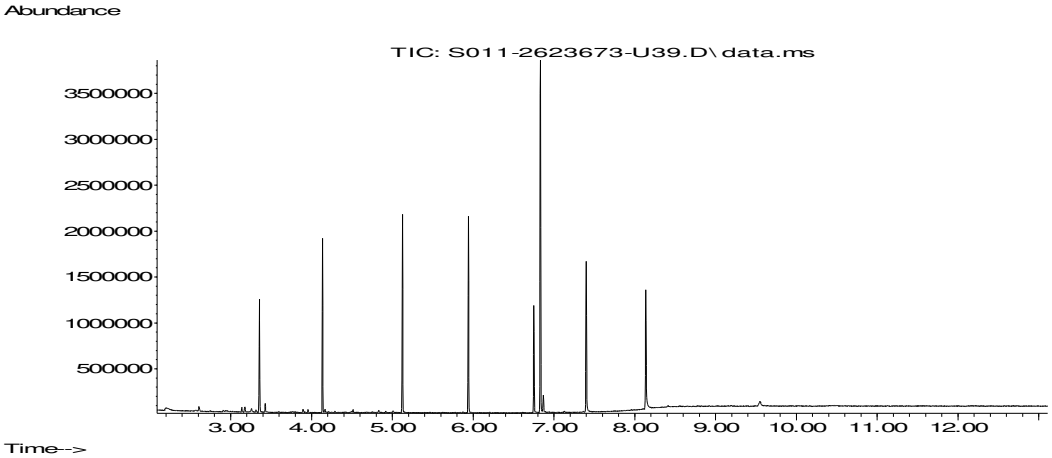
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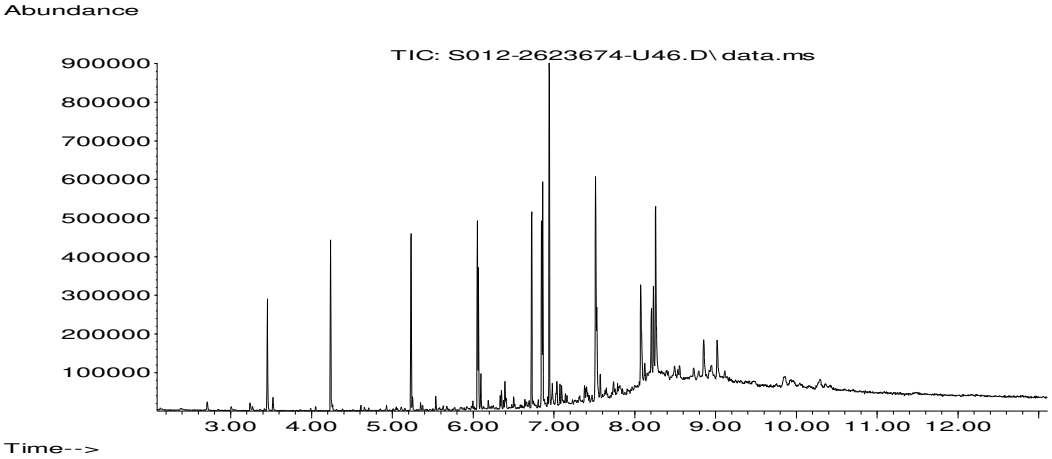
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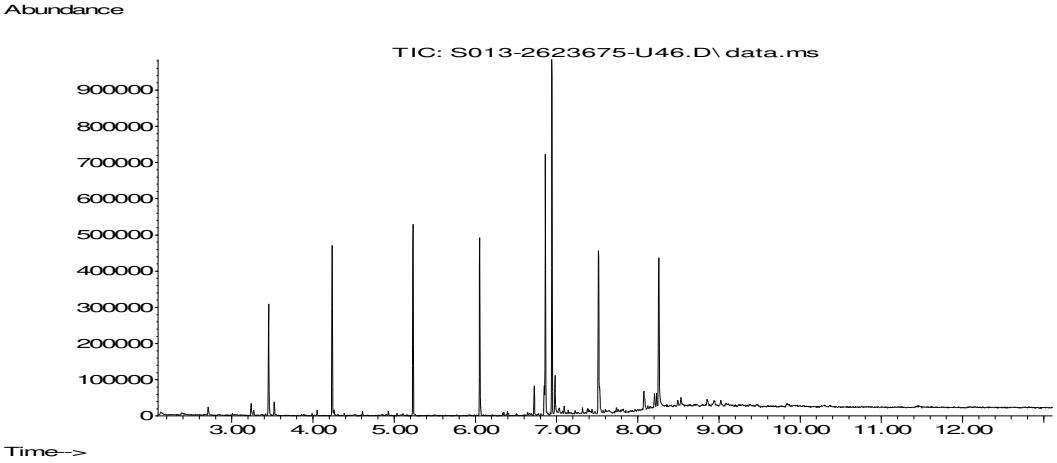
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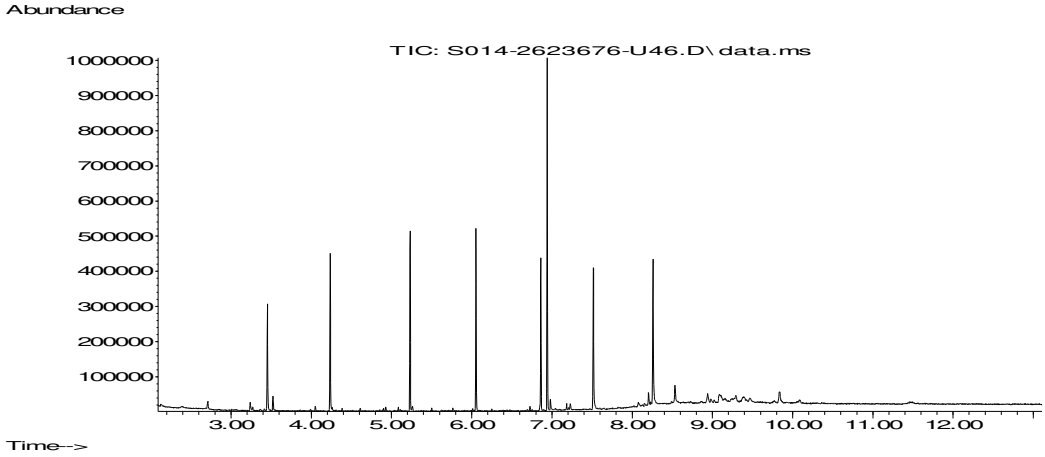
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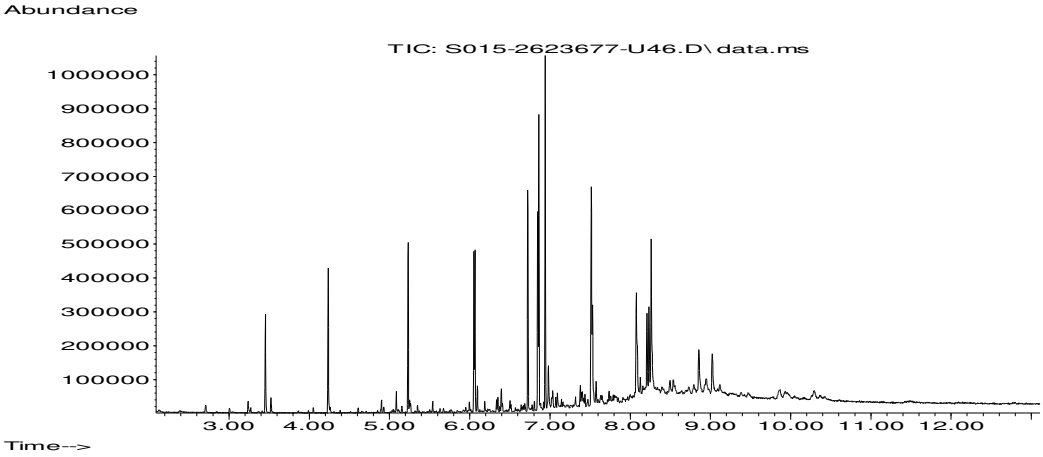
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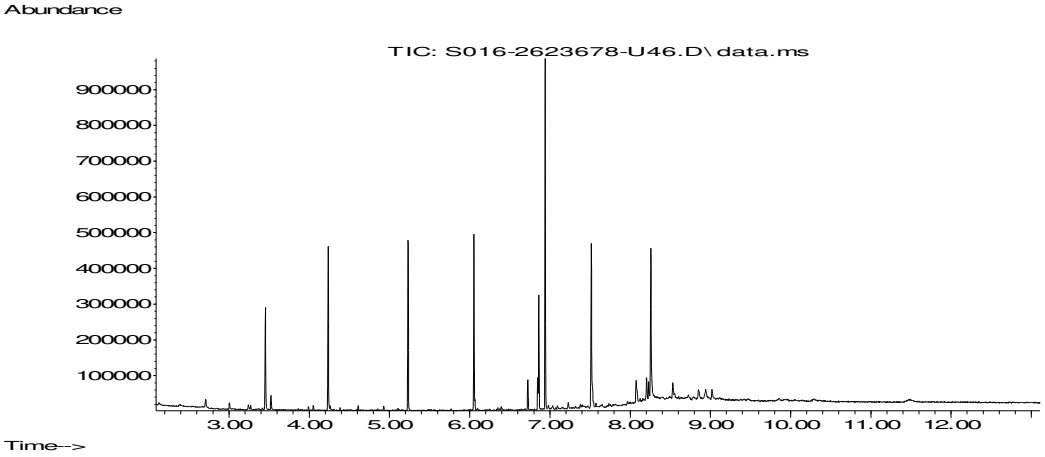
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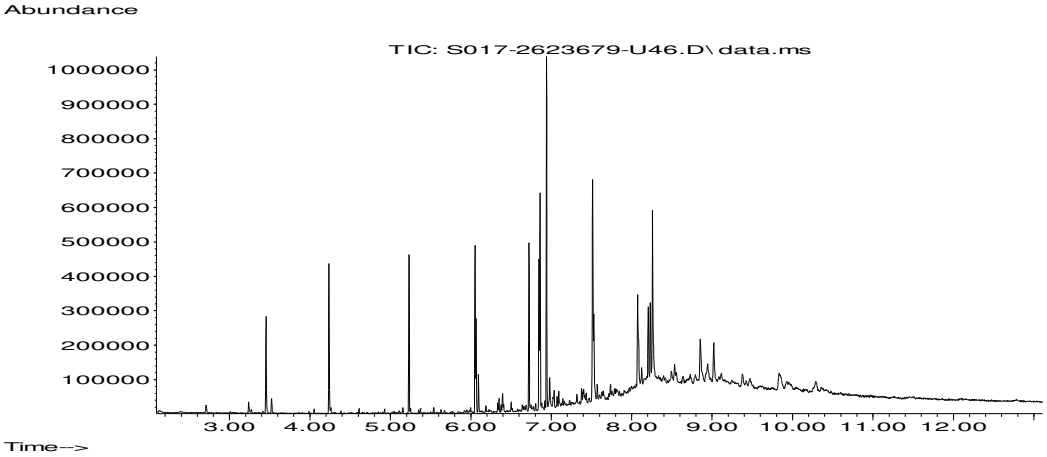
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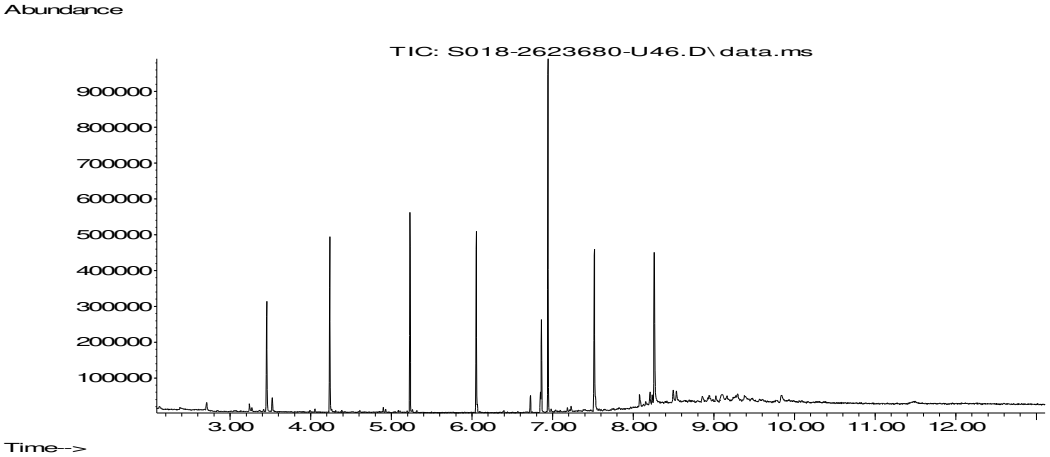
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Analytical Report Number : 23-28366

Project / Site name:	Harefield Academy Groundwater Sampling 13.04.2023	**Samples received on:**	14/04/2023
Your job number:	27471	**Samples instructed on/ Analysis started on:**	14/04/2023
Your order number:	PO25366	**Analysis completed by:**	21/04/2023
Report Issue Number:	1	**Report issued on:**	21/04/2023
Samples Analysed:	3 water samples		

Signed:

Dominika Warjan
Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

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

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

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

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

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

Analytical Report Number: 23-28366
Project / Site name: Harefield Academy Groundwater Sampling 13.04.2023

Your Order No: PO25366

Lab Sample Number				2648080	2648081	2648082
Sample Reference				WS01	WS03	WS04
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied
Date Sampled				13/04/2023	13/04/2023	13/04/2023
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**			
General Inorganics						
pH (L005B)	pH Units	N/A	ISO 17025	7.7	7.2	8
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	ISO 17025	1200	1500	840
Total Cyanide	µg/l	10	ISO 17025	-	< 10	< 10
Total Cyanide (Low Level 1 µg/l)	µg/l	1	ISO 17025	2.2	-	-
Free Cyanide	µg/l	10	ISO 17025	-	< 10	< 10
Free Cyanide (Low Level 1 µg/l)	µg/l	1	ISO 17025	< 1.0	-	-
Sulphate as SO4	µg/l	45	ISO 17025	348000	497000	304000
Chloride	mg/l	0.15	ISO 17025	17	39	18
Fluoride	µg/l	50	ISO 17025	280	170	240
Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	440	400	57
Ammoniacal Nitrogen as NH3	µg/l	15	ISO 17025	530	480	69
Ammoniacal Nitrogen as NH4	µg/l	15	ISO 17025	560	510	73
Dissolved Organic Carbon (DOC)	mg/l	0.1	ISO 17025	58.7	19.1	16.1
Nitrate as N	mg/l	0.01	ISO 17025	9.11	0.7	0.62
Nitrate as NO3	mg/l	0.05	ISO 17025	40.4	3.11	2.76
Nitrite as N	µg/l	1	ISO 17025	36	240	71
Nitrite as NO2	µg/l	5	ISO 17025	120	800	230
Hardness - Total	mgCaCO3/l	1	ISO 17025	637	681	452
Bromate by IC	mg/l	0.002	ISO 17025	< 0.002	< 0.002	< 0.002
Total Phenols						
Total Phenols (monohydric)	µg/l	10	ISO 17025	1	< 10	< 10
Speciated PAHs						
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.001	NONE	< 0.001	< 0.001	< 0.001
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.001	NONE	< 0.001	< 0.001	< 0.001
PAH Sums						
Sum of Benzo(b)fluoranthene & Benzo(k)fluoranthene	µg/l	0.02	NONE	< 0.020	< 0.020	< 0.020
Sum of Benzo(ghi)perylene & Indeno(1,2,3-cd)pyrene	µg/l	0.02	NONE	< 0.020	< 0.020	< 0.020
Sum of Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benz	µg/l	0.04	NONE	< 0.040	< 0.040	< 0.040
Total PAH						
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	< 0.16	< 0.16

Analytical Report Number: 23-28366
Project / Site name: Harefield Academy Groundwater Sampling 13.04.2023

Your Order No: PO25366

Lab Sample Number				2648080	2648081	2648082
Sample Reference				WS01	WS03	WS04
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied
Date Sampled				13/04/2023	13/04/2023	13/04/2023
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**			
Heavy Metals / Metalloids						
Boron (dissolved)	µg/l	10	ISO 17025	250	90	160
Calcium (dissolved)	mg/l	0.012	ISO 17025	230	210	170
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0	< 5.0	< 5.0
Chromium (III)	µg/l	5	NONE	< 5.0	< 5.0	< 5.0
Iron (dissolved)	mg/l	0.004	ISO 17025	0.045	0.022	0.008
Iron (dissolved)	µg/l	4	ISO 17025	45	22	8.1
Magnesium (dissolved)	mg/l	0.005	ISO 17025	13	36	6
Sodium (dissolved)	mg/l	0.01	ISO 17025	95	180	43
Aluminium (dissolved)	µg/l	1	ISO 17025	4.5	13	2.1
Antimony (dissolved)	µg/l	0.4	ISO 17025	3.3	1.6	3
Arsenic (dissolved)	µg/l	0.15	ISO 17025	5.28	3.87	7.03
Barium (dissolved)	µg/l	0.06	ISO 17025	52	27	33
Cadmium (dissolved)	µg/l	0.02	ISO 17025	0.05	0.18	< 0.02
Chromium (dissolved)	µg/l	0.2	ISO 17025	2	0.6	0.8
Cobalt (dissolved)	µg/l	0.2	ISO 17025	2.7	21	1.9
Copper (dissolved)	µg/l	0.5	ISO 17025	34	6.5	7.3
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2	< 0.2	< 0.2
Manganese (dissolved)	µg/l	0.05	ISO 17025	45	680	110
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	12	33	8.7
Selenium (dissolved)	µg/l	0.6	ISO 17025	11	22	1.5
Silver (dissolved)	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Tin (dissolved)	µg/l	0.2	ISO 17025	0.32	< 0.20	0.23
Vanadium (dissolved)	µg/l	0.2	ISO 17025	6.5	0.6	3.8
Zinc (dissolved)	µg/l	0.5	ISO 17025	4.3	8.6	1.4
Monoaromatics & Oxygenates						
Benzene	µg/l	3	NONE	< 3.0#	< 3.0#	< 3.0#
Toluene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Ethylbenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
p & m-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
o-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Sum of m, p & o-Xylene	µg/l	2	ISO 17025	< 2.0	< 2.0	< 2.0
Petroleum Hydrocarbons						
TPH-CWG - Aliphatic >C5 - C6 $_{HS\_1D\_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8 $_{HS\_1D\_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10 $_{HS\_1D\_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C35 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C35 - C44 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35) $_{HS+EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C44) $_{HS+EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10

Analytical Report Number: 23-28366
Project / Site name: Harefield Academy Groundwater Sampling 13.04.2023

Your Order No: PO25366

Lab Sample Number				2648080	2648081	2648082
Sample Reference				WS01	WS03	WS04
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied
Date Sampled				13/04/2023	13/04/2023	13/04/2023
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**			
TPH-CWG - Aromatic >C5 - C7 HS_1D_AR	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8 HS_1D_AR	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10 HS_1D_AR	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12 EH_1D_AR_MS	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16 EH_1D_AR_MS	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21 EH_1D_AR_MS	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35 EH_1D_AR_MS	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic >C35 - C44 EH_1D_AR_MS	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35) HS+EH_1D_AR_MS	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C44) HS+EH_1D_AR_MS	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG Total C5 - C44 EH+HS_1D_TOTAL_MS	µg/l	10	NONE	< 10	< 10	< 10

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

Analytical Report Number : 23-28366
Project / Site name: Harefield Academy Groundwater Sampling 13.04.2023

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW.	In-house method based on USEPA Method 6020 & 200.8 "for the determination of trace elements in water by ICP-MS.	L012-PL	W	ISO 17025
Metals in water by ICP-OES (dissolved)	Determination of metals in water by acidification followed by ICP-OES. Accredited Matrices SW, GW, PW, PrW.(Al, Cu,Fe,Zn).	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Boron in water	Determination of boron in water by acidification followed by ICP-OES. Accredited matrices: SW PW GW	In-house method based on MEWAM	L039-PL	W	ISO 17025
Hexavalent chromium in water	Determination of hexavalent chromium in water by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method by continuous flow analyser. Accredited Matrices SW, GW, PW.	L080-PL	W	ISO 17025
Electrical conductivity at 20oC of water	Determination of electrical conductivity in water by electrometric measurement. Accredited Matrices SW, GW, PW	In-house method	L031-PL	W	ISO 17025
Free cyanide in water	Determination of free cyanide by distillation followed by colorimetry.Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Fluoride in water	Determination of fluoride in water by 1:1 ratio with a buffer solution followed by Ion Selective Electrode. Accredited matrices: SW, PW, GW.	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination"	L033B-PL	W	ISO 17025
Total Hardness of water	Determination of hardness in waters by calculation from calcium and magnesium. Accredited Matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L045-PL	W	ISO 17025
Monohydric phenols in water - LOW LEVEL 1 ug/l	Determination of phenols in water by continuous flow analyser. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
Monohydric phenols in water	Determination of phenols in water by continuous flow analyser. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
Nitrite in water	Determination of nitrite in water by addition of sulphanilamide and NED followed by discrete analyser (colorimetry).Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
Nitrate in water	Determination of nitrate by reaction with sodium salicylate and colorimetry. Accredited matrices SW, GW, PW	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08,	L078-PL	W	ISO 17025
Speciated EPA-16 PAHs in water	Determination of PAH compounds in water by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards. Accredited matrices: SW PW GW	In-house method based on USEPA 8270	L102B-PL	W	ISO 17025
Sulphate in water	Determination of sulphate in water after filtration by acidification followed by ICP-OES. Accredited Matrices SW, GW, PW.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	ISO 17025
Total cyanide in water	Determination of total cyanide by distillation followed by colorimetry. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Dissolved Organic Carbon in water	Determination of dissolved inorganic carbon in water by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	ISO 17025

4041

Environmental Science

Analytical Report Number : 23-28366
Project / Site name: Harefield Academy Groundwater Sampling 13.04.2023

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Speciated EPA-16 PAHs in water (LOW LEVEL Dets)	Determination of PAH compounds in water by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270 (low level)	L102B-PL	W	NONE
TPH in (Water)	Determination of TPH bands by HS-GC-MS/GC-MS	In-house method, TPH with carbon banding.	L070-PL	W	NONE
Ammonia as NH3 in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method. Accredited matrices SW, GW, PW, FSE, LL.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
Ammoniacal Nitrogen as N in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the discrete analyser (colorimetric) salicylate/nitroprusside method. Accredited matrices SW, GW, PW, FSE, LL.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
Ammonium as NH4 in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
Nitrite as N in water	Determination of nitrite in water by addition of sulphanilamide and NED followed by discrete analyser (colorimetry). Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
Nitrate as N in water	Determination of nitrate by reaction with sodium salicylate and colorimetry. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08,	L078-PL	W	ISO 17025
TPH Chromatogram in Water	TPH Chromatogram in Water.	In-house method	L070-PL	W	NONE
Cr (III) in water	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
Low level total cyanide in water	Determination of total cyanide by distillation followed by colorimetry. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
pH at 20oC in water (automated)	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In house method.	L099-PL	W	ISO 17025
Free cyanide (low level) in water	Determination of free cyanide by distillation followed by colorimetry.Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Bromate in Water	Determination of bromate in waters based on ion chromatography. Accredited matrices GW, PW, SW.	In house method based on Standard Methods for the Analysis of Water and Waste Water, method 4500	L008-PL	W	ISO 17025
Specific PAH sums in water	Determination of PAH compounds in water by extraction in hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L070-PL	W	NONE

Analytical Report Number : 23-28366
Project / Site name: Harefield Academy Groundwater Sampling 13.04.2023

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Chloride in water	Determination of Chloride (diissolved) colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260. Accredited matrices: SW, PW, GW.	L082-PL	W	ISO 17025

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

#Data reported unaccredited due to quality control parameter failure associated with this result; other checks applied prior to reporting the data have been accepted. The result should be considered as being deviating and therefore may be compromised.

Sample Deviation Report

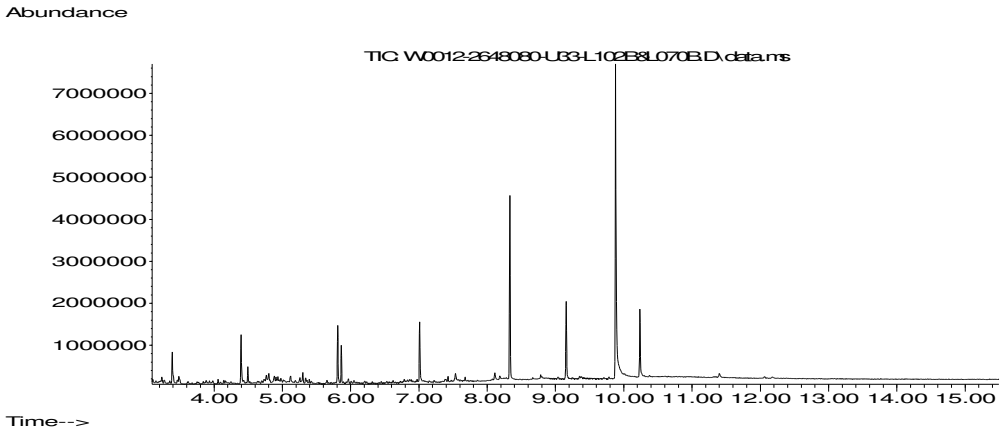
Analytical Report Number : 23-28366

Project / Site name: Harefield Academy Groundwater Sampling 13.04.2023

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis.Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
WS01	None Supplied	W	2648080	c	Ammonia as NH3 in water	L082-PL	c
WS01	None Supplied	W	2648080	c	Ammoniacal Nitrogen as N in water	L082-PL	c
WS01	None Supplied	W	2648080	c	Ammonium as NH4 in water	L082-PL	c
WS01	None Supplied	W	2648080	c	Electrical conductivity at 20oC of water	L031-PL	c
WS01	None Supplied	W	2648080	c	pH at 20oC in water (automated)	L099-PL	c
WS03	None Supplied	W	2648081	c	Ammonia as NH3 in water	L082-PL	c
WS03	None Supplied	W	2648081	c	Ammoniacal Nitrogen as N in water	L082-PL	c
WS03	None Supplied	W	2648081	c	Ammonium as NH4 in water	L082-PL	c
WS03	None Supplied	W	2648081	c	Electrical conductivity at 20oC of water	L031-PL	c
WS03	None Supplied	W	2648081	c	pH at 20oC in water (automated)	L099-PL	c
WS04	None Supplied	W	2648082	c	Ammonia as NH3 in water	L082-PL	c
WS04	None Supplied	W	2648082	c	Ammoniacal Nitrogen as N in water	L082-PL	c
WS04	None Supplied	W	2648082	c	Ammonium as NH4 in water	L082-PL	c
WS04	None Supplied	W	2648082	c	Electrical conductivity at 20oC of water	L031-PL	c
WS04	None Supplied	W	2648082	c	pH at 20oC in water (automated)	L099-PL	c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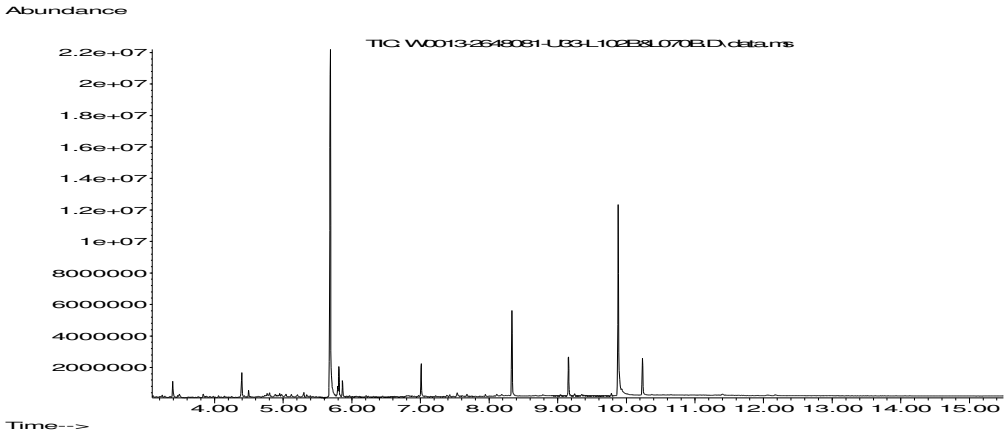
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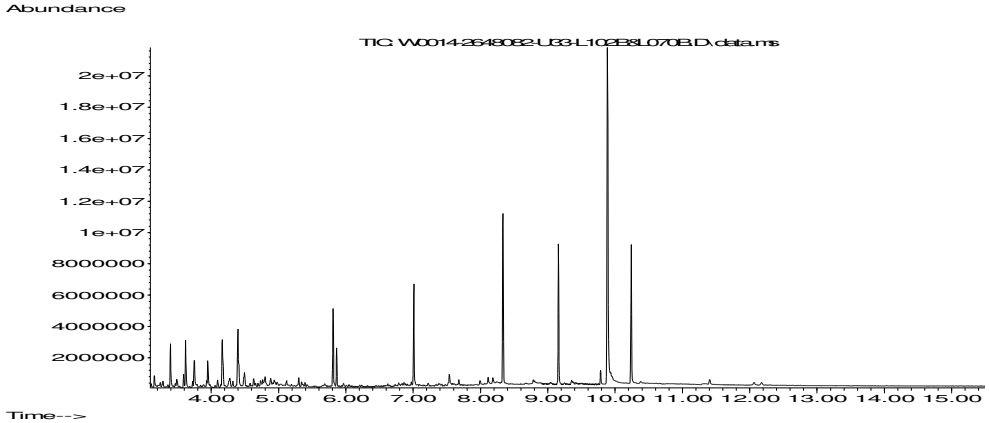
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8.00
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Time-->

GAC derivation

Background

Initially, the Hydrock GAC were derived following the publishing of soil guideline values (SGV), toxicological (TOX) reports and associated publications by the Environment Agency (EA) in 2009 referenced under Science Report SC050021 (EA, 2009a, b, c, d). The Hydrock GAC have then been periodically updated following publication of new information on toxicological, physico-chemical, land use or receptor parameters, namely:

- LQM/CIEH, 2009. LQM/CIEH Generic Assessment Criteria for Human Health Risk Assessment, second edition. Nathanial, C. P., McCaffrey, C., Ashmore, M., Cheng, Y., Gillet, A. G., Ogden, R. C. and Scott, D.
- CL:AIRE, 2010. 'The EIC/AGS/CL:AIRE Soil Generic Assessment Criteria for Human Health Risk Assessment'. Environmental Industries Commission, The Association of Geotechnical and Geoenvironmental Specialists and Contaminated Land: Applications in Real Environment.
- CL:AIRE, 2014. 'Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination', Revision 2, DEFRA research project SP1010. Contaminated Land: Applications in Real Environment.
- LQM/CIEH, 2015. 'The LQM/CIEH S4ULs for Human Health Risk Assessment'. Nathanial, C. P., McCaffrey, C., Gillet, A. G., Ogden, R. C. and Nathanial, J. F.
- CL:AIRE, 2021. 'C4SL Phase 2 Technical Reports'. Contaminated Land: Applications in Real Environment.

Land use scenarios

Hydrock has derived generic assessment criteria (GAC) for human health based on the six exposure scenarios defined in CL:AIRE (2014) using generic default assumptions from published guidance. GAC for each exposure scenario have been derived for three soil organic matter (SOM) contents, 1%, 2.5% and 6%.

All GAC have been rounded to two significant figures.

Exposure parameters

The exposure parameters used for the Hydrock GAC are the default parameters stated in SR3, unless updated in CL:AIRE (2014) where the CL:AIRE (2014) values have been adopted.

Approach to consumption rates

Hydrock have adopted the 90th percentile consumption rates from Table 3.4 of CL:AIRE (2014) for all produce types. This is noted to be more conservative than the "top two" approach taken in the derivation of C4SLs.

Approach to plant uptake for GAC omitted in CL:AIRE (2010)

Plant uptake factors were not identified in CL:AIRE (2010) for antimony, barium and molybdenum. Hydrock has sourced the required parameter values from ORNL (1984) in order to derive GAC that are inclusive of the homegrown produce exposure pathway.

Chemical and toxicity parameters

The chemical and toxicity parameters have been adopted based on the following documents:

- IRIS, 2016. 'Toxicological Review of Trimethylbenzenes'. Integrated Risk Information System, National Centre for Environmental Assessment, office of Research and Development, U.S. Environmental Protection Agency.
- LQM/CIEH, 2015.

- ORNL, 1984. 'ORNL-5786. A Review and Analysis of Parameters for Assessing Transport of Environmentally released Radionuclides through Agriculture'. Oak Ridge National Laboratory.
- CL:AIRE, 2010.
- RIVM, 2001. RIVM Report 711701 025 'HCV Re-evaluation of human-toxicological maximum-permissible risk levels'. National Institute of Public Health and the Environment.
- LQM/CIEH, 2009.
- EA, 2009a.

Approach to Cyanide GAC

The Hydrock GAC for free cyanide have been derived based on ingestion of a bolus of contaminated soil. The GAC are derived for acute exposure of a child (0-6 years old) for all land uses except commercial, where the GAC are derived for acute exposure of an adult (16-65 years old). For the purpose of GQRA, the child value may be adopted for all land use scenarios.

For complex cyanide, the GAC have been derived based on chronic exposure, using the default exposure scenarios but excluding the consumption of homegrown produce, soil attached to homegrown produce, indoor vapour and outdoor vapour pathways. The chronic health criteria value (HCV) for complex cyanide is based on the EA (2009a) HCV for free cyanide and the ratio of toxicity between free and complex cyanide proposed by RIVM (2001).

Approach to Phenol GAC

In accordance with the EA Science Report SC050021 / Phenol SGV, a $GAC_{ing/inh}$ has been derived for ingested and inhaled phenol using the CLEA model, with a GAC_{derm} derived for dermal contact using Equation 5.7 within SR3. The lower of the $GAC_{ing/inh}$ and GAC_{derm} has been adopted as the final GAC.

Approach to PCB GAC

GAC for assessing the non-dioxin-like risk from PCBs have been based on the "Dutch 7". As the TDI used by the authors of the Dutch guidance is for the sum of the 7 individual congeners, the TDI has been divided by 7 to create a TDI for each congener. The non-dioxin-like risk from PCBs is therefore assessed using a Hazard Index approach as for total petroleum hydrocarbons (TPH).

Sub-surface soil to indoor air correction factors

Reflecting the approach taken by the Environment Agency in the development of revised SGV in 2009 for BTEX, a sub-surface soil to indoor air correction factor of 10 has been applied for petroleum hydrocarbons in order to account for over-prediction of vapour intrusion into building using the Johnson and Ettinger approach.

The correction factor of 10 has been applied to the following petroleum hydrocarbons (it makes negligible difference to less volatile TPH and PAH compounds):

- TPHCWG fractions, namely aliphatic EC>5-44 and aromatic EC>6-44;
- PAHs (acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene), benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h,)anthracene, fluoranthene, fluorene, indeno(1,2,3-c,d)pyrene, naphthalene, phenanthrene, pyrene);
- BTEX;
- Isopropylbenzene;
- Propylbenzene;
- 1,2,4- and 1,3,5-trimethylbenzene; and
- Styrene.

Approach to saturation limits

The CLEA model includes a traffic light colour system to highlight when saturated soil conditions have potentially been exceeded for the vapour pathways during calculation of assessment criteria. The colours represent:

- Green: the assessment criteria do not exceed the saturated soil concentration.
- Amber: the assessment criteria exceed the saturated soil concentration but the contribution of the indoor and outdoor vapour pathway to total exposure is less than 10% and will not significantly affect the assessment criteria.
- Red: the assessment criteria exceed the saturated soil concentration and the contribution of the indoor and outdoor vapour pathway to total exposure is greater than 10% and will significantly affect the assessment criteria.

Hydrock have not applied any further calculations or assessment in relation to saturation limits during GAC derivation, with the CLEA-modelled GAC being presented as the GAC. Consideration of saturation limits is undertaken during the data assessment stage.

References

CL:AIRE, 2010. 'The EIC/AGS/CL:AIRE Soil Generic Assessment Criteria for Human Health Risk Assessment'. Environmental Industries Commission, The Association of Geotechnical and Geoenvironmental Specialists and Contaminated Land: Applications in Real Environment.

CL:AIRE, 2014. 'Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination', Revision 2, DEFRA research project SP1010. Contaminated Land: Applications in Real Environment

CL:AIRE, 2021. C4SL Phase 2 Technical Reports for tetrachloroethene, trichloroethene and vinyl chloride. Contaminated Land: Applications in Real Environment.

EA, 2009a. 'Science Reports SC050021 – SGV and TOX reports for: benzene, toluene, ethylbenzene, xylene, arsenic, nickel, mercury, selenium, cadmium, inorganic cyanide, phenol, dioxins, furans and dioxin-like PCBs'; 'Supplementary information for the derivation of SGV for: benzene, toluene, ethylbenzene, xylene, arsenic, nickel, mercury, selenium, cadmium, inorganic cyanide, phenol, dioxins, furans and dioxin-like PCBs', and 'Contaminants in soil: updated collation of toxicological data and intake values for humans: benzene, toluene, ethylbenzene, xylene, arsenic, nickel, mercury, selenium, cadmium, inorganic cyanide, phenol, dioxins, furans and dioxin-like PCBs'. Environment Agency.

EA, 2009b. 'Science Report – SC050021/SR2. Human health toxicological assessment of contaminants in soil'. Environment Agency.

EA, 2009c. 'Science Report – SC050021/SR3. Updated technical background to the CLEA model'. Environment Agency.

EA, 2009d. 'Science Report – SC050021/SR4. CLEA Software (version 1.05) Handbook'. Environment Agency.

IRIS, 2016. 'Toxicological Review of Trimethylbenzenes'. Integrated Risk Information System, National Centre for Environmental Assessment, office of Research and Development, U.S. Environmental Protection Agency.

LQM/CIEH, 2009. LQM/CIEH Generic Assessment Criteria for Human Health Risk Assessment, second edition. Nathanial, C. P., McCaffrey, C., Ashmore, M., Cheng, Y., Gillet, A. G., Ogden, R. C. and Scott, D.

LQM/CIEH, 2015. 'The LQM/CIEH S4ULs for Human Health Risk Assessment'. Nathanial, C. P., McCaffrey, C., Gillet, A. G., Ogden, R. C. and Nathanial, J. F.

ORNL, 1984. 'ORNL-5786. A Review and Analysis of Parameters for Assessing Transport of Environmentally released Radionuclides through Agriculture'. Oak Ridge National Laboratory.

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Assessment of Chemicals of Potential Concern to Human Health

Risk parameter:	Default - Human Health - residential without home-grown produce (1%SOM)
Client:	ISG
Site:	Harefield Academy
Job no.:	27471
Lab. report no(s).:	24042-2

Data Filters

Zone	All
Strata	All
Depth Min (m bgl)	0.1
Depth Max (m bgl)	1.6
Dataset mean SOM%	3.98
Scenario SOM%	1

All values in mg/kg unless otherwise stated

CAS No / P Code	Chemical of Potential Concern	Units	LoD	No. Samples	Min. Value	Max. Value	Mean	Median	Standard Deviation	No. Samples >= GAC & > LoD	Soil Saturation Limit @1% SOM	GAC	GAC Source	Strata	WS1	WS1	WS1	WS3	WS3	TP9	WS4	TP10	TP12	TP13
Date															16/03/2023	16/03/2023	16/03/2023	16/03/2023	16/03/2023	14/03/2023	16/03/2023	14/03/2023	14/03/2023	14/03/2023
Zone															-	-	-	-	-	-	-	-	-	-
Location															WS1	WS1	WS1	WS3	WS3	TP9	WS4	TP10	TP12	TP13
Depth (m bgl)															0.1	0.5	1.6	0.4	1	0.2	0.1	0.5	0.1	0.1
-	**Asbestos**																							
P1020	Asbestos Identified	text	Y/N	10	-	-	-	-	No. of detects:	0	-	-	-		Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
o	**Hydrock Default Suite - FOC / SOM / pH**										-													
P1085	FOC (dimensionless)	[]	0.001	10	0.001	0.038	0.021	0.022	0.01		-	-	-		0.035	0.022	0.001	0.012	0.025	0.031	0.022	0.004	0.019	0.038
-	SOM (calculated)	%	0.1724	9	0.69	6.55	3.98	3.79	1.87		-	-	-		6.034	3.7928		2.0688	4.31	5.3444	3.7928	0.6896	3.2756	6.5512
P1334	pH (su)	pH Units	0.1	10	7.70	10.40	8.73	8.55	0.99		-	-	-		7.7	10.4	8.2	8.9	7.7	8.4	7.9	10.4	9	8.7
-	**Hydrock Default Suite - Metals & PAH**																							
7440-38-2	Arsenic	mg/kg	1	10	1.60	18.00	12.02	12.50	4.38	0	NR	40	C4SL - CL:AIRE 2014		12	9.6	1.6	11	13	18	13	12	16	14
7440-41-7	Beryllium	mg/kg	0.06	10	0.35	0.90	0.64	0.62	0.20	0	NR	1.7	Hydrock Derived		0.46	0.47	0.35	0.75	0.9	0.59	0.82	0.64	0.9	0.51
7440-42-8	Boron	mg/kg	0.2	10	0.20	1.10	0.72	0.70	0.33	0	NR	11000	Hydrock Derived		0.6	0.8	0.5	0.5	0.9	1.1	1.1	1.1	0.4	0.2
7440-43-9	Cadmium	mg/kg	0.2	10	0.20	0.20	0.20	0.20	0.00	0	NR	150	C4SL - CL:AIRE 2014		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
16065-83-1	Chromium (III)	mg/kg	1	10	15.00	32.00	23.90	24.00	5.17	0	NR	890	Hydrock Derived		22	20	15	23	32	25	27	19	30	26
18540-29-9	Chromium (VI)	mg/kg	1.8	10	1.80	1.80	1.80	1.80	0.00	0	NR	21	C4SL - CL:AIRE 2014		<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8
7440-47-3	Chromium (Total)	mg/kg	1	10	16.00	33.00	24.30	24.50	5.25			-			22	20	16	23	33	26	27	19	30	27
7440-50-8	Copper	mg/kg	1	10	5.90	39.00	17.39	14.50	10.65	0	NR	7100	Hydrock Derived		15	14	5.9	15	18	11	39	11	34	11
7439-92-1	Lead	mg/kg	1	10	6.10	120.00	38.71	23.00	38.88	0	NR	310	C4SL - CL:AIRE 2014		16	14	6.1	40	22	19	100	26	120	24
7439-97-6	Mercury, inorganic	mg/kg	0.3	10	0.30	0.30	0.30	0.30	0.00	0	NR	56	Hydrock Derived		<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
7440-02-0	Nickel	mg/kg	1	10	6.70	21.00	13.97	13.00	4.19	0	NR	180	Hydrock Derived		11	13	6.7	12	20	14	16	13	21	13
7782-49-2	Selenium	mg/kg	1	10	1.00	1.00	1.00	1.00	0.00	0	NR	430	Hydrock Derived		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
7440-62-2	Vanadium	mg/kg	1	10	17.00	79.00	47.90	48.00	16.35	0	NR	1200	Hydrock Derived		54	41	17	41	52	79	45	37	51	62
7440-66-6	Zinc	mg/kg	1	10	17.00	140.00	67.50	53.50	37.32	0	NR	40000	Hydrock Derived		44	38	17	95	53	74	140	50	110	54
P1095	Cyanide (free)	mg/kg	1	10	1.00	1.00	1.00	1.00	0.00	0	NR	24	Acute Risk - SoBRA 2020		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
P1186	Total Phenols (Monohydric)	mg/kg	1	10	1.00	1.00	1.00	1.00	0.00	0	24237	440	Hydrock Derived		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
83-32-9	Acenaphthene	mg/kg	0.05	10	0.05	0.33	0.11	0.05	0.11	0	57	6600	Hydrock Derived		<0.05	<0.05	<0.05	0.33	<0.05	<0.05	0.32	<0.05	0.14	<0.05
208-96-8	Acenaphthylene	mg/kg	0.05	10	0.05	0.21	0.07	0.05	0.05	0	86	6600	Hydrock Derived		<0.05	<0.05	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	0.21	<0.05
120-12-7	Anthracene	mg/kg	0.05	10	0.05	1.10	0.32	0.05	0.44	0	1.17	37000	Hydrock Derived		<0.05	<0.05	<0.05	0.93	<0.05	<0.05	0.81	<0.05	1.1	<0.05
56-55-3	Benz(a)anthracene	mg/kg	0.05	10	0.05	2.80	0.92	0.40	1.13	0	1.71	15	Hydrock Derived		<0.05	0.07	<0.05	2.5	0.52	0.08	2.8	0.54	2.3	0.28
50-32-8	Benzo(a)pyrene	mg/kg	0.05	10	0.05	2.80	0.96	0.36	1.21	0	0.91	5.3	C4SL - CL:AIRE 2014		<0.05	0.07	<0.05	2.7	0.42	<0.05	2.8	0.6	2.6	0.29
205-99-2	Benzo(b)fluoranthene	mg/kg	0.05	10	0.05	3.20	1.05	0.49	1.28	0	1.22	4.1	Hydrock Derived		<0.05	0.11	<0.05	2.7	0.62	<0.05	3.2	0.67	2.7	0.35
191-24-2	Benzo(ghi)perylene	mg/kg	0.05	10	0.05	1.80	0.61	0.14	0.79	0	0.02	360	Hydrock Derived		<0.05	<0.05	<0.05	1.6	<0.05	<0.05	1.8	0.41	1.8	0.23
207-08-9	Benzo(k)fluoranthene	mg/kg	0.05	10	0.05	1.70	0.58	0.25	0.69	0	0.69	110	Hydrock Derived		<0.05	0.05	<0.05	1.7	0.28	<0.05	1.5	0.37	1.5	0.21
218-01-9	Chrysene	mg/kg	0.05	10	0.05	2.70	0.93	0.40	1.13	0	0.44	32	Hydrock Derived		<0.05	0.09	<0.05	2.4	0.62	0.1	2.7	0.53	2.5	0.27
53-70-3	Dibenz(ah)anthracene	mg/kg	0.05	10	0.05	**0.42**	0.11	0.05	0.13	**1**	0.004	0.32	Hydrock Derived		<0.05	<0.05	<0.05	0.29	<0.05	<0.05	0.42	<0.05	<0.05	<0.05
206-44-0	Fluoranthene	mg/kg	0.05	10	0.05	6.30	1.82	0.61	2.43	0	19	1600	Hydrock Derived		0.08	0.14	<0.05	4.9	0.77	0.12	6.3	0.83	4.6	0.44
86-73-7	Fluorene	mg/kg	0.05	10	0.05	0.41	0.14	0.05	0.15	0	31	4700	Hydrock Derived		<0.05	<0.05	<0.05	0.41	<0.05	<0.05	0.4	<0.05	0.2	<0.05
193-39-5	Indeno(123cd)pyrene	mg/kg	0.05	10	0.05	1.60	0.52	0.12	0.66	0	0.06	46	Hydrock Derived		<0.05	<0.05	<0.05	1.3	<0.05	<0.05	1.5	0.38	1.6	0.18
91-20-3	Naphthalene	mg/kg	0.05	10	0.05	0.18	0.08	0.05	0.05	0	76	23	Hydrock Derived		<0.05	<0.05	<0.05	0.18	<0.05	<0.05	0.16	<0.05	0.08	<0.05
85-01-8	Phenanthrene	mg/kg	0.05	10	0.05	4.40	1.11	0.17	1.66	0	36	1500	Hydrock Derived		<0.05	0.06	<0.05	3.2	0.16	<0.05	4.4	0.26	2.7	0.18
129-00-0	Pyrene	mg/kg	0.05	10	0.05	5.20	1.54	0.52	2.03	0	2.2	3800	Hydrock Derived		<0.05	0.13	<0.05	4.2	0.61	0.12	5.2	0.75	3.9	0.43
P1310	PAH 16 Total	mg/kg	0.8	10	0.80	34.20	10.68	3.43	13.83			-			<0.8	<0.8	<0.8	29.4	4	<0.8	34.2	5.34	27.8	2.86
o	**TPH fractions**																							
P1407	TPH ali EC05-EC06	mg/kg	0.001	10	0.00	0.00	0.00	0.00	0.000	0	304	42	Hydrock Derived		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
P1408	TPH ali >EC06-EC08	mg/kg	0.001	10	0.00	0.00	0.00	0.00	0.000	0	144	100	Hydrock Derived		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
P1409	TPH ali >EC08-EC10	mg/kg	0.001	10	0.00	0.00	0.00	0.00	0.000	0	78	27	Hydrock Derived		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
P1410	TPH ali >EC10-EC12	mg/kg	1	10	1.00	1.00	1.00	1.00	0.00	0	48	130	Hydrock Derived		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
P1411	TPH ali >EC12-EC16	mg/kg	2	10	2.00	2.00	2.00	2.00	0.00	0	24	1100	Hydrock Derived		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
P1412	TPH ali >EC16-EC21	mg/kg	8	10	8.00	8.00	8.00	8.00	0.00			-			<8	<8	<8	<8	<8	<8	<8	<8	<8	<8
P1413	TPH ali >EC21-EC35	mg/kg	8	10	8.00	19.00	9.10	8.00	3.48			-			<8	<8	<8	19	<8	<8	<8	<8	<8	<8
P1938	TPH ali >EC16-EC35	mg/kg	10	10	10.00	19.00	10.90	10.00	2.85	0	8	65000	Hydrock Derived		<10	<10	<10	19	<10	<10	<10	<10	<10	<10
P1415	TPH ali >EC35-EC44	mg/kg	8.4	10	8.40	38.00	12.22	8.40	9.45	0	8	65000	Hydrock Derived		17	<8.4	<8.4	38	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4
P1418	TPH ali >EC5-EC35	mg/kg	10	10	10.00	19.00	11.40	10.00	3.10			-			<10	<10	<10	19	15	<10	<10	<10	<10	<10
P1420	TPH ali >EC5-EC44	mg/kg	10	10	10.00	57.00	16.40	10.00	14.79			-			22	<10	<10	57	15	<10	<10	<10	<10	<10

Assessment of Chemicals of Potential Concern to Human Health

Risk parameter:	**Default - Human Health - residential without home-grown produce (1%SOM)**
Client:	ISG
Site:	Harefield Academy
Job no.:	27471
Lab. report no(s).:	24042-2

Data Filters

Zone	**All**
Strata	**All**
Depth Min (m bgl)	**0.1**
Depth Max (m bgl)	**1.6**
Dataset mean SOM%	**3.98**
Scenario SOM%	**1**

All values in mg/kg unless otherwise stated

CAS No / P Code	Chemical of Potential Concern	Units	LoD	No. Samples	Min. Value	Max. Value	Mean	Median	Standard Deviation	No. Samples >= GAC & > LoD	Soil Saturation Limit @1% SOM	GAC	GAC Source	Strata	WS1	WS1	WS1	WS3	WS3	TP9	WS4	TP10	TP12	TP13
Date															16/03/2023	16/03/2023	16/03/2023	16/03/2023	16/03/2023	14/03/2023	16/03/2023	14/03/2023	14/03/2023	14/03/2023
Zone															-	-	-	-	-	-	-	-	-	-
Location															WS1	WS1	WS1	WS3	WS3	TP9	WS4	TP10	TP12	TP13
Depth (m bgl)															0.1	0.5	1.6	0.4	1	0.2	0.1	0.5	0.1	0.1
P1441	TPH aro EC05-EC07	mg/kg	0.001	10	0.00	0.00	0.00	0.00	0.00	0	1218	370	Hydrock Derived		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
P1355	TPH aro >EC07-EC08	mg/kg	0.001	10	0.00	0.00	0.00	0.00	0.00	0	869	860	Hydrock Derived		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
P1356	TPH aro >EC08-EC10	mg/kg	0.001	10	0.00	0.00	0.00	0.00	0.00	0	613	47	Hydrock Derived		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
P1357	TPH aro >EC10-EC12	mg/kg	1	10	1.00	1.00	1.00	1.00	0.00	0	364	250	Hydrock Derived		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
P1358	TPH aro >EC12-EC16	mg/kg	2	10	2.00	3.60	2.16	2.00	0.51	0	169	1800	Hydrock Derived		<2	<2	<2	3.6	<2	<2	<2	<2	<2	<2
P1359	TPH aro >EC16-EC21	mg/kg	10	10	10.00	11.00	10.10	10.00	0.32	0	54	1900	Hydrock Derived		<10	<10	<10	11	<10	<10	<10	<10	<10	<10
P1360	TPH aro >EC21-EC35	mg/kg	10	10	10.00	28.00	13.60	10.00	6.45	0	5	1900	Hydrock Derived		<10	<10	<10	28	<10	<10	22	<10	16	<10
P1362	TPH aro >EC35-EC44	mg/kg	8.4	10	8.40	38.00	14.94	8.40	11.81	0	5	1900	Hydrock Derived		38	<8.4	<8.4	36	<8.4	<8.4	15	<8.4	10	<8.4
P1365	TPH aro >EC5-EC35	mg/kg	10	10	10.00	43.00	16.90	10.00	11.73			-			<10	<10	<10	43	<10	<10	30	11	25	<10
P1941	TPH aro >EC5-EC44	mg/kg	10	10	10.00	79.00	26.50	10.50	23.84			-			45	<10	<10	79	<10	<10	45	11	35	<10
P1373	Total TPH >EC5-EC44	mg/kg	10	10	10.00	140.00	35.30	13.00	41.67			-			67	<10	<10	140	15	<10	45	11	35	<10
o	**VOCs - BTEX & MTBE**																							
71-43-2	Benzene	mg/kg	5	10	0.01	0.01	0.01	0.01	0.00	0	1218	0.89	C4SL - CL:AIRE 2014		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
108-88-3	Toluene	mg/kg	5	10	0.01	0.01	0.01	0.01	0.00	0	869	880	Hydrock Derived		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
100-41-4	Ethylbenzene	mg/kg	5	10	0.01	0.01	0.01	0.01	0.00	0	518	83	Hydrock Derived		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
95-47-6	Xylene, o-	mg/kg	5	10	0.01	0.01	0.01	0.01	0.00	0	478	88	Hydrock Derived		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1330-20-7	Xylene, p- (or combined m & p)	mg/kg	5	10	0.01	0.01	0.01	0.01	0.00	0	576	79	Hydrock Derived		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1634-04-4	MTBE	mg/kg	5	10	0.01	0.01	0.01	0.01	0.00	0	20358	100	Hydrock Derived		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	TPH Additivity Check			**HAZARD QUOTIENTS FOR EACH FRACTION**																				
Considered additive													Aliphatics >EC8-EC10		3.7037E-05	3.7037E-05	3.7037E-05	3.7037E-05	3.7037E-05	3.7037E-05	3.7037E-05	3.7037E-05	3.7037E-05	3.7037E-05
Considered additive													Aliphatics >EC10-EC12		0.007692308	0.007692308	0.007692308	0.007692308	0.007692308	0.007692308	0.007692308	0.007692308	0.007692308	0.007692308
Considered additive													Aliphatics >EC12-EC16		0.001818182	0.001818182	0.001818182	0.001818182	0.001818182	0.001818182	0.001818182	0.001818182	0.001818182	0.001818182
Considered additive													Aromatics >EC8-EC10		2.12766E-05	2.12766E-05	2.12766E-05	2.12766E-05	2.12766E-05	2.12766E-05	2.12766E-05	2.12766E-05	2.12766E-05	2.12766E-05
Considered additive													Aromatics >EC10-EC12		0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
Considered additive													Aromatics >EC12-EC16		0.001111111	0.001111111	0.001111111	0.002	0.001111111	0.001111111	0.001111111	0.001111111	0.001111111	0.001111111
Considered additive													Aromatics >EC16-EC21		0.005263158	0.005263158	0.005263158	0.005789474	0.005263158	0.005263158	0.005263158	0.005263158	0.005263158	0.005263158
Considered additive													Aromatics >EC21-EC35		0.005263158	0.005263158	0.005263158	0.014736842	0.005263158	0.005263158	0.011578947	0.005263158	0.008421053	0.005263158
Hazard Index table - HI or HQ greater than 1 highlighted with orange shading.													**Hazard Index for ali>C8-C16**		**0.009547527**	**0.009547527**	**0.009547527**	**0.009547527**	**0.009547527**	**0.009547527**	**0.009547527**	**0.009547527**	**0.009547527**	**0.009547527**
Hazard Index table - HI or HQ greater than 1 highlighted with orange shading.													**Hazard Index for aro>C8-C16**		**0.005132388**	**0.005132388**	**0.005132388**	**0.006021277**	**0.005132388**	**0.005132388**	**0.005132388**	**0.005132388**	**0.005132388**	**0.005132388**
Hazard Index table - HI or HQ greater than 1 highlighted with orange shading.													**Hazard Index for aro>C16-C35**		**0.010526316**	**0.010526316**	**0.010526316**	**0.020526316**	**0.010526316**	**0.010526316**	**0.016842105**	**0.010526316**	**0.013684211**	**0.010526316**

Legend:

MG	Made Ground
HH	Holt Heath Sand and Gravel
XX	XX Other Codes

<0.02	Value below the laboratory reporting limit and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate.
0.02	Value greater than, or equal to, the generic assessment criterion (GAC).
64.00	Value exceed saturation limit and substance is liquid or solid at ambient temperature
'<10	Value excluded from statistical analysis
Y	Text result
-	Represents a determinand that was not tested.
*	represents a data point that is not included in the current filter settings

Template Version:
1.05: 11/04/23

Remedial Targets Methodology Data Table

Hydrock

Hydrock Scenario: Scenario B - EQS (inland)

RTM Level: RTM Level 1 - Soil Zone Assessment - perched water samples

Water body receptor(s): Groundwater and surface water
Secondary receptor(s): Human health (abstraction)
Data set: Perched water
Client: ISG
Site: Harefield Academy
Job no: 27471
Test Certificates(s): 23-28366
Dataset ALL ZONES

PNEC calculated (inland EQS)

123* Exceeds solubility value
<1 Grey text and "<" sign if value <= LoD
Red fill if value > Inland Waters EQS

Surface Water Representative Hardness as mg/l $CaCO_3$ 10

CAS / AGS Number	Chemical of Potential Concern (µg/l)	WFD Designation	Hazardous Substance Status	Solubility Limit (µg/l)	No. of samples	Limit of Detection		Strata / Zone	MG	MG	MG					
								Date sampled:								
								Inland Waters EQS	WS01	WS03	WS04					
7440-22-4	Silver (Ag) (dissolved)				0			0.05								
7429-90-5	Aluminium (Al) (dissolved)				0			n/a								
7440-38-2	Arsenic (As) (dissolved)	SP	H		3	0.15		50	5.28	3.87	7.03					
7440-42-8	Boron (B) (dissolved)		NP		3	10		2000	250	90	160					
7440-39-3	Barium (Ba) (dissolved)				3	0.06		n/a	52	27	33					
7440-43-9	Cadmium (Cd) (dissolved)	PH	NP		2	0.02		0.08	0.05	0.18						
7440-48-4	Cobalt (Co) (dissolved)		NP		3	0.2		3	2.7	21	1.9					
18540-29-9	Chromium (VI) (Cr) (dissolved)	SP	H		0			3.4								
16065-83-1	Chromium (III) (Cr) (dissolved)	SP			0			4.7								
7440-47-3	Chromium (Cr) (total) (dissolved)				3	0.2		n/a	2	0.6	0.8					
7440-50-8	Copper (Cu) (dissolved)	SP	NP		3	0.5		1	34	6.5	7.3					
7439-89-6	Iron (Fe) (dissolved)	SP			3	0.004		1000	0.045	0.022	0.008					
7439-97-6	Mercury (Hg) (dissolved)	PH	H		0			0.07								
P1286	Manganese (Mn) (dissolved)	SP			3	0.05		123	45	680	110					
7440-23-5	Sodium (Na) (dissolved)				3	0.01		n/a	95	180	43					
7440-02-0	Nickel (Ni) (dissolved)	P	NP		3	0.5		4	12	33	8.7					
7439-92-1	Lead (Pb) (dissolved)	P	H		0			1.2								
7440-36-0	Antimony (Sb) (dissolved)		NP		3	0.4		n/a	3.3	1.6	3					
7782-49-2	Selenium (Se) (dissolved)		NP		3	0.6		n/a	11	22	1.5					
7440-31-5	Tin (Sn) (dissolved)				2	0.2		25	0.32		0.23					
7440-62-2	Vanadium (V) (dissolved)				3	0.2		20	6.5	0.6	3.8					
7440-66-6	Zinc (Zn) (dissolved)	SP	NP		3	0.5		12.3	4.3	8.6	1.4					
P1095	Cyanide (free) (hydrogen cyanide)	SP	NP		0			1								
57-12-5	Cyanide (total)				0			n/a								
P1140	Ammonium (NH_4^+)		NP		3	10		n/a	560	510	73					
P1238	Ammnoniacal Nitrogen (as N)		NP		3	15		300	560	510	73					
P1720	Ammonia (unionised) (NH_3 as N) {free ammonia}	SP	NP		0			n/a								
15541-45-4	Bromate (BrO_3)				0			n/a								
16887-00-6	Chloride (Cl^-)				3	0.15		250000	17	39	18					
16984-48-8	Fluoride (F^-)				3	50		1000	280	170	240					
P1348	Nitrate (NO_3^-)				3	0.05		n/a	40.4	3.11	2.76					
P1349	Nitrite (NO_2^-)				3	5		n/a	120	800	230					
14808-79-8	Sulfate (SO_4^{2-})				3	45		400000	348000	497000	304000					
P1134	pH (min.) (su)				3	0		6	7.7	7.2	8					
P1134	pH (max.) (su)				3	0		9	7.7	7.2	8					
P1287	Electrical conductivity (µS/cm)				3	10		n/a	1200	1500	840					
120-12-7	Anthracene	PH	H	56	0			0.1								
50-32-8	Benzo(a)pyrene	PH	H	3.8	0			0.00017								
206-44-0	Fluoranthene	P	H	230	0			0.0063								
91-20-3	Naphthalene	P	NP	19000	0			2								
GRP01	PAHs = sum of benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene, indeno(1,2,3-cd)pyrene	P	H		0			n/a								
P1877	Phenol	SP	NP	84100000	0			7.7								
P1407	Ali EC5-EC6			35900	0			10								
P1408	Ali >EC6-EC8			5370	0			10								
P1409	Ali >EC8-EC10			427	0			10								
P1410	Ali >EC10-EC12			33.9	0			10								
P1411	Ali >EC12-EC16			0.759	0			10								
P1938	Ali >EC16-EC35			0.00254	0			10								
P1415	Ali >EC35-EC44			0.00254	0			10								
P1441	Aro EC5-EC7			1780000	0			10								
P1355	Aro >EC7-EC8			590000	0			10								
P1356	Aro >EC8-EC10			64600	0			10								
P1357	Aro >EC10-EC12			24500	0			10								
P1358	Aro > EC12-EC16			5750	0			10								
P1359	Aro >EC16-EC21			653	0			10								
P1360	Aro >EC21-EC35			6.61	0			10								
P1362	Aro >EC35-EC44			6.61	0			10								
71-43-2	Benzene	P	H	1780000	0			10								
108-88-3	Toluene	SP	H	590000	0			74								
100-41-4	Ethylbenzene		H	180000	0			20								
95-47-6	o-Xylene		H	173000	0			30								

Remedial Targets Methodology Data Table

Hydrock

Water body receptor(s): Groundwater and surface water
Secondary receptor(s): Human health (abstraction)
Data set: Perched water
Client: ISG
Site: Harefield Academy
Job no: 27471
Test Certificates(s): 23-28366
Dataset ALL ZONES

PNEC calculated (inland EQS)

123* Exceeds solubility value
<1 Grey text and "<" sign if value <= LoD
Red fill if value > Inland Waters EQS

Surface Water Representative Hardness as mg/l $CaCO_3$ 10

								Strata / Zone	MG	MG	MG					
								Date sampled:								
CAS / AGS Number	**Chemical of Potential Concern (µg/l)**	**WFD Designation**	**Hazardous Substance Status**	**Solubility Limit (µg/l)**	**No. of samples**	**Limit of Detection**		**Inland Waters EQS**	**WS01**	**WS03**	**WS04**					
P1374	m,p-Xylene		H	200000	0			30								
1634-04-04	Methyl tertiary butyl ether (MTBE)		NP	48000000	0			n/a								

Appendix H Waste assessment

Hydrock

HazWasteOnline™

Waste Classification Report

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

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

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

LI5CB-O5OM5-QXYZL

Job name

Harefield Academy

Description/Comments

i2 lab cert: 23-24042

Project

27471

Site

Harefield Academy

Classified by

Name:
Emma Judd
Date:
27 Apr 2023 12:46 GMT
Telephone:
07843 090903

Company:
Hydrock Consultants Ltd
5 - 7 Tanner Street
London
SE1 3LE

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

HazWasteOnline™ Certification: **CERTIFIED**

Course	Date
Hazardous Waste Classification	08 Dec 2022

Next 3 year Refresher due by Dec 2025

Purpose of classification

2 - Material Characterisation

Address of the waste

Harefield Academy, Northwood Way, Harefield **Post Code** UB9 6ET

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Ground investigation works

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

Ground investigation works

Description of the waste

Ground investigation works

Job summary

Related documents

#	Name	Description
1	23-24042_HWOL_Results.hwol	i2 Analytical .hwol file used to populate the Job
2	Hydrock Standard plus Cresol (ammended Lead)	waste stream template used to create this Job

Report

Created by: Emma Judd

Created date: 27 Apr 2023 12:46 GMT

Classification of sample: WS1---0.10

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

Sample details

Sample name:
WS1---0.10
Moisture content:
12%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 12% No Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	acenaphthene		201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
2	acenaphthylene		205-917-1	208-96-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
3	anthracene		204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		12 mg/kg	1.32	15.844 mg/kg	0.00158 %		
5	benzene	601-020-00-8	200-753-7	71-43-2		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
6	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
7	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
8	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
9	benzo[ghi]perylene		205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
10	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
11	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.46 mg/kg	2.775	1.277 mg/kg	0.000128 %		
12	boron { boric acid; [1] boric acid [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		0.6 mg/kg	5.719	3.432 mg/kg	0.000343 %		
13	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
14	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		22 mg/kg	1.462	32.154 mg/kg	0.00322 %		
15	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<LOD
16	chrysene	601-048-00-0	205-923-4	218-01-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<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									
17		copper { dicopper oxide; copper (I) oxide }				15	mg/kg	1.126	16.888	mg/kg	0.00169 %		
		029-002-00-X	215-270-7	1317-39-1									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
19		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
20		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
21		fluoranthene				0.08	mg/kg		0.08	mg/kg	0.000008 %		
			205-912-4	206-44-0									
22		fluorene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-695-5	86-73-7									
23		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5									
24		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	16	mg/kg		16	mg/kg	0.0016 %		
		082-001-00-6											
25		mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
		080-010-00-X	231-299-8	7487-94-7									
26		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
27		nickel { nickel dihydroxide }				11	mg/kg	1.579	17.374	mg/kg	0.00174 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
28		pH				7.7	pH		7.7	pH	7.7 pH		
				PH									
29		phenanthrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-581-5	85-01-8									
30		pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-927-3	129-00-0									
31		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
		034-002-00-8											
32		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
33		TPH (C6 to C40) petroleum group				67	mg/kg		67	mg/kg	0.0067 %		
				TPH									
34		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<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]									
35		zinc { zinc oxide }				44	mg/kg	1.245	54.767	mg/kg	0.00548 %		
		030-013-00-7	215-222-5	1314-13-2									
36		vanadium { divanadium pentaoxide; vanadium pentoxide }				54	mg/kg	1.785	96.4	mg/kg	0.00964 %		
		023-001-00-8	215-239-8	1314-62-1									
37		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
				P1186									
38		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
										Total:	0.033 %		

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because 1000 mg/kg used as non-hazardous limit for total TPH

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0067%)

Classification of sample: WS1---0.50

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

Sample details

Sample name:
WS1---0.50
Moisture content:
14%
(no correction)

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

Hazard properties

None identified

Determinands

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

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
2		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
3		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		9.6	mg/kg	1.32	12.675	mg/kg	0.00127 %		
5		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
6		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.07	mg/kg		0.07	mg/kg	0.000007 %		
7		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.07	mg/kg		0.07	mg/kg	0.000007 %		
8		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.11	mg/kg		0.11	mg/kg	0.000011 %		
9		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.05	mg/kg		0.05	mg/kg	0.000005 %		
11		beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.47	mg/kg	2.775	1.304	mg/kg	0.00013 %		
12		boron { boric acid; [1] boric acid [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		0.8	mg/kg	5.719	4.575	mg/kg	0.000458 %		
13		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
14		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		20	mg/kg	1.462	29.231	mg/kg	0.00292 %		
15		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1.8	mg/kg	1.923	<3.462	mg/kg	<0.000346 %		<LOD
16		chrysene	601-048-00-0	205-923-4	218-01-9		0.09	mg/kg		0.09	mg/kg	0.000009 %		

#		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									
17		copper { dicopper oxide; copper (I) oxide }				14	mg/kg	1.126	15.762	mg/kg	0.00158 %		
		029-002-00-X	215-270-7	1317-39-1									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
19		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
20		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
21		fluoranthene				0.14	mg/kg		0.14	mg/kg	0.000014 %		
			205-912-4	206-44-0									
22		fluorene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-695-5	86-73-7									
23		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5									
24		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	14	mg/kg		14	mg/kg	0.0014 %		
		082-001-00-6											
25		mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
		080-010-00-X	231-299-8	7487-94-7									
26		naphthalene				<0.0001	mg/kg		<0.0001	mg/kg	<0.00000001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
27		nickel { nickel dihydroxide }				13	mg/kg	1.579	20.533	mg/kg	0.00205 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
28		pH				10.4	pH		10.4	pH	10.4 pH		
				PH									
29		phenanthrene				0.06	mg/kg		0.06	mg/kg	0.000006 %		
			201-581-5	85-01-8									
30		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
31		pyrene				0.13	mg/kg		0.13	mg/kg	0.000013 %		
			204-927-3	129-00-0									
32		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
		034-002-00-8											
33		tetrachloroethylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-028-00-4	204-825-9	127-18-4									
34		carbon tetrachloride; tetrachloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-008-00-5	200-262-8	56-23-5									
35		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
36		TPH (C6 to C40) petroleum group				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
				TPH									
37		trichloroethylene; trichloroethene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-027-00-9	201-167-4	79-01-6									
38		vinyl chloride; chloroethylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-023-00-7	200-831-0	75-01-4									
39		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<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]									
40		zinc { zinc oxide }				38	mg/kg	1.245	47.299	mg/kg	0.00473 %		
		030-013-00-7	215-222-5	1314-13-2									
41		hexachlorobenzene				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		602-065-00-6	204-273-9	118-74-1									

#		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									
42		m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4]											
		604-004-00-9	203-577-9 [1] 202-423-8 [2] 203-398-6 [3] 215-293-2 [4]	108-39-4 [1] 95-48-7 [2] 106-44-5 [3] 1319-77-3 [4]		<0.5	mg/kg		<0.5	mg/kg	<0.00005 %		<**LOD**
43		1,2-dichloroethane; ethylene dichloride											
		602-012-00-7	203-458-1	107-06-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
44		vanadium { divanadium pentaoxide; vanadium pentoxide }											
		023-001-00-8	215-239-8	1314-62-1		41	mg/kg	1.785	73.193	mg/kg	0.00732 %		
45		monohydric phenols											
				P1186		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
46		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane											
		603-181-00-X	216-653-1	1634-04-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
47		aniline											
		612-008-00-7	200-539-3	62-53-3		1.1	mg/kg		1.1	mg/kg	0.00011 %		
48		2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]											
		604-008-00-0	202-433-2 [1] 203-402-6 [2] 203-582-6 [3] 246-691-4 [4]	95-57-8 [1] 106-48-9 [2] 108-43-0 [3] 25167-80-0 [4]		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
49		bis(2-chloroethyl) ether											
		603-029-00-2	203-870-1	111-44-4		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
50		hexachloroethane											
			200-666-4	67-72-1		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
51		nitrobenzene											
		609-003-00-7	202-716-0	98-95-3		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
52		3,5,5-trimethylcyclohex-2-enone; isophorone											
		606-012-00-8	201-126-0	78-59-1		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
53		2-nitrophenol											
			201-857-5	88-75-5		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
54		3,4-xylenol; [1] 2,5-xylenol; [2] 2,4-xylenol; [3] 2,3-xylenol; [4] 2,6-xylenol; [5] xylenol; [6] 2,4(or 2,5)-xylenol [7]											
		604-006-00-X	202-439-5 [1] 202-461-5 [2] 203-321-6 [3] 208-395-3 [4] 209-400-1 [5] 215-089-3 [6] 276-245-4 [7]	95-65-8 [1] 95-87-4 [2] 105-67-9 [3] 526-75-0 [4] 576-26-1 [5] 1300-71-6 [6] 71975-58-1 [7]		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
55		bis(2-chloroethoxy)methane											
			203-920-2	111-91-1		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
56		2,4-dichlorophenol											
		604-011-00-7	204-429-6	120-83-2		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
57		4-chloroaniline											
		612-137-00-9	203-401-0	106-47-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
58		chlorocresol; 4-chloro-m-cresol; 4-chloro-3-methylphenol											
		604-014-00-3	200-431-6	59-50-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
59		2,4,6-trichlorophenol											
		604-018-00-5	201-795-9	88-06-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
60		2,4,5-trichlorophenol											
		604-017-00-X	202-467-8	95-95-4		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
61		2-methyl naphthalene											
			202-078-3	91-57-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
62		2-chloronaphthalene											
			202-079-9	91-58-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
63		dimethyl phthalate											
			205-011-6	131-11-3		3.4	mg/kg		3.4	mg/kg	0.00034 %		

#		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									
64		2,6-dinitrotoluene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-049-00-8	210-106-0	606-20-2									
65		2,4-dinitrotoluene; [1] dinitrotoluene [2]				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		609-007-00-9	204-450-0 [1] 246-836-1 [2]	121-14-2 [1] 25321-14-6 [2]									
66		dibenzofuran				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
			205-071-3	132-64-9									
67		4-chlorophenylphenylether				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
			230-281-7	7005-72-3									
68		diethyl phthalate				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
			201-550-6	84-66-2									
69		o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		612-012-00-9	201-855-4 [1] 202-729-1 [2] 202-810-1 [3]	88-74-4 [1] 99-09-2 [2] 100-01-6 [3]									
70		azobenzene				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		611-001-00-6	203-102-5	103-33-3									
71		4-bromophenylphenylether				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
			202-952-4	101-55-3									
72		carbazole				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
			201-696-0	86-74-8									
73		dibutyl phthalate; DBP				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		607-318-00-4	201-557-4	84-74-2									
74		anthraquinone				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		606-151-00-4	201-549-0	84-65-1									
75		BBP; benzyl butyl phthalate				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		607-430-00-3	201-622-7	85-68-7									
76		1,1,1-trichloroethane; methyl chloroform				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-013-00-2	200-756-3	71-55-6									
77		1,1,2,2-tetrachloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-015-00-3	201-197-8	79-34-5									
78		1,1,2-trichloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-014-00-8	201-166-9	79-00-5									
79		1,1-dichloroethylene; vinylidene chloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-025-00-8	200-864-0	75-35-4									
80		1,1-dichloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-011-00-1	200-863-5	75-34-3									
81		1,1-dichloropropene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-031-00-0	209-253-3	563-58-6									
82		1,2,3-trichlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			201-757-1	87-61-6									
83		1,2,4-trimethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-043-00-3	202-436-9	95-63-6									
84		1,2-dibromoethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-010-00-6	203-444-5	106-93-4									
85		1,2-dichlorobenzene; o-dichlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-034-00-7	202-425-9	95-50-1									
86		1,2-dichloropropane; propylene dichloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-020-00-0	201-152-2	78-87-5									
87		1,3-dichlorbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-067-00-7	208-792-1	541-73-1									
88		1,3-dichloropropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			205-531-3	142-28-9									
89		1,4-dichlorobenzene; p-dichlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-035-00-2	203-400-5	106-46-7									
90		2,2-dichloropropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			209-832-0	594-20-7									
91		bromodichloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			200-856-7	75-27-4									

#		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									
92		bromomethane; methylbromide				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-002-00-2	200-813-2	74-83-9									
93		bromobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-060-00-9	203-623-8	108-86-1									
94		n-butylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			203-209-7	104-51-8									
95		1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]									
96		chlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-033-00-1	203-628-5	108-90-7									
97		chloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-009-00-0	200-830-5	75-00-3									
98		chloroform; trichloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-006-00-4	200-663-8	67-66-3									
99		chloromethane; methyl chloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-001-00-7	200-817-4	74-87-3									
100		dibromochloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			204-704-0	124-48-1									
101		1,2-dibromo-3-chloropropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-021-00-6	202-479-3	96-12-8									
102		dibromomethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-003-00-8	200-824-2	74-95-3									
103		hexachlorobutadiene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			201-765-5	87-68-3									
104		4-isopropyltoluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			202-796-7	99-87-6									
105		sec-butylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			205-227-0	135-98-8									
106		styrene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-026-00-0	202-851-5	100-42-5									
107		trans-1,3-dichloropropene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			431-460-4	10061-02-6									
108		tert-butylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			202-632-4	98-06-6									
109		bromoform; tribromomethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-007-00-X	200-854-6	75-25-2									
110		1,2,4-trichlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-087-00-6	204-428-0	120-82-1									
111		1,1,1,2-tetrachloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			211-135-1	630-20-6									
112		trichlorofluoromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			200-892-3	75-69-4									
113		mesitylene; 1,3,5-trimethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-025-00-5	203-604-4	108-67-8									
114		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]									
115		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]									
116		cumene; [1] propylbenzene [2]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-024-00-X	202-704-5 [1] 203-132-9 [2]	98-82-8 [1] 103-65-1 [2]									
										Total:	0.0249 %		

Key

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

Classification of sample: WS1---1.60

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

Sample details

Sample name:
WS1---1.60
Moisture content:
15%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 15% No Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	acenaphthene		201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
2	acenaphthylene		205-917-1	208-96-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
3	anthracene		204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		1.6 mg/kg	1.32	2.113 mg/kg	0.000211 %		
5	benzene	601-020-00-8	200-753-7	71-43-2		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
6	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
7	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
8	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
9	benzo[ghi]perylene		205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
10	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
11	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.35 mg/kg	2.775	0.971 mg/kg	0.0000971 %		
12	boron { boric acid; [1] boric acid [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		0.5 mg/kg	5.719	2.86 mg/kg	0.000286 %		
13	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
14	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %		
15	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<LOD
16	chrysene	601-048-00-0	205-923-4	218-01-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<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									
17		copper { dicopper oxide; copper (I) oxide }				5.9	mg/kg	1.126	6.643	mg/kg	0.000664 %		
		029-002-00-X	215-270-7	1317-39-1									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
19		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
20		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
21		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
22		fluorene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-695-5	86-73-7									
23		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5									
24		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	6.1	mg/kg		6.1	mg/kg	0.00061 %		
		082-001-00-6											
25		mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
		080-010-00-X	231-299-8	7487-94-7									
26		naphthalene				<0.0001	mg/kg		<0.0001	mg/kg	<0.00000001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
27		nickel { nickel dihydroxide }				6.7	mg/kg	1.579	10.583	mg/kg	0.00106 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
28		pH				8.2	pH		8.2	pH	8.2 pH		
				PH									
29		phenanthrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-581-5	85-01-8									
30		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
31		pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-927-3	129-00-0									
32		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
		034-002-00-8											
33		tetrachloroethylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-028-00-4	204-825-9	127-18-4									
34		carbon tetrachloride; tetrachloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-008-00-5	200-262-8	56-23-5									
35		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
36		TPH (C6 to C40) petroleum group				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
				TPH									
37		trichloroethylene; trichloroethene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-027-00-9	201-167-4	79-01-6									
38		vinyl chloride; chloroethylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-023-00-7	200-831-0	75-01-4									
39		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<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]									
40		zinc { zinc oxide }				17	mg/kg	1.245	21.16	mg/kg	0.00212 %		
		030-013-00-7	215-222-5	1314-13-2									
41		hexachlorobenzene				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		602-065-00-6	204-273-9	118-74-1									

#		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							
42		m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4]									
		604-004-00-9	203-577-9 [1] 202-423-8 [2] 203-398-6 [3] 215-293-2 [4]	108-39-4 [1] 95-48-7 [2] 106-44-5 [3] 1319-77-3 [4]		<0.5 mg/kg		<0.5 mg/kg	<0.00005 %		<**LOD**
43		1,2-dichloroethane; ethylene dichloride									
		602-012-00-7	203-458-1	107-06-2		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
44		vanadium { divanadium pentaoxide; vanadium pentoxide }									
		023-001-00-8	215-239-8	1314-62-1		17 mg/kg	1.785	30.348 mg/kg	0.00303 %		
45		monohydric phenols									
				P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
46		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane									
		603-181-00-X	216-653-1	1634-04-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
47		aniline									
		612-008-00-7	200-539-3	62-53-3		0.5 mg/kg		0.5 mg/kg	0.00005 %		
48		2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]									
		604-008-00-0	202-433-2 [1] 203-402-6 [2] 203-582-6 [3] 246-691-4 [4]	95-57-8 [1] 106-48-9 [2] 108-43-0 [3] 25167-80-0 [4]		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
49		bis(2-chloroethyl) ether									
		603-029-00-2	203-870-1	111-44-4		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<**LOD**
50		hexachloroethane									
			200-666-4	67-72-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
51		nitrobenzene									
		609-003-00-7	202-716-0	98-95-3		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
52		3,5,5-trimethylcyclohex-2-enone; isophorone									
		606-012-00-8	201-126-0	78-59-1		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<**LOD**
53		2-nitrophenol									
			201-857-5	88-75-5		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
54		3,4-xylenol; [1] 2,5-xylenol; [2] 2,4-xylenol; [3] 2,3-xylenol; [4] 2,6-xylenol; [5] xylenol; [6] 2,4(or 2,5)-xylenol [7]									
		604-006-00-X	202-439-5 [1] 202-461-5 [2] 203-321-6 [3] 208-395-3 [4] 209-400-1 [5] 215-089-3 [6] 276-245-4 [7]	95-65-8 [1] 95-87-4 [2] 105-67-9 [3] 526-75-0 [4] 576-26-1 [5] 1300-71-6 [6] 71975-58-1 [7]		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
55		bis(2-chloroethoxy)methane									
			203-920-2	111-91-1		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
56		2,4-dichlorophenol									
		604-011-00-7	204-429-6	120-83-2		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
57		4-chloroaniline									
		612-137-00-9	203-401-0	106-47-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
58		chlorocresol; 4-chloro-m-cresol; 4-chloro-3-methylphenol									
		604-014-00-3	200-431-6	59-50-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
59		2,4,6-trichlorophenol									
		604-018-00-5	201-795-9	88-06-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
60		2,4,5-trichlorophenol									
		604-017-00-X	202-467-8	95-95-4		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<**LOD**
61		2-methyl naphthalene									
			202-078-3	91-57-6		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
62		2-chloronaphthalene									
			202-079-9	91-58-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
63		dimethyl phthalate									
			205-011-6	131-11-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**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									
64		2,6-dinitrotoluene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-049-00-8	210-106-0	606-20-2									
65		2,4-dinitrotoluene; [1] dinitrotoluene [2]				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		609-007-00-9	204-450-0 [1] 246-836-1 [2]	121-14-2 [1] 25321-14-6 [2]									
66		dibenzofuran				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
			205-071-3	132-64-9									
67		4-chlorophenylphenylether				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
			230-281-7	7005-72-3									
68		diethyl phthalate				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
			201-550-6	84-66-2									
69		o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		612-012-00-9	201-855-4 [1] 202-729-1 [2] 202-810-1 [3]	88-74-4 [1] 99-09-2 [2] 100-01-6 [3]									
70		azobenzene				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		611-001-00-6	203-102-5	103-33-3									
71		4-bromophenylphenylether				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
			202-952-4	101-55-3									
72		carbazole				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
			201-696-0	86-74-8									
73		dibutyl phthalate; DBP				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		607-318-00-4	201-557-4	84-74-2									
74		anthraquinone				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		606-151-00-4	201-549-0	84-65-1									
75		BBP; benzyl butyl phthalate				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		607-430-00-3	201-622-7	85-68-7									
76		1,1,1-trichloroethane; methyl chloroform				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-013-00-2	200-756-3	71-55-6									
77		1,1,2,2-tetrachloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-015-00-3	201-197-8	79-34-5									
78		1,1,2-trichloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-014-00-8	201-166-9	79-00-5									
79		1,1-dichloroethylene; vinylidene chloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-025-00-8	200-864-0	75-35-4									
80		1,1-dichloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-011-00-1	200-863-5	75-34-3									
81		1,1-dichloropropene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-031-00-0	209-253-3	563-58-6									
82		1,2,3-trichlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			201-757-1	87-61-6									
83		1,2,4-trimethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-043-00-3	202-436-9	95-63-6									
84		1,2-dibromoethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-010-00-6	203-444-5	106-93-4									
85		1,2-dichlorobenzene; o-dichlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-034-00-7	202-425-9	95-50-1									
86		1,2-dichloropropane; propylene dichloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-020-00-0	201-152-2	78-87-5									
87		1,3-dichlorbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-067-00-7	208-792-1	541-73-1									
88		1,3-dichloropropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			205-531-3	142-28-9									
89		1,4-dichlorobenzene; p-dichlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-035-00-2	203-400-5	106-46-7									
90		2,2-dichloropropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			209-832-0	594-20-7									
91		bromodichloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			200-856-7	75-27-4									

#		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									
92		bromomethane; methylbromide				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-002-00-2	200-813-2	74-83-9									
93		bromobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-060-00-9	203-623-8	108-86-1									
94		n-butylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			203-209-7	104-51-8									
95		1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]									
96		chlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-033-00-1	203-628-5	108-90-7									
97		chloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-009-00-0	200-830-5	75-00-3									
98		chloroform; trichloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-006-00-4	200-663-8	67-66-3									
99		chloromethane; methyl chloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-001-00-7	200-817-4	74-87-3									
100		dibromochloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			204-704-0	124-48-1									
101		1,2-dibromo-3-chloropropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-021-00-6	202-479-3	96-12-8									
102		dibromomethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-003-00-8	200-824-2	74-95-3									
103		hexachlorobutadiene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			201-765-5	87-68-3									
104		4-isopropyltoluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			202-796-7	99-87-6									
105		sec-butylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			205-227-0	135-98-8									
106		styrene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-026-00-0	202-851-5	100-42-5									
107		trans-1,3-dichloropropene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			431-460-4	10061-02-6									
108		tert-butylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			202-632-4	98-06-6									
109		bromoform; tribromomethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-007-00-X	200-854-6	75-25-2									
110		1,2,4-trichlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-087-00-6	204-428-0	120-82-1									
111		1,1,1,2-tetrachloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			211-135-1	630-20-6									
112		trichlorofluoromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			200-892-3	75-69-4									
113		mesitylene; 1,3,5-trimethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-025-00-5	203-604-4	108-67-8									
114		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]									
115		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]									
116		cumene; [1] propylbenzene [2]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-024-00-X	202-704-5 [1] 203-132-9 [2]	98-82-8 [1] 103-65-1 [2]									
										Total:	0.0129 %		

Key

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

Classification of sample: WS3---0.40

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

Sample details

Sample name:
WS3---0.40
Moisture content:
12%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 12% No Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	acenaphthene		201-469-6	83-32-9		0.33 mg/kg		0.33 mg/kg	0.000033 %		
2	acenaphthylene		205-917-1	208-96-8		0.07 mg/kg		0.07 mg/kg	0.000007 %		
3	anthracene		204-371-1	120-12-7		0.93 mg/kg		0.93 mg/kg	0.000093 %		
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		11 mg/kg	1.32	14.524 mg/kg	0.00145 %		
5	benzene	601-020-00-8	200-753-7	71-43-2		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
6	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		2.5 mg/kg		2.5 mg/kg	0.00025 %		
7	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		2.7 mg/kg		2.7 mg/kg	0.00027 %		
8	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		2.7 mg/kg		2.7 mg/kg	0.00027 %		
9	benzo[ghi]perylene		205-883-8	191-24-2		1.6 mg/kg		1.6 mg/kg	0.00016 %		
10	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		1.7 mg/kg		1.7 mg/kg	0.00017 %		
11	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.75 mg/kg	2.775	2.082 mg/kg	0.000208 %		
12	boron { boric acid; [1] boric acid [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		0.5 mg/kg	5.719	2.86 mg/kg	0.000286 %		
13	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
14	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		23 mg/kg	1.462	33.616 mg/kg	0.00336 %		
15	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<LOD
16	chrysene	601-048-00-0	205-923-4	218-01-9		2.4 mg/kg		2.4 mg/kg	0.00024 %		

#		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									
17		copper { dicopper oxide; copper (I) oxide }				15	mg/kg	1.126	16.888	mg/kg	0.00169 %		
		029-002-00-X	215-270-7	1317-39-1									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		dibenz[a,h]anthracene				0.29	mg/kg		0.29	mg/kg	0.000029 %		
		601-041-00-2	200-181-8	53-70-3									
20		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
21		fluoranthene				4.9	mg/kg		4.9	mg/kg	0.00049 %		
			205-912-4	206-44-0									
22		fluorene				0.41	mg/kg		0.41	mg/kg	0.000041 %		
			201-695-5	86-73-7									
23		indeno[123-cd]pyrene				1.3	mg/kg		1.3	mg/kg	0.00013 %		
			205-893-2	193-39-5									
24		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	40	mg/kg		40	mg/kg	0.004 %		
		082-001-00-6											
25		mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<**LOD**
		080-010-00-X	231-299-8	7487-94-7									
26		naphthalene				0.18	mg/kg		0.18	mg/kg	0.000018 %		
		601-052-00-2	202-049-5	91-20-3									
27		nickel { nickel dihydroxide }				12	mg/kg	1.579	18.954	mg/kg	0.0019 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
28		pH				8.9	pH		8.9	pH	8.9 pH		
				PH									
29		phenanthrene				3.2	mg/kg		3.2	mg/kg	0.00032 %		
			201-581-5	85-01-8									
30		pyrene				4.2	mg/kg		4.2	mg/kg	0.00042 %		
			204-927-3	129-00-0									
31		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<**LOD**
		034-002-00-8											
32		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
33		TPH (C6 to C40) petroleum group				140	mg/kg		140	mg/kg	0.014 %		
				TPH									
34		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**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]									
35		zinc { zinc oxide }				95	mg/kg	1.245	118.248	mg/kg	0.0118 %		
		030-013-00-7	215-222-5	1314-13-2									
36		vanadium { divanadium pentaoxide; vanadium pentoxide }				41	mg/kg	1.785	73.193	mg/kg	0.00732 %		
		023-001-00-8	215-239-8	1314-62-1									
37		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
				P1186									
38		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		603-181-00-X	216-653-1	1634-04-4									
										Total:	0.0498 %		

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because 1000 mg/kg used as non-hazardous limit for total TPH

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.014%)

Classification of sample: WS3---1.00

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

Sample details

Sample name:
WS3---1.00
Moisture content:
17%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 17% No Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	acenaphthene		201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
2	acenaphthylene		205-917-1	208-96-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
3	anthracene		204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		13 mg/kg	1.32	17.164 mg/kg	0.00172 %		
5	benzene	601-020-00-8	200-753-7	71-43-2		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
6	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.52 mg/kg		0.52 mg/kg	0.000052 %		
7	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.42 mg/kg		0.42 mg/kg	0.000042 %		
8	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.62 mg/kg		0.62 mg/kg	0.000062 %		
9	benzo[ghi]perylene		205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
10	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.28 mg/kg		0.28 mg/kg	0.000028 %		
11	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.9 mg/kg	2.775	2.498 mg/kg	0.00025 %		
12	boron { boric acid; [1] boric acid [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		0.9 mg/kg	5.719	5.147 mg/kg	0.000515 %		
13	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<**LOD**
14	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		32 mg/kg	1.462	46.77 mg/kg	0.00468 %		
15	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<**LOD**
16	chrysene	601-048-00-0	205-923-4	218-01-9		0.62 mg/kg		0.62 mg/kg	0.000062 %		

#		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									
17		copper { dicopper oxide; copper (I) oxide }				18	mg/kg	1.126	20.266	mg/kg	0.00203 %		
		029-002-00-X	215-270-7	1317-39-1									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
20		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
21		fluoranthene				0.77	mg/kg		0.77	mg/kg	0.000077 %		
			205-912-4	206-44-0									
22		fluorene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			201-695-5	86-73-7									
23		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-893-2	193-39-5									
24		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	22	mg/kg		22	mg/kg	0.0022 %		
		082-001-00-6											
25		mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<**LOD**
		080-010-00-X	231-299-8	7487-94-7									
26		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
27		nickel { nickel dihydroxide }				20	mg/kg	1.579	31.59	mg/kg	0.00316 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
28		pH				7.7	pH		7.7	pH	7.7 pH		
				PH									
29		phenanthrene				0.16	mg/kg		0.16	mg/kg	0.000016 %		
			201-581-5	85-01-8									
30		pyrene				0.61	mg/kg		0.61	mg/kg	0.000061 %		
			204-927-3	129-00-0									
31		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<**LOD**
		034-002-00-8											
32		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
33		TPH (C6 to C40) petroleum group				15	mg/kg		15	mg/kg	0.0015 %		
				TPH									
34		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**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]									
35		zinc { zinc oxide }				53	mg/kg	1.245	65.97	mg/kg	0.0066 %		
		030-013-00-7	215-222-5	1314-13-2									
36		vanadium { divanadium pentaoxide; vanadium pentoxide }				52	mg/kg	1.785	92.83	mg/kg	0.00928 %		
		023-001-00-8	215-239-8	1314-62-1									
37		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
				P1186									
38		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		603-181-00-X	216-653-1	1634-04-4									
										Total:	0.0332 %		

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because 1000 mg/kg used as non-hazardous limit for total TPH

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0015%)

Classification of sample: TP9---0.20

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

Sample details

Sample name:
TP9---0.20
Moisture content:
11%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 11% No Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	acenaphthene		201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
2	acenaphthylene		205-917-1	208-96-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
3	anthracene		204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		18 mg/kg	1.32	23.766 mg/kg	0.00238 %		
5	benzene	601-020-00-8	200-753-7	71-43-2		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
6	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.08 mg/kg		0.08 mg/kg	0.000008 %		
7	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
8	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
9	benzo[ghi]perylene		205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
10	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
11	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.59 mg/kg	2.775	1.637 mg/kg	0.000164 %		
12	boron { boric acid; [1] boric acid [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		1.1 mg/kg	5.719	6.291 mg/kg	0.000629 %		
13	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
14	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		25 mg/kg	1.462	36.539 mg/kg	0.00365 %		
15	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<LOD
16	chrysene	601-048-00-0	205-923-4	218-01-9		0.1 mg/kg		0.1 mg/kg	0.00001 %		

#		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									
17		copper { dicopper oxide; copper (I) oxide }				11	mg/kg	1.126	12.385	mg/kg	0.00124 %		
		029-002-00-X	215-270-7	1317-39-1									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
20		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
21		fluoranthene				0.12	mg/kg		0.12	mg/kg	0.000012 %		
			205-912-4	206-44-0									
22		fluorene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			201-695-5	86-73-7									
23		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-893-2	193-39-5									
24		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	19	mg/kg		19	mg/kg	0.0019 %		
		082-001-00-6											
25		mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<**LOD**
		080-010-00-X	231-299-8	7487-94-7									
26		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
27		nickel { nickel dihydroxide }				14	mg/kg	1.579	22.113	mg/kg	0.00221 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
28		pH				8.4	pH		8.4	pH	8.4 pH		
				PH									
29		phenanthrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			201-581-5	85-01-8									
30		pyrene				0.12	mg/kg		0.12	mg/kg	0.000012 %		
			204-927-3	129-00-0									
31		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<**LOD**
		034-002-00-8											
32		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
33		TPH (C6 to C40) petroleum group				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
				TPH									
34		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**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]									
35		zinc { zinc oxide }				74	mg/kg	1.245	92.109	mg/kg	0.00921 %		
		030-013-00-7	215-222-5	1314-13-2									
36		vanadium { divanadium pentaoxide; vanadium pentoxide }				79	mg/kg	1.785	141.03	mg/kg	0.0141 %		
		023-001-00-8	215-239-8	1314-62-1									
37		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
				P1186									
38		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		603-181-00-X	216-653-1	1634-04-4									
										Total:	0.0374 %		

Key

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

Classification of sample: WS4---0.10

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

Sample details

Sample name:
WS4---0.10
Moisture content:
16%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 16% No Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	acenaphthene		201-469-6	83-32-9		0.32 mg/kg		0.32 mg/kg	0.000032 %		
2	acenaphthylene		205-917-1	208-96-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
3	anthracene		204-371-1	120-12-7		0.81 mg/kg		0.81 mg/kg	0.000081 %		
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		13 mg/kg	1.32	17.164 mg/kg	0.00172 %		
5	benzene	601-020-00-8	200-753-7	71-43-2		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
6	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		2.8 mg/kg		2.8 mg/kg	0.00028 %		
7	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		2.8 mg/kg		2.8 mg/kg	0.00028 %		
8	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		3.2 mg/kg		3.2 mg/kg	0.00032 %		
9	benzo[ghi]perylene		205-883-8	191-24-2		1.8 mg/kg		1.8 mg/kg	0.00018 %		
10	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		1.5 mg/kg		1.5 mg/kg	0.00015 %		
11	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.82 mg/kg	2.775	2.276 mg/kg	0.000228 %		
12	boron { boric acid; [1] boric acid [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		1.1 mg/kg	5.719	6.291 mg/kg	0.000629 %		
13	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<**LOD**
14	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		27 mg/kg	1.462	39.462 mg/kg	0.00395 %		
15	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<**LOD**
16	chrysene	601-048-00-0	205-923-4	218-01-9		2.7 mg/kg		2.7 mg/kg	0.00027 %		

#		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									
17		copper { dicopper oxide; copper (I) oxide }				39	mg/kg	1.126	43.91	mg/kg	0.00439 %		
		029-002-00-X	215-270-7	1317-39-1									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		dibenz[a,h]anthracene				0.42	mg/kg		0.42	mg/kg	0.000042 %		
		601-041-00-2	200-181-8	53-70-3									
20		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
21		fluoranthene				6.3	mg/kg		6.3	mg/kg	0.00063 %		
			205-912-4	206-44-0									
22		fluorene				0.4	mg/kg		0.4	mg/kg	0.00004 %		
			201-695-5	86-73-7									
23		indeno[123-cd]pyrene				1.5	mg/kg		1.5	mg/kg	0.00015 %		
			205-893-2	193-39-5									
24		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	100	mg/kg		100	mg/kg	0.01 %		
		082-001-00-6											
25		mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<**LOD**
		080-010-00-X	231-299-8	7487-94-7									
26		naphthalene				0.16	mg/kg		0.16	mg/kg	0.000016 %		
		601-052-00-2	202-049-5	91-20-3									
27		nickel { nickel dihydroxide }				16	mg/kg	1.579	25.272	mg/kg	0.00253 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
28		pH				7.9	pH		7.9	pH	7.9 pH		
				PH									
29		phenanthrene				4.4	mg/kg		4.4	mg/kg	0.00044 %		
			201-581-5	85-01-8									
30		pyrene				5.2	mg/kg		5.2	mg/kg	0.00052 %		
			204-927-3	129-00-0									
31		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<**LOD**
		034-002-00-8											
32		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
33		TPH (C6 to C40) petroleum group				21	mg/kg		21	mg/kg	0.0021 %		
				TPH									
34		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**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]									
35		zinc { zinc oxide }				140	mg/kg	1.245	174.26	mg/kg	0.0174 %		
		030-013-00-7	215-222-5	1314-13-2									
36		vanadium { divanadium pentaoxide; vanadium pentoxide }				45	mg/kg	1.785	80.333	mg/kg	0.00803 %		
		023-001-00-8	215-239-8	1314-62-1									
37		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
				P1186									
38		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		603-181-00-X	216-653-1	1634-04-4									
										Total:	0.0553 %		

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because 1000 mg/kg used as non-hazardous limit for total TPH

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0021%)

Classification of sample: TP10---0.50

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

Sample details

Sample name:
TP10---0.50
Moisture content:
13%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 13% No Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	acenaphthene		201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
2	acenaphthylene		205-917-1	208-96-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
3	anthracene		204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		12 mg/kg	1.32	15.844 mg/kg	0.00158 %		
5	benzene	601-020-00-8	200-753-7	71-43-2		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
6	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.54 mg/kg		0.54 mg/kg	0.000054 %		
7	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.6 mg/kg		0.6 mg/kg	0.00006 %		
8	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.67 mg/kg		0.67 mg/kg	0.000067 %		
9	benzo[ghi]perylene		205-883-8	191-24-2		0.41 mg/kg		0.41 mg/kg	0.000041 %		
10	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.37 mg/kg		0.37 mg/kg	0.000037 %		
11	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.64 mg/kg	2.775	1.776 mg/kg	0.000178 %		
12	boron { boric acid; [1] boric acid [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		1.1 mg/kg	5.719	6.291 mg/kg	0.000629 %		
13	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
14	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		19 mg/kg	1.462	27.77 mg/kg	0.00278 %		
15	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<LOD
16	chrysene	601-048-00-0	205-923-4	218-01-9		0.53 mg/kg		0.53 mg/kg	0.000053 %		

#		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									
17		copper { dicopper oxide; copper (I) oxide }				11	mg/kg	1.126	12.385	mg/kg	0.00124 %		
		029-002-00-X	215-270-7	1317-39-1									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
20		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
21		fluoranthene				0.83	mg/kg		0.83	mg/kg	0.000083 %		
			205-912-4	206-44-0									
22		fluorene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			201-695-5	86-73-7									
23		indeno[123-cd]pyrene				0.38	mg/kg		0.38	mg/kg	0.000038 %		
			205-893-2	193-39-5									
24		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	26	mg/kg		26	mg/kg	0.0026 %		
		082-001-00-6											
25		mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<**LOD**
		080-010-00-X	231-299-8	7487-94-7									
26		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
27		nickel { nickel dihydroxide }				13	mg/kg	1.579	20.533	mg/kg	0.00205 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
28		pH				10.4	pH		10.4	pH	10.4 pH		
				PH									
29		phenanthrene				0.26	mg/kg		0.26	mg/kg	0.000026 %		
			201-581-5	85-01-8									
30		pyrene				0.75	mg/kg		0.75	mg/kg	0.000075 %		
			204-927-3	129-00-0									
31		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<**LOD**
		034-002-00-8											
32		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
33		TPH (C6 to C40) petroleum group				11	mg/kg		11	mg/kg	0.0011 %		
				TPH									
34		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**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]									
35		zinc { zinc oxide }				50	mg/kg	1.245	62.236	mg/kg	0.00622 %		
		030-013-00-7	215-222-5	1314-13-2									
36		vanadium { divanadium pentaoxide; vanadium pentoxide }				37	mg/kg	1.785	66.052	mg/kg	0.00661 %		
		023-001-00-8	215-239-8	1314-62-1									
37		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
				P1186									
38		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		603-181-00-X	216-653-1	1634-04-4									
										Total:	0.0264 %		

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because 1000 mg/kg used as non-hazardous limit for total TPH

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0011%)

Classification of sample: TP12---0.10

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

Sample details

Sample name:
TP12---0.10
Moisture content:
13%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 13% No Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	acenaphthene		201-469-6	83-32-9		0.14 mg/kg		0.14 mg/kg	0.000014 %		
2	acenaphthylene		205-917-1	208-96-8		0.21 mg/kg		0.21 mg/kg	0.000021 %		
3	anthracene		204-371-1	120-12-7		1.1 mg/kg		1.1 mg/kg	0.00011 %		
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		16 mg/kg	1.32	21.125 mg/kg	0.00211 %		
5	benzene	601-020-00-8	200-753-7	71-43-2		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
6	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		2.3 mg/kg		2.3 mg/kg	0.00023 %		
7	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		2.6 mg/kg		2.6 mg/kg	0.00026 %		
8	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		2.7 mg/kg		2.7 mg/kg	0.00027 %		
9	benzo[ghi]perylene		205-883-8	191-24-2		1.8 mg/kg		1.8 mg/kg	0.00018 %		
10	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		1.5 mg/kg		1.5 mg/kg	0.00015 %		
11	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.9 mg/kg	2.775	2.498 mg/kg	0.00025 %		
12	boron { boric acid; [1] boric acid [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		0.4 mg/kg	5.719	2.288 mg/kg	0.000229 %		
13	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<**LOD**
14	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		30 mg/kg	1.462	43.847 mg/kg	0.00438 %		
15	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<**LOD**
16	chrysene	601-048-00-0	205-923-4	218-01-9		2.5 mg/kg		2.5 mg/kg	0.00025 %		

#		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									
17		copper { dicopper oxide; copper (I) oxide }				34	mg/kg	1.126	38.28	mg/kg	0.00383 %		
		029-002-00-X	215-270-7	1317-39-1									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
20		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
21		fluoranthene				4.6	mg/kg		4.6	mg/kg	0.00046 %		
			205-912-4	206-44-0									
22		fluorene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
			201-695-5	86-73-7									
23		indeno[123-cd]pyrene				1.6	mg/kg		1.6	mg/kg	0.00016 %		
			205-893-2	193-39-5									
24		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	120	mg/kg		120	mg/kg	0.012 %		
		082-001-00-6											
25		mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<**LOD**
		080-010-00-X	231-299-8	7487-94-7									
26		naphthalene				0.08	mg/kg		0.08	mg/kg	0.000008 %		
		601-052-00-2	202-049-5	91-20-3									
27		nickel { nickel dihydroxide }				21	mg/kg	1.579	33.169	mg/kg	0.00332 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
28		pH				9	pH		9	pH	9pH		
				PH									
29		phenanthrene				2.7	mg/kg		2.7	mg/kg	0.00027 %		
			201-581-5	85-01-8									
30		pyrene				3.9	mg/kg		3.9	mg/kg	0.00039 %		
			204-927-3	129-00-0									
31		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<**LOD**
		034-002-00-8											
32		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
33		TPH (C6 to C40) petroleum group				35	mg/kg		35	mg/kg	0.0035 %		
				TPH									
34		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**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]									
35		zinc { zinc oxide }				110	mg/kg	1.245	136.919	mg/kg	0.0137 %		
		030-013-00-7	215-222-5	1314-13-2									
36		vanadium { divanadium pentaoxide; vanadium pentoxide }				51	mg/kg	1.785	91.044	mg/kg	0.0091 %		
		023-001-00-8	215-239-8	1314-62-1									
37		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
				P1186									
38		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		603-181-00-X	216-653-1	1634-04-4									
										Total:	0.0561 %		

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because 1000 mg/kg used as non-hazardous limit for total TPH

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0035%)

Classification of sample: TP13---0.10

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

Sample details

Sample name:
TP13---0.10
Moisture content:
11%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 11% No Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	acenaphthene		201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
2	acenaphthylene		205-917-1	208-96-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
3	anthracene		204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		14 mg/kg	1.32	18.485 mg/kg	0.00185 %		
5	benzene	601-020-00-8	200-753-7	71-43-2		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
6	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.28 mg/kg		0.28 mg/kg	0.000028 %		
7	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.29 mg/kg		0.29 mg/kg	0.000029 %		
8	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.35 mg/kg		0.35 mg/kg	0.000035 %		
9	benzo[ghi]perylene		205-883-8	191-24-2		0.23 mg/kg		0.23 mg/kg	0.000023 %		
10	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.21 mg/kg		0.21 mg/kg	0.000021 %		
11	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.51 mg/kg	2.775	1.415 mg/kg	0.000142 %		
12	boron { boric acid; [1] boric acid [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		0.2 mg/kg	5.719	1.144 mg/kg	0.000114 %		
13	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
14	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		26 mg/kg	1.462	38 mg/kg	0.0038 %		
15	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<LOD
16	chrysene	601-048-00-0	205-923-4	218-01-9		0.27 mg/kg		0.27 mg/kg	0.000027 %		

#		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									
17		copper { dicopper oxide; copper (I) oxide }				11	mg/kg	1.126	12.385	mg/kg	0.00124 %		
		029-002-00-X	215-270-7	1317-39-1									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
20		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
21		fluoranthene				0.44	mg/kg		0.44	mg/kg	0.000044 %		
			205-912-4	206-44-0									
22		fluorene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			201-695-5	86-73-7									
23		indeno[123-cd]pyrene				0.18	mg/kg		0.18	mg/kg	0.000018 %		
			205-893-2	193-39-5									
24		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	24	mg/kg		24	mg/kg	0.0024 %		
		082-001-00-6											
25		mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<**LOD**
		080-010-00-X	231-299-8	7487-94-7									
26		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
27		nickel { nickel dihydroxide }				13	mg/kg	1.579	20.533	mg/kg	0.00205 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
28		pH				8.7	pH		8.7	pH	8.7 pH		
				PH									
29		phenanthrene				0.18	mg/kg		0.18	mg/kg	0.000018 %		
			201-581-5	85-01-8									
30		pyrene				0.43	mg/kg		0.43	mg/kg	0.000043 %		
			204-927-3	129-00-0									
31		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<**LOD**
		034-002-00-8											
32		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
33		TPH (C6 to C40) petroleum group				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
				TPH									
34		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**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]									
35		zinc { zinc oxide }				54	mg/kg	1.245	67.215	mg/kg	0.00672 %		
		030-013-00-7	215-222-5	1314-13-2									
36		vanadium { divanadium pentaoxide; vanadium pentoxide }				62	mg/kg	1.785	110.681	mg/kg	0.0111 %		
		023-001-00-8	215-239-8	1314-62-1									
37		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
				P1186									
38		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		603-181-00-X	216-653-1	1634-04-4									
										Total:	0.0315 %		

Key

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

Appendix A: Classifier defined and non GB MCL determinands

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

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

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

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

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

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

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

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

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

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

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

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

lead compounds with the exception of those specified elsewhere in this Annex

GB MCL index number: 082-001-00-6
Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers many simple lead compounds to be Carcinogenic category 2
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 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

pH (CAS Number: PH)

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

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

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

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

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
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

divanadium pentaoxide; vanadium pentoxide (EC Number: 215-239-8, CAS Number: 1314-62-1)

GB MCL index number: 023-001-00-8
Description/Comments:
Additional Hazard Statement(s): Carc. 1B; H350 , Acute Tox. 3; H301 , Acute Tox. 2; H330
Reason for additional Hazards Statement(s):
20 Sep 2022 - Carc. 1B; H350 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be Carc. 1B; H350. The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List]. Substance has therefore been self-classified.
28 Sep 2022 - Acute Tox. 3; H301 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be "Acute tox 3; H301". The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List]. Substance has therefore been self-classified.
28 Sep 2022 - Acute Tox. 2; H330 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be "Acute tox 2; H330". The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List]. Substance has therefore been self-classified.

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

hexachloroethane (EC Number: 200-666-4, CAS Number: 67-72-1)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , STOT RE 2; H373

2-nitrophenol (EC Number: 201-857-5, CAS Number: 88-75-5)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 4; H312 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Acute Tox. 4; H332 , STOT SE 3; H335 , STOT RE 2; H373 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

bis(2-chloroethoxy)methane (EC Number: 203-920-2, CAS Number: 111-91-1)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 3; H301 , Acute Tox. 4; H312 , Acute Tox. 1; H330 , Acute Tox. 2; H330 , STOT SE 1; H370 , STOT RE 2; H373

2-methyl naphthalene (EC Number: 202-078-3, CAS Number: 91-57-6)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , STOT SE 3; H336 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

2-chloronaphthalene (EC Number: 202-079-9, CAS Number: 91-58-7)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

dimethyl phthalate (EC Number: 205-011-6, CAS Number: 131-11-3)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Acute Tox. 3; H331 , STOT SE 3; H335 , STOT SE 3; H336 , Repr. 2; H361 , Aquatic Chronic 3; H412

dibenzofuran (EC Number: 205-071-3, CAS Number: 132-64-9)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 4; H312 , Acute Tox. 4; H332 , Aquatic Chronic 2; H411

4-chlorophenylphenylether (EC Number: 230-281-7, CAS Number: 7005-72-3)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Eye Dam. 1; H318 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

diethyl phthalate (EC Number: 201-550-6, CAS Number: 84-66-2)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Skin Irrit. 2; H315 , Acute Tox. 3; H331 , Acute Tox. 3; H311 , STOT SE 3; H335 , STOT RE 2; H373 , Repr. 2; H361 , Acute Tox. 4; H302 , STOT SE 3; H336 , Skin Sens. 1; H317 , Aquatic Chronic 1; H410

4-bromophenylphenylether (EC Number: 202-952-4, CAS Number: 101-55-3)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Eye Dam. 1; H318 , Eye Irrit. 2; H319 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

carbazole (EC Number: 201-696-0, CAS Number: 86-74-8)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Muta. 2; H341 , Carc. 2; H351 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Acute Tox. 3; H331 , Acute Tox. 3; H311 , Acute Tox. 3; H301

- **1,2,3-trichlorobenzene** (EC Number: 201-757-1, CAS Number: 87-61-6)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , STOT SE 3; H336 , Aquatic Acute 1; H400 , Aquatic Chronic 3; H410

- **1,3-dichloropropane** (EC Number: 205-531-3, CAS Number: 142-28-9)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H332 , Flam. Liq. 2; H225 , Flam. Liq. 3; H226 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335

- **2,2-dichloropropane** (EC Number: 209-832-0, CAS Number: 594-20-7)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H332 , Flam. Liq. 2; H225 , Acute Tox. 4; H302 , Acute Tox. 4; H312 , Eye Irrit. 2; H319

- **bromodichloromethane** (EC Number: 200-856-7, CAS Number: 75-27-4)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Eye Dam. 1; H318 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 1A; H360

- **n-butylbenzene** (EC Number: 203-209-7, CAS Number: 104-51-8)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Flam. Liq. 3; H226 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **dibromochloromethane** (EC Number: 204-704-0, CAS Number: 124-48-1)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 3;
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 4; H312 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Acute Tox. 4; H332 , STOT SE 3; H335 , STOT SE 3; H336 , Muta. 2; H341 , Aquatic Chronic 2; H411

- **hexachlorobutadiene** (EC Number: 201-765-5, CAS Number: 87-68-3)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 3;
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 3; H301 , Acute Tox. 2; H310 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Eye Irrit. 2; H319 , Acute Tox. 2; H330 , Carc. 2; H351 , Repr. 2; H361 , STOT SE 2; H371 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **4-isopropyltoluene** (EC Number: 202-796-7, CAS Number: 99-87-6)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Chronic 2; H411

- **sec-butylbenzene** (EC Number: 205-227-0, CAS Number: 135-98-8)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Aquatic Chronic 2; H411

- **trans-1,3-dichloropropene** (EC Number: 431-460-4, CAS Number: 10061-02-6)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Flam. Liq. 3; H226 , Acute Tox. 3; H301 , Asp. Tox. 1; H304 , Acute Tox. 3; H311 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Eye Irrit. 2; H319 , Acute Tox. 4; H332 , STOT SE 3; H335 , Aquatic Chronic 1; H410

tert-butylbenzene (EC Number: 202-632-4, CAS Number: 98-06-6)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Flam. Liq. 3; H226 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Acute Tox. 3; H331 , Acute Tox. 4; H332 , STOT SE 3; H335 , Asp. Tox. 1; H304 , Aquatic Chronic 2; H411

1,1,1,2-tetrachloroethane (EC Number: 211-135-1, CAS Number: 630-20-6)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , Acute Tox. 3; H331 , Eye Dam. 1; H318 , Acute Tox. 4; H332 , Carc. 2; H351 , Acute Tox. 4; H312 , Aquatic Chronic 3; H412 , Skin Irrit. 2; H315

trichlorofluoromethane (EC Number: 200-892-3, CAS Number: 75-69-4)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H312 , Ozone 1; H420

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Worst case species based on hazard statements

beryllium {beryllium oxide}

Worst case species based on hazard statements

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

Two worst cases react with water, next worst case selected

cadmium {cadmium sulfide}

Worst case species based on hazard statements

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

Worst case species based on hazard statements

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

Worst case species based on hazard statements

copper {dicopper oxide; copper (I) oxide}

Most likely common species

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

lead {lead compounds with the exception of those specified elsewhere in this Annex}

Worst case species based on hazard statements

mercury {mercury dichloride}

Worst case species based on hazard statements

nickel {nickel dihydroxide}

Worst case species based on hazard statements

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

Worst case species based on hazard statements

zinc {zinc oxide}

Worst case species based on hazard statements

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case species based on hazard statements;

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2023.111.5569.10274 (22 Apr 2023)
HazWasteOnline Database: 2023.111.5569.10274 (22 Apr 2023)

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

Appendix I Preliminary geotechnical risk register

Geotechnical hazard identification – desk study stage

Potential geotechnical hazards have been assessed in accordance with the general requirements of ICE/DETR Document 'Managing Geotechnical Risk' and the HE documents HD 41/15 and CD 622. The following pages set out the identified geotechnical risks and hazards which are associated with the proposed development and establish the approach which is to be taken to manage the risks including the geotechnical input and analysis.

Table I.1 is a preliminary assessment of possible geotechnical hazards at the site at Desk Study stage. This information is used to assist with ground investigation design.

Table I.1: Possible geotechnical hazards

Hazard	Comment	Hazard status based on desk study	
		Could be present and / or affect site (i.e. Plausible)	Unlikely to be present and/or affect site
Uncontrolled Made Ground (variable strength and compressibility).	Varied Made Ground present at the site from redevelopment of the site.	✓	-
Soft / loose compressible ground (low strength and high settlement potential).	London Clay Formation bedrock may be soft.	✓	-
Shrink swell of the clay fraction of soils under the influence of vegetation.	N/A	✓	-
Variable lateral and vertical changes in ground conditions.	N/A	✓	-
High sulfates present in the soils.	London Clay Formation bedrock may be high in sulfates.	✓	-
Adverse chemical ground conditions, (e.g. expansive slag).		-	✓
Obstructions.	Potential for services and obstructions from previous developments at the site.	✓	-

Existing below ground structures to remain.	Existing site infrastructure may be present within the area for the proposed development.	✓	-
Shallow groundwater.	N/A	✓	-
Changing groundwater conditions.	N/A	✓	-
Risk from erosion.	N/A	-	✓
Risk from flooding.	Site is of low risk to flooding.	-	✓
Running sands and / or loose Made Ground, leading to difficulty with excavation and collapse of side walls.	N/A	-	✓
Slope stability issues – general slopes.	Site is generally flat.	-	✓
Slope stability issues – retaining walls.	N/A	-	✓
Earthworks – settlement (due to placement of fill on soft / loose ground).	Shallow weathered London Clay Formation may be soft. However, significant earthworks are not anticipated for the site.	-	✓
Earthworks – poor bearing capacity of new fill.	Any fill required will be imported,	-	✓
Earthworks – unsuitability of site won material to be reused as fill.	Unlikely that on site geology will be suitable as earthworks fill (if required)	-	✓
Solution features in Chalk.	Chalk geology not present.	-	✓
Cavities in the Superficial Deposits due to solution features.	Soluble geology not present.	-	✓
Dissolution (associated with “wet rock head”).	Soluble geology not present.	-	✓
Mining.	Not in an area of known mining activity	-	✓

Cambered ground with gulls possibly present.	N/A	-	✓
Relict Slip Surfaces.	N/A	-	✓
Solifluction.	N/A	-	✓
Problematic soils (silts and rewetting etc.).	N/A	-	✓

Geotechnical Hazard Identification – Following Ground Investigation

The preliminary Geotechnical Risk Register following Ground Investigation is set out in Table I.3.

The probability and impact of a hazard have been judged on a qualitative scale as set out in Table I.2. The degree of risk (R) is determined by combining tan assessment of the probability (P) of the hazard occurring with an assessment of the impact (I) of the hazard and associated mitigation it will require if it occurs (R = P x I).

Table I.2: Qualitative assessment of hazards and risks

P = Probability		I = Impact		R = Risk Rating (P x I)	
1	Very unlikely (VU)	1	Very Low	1 – 4	None / negligible
2	Unlikely (U)	2	Low	5 – 9	Minor
3	Plausible (P)	3	Medium	10 – 14	Moderate
4	Likely (Lk)	4	High	15 – 19	Substantial
5	Very Likely (VLk)	5	Very High	20 - 25	Severe

Table I.3: Preliminary Geotechnical Risk Register

Hazard	Comments	Who is at Risk	Consequence	Risk Before Mitigation			Actions Required
				P	I	R	
Uncontrolled Made Ground (variable strength and compressibility).	There is Made Ground due to historical construction activity at the site. The Made Ground is up to 1.50m thick.	School building.	Bearing capacity failure, settlement (total and differential).	3	4	12	Design foundations to found below Made Ground or on Made Ground which has been improved.
			Floor slab failure.	4	4	16	Design floor slabs as suspended.
		Roads and Pavements.	Settlement (total and differential) of roads and pavements.	2	2	6	Design roads and pavements using suitable geotechnical parameters and increase the sub-base and use geo-grids as appropriate.
		Services.	Settlement (differential), causing damage to services.	2	2	4	Anticipated settlements are not expected to be significant with regard to services. Ground levels are remaining at approximately current levels. Settlements are not anticipated to be significant. No additional design requirements envisaged.
		Construction staff, vehicles and plant operators.	Trafficking of the site in temporary conditions. Overturning of plant during construction.	2	3	6	Where soft spots encountered, over-excavation and replacement with suitable fill. Outline design of working platform to include geo-grid. Site inspection and watching brief by Contractor to review working platform frequently and regularly.