Chorlton Precinct, Manchester

Site Investigation Report & Remediation Strategy

5 July 2024

Prepared For

PJ Livesey Holdings Limited



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Site Investigation Report & Remediation Strategy

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Executive Summary

Site Description	The site is divided into three main sections: car parks, Graeme House, and the Chorlton Precinct shopping complex. There are car parks in the west and northwest, separated by Manchester Road. The western car park is bound by private gardens and Chorlton Health Centre, while the northwest car park is bound by Nicholas Road, Graeme House, and the shopping complex. A smaller car park is present in the south, between a brick structure attached to Graeme House and properties along Wilbraham Road. Graeme House, a nine-storey red brick office building, is in the northeast and connected to lower-rise buildings in the eastern area. The shopping complex and Graeme House are bordered by Barlow Moor Road to the east, Wilbraham Road to the south, and nearby properties. Chorlton Cross square is central, with Chorlton Place providing access. A substation is north of the main building, and there is a small, landscaped area between the shopping complex and Barlow Moor Road to the east. The site is relatively flat, with ground levels between 29.30m and 27.96m above ordnance datum (mOD).
Proposed Development	It is understood that the proposed development comprises the deconstruction of the existing buildings and structures (previously offices and commercial units) and the construction of a residential led mixed-use development with apartments, townhouses, retail units and public open space. The currently development layout includes three plots with a basement level proposed in two of the three plots.
Historical Development	The earliest map from 1849 shows that the site was mainly farmland, with two possible buildings and pond-like features or marl pits in the north and southeast. By 1881, residential properties and a nursery had been established on the site. Around 1905, additional terraced homes were built in the south, and residential development spread across the former nursery area. Over the years, minor reconfigurations and redevelopments of residential properties and small structures occurred until the site was transformed into its current layout, which includes car parks, a substation, Graeme House, and Chorlton Shopping Centre. Maps suggest this redevelopment was completed by around 1981, and the layout has remained largely unchanged since, except for an additional building constructed in the southeast around 1992.
Published Geology	Published BGS mapping indicates that the majority of the site is anticipated to be underlain by Glaciofluvial Sheet Deposits, with Till (Diamicton) potentially present within the western extent of the site. The superficial deposits are anticipated to be underlain by the Wilmslow Sandstone Formation (typically red-brown, fine to medium grained, cross-bedded sandstones with sporadic siltstones).
Hydrology and Hydrogeological Setting	The Glaciofluvial Sheet Deposits are designated a Secondary A aquifer whilst the Till (potentially present within the west of the site) is designated a Secondary (undifferentiated) aquifer. The bedrock geology of the Wilmslow Sandstone Formation is designated a Principal Aquifer. The site is not located within a groundwater Source Protection Zone (SPZ) and there are no groundwater or potable abstraction points located within 1km of the site. There are no current surface water bodies (rivers, streams, and/or lakes) recorded within 250m of the site. Two historical watercourses were mapped in 1849 250m north of the site and 150m south of the site; however, these watercourses are believed to be either culverted or infilled and are no longer indicated on present day mapping. Chorlton Brook is located approximately 750m south of the site. The watercourse is anticipated to flow west into the River Mersey and groundwater flow is therefore expected to be towards the south/southwest into Chorlton Brook and the River Mersey.
Site Investigation	The current site investigation was undertaken in May 2024 and included 4 cable percussion boreholes, one to 20mbgl and three to 30mbgl and 10 window sample boreholes up to 5.45mbgl. Three ground gas and groundwater monitoring rounds were subsequently carried out on 21 May, 31 May, and 7 June 2024. The ground conditions across the site were found to comprise a variable thickness of Made Ground (between 0.40m and 2.90m) overlying superficial deposits of Glaciofluvial Sheet Deposits and Glacial Till. The upper surface of the Glaciofluvial Sheet Deposits were recorded between 28.52mOD and 25.25mOD and ranged between 3.85m and 15.50m in thickness. Deposits of Glacial Till were recorded between 15.38mOD and 11.05mOD and ranged between 6.50m and 16.50m in thickness. Perched water has been encountered in the Made Ground which is variable in level between approximately +28.58mOD and +26.70mOD.
Contamination Assessment	**Human Health:** A total of 30 soil samples were submitted for chemical analysis and the results compared against human health GAC for a “residential without home grown produce” end use. Assessment of the Made Ground indicated that contaminant concentrations are generally below their respective assessment thresholds with the exception of heavy metals and PAHs. In addition, asbestos was detected in 2 of the Made Ground soil samples. The results of the assessment of the natural soils indicate that the contaminant concentrations recorded are below their respective GAC. Assessment of contaminant concentrations from a total of 2 perched water and 3 Secondary A aquifer groundwater samples indicates a low risk to human health via vapour intrusion. **Ground Gases:** Ground gas monitoring recorded methane concentrations below 1%v/v with negligible flow rate (<0.1l/h). The maximum steady state concentration of carbon dioxide recorded was 11.2%. The calculated GSVs correlates typically to CS1, however due to the elevated concentrations of carbon dioxide, the site has been classified as CS2 and ground gas protection measures are anticipated to be required. It is recommended that a further three rounds of ground gas monitoring are undertaken, which may enable the ground gas characterisation to be reduced. **Controlled Waters:** A total of 2 Made Ground (perched water) samples and 3 Secondary A aquifer samples were analysed. The results of the perched water analysis indicate elevated concentrations of heavy metals, total sulphate, total TPH, PAHs and ammoniacal nitrogen. The results of the Secondary A aquifer EQS assessment indicate that the contaminant concentrations are above their respective assessment thresholds for pH, selenium, PAHs and ammoniacal nitrogen. Elevated concentrations were recorded against the DWV assessment criteria in the perched water and secondary A aquifer. The risks to controlled waters are considered to be low due to the environmental setting of the site, the underlying ground conditions and the nature of the proposed development, which will remove a large volume of the Made Ground and limit downwards migration of contaminants.

	Plants and Vegetation: A localised elevated concentration of zinc was recorded in WS08 within the Made Ground which is considered to present a risk to proposed plant and vegetation growth. In addition, it is likely that the composition of the Made Ground is unlikely to be a suitable growth medium with high proportions of brick and concrete gravel and cobbles observed during the site investigation.
Preliminary Waste Characterisation	The preliminary waste assessment (carried out using the HazWaste Online Toolkit) indicates that the majority of the material tested would be characterised as non-hazardous material and therefore considered to be acceptable to a non-hazardous waste facility; some material may be acceptable at an inert waste facility (subject to WAC testing). However, 2 out of the 30 soil samples were characterised as hazardous material (WS05 due to asbestos being present >0.1% and WS10 at 0.30mbgl due to recorded concentrations of hydrocarbons).
Revised Conceptual Site Model	There is considered to be a potential risk to future site users and construction workers from the Made Ground soils due to the elevated concentrations of heavy metals, PAHs and asbestos. Elevated concentrations of zinc within the Made Ground are considered to be a potential risk to plants and vegetation. The recorded ground gas concentrations and ground conditions encountered indicate a moderate risk from ground gases. The risks to controlled waters are considered to be low due to the environmental setting of the site, the underlying ground conditions and the nature of the proposed development, which will remove a large volume of the Made Ground and limit downwards migration of contaminants. The risks to controlled waters from foundation activities i.e. piling are considered to be low assuming appropriate piling techniques are adopted. Due to the recorded concentrations of contaminants at the site, it is anticipated that barrier pipes will be required for new buried water supply pipes. Buried concrete will need to be designed as appropriate for the ground conditions.
Remediation Strategy	A remediation strategy and verification plan is included within this report and outlines the remediation requirements for the site. It is recommended that a watching brief is carried out by the Contractor during the enabling works, earthworks and construction works. Existing monitoring wells should be decommissioned prior to commencement of significant earthworks and measures implemented to mitigate the potential impact to controlled waters during construction works. The Contractor should be responsible for the material management and waste classification at the site and the “waste hierarchy” should be used to rank waste management options. It is recommended that the hydrocarbon contamination identified at WS10 and the hazardous concentrations of asbestos at WS05, are removed and treated and disposed off site to an appropriately licenced facility. Whilst asbestos was encountered in BH01 below the level of detection (<0.001% by weight), there is the potential for further asbestos to be present across the site. A clean capping layer will be required in areas of proposed soft landscaping to mitigate the risks to future site users and plants and vegetation. It is recommended that a Piling Works Risk Assessment is completed to demonstrate that the selected piling methodology will not lead to the creation of new pathways for contaminant migration. Based on the results of gas monitoring, ground gas protection measures are considered to be required. It is recommended that a further 3 rounds of ground gas monitoring are undertaken, which may enable the ground gas characterisation to be reduced. Due to the recorded concentrations of contaminants at the site, it is anticipated that barrier pipes will be required for new buried water supply pipes. Completion of a United Utilities Risk Assessment including sampling of soils at depth and location of proposed water supply pipes will be required.
Geotechnical Recommendations	It is likely that piled foundations are the suitable foundation solution for the site due to the anticipated structural loads, proposed basements and existing ground conditions, with continuous flight auger (CFA) or rotary bored piles being the most suitable techniques. Foundations should not be constructed on the Made Ground due to its variable bearing capacity and potential for differential settlement. A specialist piling contractor should design and be responsible for the piles, determining the most appropriate and cost-effective pile type based on their interpretation of site data and experience. Pile testing is recommended for all structures, including one sacrificial test pile per structure and serviceability testing on more than 1% of constructed piles, with a piling specification being completed prior to starting works. Although obstructions were not encountered during the investigation, there is a high risk of encountering them due to historical site development, furthermore the risk of boulders within the Glacial Till also needs consideration if piles are anticipated to extend to this depth; this should be considered and may require proof digging. Roads and pavements are expected to be founded on Made Ground or cohesive Glaciofluvial Sheet Deposits, with a recommended conservative California Bearing Ratio (CBR) of 2.5%. Pavements should be designed and verified according to MCHW Series 600, with specialist contractors engaged for stabilisation works if required. Excavations should be feasible with conventional equipment but may require water control and temporary supports. Historical structures and foundations need removal if encountered, and excavations must be properly shored and regularly inspected. Dewatering will likely be necessary near perched groundwater and can be achieved with the use of a sump pump system. Design Sulphate (DS) and Aggressive Chemical Environmental for Concrete (ACEC) classes for the subsurface concrete can be DS-1 and AC-1. As part of the design of the basements, the potential impact from associated ground movements during excavation and construction with respect to adjacent structures should be required. In addition, the potential for perched water and groundwater ingress during basement excavation and construction and in the permanent case should also be considered.

1. Introduction

Civic Earth Limited was appointed by Civic Engineers Limited on behalf of PJ Livesey Holdings Limited (the Client) to undertake a site investigation for the redevelopment of the 'Chorlton Precinct' development in Manchester (herein referred to as "the site") and provide a geotechnical and geoenvironmental interpretative report and remediation strategy.

A desk study was carried out by Civic Earth in November 2023[1] for the current proposed development and a Phase 2 site investigation has subsequently been carried out by Civic Earth in May 2024. The Civic Earth desk study report has been used as supporting documentation in the preparation of this site investigation report and remediation strategy, and reference should be made to the report for full details of the desk-based assessment completed for the site.

The investigation was designed to provide information to aid in the design of the development. The aim of this report is to provide:

- A brief summary of the site history, anticipated geology and historical site investigation data, hydrogeological setting, preliminary risk assessment and conceptual site model;
- A summary of the ground and groundwater conditions encountered during the Phase 2 site investigation, and analysis and interpretation of chemical and geotechnical laboratory testing carried out as part of the site investigation; and
- A remediation strategy with respect to the potential risks identified to receptors associated with identified contamination beneath the site and waste disposal, and recommendations for the geotechnical design of the project.

It is recommended that this report is submitted to the Local Authority to support the Planning Application made in relation to the site.

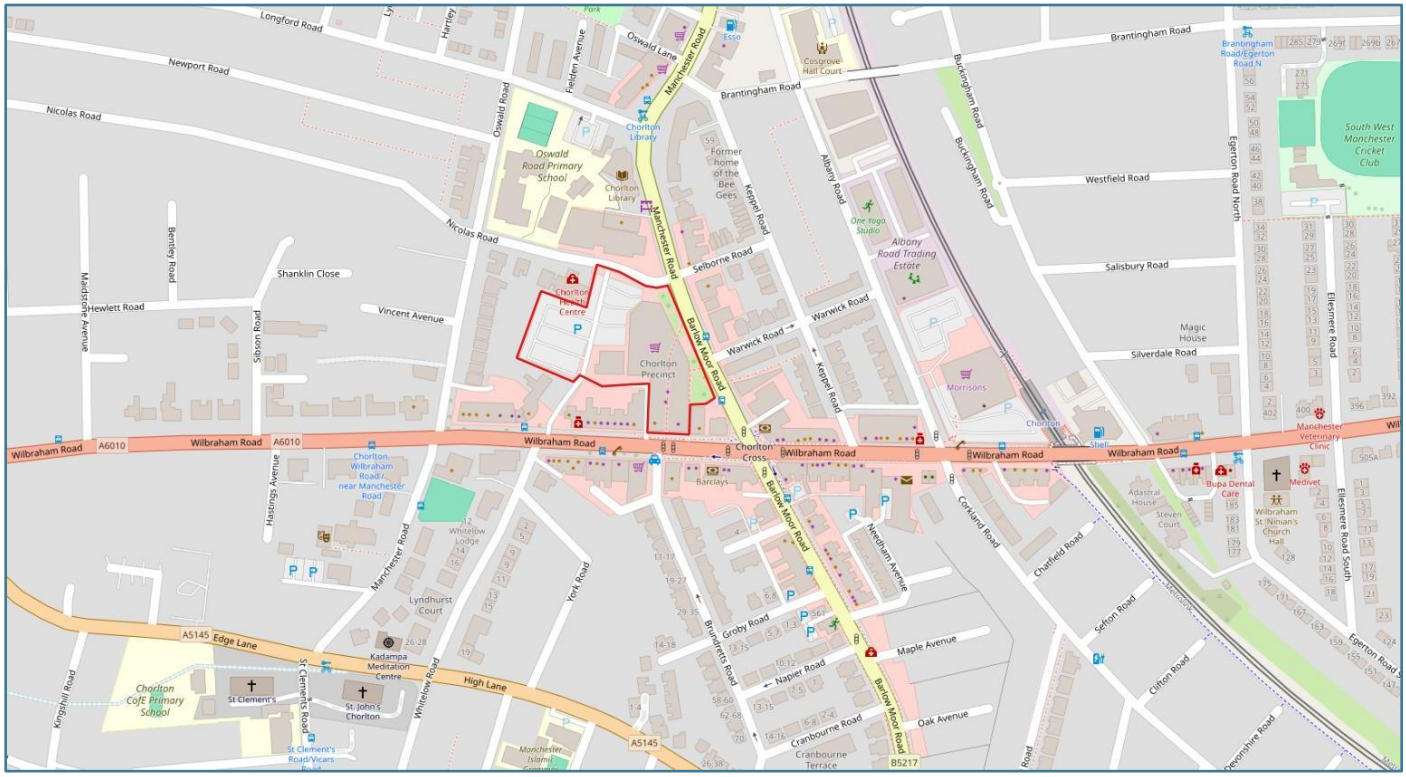
[1] Civic Earth (2023) Chorlton Precinct, Manchester. Phase 1 Desk Study Report. Reference 51013-CE-01-XX-R-G-1001. Revision P01. 22 November 2023.

2. Site Context

2.1. Site Location

The site is located off Wilbraham Road in Chorlton-cum-Hardy, Manchester. The approximate postcode for the site is M21 9AQ. The National Grid coordinates for the approximate centre of the site are 381562E, 394096N and the site is approximately 1.27 ha in size. The site location is illustrated in Plate 1.

Plate 1: Approximate Site Location Plan (©OpenStreetMap Contributors)



2.2. Site Description

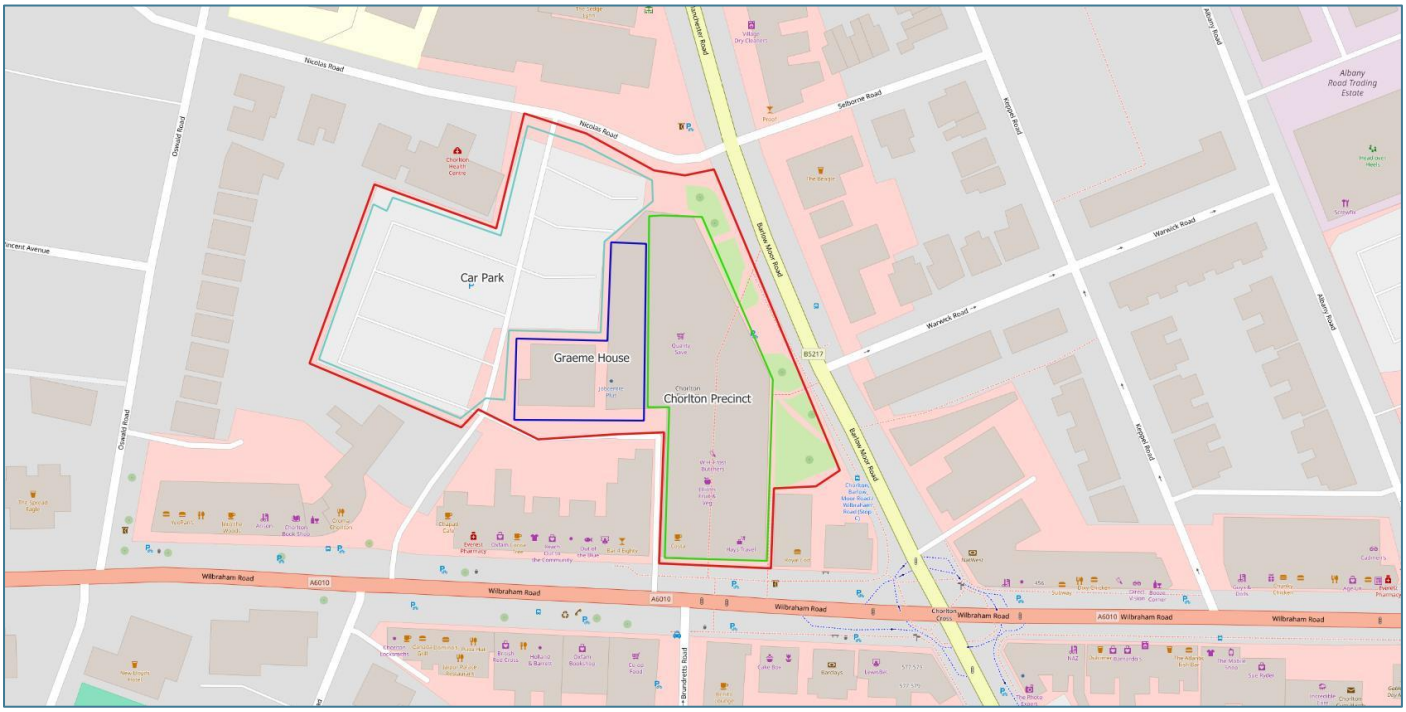
The site is irregular in shape and can broadly be divided into three areas; the car parks, Graeme House, and the Chorlton Precinct shopping complex; a summary of the areas is provided below with the current site layout presented in Plate 2. A site walkover survey was carried out by an Engineer from Civic Engineers on 18 October 2023 and full details can be found in the Civic Earth desk study report[1].

Two areas of car parking are present in the west and northwest of the site, dissected by Manchester Road. The western car park is bounded to the west and south by private gardens of residential properties and to the north by Chorlton Health Centre. The northwest car parking area is bound to the north by Nicholas Road and to the east and south by Graeme House and the shopping complex. A smaller area of additional car parking is located within the south of the site, between a single storey brick structure adjoined to Graeme House and the off-site rear gardens of properties fronting onto Wilbraham Road.

Graeme House is an irregularly shaped, red brick, nine storey office building located within the northeast of the site which is connected to a series of single and double storey buildings which occupy the majority of the east area of the site. The shopping complex and Graeme House are bound to the east by Barlow Moor Road (B5217), to the southeast and southwest by properties fronting onto Wilbraham Road (A6010), and to the south by Wilbraham Road. Chorlton Cross square is located within the centre of the east area of site, and Chorlton Place leads to Chorlton square from the southeast of the site. A small substation is located adjacent to the north of the main building within a small service courtyard. A small area of soft landscaping is present in the east of the site between the shopping complex and Barlow Moor Road.

The site surface is roughly flat with the current ground level ranging between 29.30m and 27.96m above Ordnance Datum (mOD).

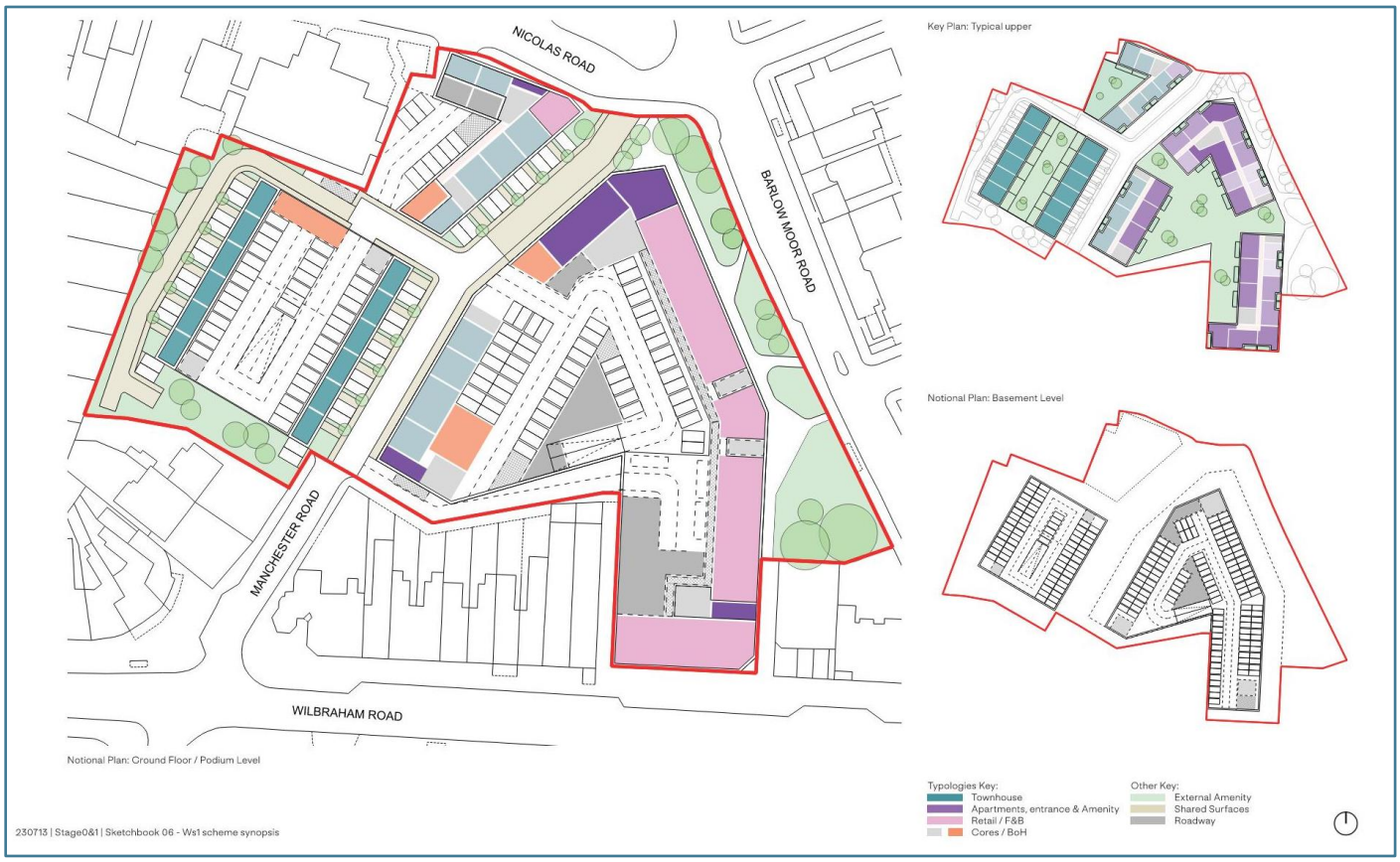
Plate 2: Current Site Layout (©OpenStreetMap Contributors) (Green = Chorlton Precinct, Blue = Grame House, Teal = Carparking)



2.3. Proposed Development

It is understood that the proposed development comprises the demolition of the existing buildings and structures (previously offices and commercial units) and the construction of a residential led mixed-use development with apartments, townhouses, retail units and public open space. The current development layout includes three plots with a basement level proposed within two of them. For the purpose of this report, a residential without private gardens end use has been adopted. The locations of the plots within the site are illustrated in Plate 3.

Plate 3: Conceptual Sketch for Proposed Redevelopment (excerpt from 2104-5-SKETCHB-06-STAGE0&1-WS1 Synopsis)



3. Summary of Desk Study and Data Review

3.1. Introduction

As outlined in Section 1, a Phase 1 desk study report was produced by Civic Earth in November 2023[2]. The following sections provide a summary of the Civic Earth Phase 1 desk study; for full details, the original report should be referred to.

3.2. Site History

The earliest map from 1849 indicates that the site was mainly farmland, with two possible buildings and pond-like features or *Marl Pits* in the north and southeast. By 1881, residential properties and a nursery had been established on the site. Circa 1905, additional terraced homes were built in the south, and residential development spread across the former nursery area. Over the years, minor reconfigurations and redevelopments of residential properties and small structures occurred until the site was transformed into its current layout, which includes car parks, a substation, *Graeme House*, and *Chorlton Shopping Centre*. Maps suggest this redevelopment was completed by around 1981 and the layout has remained largely unchanged since, except for an additional building constructed in the southeast around 1992.

3.3. Published Geology

With reference to the British Geological Survey (BGS)[2] website, BGS Sheet 85[3] and the Groundsure Enviro + Geo Insight report obtained as part of the Civic Earth desk study[2], the majority of the site is anticipated to be underlain by Glaciofluvial Sheet Deposits, with Till (Diamicton) potentially present within the western extent of the site. The superficial deposits are anticipated to be underlain by the Wilmslow Sandstone Formation (typically red-brown, fine to medium grained, cross-bedded sandstones with sporadic siltstones)[3].

3.4. Surface Mining and Ground Workings

There are 15 records of surface ground workings within 250m of the site, one of which relates to suspected *Marl Pits* within the north of the site. The record is dated 1851. Six of the 15 records are located between 50m and 200m of the site and relate to ponds, brick kiln pits and cuttings. The remaining eight records relate to ponds.

There is one record of a British Pit (BritPit) associated with Longford Brick Works approximately 450m northwest of the site. The BritPit was a clay and shale surface working. A record of potential stone mining has also been identified 240m northwest of the site.

There are no records for underground workings or natural cavities within 500m of the site and the site is not located within a Coal Mining Reporting Area as defined by the Coal Authority (CA).

3.5. Hydrology and Hydrogeology

The Environment Agency (EA) has produced an aquifer designation system consistent with the requirements of the Water Framework Directive. The designations have been set for superficial and bedrock geologies and are based on the importance of aquifers for potable water supply and their role in supporting surface water bodies and wetland ecosystems.

The Glaciofluvial Sheet Deposits are designated a Secondary A aquifer whilst the Till (potentially present within the west of the site) is designated a Secondary (undifferentiated) aquifer. The bedrock geology of the Wilmslow Sandstone Formation is designated a Principal Aquifer.

The site is not located within a groundwater Source Protection Zone (SPZ) and there are no groundwater or potable abstraction points located within 1km of the site.

There are no current surface water bodies (rivers, streams and/or lakes) recorded within 250m of the site. Two historical watercourses were mapped in 1849 approximately 250m north of the site and 150m south of the site; however, these watercourses are believed to be either culverted or infilled and are no longer indicated on present day mapping. Chorlton Brook is located approximately 750m south of the site. The watercourse is anticipated to flow west into the River Mersey and groundwater flow is therefore expected to be towards the south/southwest into Chorlton Brook and the River Mersey.

3.6. Conceptual Site Model

A preliminary qualitative risk assessment was undertaken by Civic Earth[1] which concluded that there is generally considered to be a low to moderate risk to the identified receptors from potential contaminants associated with the current and former uses of the site and surrounding areas, and potential Made Ground associated with the former development of the site and potential infilling of *Marl Pit(s)*.

[2] British Geological Survey (BGS), www.bgs.ac.uk (06 November 2023)

[3] BGS (2011) Manchester, Sheet 85. Solid and Drift. 1:50,000.

In addition, the assessment has identified a number of potential geotechnical constraints associated with the potential for below ground obstructions, infilled marl pit(s) in the north of the site, variable thickness of Made Ground associated with the development history of the site and potential variability of the underlying superficial deposits.

An intrusive site investigation was therefore recommended to assess for the identified contaminants of concern, to evaluate the potential contaminant linkages through soil, leachate, and groundwater sampling, and enable a robust remediation strategy to be developed, if required.

The Phase 1 desk study report[1] should be referred to for full details of the conceptual site model and preliminary risk assessment.

4. Phase 2 Site Investigation

4.1. Introduction

A Phase 2 site investigation was undertaken between 29 April and the 15 May 2024 and a summary of the intrusive works completed at the site is provided in Table 1.

Table 1: Summary of Exploratory Hole Locations

Location Reference	Type of Exploratory Hole	Ground Level (mOD)	Base Depth (mbgl)	Base Levels (mOD)
BH01	BH	28.51	20.00	8.51
BH02	BH	28.88	30.00	-1.12
BH03	BH	28.39	30.00	-1.16
BH04	BH	28.15	30.00	-1.85
WS01	WS	28.56	1.25	27.31
WS02	WS	28.52	5.45	23.07
WS03	WS	28.83	5.45	23.38
WS04	WS	29.02	5.45	23.57
WS05	WS	28.13	0.50	27.63
WS05A	WS	28.28	0.40	27.88
WS06	WS	28.29	5.45	22.84
WS07	WS	28.17	5.45	22.72
WS08	WS	28.30	5.45	22.85
WS09	WS	28.17	5.45	22.72
WS10	WS	28.18	5.45	22.73

BH = cable borehole; WS = windowless sample borehole.

Prior to breaking ground, exploratory holes were cleared for buried services by a specialist utility contractor utilising a cable avoidance tool (CAT) and signal generator.

The investigation was undertaken in general accordance with the requirements of BS 5930:2015+A1:2020 [4]and BS 10175:2011+A2:2017[5]. An exploratory hole location plan is included in Appendix *A* and the exploratory hole records are included in Appendix *B*. In-situ Standard Penetration Tests (SPTs) were carried out within the cable percussion and window sample boreholes.

4.2. Ground Gas and Groundwater Monitoring

Three ground gas and groundwater monitoring rounds were undertaken on 21 May, 31 May, and 7 June 2024. A summary of the monitoring wells installed is provided in Table 2 and the ground gas and groundwater monitoring and sampling records are included in Appendix *C*. Dual monitoring wells were installed within boreholes BH01, BH03 and BH04.

Table 2: Summary of Monitoring Well Response Zones

Location Reference	Target Response Zone	Response Zone Top Depth (mbgl)	Response Zone Base Depth (mbgl)	Response Zone Top Level (mOD)	Response Zone Base Level (mOD)
BH1S	Made Ground	1.00	2.50	27.51	26.01
BH1D	Glaciofluvial Sheet Deposits	11.00	14.50	17.51	14.01
BH2	Glaciofluvial Sheet Deposits	12.70	13.50	16.18	15.38
BH3	Glaciofluvial Sheet Deposits	14.40	16.20	13.99	12.19
BH4S	Made Ground	1.00	2.90	27.15	25.25
BH4D	Glaciofluvial Sheet Deposits	5.00	15.00	23.15	13.15
WS2	Made Ground	0.50	1.00	28.02	27.52

[4] British Standards Institution (2015) Code of practice for ground investigations. BS 5930:2015+A1:2020.

[5] British Standards Institution (2017) Investigation of potentially contaminated sites – Code of practice. BS 10175:2011+A2:2017.

Location Reference	Target Response Zone	Response Zone Top Depth (mbgl)	Response Zone Base Depth (mbgl)	Response Zone Top Level (mOD)	Response Zone Base Level (mOD)
WS4	Made Ground	0.30	0.50	28.72	28.52
WS6	Glaciofluvial Sheet Deposits	2.00	5.00	26.29	23.29
WS7	Made Ground	0.50	1.50	27.67	26.67
WS10	Made Ground	0.50	1.50	27.68	26.68

S = shallow well; D = deep well

Groundwater samples were obtained from boreholes BH01 (shallow and deep installs), BH03, BH04 (shallow and deep installs) on the 21 May 2024.

4.3. Chemical Laboratory

4.3.1. Soil Testing

Selected soil samples were submitted to i2 Analytical Limited (a UKAS and MCERTS accredited laboratory) for chemical soil testing. The analysis included the following determinants and the results are included in Appendix *D*:

- 30 Nr. pH;
- 30 Nr. soil organic matter (SOM);
- 30 Nr. total sulphate as SO4;
- 30 Nr. total cyanide;
- 30 Nr. heavy metal suite (antimony, arsenic, barium, beryllium, boron, cadmium, chromium (III and VI), copper, lead, mercury, nickel, selenium, vanadium and zinc);
- 30 Nr. polycyclic aromatic hydrocarbons (PAH);
- 30 Nr. total petroleum hydrocarbons (TPH);
- 30 Nr. total monohydric phenols;
- 30 Nr. BTEX compounds (benzene, toluene, ethylbenzene, xylenes);
- 4 Nr. Waste Acceptance Criteria (WAC) tests;
- 2 Nr. polychlorinated biphenyls (PCB) tests;
- 3 Nr. volatile organic compounds (VOCs);
- 3 Nr. semi-volatile organic compounds (SVOCs);
- 22 Nr. asbestos screen and identification; and
- 2 Nr. asbestos quantification.

4.3.2. Groundwater Testing

Selected water samples were submitted to i2 Analytical Limited (a UKAS and MCERTS accredited laboratory) for chemical water testing. The analysis included the following determinants and the results are included in Appendix *D*:

- 5 Nr. pH;
- 5 Nr. dissolved organic carbon (DOC);
- 5 Nr. total sulphate as SO4;
- 5 Nr. ammoniacal nitrogen as N;
- 5 Nr. total cyanide;
- 5 Nr. hardness;
- 5 Nr. heavy metal suite (antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium (III and VI), copper, lead, magnesium, mercury, nickel, selenium, vanadium and zinc);
- 5 Nr. polycyclic aromatic hydrocarbons (PAH);
- 5 Nr. BTEX compounds (benzene, toluene, ethylbenzene, xylenes);
- 5 Nr. total petroleum hydrocarbons (TPH); and

- 5 Nr. total monohydric phenols.

4.4. Geotechnical Laboratory Analysis

Selected soil samples were submitted to Geolabs Limited (a UKAS accredited laboratory) for geotechnical testing in general accordance with BS 1377[6]. The following tests were scheduled and the results are included in Appendix *E*:

- 20 Nr. Atterberg Limit (4 Point);
- 5 Nr. particle size distribution (PSD) (wet sieve);
- 5 Nr. PSD sedimentation (by pipette);
- 32 Nr. natural water content;
- 15 Nr. single stage undrained triaxial; and
- 19 Nr. Building Research Establishment (BRE) Special Digest (SD) [7]Suite – including 2:1 water soluble sulphate, 2:1 water soluble chloride, water soluble magnesium, total sulphate, total sulphur and pH.

[6] British Standard (2018). Methods of testing for soils for civil engineering purposes. BS 1377:2018.

[7] Building Research Establishment (2006). BRE Special Digest Part 1: Concrete in aggressive ground

5. Ground and Groundwater Conditions

5.1. Summary of Ground Model

A summary of the ground conditions encountered during site investigation is provided in Table 3.

Table 3: Summary of Site Investigation Ground Conditions

Stratum	Top of Stratum (mbgl) [mOD]	Typical Thickness (m)
Asphalt hardstanding / block paving over light brown / brownish yellow slightly clayey sandy gravel and/or dark brown silty gravelly sand. Sand is fine to coarse. Gravel is typically angular to sub-angular fine to coarse of siltstone, limestone, and sandstone. Soft dark brown slightly sandy slightly gravelly silt. Sand is fine to medium. Gravel is angular to sub-rounded fine to coarse of brick. *Encountered in each exploratory hole, base not proven in WS01, WS05 and WS05A*. **[MADE GROUND]**	0.00 [29.02 to 28.13]	0.40 to 2.90
Commonly encountered as a stiff brown mottled bluish grey slightly gravelly CLAY and/or a loose light brown to dark brown slightly gravelly SAND. Sand is fine to coarse. Gravel is typically angular to rounded, fine to medium siltstone and sandstone. *Encountered in each exploratory holes except WS01, WS05 and WS05A. Base not proven in WS02, WS03, WS04, WS06, WS07, WS08, WS09 and WS10*. **[GLACIOFLUVIAL SHEET DEPOSITS]**	0.50 to 2.90 [28.52 to 25.25]	11.00 to 15.50
Very stiff dark greyish brown thinly laminated slightly sandy silty CLAY. Sand is fine. *Encountered in BH01 to BH04, base not proven.* **[GLACIAL TILL]**	13.50 to 17.10 [15.38 to 11.05]	Proven to 30.00mbgl [-1.12 to -1.85mOD]

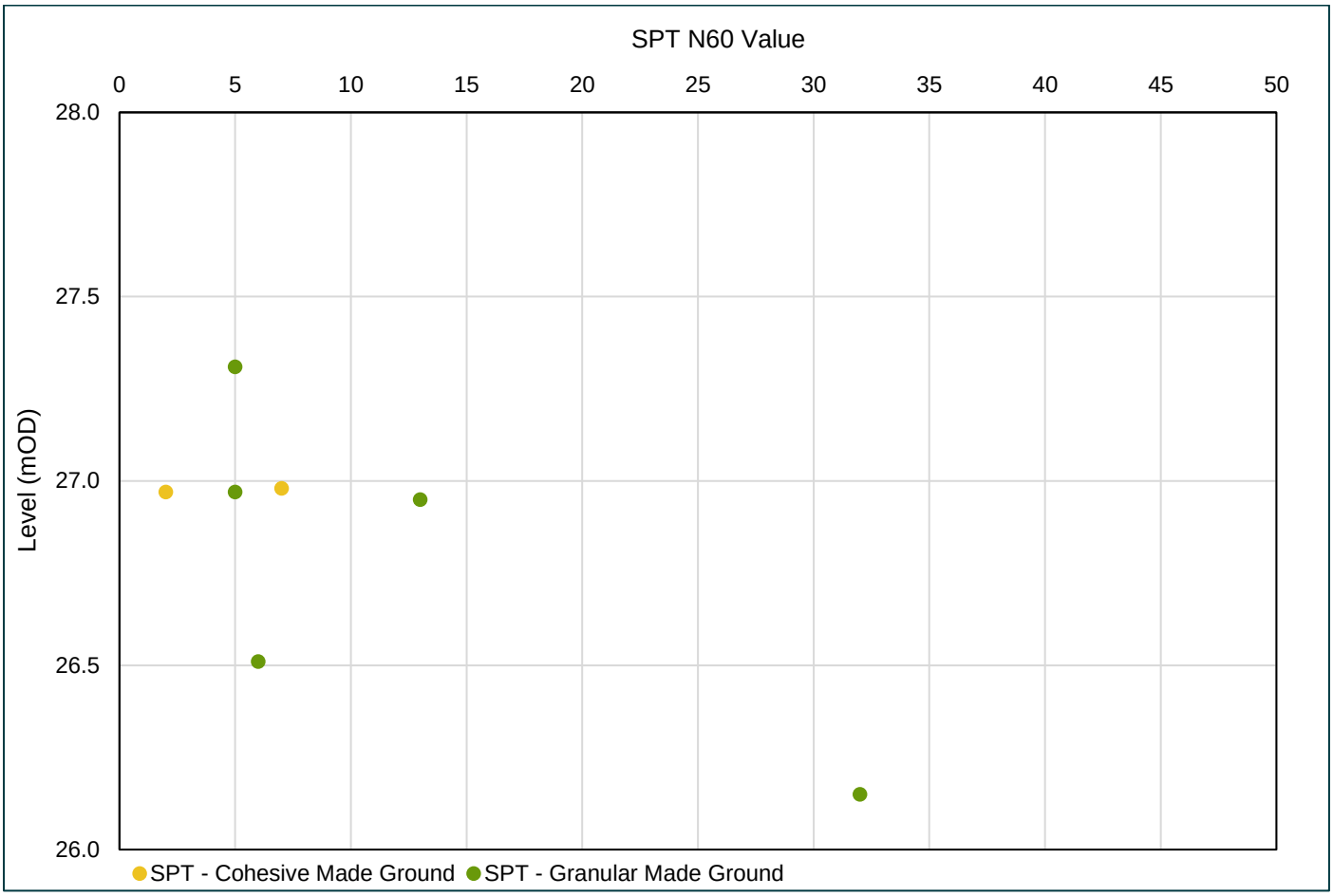
5.2. Made Ground

Made Ground was encountered from below hardstanding or from surface at each exploratory hole location and ranged between 0.40m and 2.90m in thickness. The stratum comprised of a mixture of cohesive and granular soils, both of variable consistency and density.

A total of 7 SPTs were undertaken within the Made Ground, two of which were undertaken within the cohesive Made Ground and the remaining five within the granular Made Ground. The granular Made Ground returned N60 values of 5 to 32 corresponding to 'loose' to 'dense' granular deposits[4]. The cohesive Made Ground returned N60 values of 2 and 7, and were recorded to be of soft consistency on site.

A summary of the SPT N60 values versus level are provided in Plate 4.

Plate 4: SPT N60 versus Level (mOD) – Made Ground



Sulphate and pH testing was undertaken on samples of the Made Ground retrieved during the site investigation and the results are summarised in Table 4.

Table 4: Summary of pH and Sulphate Testing – Made Ground

Number of Tests	pH	Water Soluble SO4* (mg/l)	Water Soluble Chloride* (mg/l)	Water Soluble Nitrate as N* (mg/l)
5	7.4 to 9.1	65.8 to 452	3.3 to 59	<2.0 to 3.7

*2:1 Leachate Equivalent

5.3. Glaciofluvial Sheet Deposits

The Glaciofluvial Sheet Deposits were encountered in each exploratory hole with the exception of boreholes WS01 and WS05/5A. The top of these superficial deposits was recorded between 28.52mOD and 25.25mOD and recorded to range from 3.85m to >15.50m in thickness. The deposits comprised cohesive and granular horizons.

5.3.1. Cohesive Horizons

A total of 48 SPT tests were carried out in the cohesive Glaciofluvial Sheet Deposits, with SPT N60 values ranging from 7 to 27.

$$Cu = F1 \times N\ (KPa)^{8}$$

With SPT N60 values ranging from 7 to 27 and recorded to be of firm to very stiff consistency. Correlated undrained shear strength (c_u) values ranged from 32kPa to 122kPa (assuming f1 = 4.5), correlating to a low to very high strength material.

A summary of the SPT N60 values and undrained shear strengths versus level are provided Plate 5 and Plate 6 respectively. The result of the 10 triaxial test undertaken on an undisturbed samples of the Glaciofluvial Sheet Deposits returned an undrained shear strength of 61kPa to 120kPa, correlating to clay of medium to very high strength[4].

A summary of the classification testing undertaken on selected samples from the Glaciofluvial Sheet Deposits is

[8] Stroud, M. A. (1974). The Standard Penetration Test in Insensitive Clays and Soft Rocks. Proceedings of the European Symposium on Penetration Testing, Stockholm, June 5-7, 1974 2(2): 367-375

provided in Table 5. The results of the classification testing indicate the material to be clay and silt of low to intermediate plasticity[4] with a negligible to medium volume change potential.

Table 5: Summary of Classification Testing – Cohesive Glaciofluvial Sheet Deposits

Number of Tests	Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	% Passing (>450µm)	Modified Plasticity Index (%)
15	14.3 to 26.1*	23 to 48	11 to 24	97 to 99	10.7 to 28.4

* 20 moisture tests undertaken

Sulphate and pH testing was undertaken on samples of the cohesive Glaciofluvial Sheet Deposits retrieved during the site investigation. The results are summarised in Table 6.

Table 6: Summary of pH and Sulphate Testing – Cohesive Glaciofluvial Sheet Deposits

Number of Tests	pH	Water Soluble SO4* (mg/l)	Water Soluble Chloride* (mg/l)	Water Soluble Nitrate as N* (mg/l)
4	8.3 to 8.5	38.5 to 182	2.9 to 41	<2.0

*2:1 Leachate Equivalent

Plate 5: SPT N60 versus Level (mOD) – Cohesive Glaciofluvial Sheet Deposits

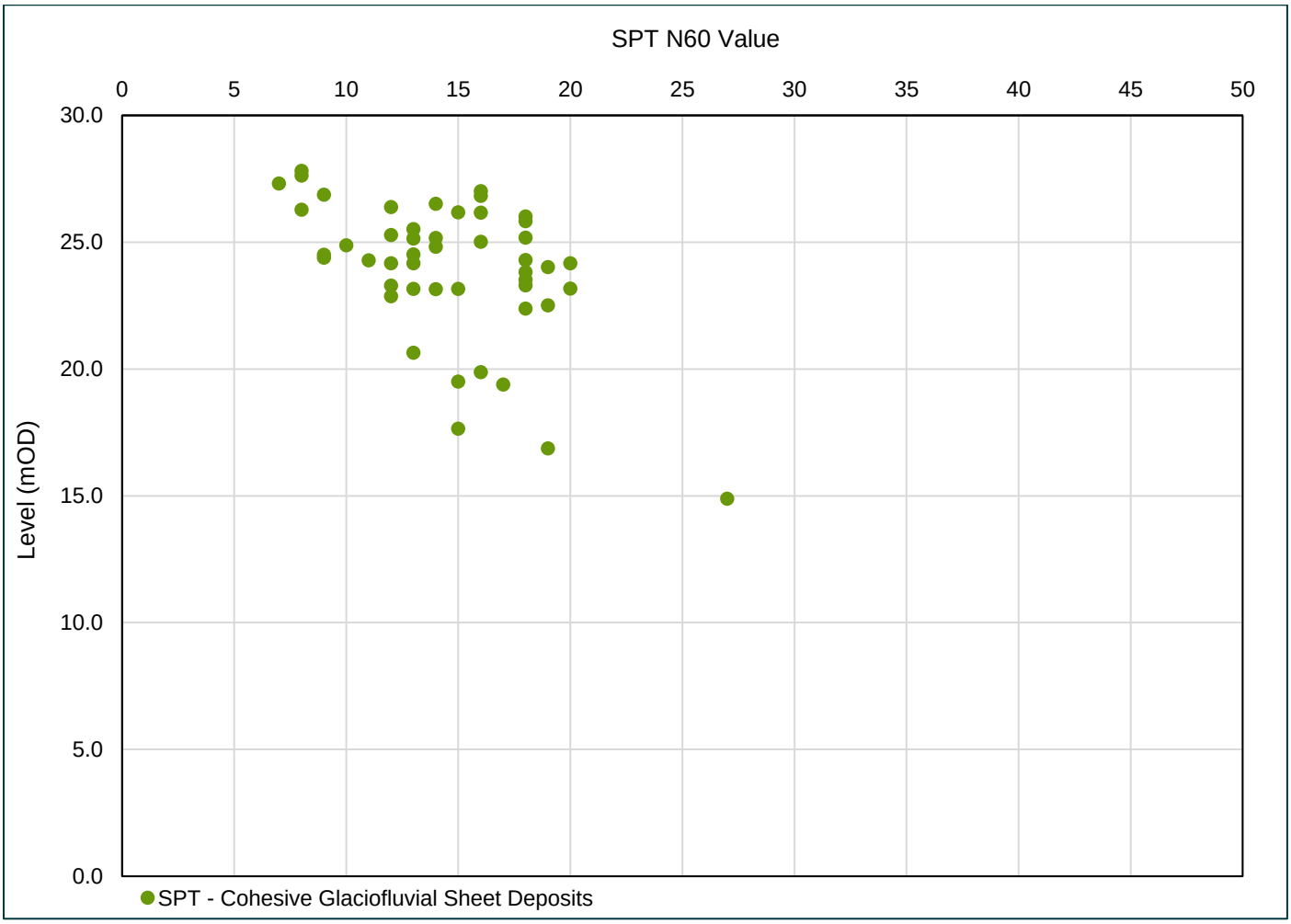
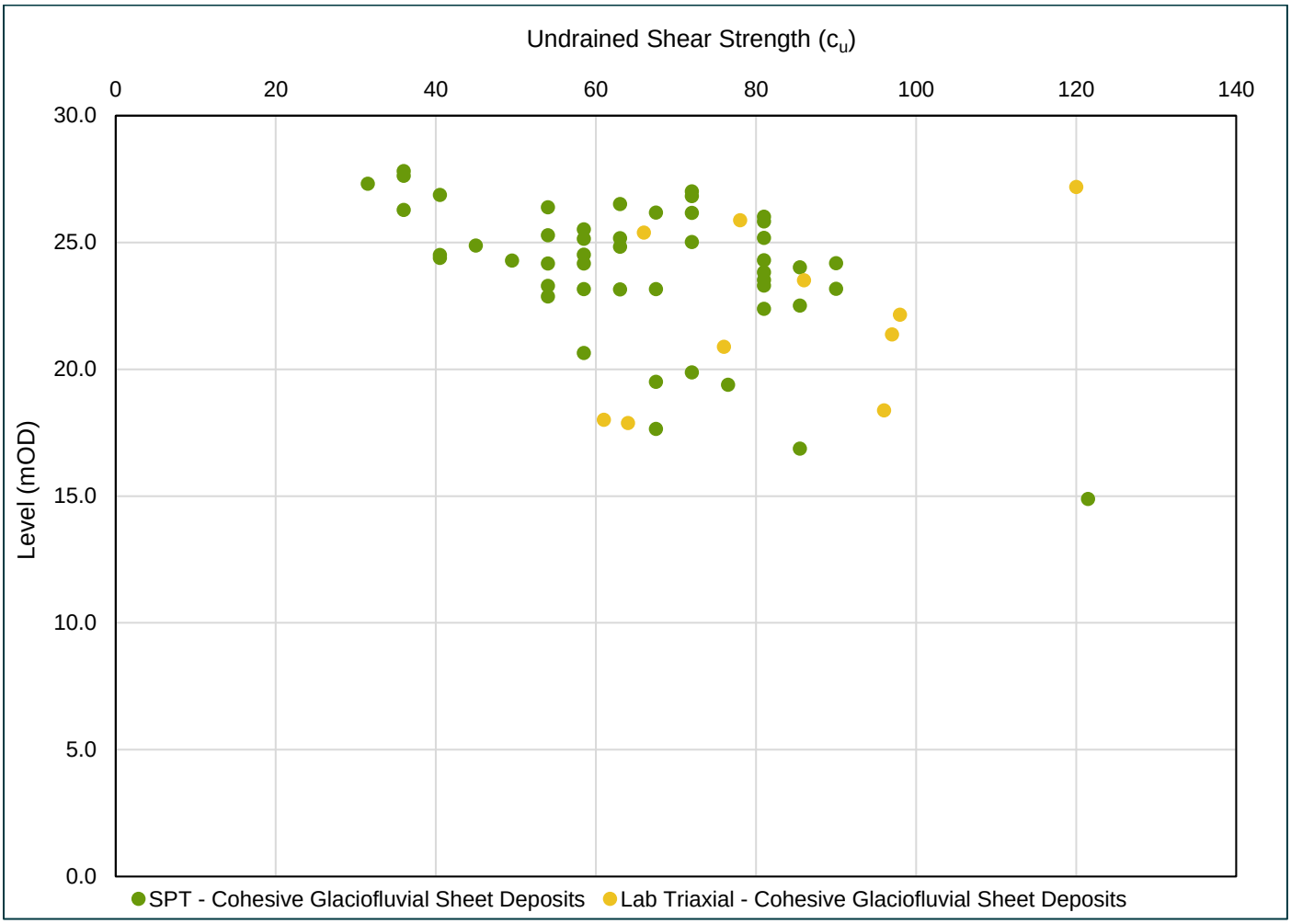


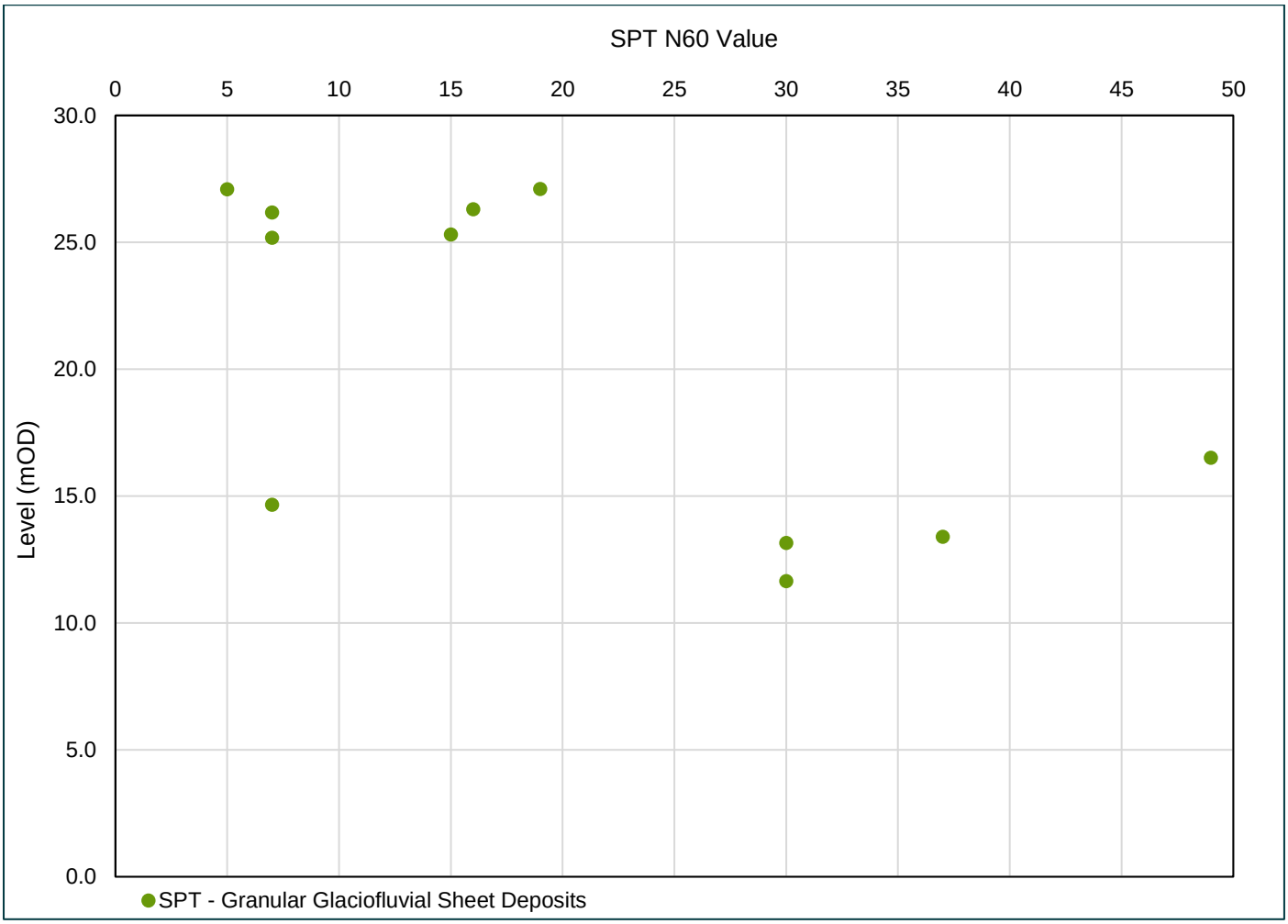
Plate 6: Undrained Shear Strength versus Level (mOD) – Cohesive Glaciofluvial Sheet Deposits



5.3.2. Granular Glaciofluvial Sheet Deposits

A total of 11 SPT tests were carried out in the granular Glaciofluvial Sheet Deposits, with SPT N60 values ranging from 7 to >50. These SPT N60 values corresponding to 'loose to dense'[4] granular material.

Plate 7: SPT N60 versus Level (mOD) – Granular Glaciofluvial Sheet Deposits



A summary of PSD testing undertaken on 5 samples from the Glaciofluvial Sheet Deposits is provided in Table 7. The results of the testing indicate the material is typically a clayey sand and gravel.

Table 7: Summary of PSD Testing – Granular Glaciofluvial Sheet Deposits

Number of Tests	Cobble Content (%)	Gravel Content (%)	Sand Content (%)	Silt Content (%)	Clay Content (%)
5	0.0	4.0 to 61.0	36.8 to 63.9	18.1	2.0 to 32.1

Sulphate and pH testing was undertaken on samples of the granular Glaciofluvial Sheet Deposits retrieved during the site investigation. The results are summarised in Table 8.

Table 8: Summary of pH and Sulphate Testing – Granular Glaciofluvial Sheet Deposits

Number of Tests	pH	Water Soluble SO4* (mg/l)	Water Soluble Chloride* (mg/l)	Water Soluble Nitrate as N* (mg/l)
6	7.8 to 9.1	8.6 to 106.0	1.0 to 3.2	<2.0 to 4.9

5.4. Glacial Till

The Glacial Till was encountered in boreholes BH01 to BH04. The top of the superficial deposits was recorded between 15.38mOD and 11.05mOD and recorded to range from 6.50m to >16.50m in thickness.

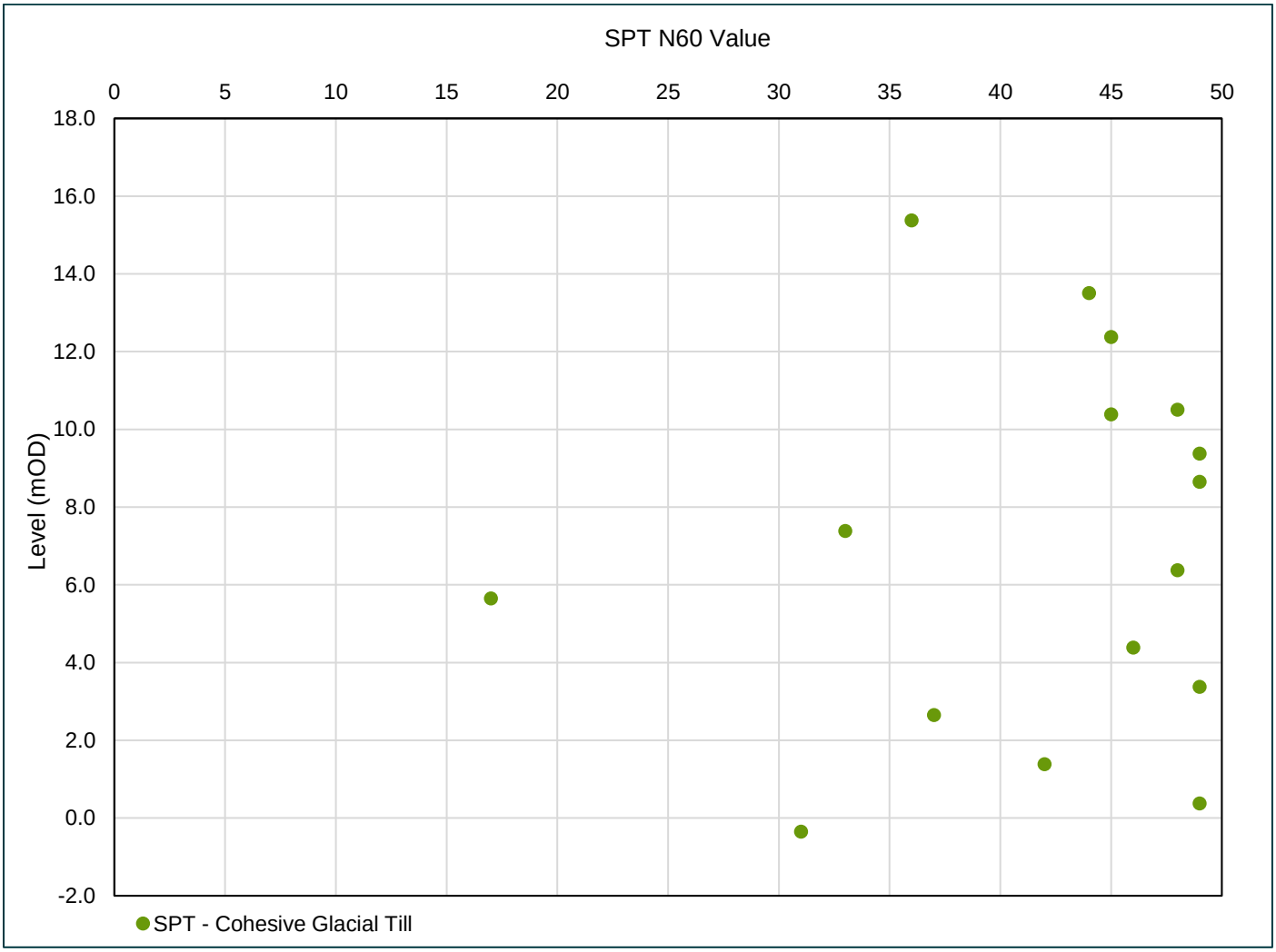
A total of 16 SPT tests were carried out in the cohesive Glacial Till deposits, with SPT N60 values ranging from 17 to >50.

$$Cu = F1 \times N\ (KPa)^{9}$$

With SPT N60 values ranging from 17 to >50 and recorded to be of very stiff to hard consistency. Correlated undrained shear strength (c_u) values ranged from 76.5kPa to 225kPa (assuming f1 = 4.5), correlating to a high to very high strength material.

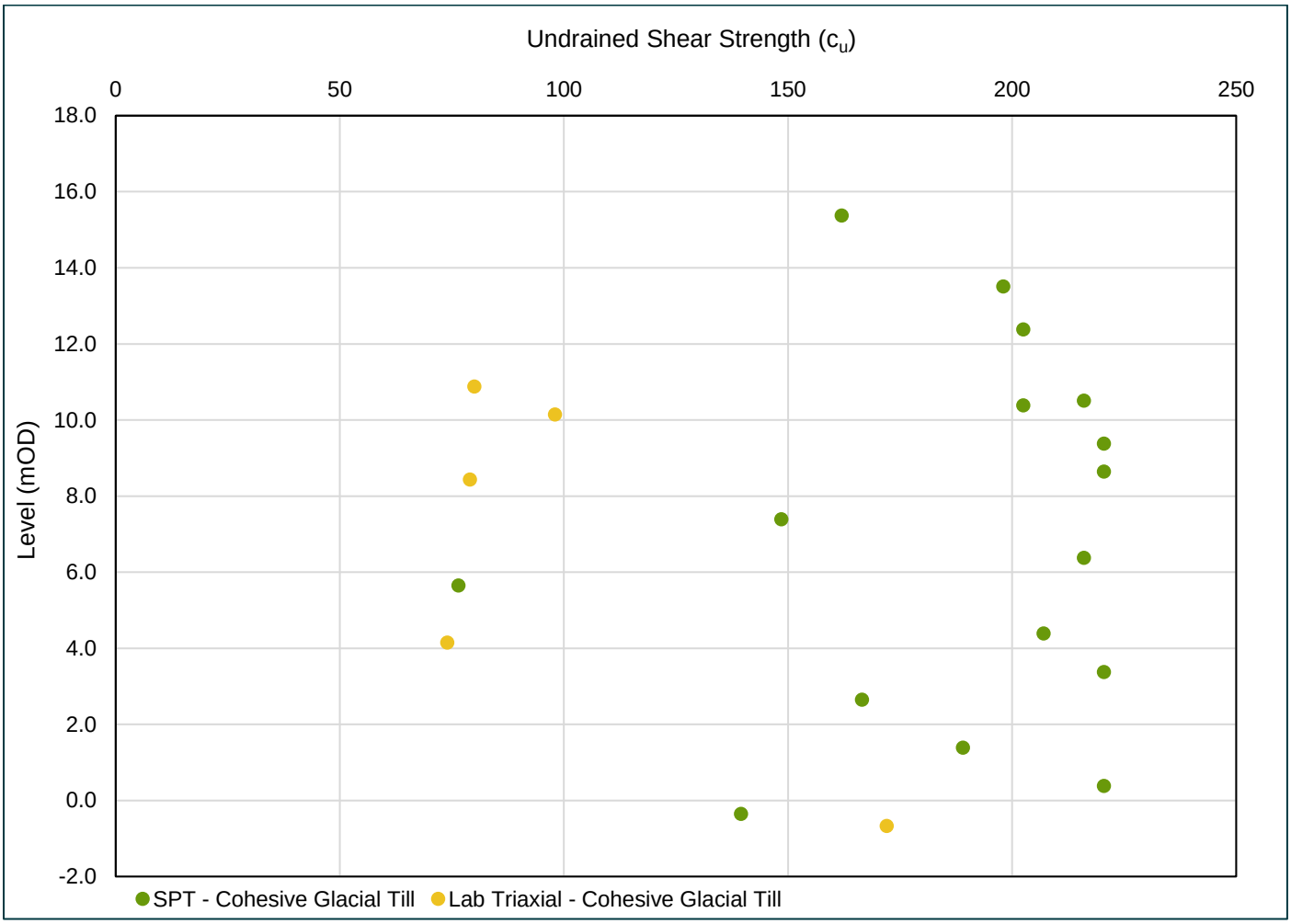
A summary of the SPT N60 values and undrained shear strengths versus level are provided Plate 8. The results of the 5 triaxial tests undertaken on undisturbed samples of the Glacial Till returned undrained shear strengths of 74 to 172kPa, correlating to clay of 'high to very high strength[4]' as illustrated in Plate 9.

Plate 8: SPT N60 versus Level (mOD) – Glacial Till Deposits



[9] Stroud, M. A. (1974). The Standard Penetration Test in Insensitive Clays and Soft Rocks. Proceedings of the European Symposium on Penetration Testing, Stockholm, June 5-7, 1974 2(2): 367-375

Plate 9: Undrained Shear Strength versus Level (mOD) – Glacial Till Deposits



A summary of the classification testing undertaken on selected samples from the Glacial Till is provided in Table 9. The results of the classification testing indicate the material to be clay and silt of low to intermediate plasticity[4] with a low to medium volume change potential.

Table 9: Summary of Classification Testing – Cohesive Glacial Till

Number of Tests	Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	% Passing (>450µm)	Modified Plasticity Index (%)
5	24.8*	28 to 45	19 to 23	100	8.0 to 22.0

* 1 moisture test undertaken

Sulphate and pH testing was undertaken on samples of the Glacial Till deposits retrieved during the site investigation. The results are summarised in Table 10.

Table 10: Summary of pH and Sulphate Testing – Glacial Till Deposits

Number of Tests	pH	Water Soluble SO4* (mg/l)	Water Soluble Chloride* (mg/l)	Water Soluble Nitrate as N* (mg/l)
4	8.4 to 8.6	82.8 to 141.0	6.0 to 12.0	<2.0

*2:1 Leachate Equivalent

5.5. Visual and Olfactory Potential Contamination

Olfactory signs of potential hydrocarbon contamination were noted as 'Distinct hydrocarbon odour' within borehole BH02 at 0.3mbgl and 0.5mbgl within the Made Ground. In addition, suspected asbestos sheet material was also encountered within borehole WS05 and WS05A at 0.5mbgl and 0.4mbgl respectively. A sample of the material from borehole WS05 was taken for asbestos analysis.

The presence of foreign materials such as coal, ash, ceramic, clinker, slag, brick, concrete, sheeting, and slate were noted within the Made Ground.

5.6. Groundwater

Groundwater was encountered during the site investigation as detailed in Table 11.

Table 11: Summary of Groundwater Strikes during Site Investigation

Location	Stratum	Strike Depth (mbgl)	Strike Level (mOD)	Depth after 20 Mins (mbgl)	Level after 20 Mins (mOD)	Rise in Depth after 20 Mins (m)
BH01	Glaciofluvial Sheet Deposits	11.20	17.31	8.20	20.31	3.00
BH02	Glaciofluvial Sheet Deposits	12.80	16.08	9.40	19.48	3.40
BH03	Glaciofluvial Sheet Deposits	14.40	13.99	9.70	18.69	4.70
BH04	Glaciofluvial Sheet Deposits	14.00	14.15	8.20	19.95	5.80
WS06	Glaciofluvial Sheet Deposits	3.00	25.29	3.00	25.29	0.00
WS09	Glaciofluvial Sheet Deposits	3.00	25.17	3.00	25.17	0.00

Three groundwater monitoring rounds were undertaken in May and June 2024 following completion of the site investigation and the results are summarised in Table 12.

Table 12: Summary of Groundwater Monitoring

Location	Stratum	Date	Groundwater Depth (mbgl)	Groundwater Level (mOD)
BH01D	Glaciofluvial Sheet Deposits	21/05/24	4.49	24.02
		31/05/24	4.47	24.04
		07/06/24	4.47	24.04
BH01S	Made Ground	21/05/24	1.73	26.78
		31/05/24	1.71	26.80
		07/06/24	1.69	26.82
BH02	Glaciofluvial Sheet Deposits	21/05/24	4.84	24.04
		31/05/24	4.77	24.11
		07/06/24	4.83	24.05
BH03	Glaciofluvial Sheet Deposits	21/05/24	4.43	23.96
		31/05/24	4.37	24.02
		07/06/24	3.99	24.40
BH04D	Glaciofluvial Sheet Deposits	21/05/24	4.26	23.89
		31/05/24	4.26	23.89
		07/06/24	4.27	23.88
BH04S	Made Ground	21/05/24	1.16	26.99
		31/05/24	1.14	27.01
		07/06/24	1.14	27.01
WS02	Made Ground	21/05/24	0.95	27.57
		31/05/24	0.96	27.56
		07/06/24	DRY	DRY
WS04	Made Ground	21/05/24	0.45	28.57
		31/05/24	0.44	28.58
		07/06/24	0.45	28.57
WS06	Glaciofluvial Sheet Deposits	21/05/24	1.56	26.73
		31/05/24	1.45	26.84
		07/06/24	1.25	27.04
WS07	Made Ground	21/05/24	1.32	26.85

Location	Stratum	Date	Groundwater Depth (mbgl)	Groundwater Level (mOD)
		31/05/24	1.21	26.96
		07/06/24	1.32	26.85
WS10	Made Ground	21/05/24	1.47	26.71
		31/05/24	1.48	26.70
		07/06/24	1.47	26.71

The groundwater results indicate a groundwater body within the Glaciofluvial Sheet Deposits between +27.04mOD and +23.88mOD. In addition, perched water was recorded within the Made Ground and there is the potential for further shallow perched water across the site given the variable nature of the Made Ground, Glacial Till, and Glaciofluvial Sheet Deposits.

5.7. Ground Gas

Three rounds of ground gas monitoring have been carried out in May and June 2024. The monitoring rounds were carried out in atmospheric pressures ranging between 1007 to 1017mbar in steady pressure systems. A summary of the worst-case ground gas monitoring results is provided in Table 13. The worst-case scenario includes maximum steady flow, maximum steady carbon dioxide and maximum (peak) methane recorded at each borehole over the three monitoring rounds.

Table 13: Summary of Ground Gas Conditions

Location	Stratum	Steady Flow Rate (l/hr)	Maximum Steady CO_2 (% vol. in air)	Maximum CH_4 (% vol. in air)	Maximum PID (ppm)
BH01S	Made Ground	<0.1	15.7	<0.1	0.5
BH04S	Made Ground	<0.1	<0.1	<0.1	0.3
WS02	Made Ground	<0.1	7.4	<0.1	0.3
WS04	Made Ground	<0.1	1.7	<0.1	0.6
WS07	Made Ground	<0.1	7.3	<0.1	0.4
WS10	Made Ground	<0.1	2.0	<0.1	0.4

6. Contamination Assessment

6.1. Introduction

The risks to the identified potential receptors at the site have been assessed with respect to the identified contamination at the site. The potential receptors have been identified with reference to the Part 2A Contaminated Land Guidance and associated DEFRA guidance[10] and have been considered if there is the potential for them to be adversely affected by exposure to contamination. Civic Earth's approach and rationale to the assessment criteria for this site is provided in Appendix *F*.

6.2. Risks to Human Health from Soil Contaminants

A total of 30 soil samples were submitted for chemical analysis, 21 samples of Made Ground and 9 samples of Glaciofluvial Sheet Deposits, and the results compared against human health generic assessment criteria (GAC) for a "residential without home grown produce" end use based on the proposed end use of the site as a residential led mixed-use development.

The assessment results for the Made Ground are summarised in Table A in Appendix *F* and the natural soils in Table B in Appendix *F*. It is noted that the Solubility Saturation Limit (SSL) and Vapour Saturation Limit (VSL) criteria indicate the theoretical value at which free phase product is expected to be present. As no evidence of free product was noted during the site investigation, the SSL and VSL values have not been considered within the assessment.

6.2.1. Assessment of Made Ground

Assessment of the Made Ground results indicate that the contaminant concentrations are generally below their respective assessment thresholds with the exception of the following contaminants where the calculated US_{95} exceeds the GAC:

- Benzo(a)anthracene;
- Benzo(a)pyrene;
- Benzo(b)fluoranthene; and
- Dibenzo(a,h)anthracene.

Statistical assessment indicates that an elevated concentration of benzo(a)anthracene is present at borehole WS10 at 0.3mbgl (at 200mg/kg) which is indicated to be localised and not widespread across the site, as removal of this "hotspot" from the dataset reduce the US_{95} concentrations to below the respective GAC. However, statistical assessment of the remaining PAHs identified above indicate the elevated concentrations are representative of the site. Localised elevated concentrations of beryllium, lead, chrysene, indeno(1,2,3,cd)pyrene and naphthalene have also been recorded above their respective GAC.

The results of the SVOC, VOC and PCB analysis recorded contaminant concentrations below the laboratory limit of detection.

In addition to the total soils analysis, 22 of the Made Ground samples were screened for the presence of asbestos and asbestos containing material (ACM) was detected in two of the soil samples:

- BH01 at 1.00mbgl – loose fibres of amosite at <0.001% by weight; and
- WS05A at 0.20mbgl – amosite asbestos sheeting/board debris at 1.182% by weight.

The Made Ground soil contaminant exceedances are illustrated in Plate 10.

[10] DEFRA (2012) Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance.

Plate 10: Summary of Made Ground Soil Contaminant Exceedances from Site Investigation



Notes: Red = Asbestos detected; Blue = PAH(s) exceed GAC; and Green = Heavy Metal(s) exceed GAC.

Based on the soil assessments, there is considered to be a potential risk to future site users and construction workers from the Made Ground soils across the site due to the elevated concentrations of PAHs and the presence of localised asbestos. It is noted that some of this material will be removed as part of the construction works, particularly where the basement is proposed. Where hardstanding and buildings are proposed, the risk from the underlying soils will be mitigated as the pathway between source and receptor will be broken. A clean capping layer will be required in areas of proposed soft landscaping to mitigate the risks to future site users. It is assumed that the risks to construction workers will be mitigated through the use of appropriate site practices i.e. appropriate personal protective equipment (PPE), dust suppression during earthworks (which would also mitigate the risks to off-site human health receptors), good handwashing practices before eating etc. Further details are provided in Section 7. It is noted that where hotspots of heavy metals, PAHs and asbestos have been identified, the incorporation of the capping layers in areas of soft landscaping is considered to mitigate the potential risk with respect to human health in these areas.

6.2.2. Assessment of Natural Soils

Of the nine samples of Glaciofluvial Sheet Deposits tested, the results indicate that the contaminant concentrations are below their respective assessment thresholds.

6.3. Risks to Human Health from Dissolved Contaminants

A total of 5 groundwater samples have been analysed as part of the site investigation; two samples from the perched water within the Made Ground and three samples from the Secondary A aquifer within the Glaciofluvial Sheet Deposits. The groundwater chemical analysis results have been compared to assessment criteria for a residential end use and the results of the assessment are summarised in Table C (Perched Water) and Table D (Secondary A Aquifer) in Appendix *F*. The results of the assessment indicate that the contaminants are below their respective thresholds and therefore the potential risks to future site users from vapours from groundwater to are considered to be low.

6.4. Risks to Human Health and Buildings/Structures from Ground Gas

Gas Screening Values (GSVs) have been calculated in accordance with CIRIA 665[11] using the maximum flow rate

[11] CIRIA (2007) Assessing risks posed by hazardous ground gases to buildings. CIRIA Report C665, London.

and maximum carbon dioxide/methane concentration for each individual well during the three monitoring rounds completed at the site. The results of the assessment are summarised in

Table 14.

Table 14: Summary of Ground Gas Risk Assessment

Location	Stratum	Maximum Steady Flow Rate (l/hr)	Maximum Steady CO2 (% vol. in air)	Maximum CH4 (% vol. in air)	Maximum GSV	Characteristic Situation
BH01 (Shallow)	Made Ground	<0.1	11.2	<0.1	<0.0160	CS2*
BH04 (Shallow)	Made Ground	<0.1	<0.1	<0.1	<0.0001	CS1
WS02	Made Ground	<0.1	7.4	<0.1	<0.0070	CS2*
WS04	Made Ground	<0.1	1.7	<0.1	<0.0020	CS1
WS07	Made Ground	<0.1	7.3	<0.1	<0.0070	CS2*
WS10	Made Ground	<0.1	2	<0.1	<0.0020	CS1

The calculated GSVs are less than 0.07 (the upper threshold of Characteristic Situation 1 (CS1)); however, guidance recommends that CS2 is considered where carbon dioxide concentrations greater than 5%v/v, or methane concentrations of greater than 1%v/v, are recorded. Elevated carbon dioxide concentrations above 5%v/v were recorded in borehole BH01, WS02 and WS07 on each occasion and therefore, Characteristic Situation (CS) 2 is considered to be representative of the site based on the available data.

It is recommended that an additional three rounds of monitoring are undertaken, to include at least one monitoring round during a low (<1000mbar) and falling pressure system, to confirm the ground gas regime at the site. Following completion of the additional monitoring, it may be possible to reduce the CS regime of the site. Should the site's regime be confirmed as CS2 and ground gas protection therefore required, the ground gas protection design should take the presence of basements excavations (and therefore excavation of Made Ground) into consideration.

6.5. Risks to Controlled Waters

The potential risks to the nearest significant surface water body (Chorlton Brook is located approximately 750m south) and the underlying aquifers (Secondary undifferentiated aquifers of the Alluvium and Glacial Till, and Secondary A aquifer of the Glaciofluvial Sheet Deposits) have been assessed based on groundwater analysis and are discussed in the following sections.

6.5.1. Assessment of Analysis of Groundwater Samples

A total of two water samples from the perched water within the Made Ground and three water samples from the Secondary A aquifer within the Glaciofluvial Sheet Deposits were scheduled for water analysis and the potential risks to the nearest significant surface water body assessed against the EQS for freshwater. The results of the EQS groundwater assessment are summarised in Table E (Perched Water) and Table F (Secondary A Aquifer) in Appendix F. In addition, the results of the perched water and Secondary A aquifer analysis have been assessed against the Drinking Water Values (DWVs). The results of the DWV groundwater assessments are summarised in Table G (perched water) and Table H (Secondary A aquifer) in Appendix F.

The results of the water assessment indicate that the concentrations are predominantly below their respective assessment criteria with the exception of the following:

Perched Groundwater:

- Elevated **total TPH** concentration of 25µg/l and 201µg/l in **BH01** and **BH04** respectively against an EQS threshold and DWV threshold of 10µg/l;
- Elevated concentrations of **anthracene** (1.3µg/l), **benzo(a)pyrene** (1.2µg/l), **benzo(b)fluoranthene** (1.3µg/l), **benzo(k)fluoranthene** (0.39µg/l), and **benzo(ghi)perylene** (0.53µg/l), in **BH04** against the respective EQS (0.1µg/l, 0.017µg/l, 0.0017µg/l and 0.0082µg/l respectively);
- Elevated **fluoranthene** concentration of 0.21µg/l and 3.7µg/l in **BH01** and **BH04** respectively against a EQS of 0.12µg/l; and
- Elevated **ammoniacal nitrogen as N** concentration of 1100µg/l in **BH04**, against a 'moderate' quality river EQS

threshold of 750µg/l;

- Elevated **total phenol** concentration of 2.6µg/l in **BH04** against a DWV threshold of 0.5µg/l.
- Elevated **arsenic** (12.8µg/l) and **selenium** (290µg/l) in **BH01** against the DWV thresholds of 10µg/l;
- Elevated **benzo(a)pyrene** (1.2µg/l) and **total sulphate** (494mg SO_4/l) in **BH04** against the DWV thresholds of 0.01µg/l and 250mg SO_4/l, respectively; and,
- Elevated **total PAH** (2.22µg/l) in **BH04** against the DWV threshold of 0.1µg/l.

Secondary A Aquifer:

- Increased **pH** of 10 recorded in **BH03** against an EQS upper threshold of 9.0 and DWV upper threshold of 9.5;
- Elevated **selenium** (12µg/l and 120µg/l) in **BH01** and **BH04** against a DWV threshold of 10µg/l;
- Elevated **total TPH** in **BH03** (65µg/l) and **BH04** (205µg/l) against an EQS and DWV threshold of 10µg/l;
- Elevated **total Phenols** in **BH01** (2.1µg/l) and **BH04** (1.1µg/l) against a DWV threshold of 0.5µg/l;
- Elevated concentrations of **anthracene** (0.34µg/l and 0.79µg/l), **benzo(a)pyrene** (0.37µg/l and 0.90µg/l), **benzo(b)fluoranthene** (0.45µg/l and 0.97µg/l), **benzo(k)fluoranthene** (0.16µg/l and 0.35µg/l), **benzo(ghi)perylene** (0.17µg/l and 0.47µg/l), and **fluoranthene** (1.1µg/l and 2.3µg/l) in **BH03** and **BH04** against the respective EQS criteria;
- Elevated concentrations of **benzo(a)pyrene** (0.37µg/l and 0.90µg/l) and **total PAH** (0.94µg/l and 2.16µg/l) in **BH03** and **BH04** against the respective DWVs of 0.01µg/l and 0.1µg/l; and
- Elevated **ammoniacal nitrogen as N** concentration of 770µg/l in **BH04**, against a 'moderate' quality river EQS threshold of 750µg/l.

6.5.2. Controlled Waters Assessment

The results of the groundwater assessment indicate elevated contaminant concentrations within the perched water in the Made Ground which are reflected in the underlying shallow Secondary A aquifer, suggesting that there has been some downwards migration of contaminants. However, the risks to controlled waters are considered to be low on the basis of the following:

- The proposed redevelopment of the site will result in the removal of large volumes of Made Ground as part of the basement excavations, therefore removing the source material from large areas of the site.
- The proposed redevelopment of the site will result in the majority of the site covered by buildings and/or hardstanding which will limit infiltration and therefore reduce the potential for mobilisation of contaminants within the underlying soils.
- The discontinuous nature of the perched water and the presence of cohesive Glacial Till and Glaciofluvial Sheet Deposits across the site will reduce the potential for lateral and vertical contaminant migration.
- The nearest surface water body (Chorlton Brook) is located approximately 750m of the site. Two historical watercourses were mapped in 1849 approximately 250m north of the site and 150m south of the site; however, these watercourses are believed to be either culverted or infilled and are no longer indicated on present day mapping.
- The Wilmslow Sandstone Formation Principal aquifer is located at least 30mbgl and the overlying cohesive deposits of the Glacial Till and Glaciofluvial Sheet Deposits will afford protection to the aquifer and reduce the potential for vertical contaminant migration.
- No groundwater abstraction points have been identified within 1km of the site and it is considered unlikely that the Secondary A aquifer will be used as a drinking water supply; the DWVs are therefore considered to be a conservative assessment for the site.

The risks to controlled waters from foundation activities i.e. piling is considered to be low assuming appropriate piling techniques are adopted. It is recommended that a Piling Works Risk Assessment is completed to demonstrate that the selected piling methodology will not lead to the creation of new pathways for contaminant migration.

6.6. Risks to Plants and Vegetation

The risk to vegetation and plants from phytotoxic contaminants is summarised in Table I in Appendix F. The results indicate that the concentrations of phytotoxic contaminants within the Made Ground and natural soils generally present a very low risk to proposed plants and vegetation; however, one localised elevated concentration of zinc (340mg/kg against an assessment threshold of 200mg/kg) recorded at borehole WS08 within the Made Ground is considered to present a risk to proposed plant and vegetation growth.

Importation of suitable soils is anticipated to be required in areas of soft landscaping which should be installed as part of the proposed capping to mitigate potential risks to human health. In addition, it is likely that the composition of the

Made Ground is unlikely to be a suitable growth medium with high proportions of limestone gravel and anthropogenic materials observed during the site investigation.

6.7. Risks to Buried Water Supply Pipes

An assessment of the risks to buried water supply pipes is summarised in Table J in Appendix F where the selected soil analysis results have been compared against the UK Water Industry Research (UKWIR) guidance. It is noted that the full suite of UKWIR testing has not been carried out at this stage; however, as outlined in Table J, the initial total soils analysis results indicates that standard polyethylene (PE) pipework would not be suitable for use due to elevated concentrations of TPHs against the assessment criteria. It is therefore anticipated that barrier pipes will be required for new buried water supply pipes.

6.8. Preliminary Waste Characterisation

A preliminary waste characterisation assessment in line with WM3 technical guidance has been carried out on 30 of the soil samples submitted for the broader suite of chemical analysis which indicates whether the material is hazardous or non-hazardous. If the material is classified as non-hazardous, there is the option of sending the material to a non-hazardous waste facility or an inert waste facility (subject to the material meeting the inert waste acceptance levels based on Waste Characterisation Acceptance (WAC) analysis). If the material is classified as hazardous, WAC analysis will be required to demonstrate that the concentrations meet the levels for a hazardous waste facility or stable non-reactive hazardous (SNRH) waste facility without a requirement for prior treatment.

The preliminary waste assessment has been carried out using the HazWaste Online Toolkit and the waste classification reports are included in Appendix *G*. The results of the assessment indicate that the majority of the material tested would be characterised as non-hazardous material and therefore considered to be acceptable to an inert waste facility (subject to WAC testing unless material is uncontaminated natural soils) or a non-hazardous waste facility. However, 2 out of the 30 soil samples have been characterised as hazardous material:

- **WS05A at 0.20mbgl** – material is indicated to be hazardous due to the presence of asbestos; and
- **WS10 at 0.30mbgl** – material is indicated to be hazardous due to elevated concentrations of TPH.

In addition, it is noted that ACM was also detected in the Made Ground at BH01 and therefore it is considered that this material would not be acceptable for disposal to an inert waste facility; disposal to a non-hazardous waste facility that accepts ACM would be required.

It is recommended that the asbestos impacted material at boreholes WS05A and BH01, and hydrocarbon impacted material at borehole WS10 is selectively excavated and disposed of off-site to an appropriate facility in accordance with appropriate material management protocols (see Section 7).

Further assessment of the total soils data indicates that the following material would not be acceptable to inert waste facility due to elevated concentrations above the inert waste facility thresholds:

- BH01 at 1.00mbgl – material is indicated to contain asbestos at <0.001% by weight;
- BH01 at 2.60mbgl – elevated total organic carbon (TOC) concentration;
- BH04 at 0.60mbgl – elevated concentration of total PAH;
- BH04 at 1.00mbgl – elevated concentration of total PAH;
- WS03 at 0.30mbgl – elevated concentrations of TOC and total PAH; and
- BH03 at 0.50mbgl – elevated concentration of total PAH.

Additionally, a total of 4 WAC tests were carried out as part of the site investigation which indicated the following:

- **WS02 at 0.60mbgl** – material is indicated to be acceptable for disposal at an inert waste facility;
- **WS04 at 0.40mbgl** – material is indicated to be acceptable for disposal at an inert waste facility;
- **WS07 at 0.50mbgl** – material is indicated to be acceptable for disposal at an inert waste facility;
- **WS10 at 0.80mbgl** – material is indicated to be acceptable for disposal at a hazardous waste facility without the need for prior treatment;

The Contractor should be responsible for the material management and waste classification at the site and the “waste hierarchy” should be used to rank waste management options according to what is best for the environment. Potential for re-use of materials should be considered as part of the cut and fill strategy for the site; however, it is anticipated that some material will require segregation and off-site disposal. Further information is provided in Section 7.2.5.

6.9. Revised Qualitive Risk Assessment

A revised risk assessment has been carried out based on the findings of supplementary site investigation and updated

conceptual site model, and the potential contaminant linkages that may exist at the site in accordance with the LCRM[12]. The risk assessment methodology is outlined in Appendix *H*.

[12] Environment Agency (2020). Land Contamination Risk Management (LCRM).

Table 15: Revised Qualitative Risk Assessment

Potential Source/Medium	Potential Exposure Route	Potential Receptor	Severity	Probability	Risk Rating	Comments
Explosive/ asphyxiating gases/vapours from underlying soils (Made Ground and infilled marl pit(s)) and potential on and off-site sources	Migration of gases and vapours through the surface via permeable soils and drainage & services	Internal building spaces & future occupiers	Medium	Low likelihood to Likely	Moderate/low to Moderate	Variable thickness of Made Ground encountered on site during site investigation. Ground gas monitoring recorded elevated carbon dioxide concentrations; however, negligible flow rates were recorded. A conservative CS2 regime is recommended for the site and ground gas protection measures are required. Additional monitoring is recommended which may allow the CS regime to be reduced, depending on the findings of the additional monitoring and detailed ground gas assessment.
Organic/ inorganic contaminants such as asbestos, hydrocarbons, SVOCs and VOCs, and metals within underlying soils and perched groundwater within the Made Ground (based on historical on-site and off-site sources)	Direct/indirect ingestion of soil, perched water and dust, inhalation of particle vapours and asbestos fibres and dermal contact	Construction workers	Medium	Likely	Moderate	Elevated concentrations of heavy metals, PAHs, TPH and asbestos recorded within the Made Ground which are considered to present a potential risk to construction workers. Risk would be mitigated by use of appropriate PPE.
		Future site users	Medium	Low likelihood	Moderate/low	Elevated concentrations of heavy metals, PAHs, TPH and asbestos recorded within the Made Ground which are considered to present a potential risk to future site occupiers. Use of hardstanding will act as a barrier between receptor and contamination. Capping layers required in areas of soft landscaping.
		Off-site residents	Medium	Unlikely	Low	Proposed hardstanding and buildings and capping layer in soft landscaping will act as a barrier between receptor and contamination within underlying soils.
	Direct contact with underground structures and services	Buildings and structures, buried services	Mild	Likely	Moderate/low	Buried concrete to be designed as appropriate for ground conditions. Barrier pipes considered to be required due to elevated TPH concentrations recorded within the Made Ground.
	Root uptake	Plants and vegetation	Minor	Likely	Low	Hotspots of elevated concentrations of zinc recorded within Made Ground, and it is considered unlikely that the Made Ground at site will provide a suitable growth medium. The use of appropriate topsoil and subsoil in the proposed soil capping layer, required to mitigate the risks to human health, will provide a growth medium for areas of soft landscaping to mitigate risks to plant growth.
	Vertical migration	Shallow Secondary A aquifer (Glaciofluvial Sheet Deposits) and Secondary (undifferentiated) aquifer (Glacial Till)	Medium	Unlikely	Low	Elevated contaminant concentrations of TPHs, PAHs, heavy metals, and ammoniacal nitrogen in the perched water which are reflected in the groundwater analysis of the Secondary A aquifer. However, the risk is considered to be low on the basis that the majority of the Made Ground (source material) will be removed as part of the basement excavations at the site, the majority of the site will be covered in buildings and/or hardstanding which will reduce infiltration and therefore reduce potential mobilisation of contaminants in the underlying Made

Potential Source/Medium	Potential Exposure Route	Potential Receptor	Severity	Probability	Risk Rating	Comments
						Ground, and the non-pervasive nature of the perched water within the Made Ground.
		Principal aquifer (Wilmslow Sandstone Formation)	Medium	Unlikely	Low	Elevated groundwater concentrations of heavy metals, PAHs, TPH, ammoniacal nitrogen and pH recorded in the Made Ground. However, the Principal Aquifer is at a depth greater than 30mbgl and the overlying cohesive material of the Glacial Till and/or Glaciofluvial Deposits are considered to afford protection to the underlying aquifer.
		Local surface water bodies (Chorlton Brook)	Medium	Unlikely	Low	The nearest surface water feature is located approximately 750m from site and migration of potential contaminants is considered to be mitigated by the non-pervasive nature of the perched water and presence of cohesive material in the Made Ground and superficial deposits.
Organic/inorganic contaminants within groundwater (shallow Secondary A and undifferentiated aquifer)	Direct contact and ingestion of contaminated groundwater	Future site users	Medium	Unlikely	Low	Should localised shallow groundwater be encountered by construction workers, use of appropriate PPE will mitigate risks to receptors. Future site users and off-site residents are unlikely to come into contact with groundwater due to formal landscaping and buildings/hardstanding across the site.
		Construction workers	Medium	Unlikely	Low	
		Off-site residents	Medium	Unlikely	Low	
	Inhalation of vapours	Future site users	Medium	Unlikely	Low	A shallow aquifer within the superficial deposits was encountered during the site investigation. However, the results of the vapour assessment indicated a low risk from dissolved volatile organic compounds.
	Lateral migration	Local surface water bodies (Chorlton Brook)	Medium	Unlikely	Low	The nearest surface water feature is located approximately 750m from site and migration of potential contaminants is considered to be mitigated by the presence of cohesive material in the superficial deposits.
	Vertical migration	Deep Principal aquifer (Wilmslow Sandstone Formation)	Medium	Unlikely	Low	The Principal Aquifer is at a depth greater than 30mbgl and the overlying cohesive material of the Glacial Till and/or Glaciofluvial Deposits are considered to afford protection to the underlying aquifer.
	Direct contact with underground services	Buildings and structures	Mild	Likely	Moderate/low	Elevated contaminant concentrations of TPHs, PAHs, heavy metals, and ammoniacal nitrogen. Buried concrete to be designed as appropriate for ground conditions.

7. Remediation Strategy

7.1. Introduction

The following activities form the remediation strategy for the site based on the findings of the above site investigation. It has been assumed that the development works will be split into an Enabling Works phase (including excavation of basements) and a subsequent Construction Phase.

Enabling Works

- Additional ground gas monitoring and detailed assessment to confirm ground gas regime at the site;
- Watching brief and discovery strategy;
- Decommissioning of existing borehole monitoring wells;
- Removal of hydrocarbon and asbestos contamination hotspots;
- Appropriate material management of arisings associated with enabling works for re-use and/or disposal (including the basement excavations) including off-site disposal to appropriately licenced waste facilities; and
- Mitigation of risks to controlled waters during enabling works including appropriate management of stockpiles, controlling surface water run-off and appropriate discharge / disposal of perched groundwater.

Construction Phase

- Watching brief and discovery strategy;
- Provision of soil capping layer in areas of soft landscaping;
- Installation of ground gas and radon protective measures;
- Appropriate material management of arisings associated with construction works (i.e. foundation works) for re-use and/or disposal including off-site disposal to appropriately licenced waste facilities;
- Mitigation of risks to controlled waters during construction works including appropriate management of stockpiles, controlling surface water run-off and appropriate discharge / disposal of perched groundwater; and
- Selection and installation of appropriate materials for buried water supply pipes.

It is noted that should the final construction-phase development not progress after the completion of the enabling works phase, then testing should be undertaken of the formation level soils and assessed against applicable screening criteria (assumed vacant secure with trespasser use) to assess whether temporary capping is required. Should measures be required, this can be undertaken in accordance with the watching brief and discovery strategy.

7.2. Enabling Works Remediation Strategy

7.2.1. Additional Ground Gas Monitoring

As outlined in Section 6.4, the site is currently considered to be representative of CS2 and ground gas protection measures are therefore required. However, in consideration of the negligible flow rates recorded and the anticipated removal of a significant proportion of Made Ground during the construction of the proposed basements, it is recommended that an additional three rounds of monitoring are undertaken, to include at least one monitoring round during a low (<1000mbar) and falling pressure system, to confirm the ground gas regime at the site. Following completion of the additional monitoring, it may be possible to reduce the CS regime of the site.

7.2.2. Watching Brief and Discovery Strategy

A watching brief will be put in place during enabling works by the Contractor(s). Should areas of unexpected contamination, including asbestos, be encountered or suspected, a qualified geoenvironmental engineer will be informed and the risk associated with the contamination assessed. Where necessary, an appropriate remediation strategy will be devised and implemented.

The regulators should be informed of additional areas of contamination so identified and be provided with the risk assessment and proposed remediation methodology for agreement before undertaking such works. Appropriate verification works to be completed if remedial measures are required will also be identified and agreed.

The following discovery strategy, in the event of unexpected contaminated being encountered, is recommended:

- Work to cease in that area.
- Notify geoenvironmental engineer to attend site and sample material. Notify Contaminated Land Officer at the

Local Authority, as appropriate.

- Geoenvironmental engineer to supervise the excavation of contaminated material, which should be placed in a bunded area and covered to prevent rainwater infiltration.
- Soil samples should be obtained by the geoenvironmental engineer from both the excavated material and the soils in the sides and base of the excavation to demonstrate that the full area of contamination has been excavated. If appropriate, in-situ testing should be undertaken on the sides and base of the excavation to assess the presence of residual contamination in the soils.
- On receipt of chemical test results, the soils may be appropriately classified for treatment or disposal and dealt with accordingly.
- Detailed records, including photographs and duty of care records, of the excavations, stockpile sizes, source and location should be kept and regularly updated to allow materials to be easily tracked from excavation until disposal off site.
- Backfilling to be undertaken with material certificated as suitable for the proposed end land use.

7.2.3. Borehole Decommissioning

Monitoring wells installed as part of the site investigation will be decommissioned prior to commencement of significant earthworks. The monitoring wells will be decommissioned in accordance with EA guidance[13], to include removal of headworks and backfill of the monitoring well from base to top with low permeability material i.e. bentonite/cement grout. Backfilling will be carried out via tremie pipe (where wells are deeper than 3m in depth), or via funnel and compacted with a rod or similar (where wells are shallower than 3m).

7.2.4. Asbestos and Hydrocarbon Hotspots

As discussed in Sections 6.2 and 6.8, two hotspots of asbestos contamination and a hotspot of gross hydrocarbon contamination have been recorded. The following will be undertaken to remediate the hotspots:

- **Hydrocarbon Hotspot**: Excavation on an initial area of 5m x 5m around the hotspot location followed by visual and laboratory verification testing of the sides and base of the excavation will be carried out to confirm removal of the gross contamination i.e. total TPH concentration of less than 1,000mg/kg (hazardous waste threshold).
- **Asbestos Hotspots:** Excavation on an initial area of 5m x 5m around the hotspot location followed by visual and laboratory verification testing of the sides and base of the excavation will be carried out to confirm removal of the gross contamination i.e. visual fragments of ACM and confirm asbestos concentration in soil of less than 0.001% (laboratory limit of detection).

Should impacted material at concentrations above the criteria be identified on the sides or base of the excavation, then further excavation should be undertaken to remove the impacted material and subsequent verification testing undertaken.

The excavated material is to be disposed of off site to an appropriately licenced facility.

7.2.5. Material Management

The Contractor will be responsible for the material management and waste classification. The “waste hierarchy” should be used to rank waste management options according to what is best for the environment. Top priority should be given to preventing waste in the first place, for example during pre-construction and planning stages of a new development. However, if waste is created, priority should be given to preparing it for re-use, then recycling, then recovery, and last of all for disposal.

Re-use on Site, Recycling and Recovery

In order to minimise the volume of soil being disposed to landfill facilities, it is prudent to consider material management options prior to waste disposal.

It is envisaged that the majority of material to be excavated to achieve the formation level will require off-site disposal based on the overall ‘cut’ across the site given the incorporation of multiple basements. However, depending on the final cut and fill balance, there may be potential for re-use of material on site if levels will be raised.

Based on the results, it is considered that, if required, the Made Ground material excavated from outside of the identified hotspot areas discussed in Section 7.2.4, could be re-used on site below capping or hardstanding, subject to final finish levels and the capping layer formation level, under the CL:AIRE[14] protocol. The CL:AIRE protocol would

[13] Environment Agency (2012) Good practice for decommissioning redundant boreholes and wells.
[14] CL:AIRE (2011). The Definition of Waste: Development Industry Code of Practice. Version 2

require a Material Management Plan (MMP) to be produced which details where materials will arise from and how they will be used within the limits of the Code of Practice. The process would require sign off by a Qualified Person in advance of works commencing and a final validation report to be produced.

It is noted that the CL:AIRE protocol is not applicable to soils that pose harm to human health or the environment and as such, should gross contamination be encountered during earthworks, this material would unlikely be suitable for re-use and should be selectively excavated and disposed of from site.

Uncontaminated clean, naturally occurring arisings may be re-used within the site under the CL:AIRE protocol or re-used off-site under direct transfer under the CL:AIRE protocol. Additionally, screening of uncontaminated (inert) granular soils may permit the re-use of this material on site or off-site under the WRAP protocol[15], where the protocol sets out end waste criteria for the production and use of aggregates from inert waste; where the criteria are met, the aggregates would typically be regarded as having been fully recovered and ceased to be waste.

Should excavated material be re-used on site, it will need to be done in compliance with a site-specific earthworks specification in order to meet the requirements for engineered fill under appropriate protocols. Material will require placement below hardstanding, buildings or a capping layer (see Section 7.3.4) to mitigate the risks from potential contamination within the soils.

If off-site disposal of excavated soils is unavoidable, the Contractor will be responsible for the appropriate classification of the waste.

Waste Handling

All material intended for off-site disposal should be transported and disposed in accordance with the Environmental Protection (Duty of Care) Regulations, 1991, and the Landfill (England and Wales) Regulations, 2002 (as amended). Waste legislation stipulates that hazardous are non-hazardous waste should be pre-treated prior to disposal. Pre-treatment can be undertaken either at the site of origin or may be carried out at a licenced off-site facility and can include selective segregation of soils conducted on site.

Material Disposal

The Contractor is responsible for characterising the waste for offsite disposal. Information to support the characterisation of the Made Ground material is provided in Section 6.8 and should be referred to for full information. It is anticipated that further testing of material may be required to characterise the material for off-site disposal, which will be the responsibility of the Contractor.

7.2.6. Mitigation of Risks to Controlled Waters during Enabling Works

The following measures will be put in place to mitigate the potential impact to controlled waters (i.e. the underlying Secondary A aquifer) during groundworks, where contaminants in the underlying soils may be mobilised to a greater extent than naturally occurs:

- Appropriate management of stockpiles including stockpiling in designated areas away from drainage channels, segregation of different types of material (e.g. Made Ground and natural soils), and controlling surface water run-off with bunds, liners and coverings. Excavated soils will also be appropriately stored with preventative measures against nuisance odours to protect human health during temporary storage on site. The Contractor will document handling and storage protocols for potentially contaminated soils.
- Appropriate management and discharge/disposal of perched groundwater encountered in excavations and water used during enabling works (e.g. for dust suppression and wheel washing). Temporary drainage systems to be designed and implemented so that they capture waterborne pollution prior to entering any existing drainage systems.
- Appropriate storage of all hazardous liquids, chemicals and materials where materials are to be stored in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations.

The enabling and construction works should be undertaken in accordance with CIRA 741[16]. In addition, it is recommended that prior to construction of buildings, a Foundation Works Risk Assessment, or Piling Works Risk Assessment, is carried out for the site to demonstrate that the selected foundation technique will not lead to the creation of new pathways for contaminant migration.

[15] WRAP & EA (2023), *Quality Protocol: Aggregates from Inert Waste*. Accessed online (https://www.gov.uk/government/publications/quality-protocol-production-of-aggregates-from-inert-waste). Published October 2013.
[16] CIRIA (2015). Environmental Good Practice on Site Guide. 4th Edition.

7.3. Construction Phase Remediation Strategy

7.3.1. Watching Brief and Discovery Strategy

A watching brief and discovery strategy will be put in place during construction works by the Contractor(s) in accordance with the details set out in Section 7.2.1.

7.3.2. Ground Gas Protection Measures

The ground gas risk assessment concluded that the site is considered to present a low to moderate risk from ground gases and was considered to be representative of CS2 based on the data obtained. Notwithstanding the recommendation for additional monitoring to confirm the ground gas regime, ground gas protection measures will be required for new structures.

Following progression of the detailed design for the construction phase works the detailed ground gas protective measures will be designed, reviewed by a suitably qualified geoenvironmental engineer and agreed with the Local Authority. The ground gas protection measures will be designed in accordance with BS 8485[17] and BRE 414[18] and will outline the required gas score to be achieved and the selected Building Type (including justification) in accordance with BS 8485. In accordance with current guidance, a combination of at least two elements will be required to achieve the required gas score, for example a barrier element (i.e. reinforced floor slab) with either a membrane or a ventilation/dilution element. The elements work independently and collaboratively, and a single element solution will not be used because there would be no redundancy to allow for defects in the component.

The installation of the membrane will require independent inspection and verification by a suitably qualified contractor or geoenvironmental engineer in accordance with the principles of CIRIA C735[19]. If a membrane is included in the ground gas protection solution, a verification plan for the installation of the membrane will be part of the detailed design.

7.3.3. Radon Protection Measures

Probability bandings (based on the proportion of properties in a given area that exceed the Action Level; currently 200 Bq.m^3) are used to determine whether a property requires no, basic or full measures. At present, Approved Document C advocates basic measures for the probability banding 3% to 10% (full measures if >10%). However, Public Health England would like to see all new builds include basic measures.

The environmental disclosure report included within the Civic Earth desk study[1] has identified that the site does not lie within a Radon Affected Area as less than 1% of properties are above the action level, and no radon protective measures are considered necessary. It is noted however that where basements are incorporated into the development which shall be occupied or part occupied, current guidance requires monitoring for radon, irrespective of the initial risk assessment.

7.3.4. Capping Layers for Areas of Soft Landscaping

Where soft landscaping is proposed in residential areas, capping layers will be required to mitigate the potential risks to human health. In addition, the capping layers will provide a suitable growth medium for plants and vegetation. To comply with BRE 465[20], capping layers for the site will need to meet the following criteria:

- 600mm of imported soil with a minimum 150mm topsoil (including 50mm turf/sod); or
- 450mm imported soil with a minimum of 150mm topsoil (including 50mm turf/sod) over a geotextile membrane.

It is noted that the thickness of the capping layer may need to be increased for trees/large shrubs where the thickness is specified by the landscape architect.

Where mature trees are present and to be retained as part of the redevelopment of the site, it may not be feasible to install a 450mm-600mm thick capping layer. In these areas, it is considered that the tree roots themselves will restrict site occupants' exposure to soils around the tree roots and it is typically accepted by the Local Authority's Contaminated Land Officer for the soil capping 'feathered' such that the capping layer can be installed without damaging tree roots. Areas where capping layers require feathering will be set out in the Contractor's Remediation Implementation Plan.

[17] British Standards (2015) *Code of Practice for the Design of Protective Measures for Methane and Carbon Dioxide Ground Gases for New Buildings*. BS 8485.
[18] BRE (2001). *Protective measures for housing on gas-contaminated land*. BRE 414.
[19] CIRIA (2014) *Good practice on the testing and verification of protection systems for buildings against hazardous ground gases*. C735.
[20] BRE (2004) *Cover systems for land regeneration - thickness design of cover systems for contaminated land*. BRE 465.

The material imported to form the capping layers will be uncontaminated soil from a known and reputable source. The capping soils will meet the chemical criteria for human health with respect to the residential (with home grown produce consumption) end use. The chemical specification is set out in Appendix *I*.

In addition, imported topsoil is required to meet the requirements of BS 3882[21] and imported subsoil is required to meet the requirements for BS 8601[22]**.** The material should be free from propagules of aggressive weeds, free from obvious signs of contamination e.g. staining, free phase hydrocarbon, coal, non-odorous such that it could be considered a statutory nuisance and free from unsuitable material/foreign bodies e.g. brick, glass, pipework.

Once placed, the capping soils will be sampled and chemical tested by a suitably qualified geoenvironmental engineer to confirm that the material complies with the specifications outlined Appendix *I* at a frequency of **1 sample per 250m^3, with a minimum of three samples per source**. Inspection pits will also be dug through the placed material to confirm the thickness meets the minimum requirements.

To protect the integrity of the capping layers, placement should commence after installation of foundations and drainage works.

In areas where soft landscaping is proposed at podium levels or within concrete planters, where no contact is made with the underlying Made Ground, imported topsoil/subsoil will be required to provide a suitable growth medium; however, no minimum thickness is required from a protection of human health perspective.

7.3.5. Buried Water Supply Pipes

Completion of a United Utilities Risk Assessment including sampling of soils at depth and location of proposed water supply pipes will be required, and the completed risk assessment including location plan, soil chemical analysis results and required pipe type will be required for submission to United Utilities for review.

7.3.6. Material Management

Material management protocols and procedures will be followed as outlined in Section 7.2.5.

7.3.7. Mitigation of Risks to Controlled Waters during Construction Works

Control measures to mitigate risks to controlled waters during construction works will be implemented as outlined in Section 7.2.6.

7.4. General Requirements

Asbestos fibres were encountered in two samples of Made Ground analysed as part of the site investigation, and there is the potential for further asbestos containing material to be encountered during groundworks. All works need to be undertaken in accordance with the Control of Asbestos regulations[23], and all construction persons should be properly briefed on the identification of asbestos material and, where encountered, earthworks should cease whilst risks are properly considered. The regular damping down of excavations and excavated soils would also be prudent in such instances to prevent dust generation and release from any asbestos contaminated soils.

Precautions will be taken to minimise exposure of workers and the general public to potentially harmful substances during earthworks. The risks to contractors can be controlled through the implementation of site safety procedures and the use of suitable personal protective equipment (PPE). Attention should also be paid to restricting possible off-site nuisance such as dust and odour emissions. These measures should include (and not be limited to):

- Any sources of contamination uncovered during site development works should be brought to the immediate attention of a geoenvironmental consultant for consideration and comment. As required, the findings and recommendations of the current assessment may require amendment to reflect changes in site condition.
- All excavated materials stockpiled should be periodically dampened down to control dust release. Similarly, the disposal of any material from site should be completed using covered wagons.
- During redevelopment the workforce will need to adopt full HSE measures to ensure that the elevated concentrations of contaminants requiring cover, treatment and/or removal are dealt with according to current guidelines and codes of practice. Suitably experienced and competent staff should be employed to carry out the on-site remediation.

[21] British Standards (2015) *Specification for Topsoil and Requirements for Use*. BS3882:2015.
[22] British Standards Institute (2013) *Specification for Subsoil and Requirements for Use*.
23 HSE (2013) Control of Asbestos Regulations 2012. Approved Code of Practice and guidance. L143

Site personnel are not permitted to enter unstable excavations, nor excavations in which contamination is present, nor unsupported excavations deeper than 1.2m, in accordance with standard HSE protocols.

7.5. Validation and Verification

7.5.1. Remediation Validation Requirements

This RMS will require validation reports to be collated on completion of the enabling works remediation works and on completion of the construction phase remediation works, as outlined in Section 7.1 The verification reports should be submitted to and approved by the Local Authority.

Based on the remediation strategy outlined in Section 7, it is anticipated that the verification evidence will comprise:

Enabling Works Phase

- Details of additional ground gas monitoring and ground gas risk assessment, if additional monitoring is carried out;
- Site inspection records, photographs and laboratory testing should unexpected contamination be encountered;
- Borehole decommissioning records;
- Site inspection records, photographs and laboratory testing for contamination hotspot removal works;
- General site inspection records and photographs during cut and fill and material re-use works;
- As-built drawings including final earthworks levels and volumes;
- Material management procedures (permits, exemptions, MMP etc.) and records detailing material re-use locations, as appropriate;
- Duty of Care records for disposal of excavated soils and asbestos contaminating materials and surplus arisings including WAC testing certificates, waste haulier permits, waste recipient permits and volumes of materials disposed of by each haulier / to each facility;

Construction Phase

- As-built drawings;
- Details of ground gas (e.g. details of membranes and joining tape) including membrane verification plans;
- Site inspection records and photographs for installation of ground gas measures;
- United Utilities water supply pipe risk assessment, specification of water supply pipework and confirmation from United Utilities of their acceptance of the material used;
- Site inspection records, photographs and laboratory testing for capping layer and/or growth medium material importation and construction, confirming compliance with the relevant import specification.

7.5.2. Verification Plan

A Verification Plan which details the remedial requirements and verification information required to confirm that the remediation of the site is carried out in compliance with this RMS is presented in Appendix *J*. The verification plan states whether the remediation activity relates to the enabling works phase, follow-on construction phase, or both.

7.5.3. Verification Reporting

Verification Reports will be required following completion of the enabling works phase and following completion of the construction phase, which will include the information set out in Section 7.5 and the Verification Plan. The Verification Reports should be submitted to and approved by the Local Planning Authority.

8. Geotechnical Recommendations

8.1. Introduction

Geotechnical recommendations for the proposed redevelopment of the site are outlined in the following sections based on the information obtained during the site investigation and the proposed development scheme. It is understood that the proposed development comprises the demolition of the existing buildings and structures (previously offices and commercial units) and the construction of a residential led mixed-use development (including basements) with apartments, townhouses, retail units and public open space. The currently development layout includes three plots with a basement level proposed within two of them and at least one of them being 9 storeys.

8.2. Geotechnical Design Parameters

Geotechnical design parameters are outlined in Table 16. The parameters provided are moderately conservative, serviceability limit state and considered appropriate for pile foundations, retaining walls (gravity/embedded), earthworks (settlement/consolidation) and infrastructure (roads/aprons) design.

Table 16: Geotechnical Design Parameters

Stratum	Bulk Unit Weight γ_b (kN/m3)	Undrained Shear Strength c_u (kPa) [c']	Friction Angle ϕ (°)	Young's Modulus, Eu (MPa) [E']
Made Ground (Granular)	18	-	28[a]	[10]
Made Ground (Cohesive)	17	10 [0]	22[b]	5[c] [4][d]
Glaciofluvial Sheet Deposits (Cohesive)	20	60 [0]	22[b]	30[c] [24][d]
Glaciofluvial Sheet Deposits (Granular)	19	-	32[a]	[20]
Glacial Till (Cohesive)	20	150 [0]	22[b]	75[c] [60][d]

Notes:

a. Peck, R.B., Hanson, W.E., and Thornburn, T.H., Foundation Engineering, 2nd Edition, John Wiley, New York, 1967, p.310

b. BS 8002:2015 Code of Practice for Earth Retaining Structures, British Standards Institution

c. Based on 500Cu – Burland, Standing J.R., and Jardine F.M. (eds) (2001), Building Response to Tunnelling, case Studies from Construction of the Jubilee Line Extension London, Ciria Special Publication 200.

d. Based on 0.8EU – Burland, Standing J.R., and Jardine F.M. (eds) (2001), Building Response to Tunnelling, case Studies from Construction of the Jubilee Line Extension London, Ciria Special Publication 200.

8.3. Foundation Design

Given the form of the development, the likely structural loads, and the underlying ground conditions, it is not considered feasible to support the structures on pad or raft foundations. As a result, the use of piled foundations is considered appropriate. Adoption of piled rafts may also be feasible subject to proposed loads and settlement analysis. The use of either continuous flight auger (CFA) or rotary bored piles are considered to be the most suitable piling techniques.

Based on the proposed lower ground floor finished floor levels and proposed basement voids, lower ground floor formation levels are likely to be within the cohesive Glaciofluvial Sheet Deposits. It is not recommended that foundations are constructed within the Made Ground due to the variable bearing capacity and potential for differential settlement of these deposits. It is considered that an allowable bearing capacity of 120kPa could be adopted for the cohesive Glaciofluvial Sheet Deposits.

Pile design should be undertaken by, and remain the sole responsibility of, a specialist piling contractor who will determine the most appropriate and cost-effective pile type for the site based on their own interpretation of the site investigation data, their own installation techniques, and experience of piling in similar ground conditions.

For all piling operations on the site, the design, construction, and maintenance of a working platform in accordance with guidance presented in BRE 470 "Working platforms for tracked plant" (2004) will be required.

It is recommended that pile testing is undertaken. It is considered that as a minimum this should comprise one sacrificial test pile per structure and serviceability testing on more than 1% of constructed piles to loads not less than 1.5 times the representative load for which they are designed. Integrity testing should be undertaken on all piles. A piling specification should be completed prior to piling works commencing.

8.4. Obstructions

Whilst not encountered during the site investigation, the risk of obstructions associated with the historical development of the site is considered to be high. Obstructions may significantly hinder the installation of bearing piles and groundworks in general.

A detailed strategy will be required for managing obstructions within the Made Ground to minimise potential delays on site and associated abnormal costs. Such a strategy may comprise proof digging or probing in advance of pile installation. This should limit the risk of piles encountering obstructions. The time taken to remove obstructions and reinstate unstable ground will need to be carefully considered.

Whilst not encountered, and generally not a significant risk in Manchester, the risk of boulders within the Glacial Till will also need to be considered by the specialist piling contractor.

8.5. Floor Slabs and Pavement Design

Based on the proposed formation levels, it is assumed that roads and pavements will be founded onto Made Ground, or cohesive Glaciofluvial Sheet Deposits. It is recommended that pavements and roadways founded on the Made Ground or superficial deposits be designed to a conservative California Bearing Ratio (CBR) value of 2.5%. This could potentially increase following in-situ testing of formation level soils. It is recommended that the formation level should be compacted and soft spots (<2.5% CBR) removed.

All pavements should be designed and compacted and verified in accordance with MCHW Series 600[24]. A specialist testing and construction contractor should be engaged for any lime/cement stabilisation works, and it is anticipated that a stabilisation trial would be undertaken prior to implementation.

Floor slab design will need to take account of the potential variability in ground conditions at the formation level, and suspended slabs will need to be utilised where there is insufficient bearing capacity or potential for an unacceptable level of differential settlement.

8.6. Excavation Works

Based on the ground conditions encountered, excavations required during the development should not pose difficulties for conventional excavators or earth moving equipment for the identified strata. Excavations within Made Ground have the potential to become unstable if water is introduced into the excavation. Water control, if required, may be achieved within shallow excavations by adopting a sump pumping system around the perimeter of the excavation as well as appropriate temporary supports such as trench boxes/trench sheets. This should be confirmed by the contractor and temporary works designer on initial excavation.

Historical structures and foundations will need to be grubbed out and hard material could potentially be processed and reused as engineered fill in line with the recommendations outlined in Section 7.2.5 and a site-specific earthworks specification. Depending on formation levels, any voids encountered will need to be backfilled with engineered fill.

Excavations should be suitably shored or otherwise supported or battered and should be inspected regularly by a competent person. No operatives should enter un-shored or otherwise unprotected excavations identified as unstable by a competent person, however shallow they are, in accordance with the guidelines presented in CIRIA Report 97[25]. Dewatering will likely be required when excavation works are in close proximity to perched groundwater level.

As part of the design of the basements, the potential impact from associated ground movements during excavation and construction with respect to adjacent structures should be required. In addition, the potential for perched water and groundwater ingress during basement excavation and construction and in the permanent case should also be considered.

8.7. Buried Concrete Design

Design Sulphate (DS) and Aggressive Chemical Environmental for Concrete (ACEC) classes for the Made Ground, and natural soils are summarised in Table 17 based on the results of the chemical sulphate and pH testing[26].

Table 17: Summary of DS and ACEC Classes

Stratum	WSS DS Class	WSS ACEC Class
Made Ground	DS-1	AC-1
Glaciofluvial Sheet Deposits (Cohesive)	DS-1	AC-1
Glaciofluvial Sheet Deposits (Granular)	DS-1	AC-1
Glacial Till (Cohesive)	DS-1	AC-1

[24] Highways England (2016) Manual of Contract Documents for Highway Works, Series 600 (Earthworks), MCHW Series 600

[25] CIRIA (1992). Trenching Practice (Second Edition). Construction Industry Research and Information Association Report 97.

[26] BRE (2005) Concrete in Aggressive Ground. BRE Special Digest 1:2005

Appendix A

Exploratory Hole Records



KEY

- Approximate Site Boundary

Site Areas

- Car Park
- Chorlton Precinct
- Graeme House

Exploratory Hole Locations

- Cable Percussion Borehole
- Windowless Sample Borehole

Rev	Date	Comments

CIVIC EARTH

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Project	Chorlton Precinct, Manchester
Client	PJ Livesey Holdings Limited
Drawing title	Exploratory Hole Location Plan
Scale(s)	1:1,000
Job no.	51053/01
Drawn	KIA 04/06/2024
Checked	AP 03/07/2024
Approved	KIA 05/07/2024
Dwg No.	51053-CE-01-XX-D-G-0001
Rev.	P01

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Appendix B

Exploratory Hole Location Plan

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**BH04**	Location Type:	Cable percussion (shell and auger)
Coords:	381589.91E/394068.73N	Level:	28.15mOD
Status:	FINAL	Scale:	1:30
Final Depth:	30.00 m		
Sheet 1 of 6		Date Start:	29/04/2024
Date End:	02/05/2024		

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug	14.00	20	8.20
1.20	30.70	CP	Dando 2000			

Inst/ Backfill	Depth (m)	Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description
						27.85	0.30		Asphalt hardstanding. [MADE GROUND]
		0.50	ES 1						Medium dense to dense dark brown gravelly sand. Sand is fine to coarse. Gravel is angular to sub-angular fine to coarse of brick and concrete. Occasional cobbles of brick and concrete noted. [MADE GROUND]
		0.50 - 1.20	B 1						
		0.60	ES 1						
	1.0	1.00	ES 2						
		1.20 - 1.65	C+B 2	SPT(S) 1.20m N=13 (2,4/4,3,2,4)					
	2.0	2.00 - 2.45	C+B 3	SPT(S) 2.00m N=33 (4,5/9,9,7,8)					
						25.25	2.90		Firm brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is angular to sub-rounded fine to medium sandstone, siltstone, and coal. [GLACIOFLUVIAL SHEET DEPOSITS]
	3.0	3.00 - 3.45	SD 4	SPT(S) 3.00m N=13 (2,2/3,3,3,4)					
		3.50 - 4.00	B 5						*from 3.50 to 13.10mbgl - Sand and silt content reduces.*
	4.0	4.00 - 4.45	U 6	Ublows=35 Recovery=50%					
		4.00 - 4.45	U U6						
		4.45 - 4.70	D 7						
	5.0	5.00 - 5.45	SD 8	SPT(S) 5.00m N=14 (2,2/3,3,4,4)					
		5.50 - 6.00	B 9						
	6.0	6.00 - 6.45	U 10	Ublows=27 Recovery=90%					
		6.00 - 6.45	U U10						

Stratum continues onto next page

Notes:

1. Water strike recorded at 14m rising to 8.2m bgl after 20 minutes.
2. Borehole cased to depth.
3. ES - Environmental Sample. B - Bulk Sample. D - Disturbed Sample. U - Undisturbed Sample. SPT - Standard Penetration Test.
4. Installation BH04D: 0.00-5.00m 50mm plain standpipe with bentonite seal; 5.00-215.00m slotted standpipe with gravel filter and geowrap. BH01S: .00-1.00m 50mm plain standpipe with bentonite seal; 1.00-2.90m slotted standpipe with gravel filter and geowrap. Gas tap,bung and flush cover installed at ground level.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
13.50	194	13.50	203
29.00	140	29.00	152

Hammer Information	
Energy Ratio	Serial No.
59%	AR4395

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	1.00	2.90
Pipe2	5.00	15.00

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**BH04**	Location Type:	Cable percussion (shell and auger)
Coords:	381589.91E/394068.73N	Level:	28.15mOD
Status:	FINAL	Scale:	1:30
Final Depth:	30.00 m		
Sheet 2 of 6		Date Start:	29/04/2024
Date End:	02/05/2024		

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug	14.00	20	8.20
1.20	30.70	CP	Dando 2000			

Inst/ Backfill	Depth (m)	Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description
		6.45 - 6.70	D 11						Firm brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is angular to sub-rounded fine to medium sandstone, siltstone, and coal. [GLACIOFLUVIAL SHEET DEPOSITS]
	7.0	7.00	D 12						
		7.50 - 7.95	SD 13	SPT(S) 7.50m N=13 (1,3/3,3,3,4)					
	8.0	8.00 - 8.45	B 14						
	9.0	9.00 - 9.45	U 15	Ublows=31 Recovery=100%					
		9.45	D						
		9.45 - 9.70	D 16						
		9.45 - 9.70	D U41						
	10.0	10.00	D 17						
		10.50 - 10.95	SD 18	SPT(S) 10.50m N=15 (2,3/3,4,4,4)					
	11.0	11.00 - 11.50	B 19						
		11.50	D 20						
	12.0	12.00 - 12.45	U	Ublows=32 Recovery=70%					
		12.00 - 12.45	U 21						

Stratum continues onto next page

Notes:

1. Water strike recorded at 14m rising to 8.2m bgl after 20 minutes.
2. Borehole cased to depth.
3. ES - Environmental Sample. B - Bulk Sample. D - Disturbed Sample. U - Undisturbed Sample. SPT - Standard Penetration Test.
4. Installation BH04D: 0.00-5.00m 50mm plain standpipe with bentonite seal; 5.00-215.00m slotted standpipe with gravel filter and geowrap. BH01S: .00-1.00m 50mm plain standpipe with bentonite seal; 1.00-2.90m slotted standpipe with gravel filter and geowrap. Gas tap,bung and flush cover installed at ground level.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
13.50	194	13.50	203	59%	AR4395
29.00	140	29.00	152		

Install Response Zones		
Ref	From (m)	To (m)

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**BH04**	Location Type: Cable percussion (shell and auger)	
Coords: 381589.91E/394068.73N	Level: 28.15mOD		
Status:	FINAL	Scale: 1:30	Final Depth: 30.00 m
Sheet 3 of 6		Date Start: 29/04/2024	Date End: 02/05/2024

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug	14.00	20	8.20
1.20	30.70	CP	Dando 2000			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description
		12.45 12.45 - 12.70	B 23 D 22						Firm brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is angular to sub-rounded fine to medium sandstone, siltstone, and coal. [GLACIOFLUVIAL SHEET DEPOSITS]
	13.0					15.05	13.10		
		13.50 - 13.95	C+B 24	SPT(S) 13.50m N=7 (2,2/2,2,1,2)					Loose to dense light orange brown clayey gravelly SAND. Sand is fine to coarse. Gravel is angular to rounded fine to coarse siltstone, sandstone, coal, quartz, and limestone. [GLACIOFLUVIAL SHEET DEPOSITS]
	14.0								
	15.0	15.00 - 15.45 15.00 - 15.45	B 25 C+B 25	SPT(S) 15.00m N=31 (5,6/7,7,8,9)					*from 15.00 to 15.50mbgl - Rounded cobbles of siltstone.*
	16.0	16.00	D 26						
		16.50 - 16.95 16.50 - 16.95	B 27 C+B 27	SPT(S) 16.50m N=30 (2,2/6,6,9,9)					*from 16.50 to 17.10mbgl - Becomes very gravelly. Gravel is subrounded of siltstone.*
	17.0					11.05	17.10		
		17.10 - 18.00	B 28						Very stiff dark greyish brown thinly laminated slightly sandy silty CLAY. Sand is fine. [GLACIAL TILL]
	18.0	18.00 - 18.45 18.00 - 18.45	U 29 U U29	Ublows=47 Recovery=100%					

Stratum continues onto next page

Notes:

1. Water strike recorded at 14m rising to 8.2m bgl after 20 minutes.
2. Borehole cased to depth.
3. ES - Environmental Sample. B - Bulk Sample. D - Disturbed Sample. U - Undisturbed Sample. SPT - Standard Penetration Test.
4. Installation BH04D: 0.00-5.00m 50mm plain standpipe with bentonite seal; 5.00-215.00m slotted standpipe with gravel filter and geowrap. BH01S: .00-1.00m 50mm plain standpipe with bentonite seal; 1.00-2.90m slotted standpipe with gravel filter and geowrap. Gas tap,bung and flush cover installed at ground level.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
13.50	194	13.50	203	59%	AR4395
29.00	140	29.00	152		

Install Response Zones		
Ref	From (m)	To (m)

CIVIC EARTH

Project Title:	Chorlton Precinct, Manchester	Client:	PJ Livesey Holdings Limited
Project Number:	51013/01	Logged By:	CD
		Checked By:	HG

Location ID:	BH04
Status:	FINAL
Sheet 4 of 6	

Location Type: Cable percussion (shell and auger)

Coords: 381589.91E/394068.73N Level: 28.15mOD

Scale: 1:30 Final Depth: 30.00 m

Date Start: 29/04/2024 Date End: 02/05/2024

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug	14.00	20	8.20
1.20	30.70	CP	Dando 2000			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description
									Very stiff dark greyish brown thinly laminated slightly sandy silty CLAY. Sand is fine. [GLACIAL TILL]
		18.45 - 18.70	D 30						
	19.0	19.00	D 31						
		19.50 - 19.95	SD 32	SPT(S) 19.50m N=50 (8,9/50 for 275mm)					
	20.0	20.00 - 20.50	B 33						
	21.0	21.00 - 21.45	U 34	Ublows=32 Recovery=90%					
		21.00 - 21.45	U U34						
		21.45 - 21.70	D 35						
	22.0	22.00	D 36						
		22.50 - 22.95	SD 37	SPT(S) 22.50m N=17 (2,3/4,4,4,5)					
	23.0	23.00 - 23.50	B 38						
	24.0	24.00 - 24.45	U 39	Ublows=47 Recovery=70%					
		24.00 - 24.45	U U39						

Stratum continues onto next page

Notes:

1. Water strike recorded at 14m rising to 8.2m bgl after 20 minutes.
2. Borehole cased to depth.
3. ES - Environmental Sample. B - Bulk Sample. D - Disturbed Sample. U - Undisturbed Sample. SPT - Standard Penetration Test.
4. Installation BH04D: 0.00-5.00m 50mm plain standpipe with bentonite seal; 5.00-215.00m slotted standpipe with gravel filter and geowrap. BH01S: .00-1.00m 50mm plain standpipe with bentonite seal; 1.00-2.90m slotted standpipe with gravel filter and geowrap. Gas tap,bung and flush cover installed at ground level.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
13.50	194	13.50	203	59%	AR4395
29.00	140	29.00	152		

Install Response Zones		
Ref	From (m)	To (m)

CIVIC EARTH

Project Title:	Chorlton Precinct, Manchester	Client:	PJ Livesey Holdings Limited
Project Number:	51013/01	Logged By:	CD
		Checked By:	HG

Location ID:	BH04
Status:	FINAL
Sheet 5 of 6	

Location Type: Cable percussion (shell and auger)

Coords: 381589.91E/394068.73N Level: 28.15mOD

Scale: 1:30 Final Depth: 30.00 m

Date Start: 29/04/2024 Date End: 02/05/2024

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug	14.00	20	8.20
1.20	30.70	CP	Dando 2000			

Depth (m)	Sample Depth (m)	Type/Ref	Tests/Results	Level (mOD)	Strata Depth (m)	Strata Description
						Very stiff dark greyish brown thinly laminated slightly sandy silty CLAY. Sand is fine. [GLACIAL TILL]
	24.45 - 24.70	D 40				
25.0						
	25.50 - 25.95	SD 41	SPT(S) 25.50m N=38 (5,7/9,8,10,11)			
26.0	26.00 - 26.50	B 42				
27.0	27.00 - 27.45	U 43	Ublows=72 Recovery=0%			
	27.00 - 27.45	U U48				
	27.00 - 27.50	B 44				
28.0						
	28.50 - 28.95	SD 45	SPT(S) 28.50m N=32 (3,4/6,8,8,10)			
29.0	29.00	B 46				
30.0	30.00	U U47		-1.85	30.00	
	30.00 - 30.25	U 47				

Stratum continues onto next page

Notes:

1. Water strike recorded at 14m rising to 8.2m bgl after 20 minutes.
2. Borehole cased to depth.
3. ES - Environmental Sample. B - Bulk Sample. D - Disturbed Sample. U - Undisturbed Sample. SPT - Standard Penetration Test.
4. Installation BH04D: 0.00-5.00m 50mm plain standpipe with bentonite seal; 5.00-215.00m slotted standpipe with gravel filter and geowrap. BH01S: .00-1.00m 50mm plain standpipe with bentonite seal; 1.00-2.90m slotted standpipe with gravel filter and geowrap. Gas tap,bung and flush cover installed at ground level.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
13.50	194	13.50	203	59%	AR4395
29.00	140	29.00	152		

Install Response Zones		
Ref	From (m)	To (m)

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**BH04**	Location Type:	Cable percussion (shell and auger)
Coords:	381589.91E/394068.73N	Level:	28.15mOD
Status:	FINAL	Scale:	1:30
Final Depth:	30.00 m		
Sheet 6 of 6		Date Start:	29/04/2024
Date End:	02/05/2024		

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug	14.00	20	8.20
1.20	30.70	CP	Dando 2000			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description
		30.45 - 30.70	D 48						EOH at 30.00m - Achieved target depth
	31.0								
	32.0								
	33.0								
	34.0								
	35.0								
	36.0								

Notes:

1. Water strike recorded at 14m rising to 8.2m bgl after 20 minutes.
2. Borehole cased to depth.
3. ES - Environmental Sample. B - Bulk Sample. D - Disturbed Sample. U - Undisturbed Sample. SPT - Standard Penetration Test.
4. Installation BH04D: 0.00-5.00m 50mm plain standpipe with bentonite seal; 5.00-215.00m slotted standpipe with gravel filter and geowrap. BH01S: .00-1.00m 50mm plain standpipe with bentonite seal; 1.00-2.90m slotted standpipe with gravel filter and geowrap. Gas tap,bung and flush cover installed at ground level.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
13.50	194	13.50	203	59%	AR4395
29.00	140	29.00	152		

Install Response Zones		
Ref	From (m)	To (m)

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD Checked By: HG	
Location ID:	**WS01**	Location Type: Inspection pit	
Coords: 381577.68E/394139.18N		Level: 28.56mOD	
Status:	FINAL	Scale: 1:10	Final Depth: 1.25
Sheet 1 of 1		Date Start: 09/05/2024	Date End: 09/05/2024

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.25	WLS	Window Sampler			
0.00	1.25	IP	Hand Dug			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description
						28.36	0.20		Concrete with 6mm rebar at 20mm spacing. [MADE GROUND]
						28.31	0.25		Medium dense yellowish grey sandy gravel. Gravel is medium to course of angular limestone. Sand is fine. [MADE GROUND]
						27.96	0.60		Black gravelly sand. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of brick, clinker and coal. Occasional ash and rare cobbles of angular coal noted. [MADE GROUND]
		0.80	ES 2			27.66	0.90		Soft brown mottled grey slightly sandy gravelly clay. Sand is fine to medium. Gravel is angular to sub-angular fine to coarse of brick, coal, ceramic, clinker, and slag. [MADE GROUND]
	1.0					27.36	1.20		Brown gravelley sand. Sand is fine to coarse. Gravel is angular to sub-rounded fine to coarse ceramic, coal, clinker, and slag. Occasional ash . [MADE GROUND]
									EOH at 1.25m - Terminated upon engineers instruction
	2.0								

Notes:

1. Windowless Sampler become a hand pit at request of engineer due to time limitations.
2. Borehole remained dry during excavation.
3. Remained stable during excavation.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**WS02**	Location Type:	Dynamic (windowless) sampler
Coords:	381566.61E/394130.33N	Level:	28.52mOD
Status:	FINAL	Scale:	1:25
Final Depth:	5.45 m	Date Start:	30/04/2024
Date End:	30/04/2024	Sheet	1 of 2

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	5.45	WLS	Window Sampler			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						28.32	0.20		Asphalt hardstanding. [MADE GROUND] *from 0.00 to 1.50mbgl - Root and rootlets.*			
						28.22	0.30		Yellowish grey sandy gravel. Sand is fine to medium. Gravel is angular medium to coarse Limestone. [MADE GROUND]			
		0.50	ES 1						Dark brown slightly gravelly silty fine and medium sand, locally silt. Gravel is angular to sub-rounded fine to coarse brick and concrete. [MADE GROUND]			
	1.0	1.00	ES 2			27.52	1.00					
		1.20	D	SPT(S) 1.20m N=6 (1,1/1,1,2,2)					Stiff becoming softer brown mottled bluish grey slightly gravelly CLAY. Gravel is angular to rounded, fine to medium siltstone, sandstone, and coal. [GLACIOFLUVIAL SHEET DEPOSITS]			
		1.50	D							1.20 2.00	100	100
	2.0	2.00	D	SPT(S) 2.00m N=12 (1,2/2,3,3,4)								
		2.50	D							2.00 3.00	87	100
	3.0	3.00	D	SPT(S) 3.00m N=11 (1,2/2,3,3,3)								
		3.50	D						*from 3.50 to 5.45mbgl - Clay becomes silty and sandy. Sand is fine.*	3.00 4.00	77	100
	4.0	4.00	D	SPT(S) 4.00m N=11 (1,2/2,3,3,3)								
		4.50	D							4.00 5.00	67	80
	5.0	5.00	D	SPT(S) 5.00m N=15 (2,2/3,4,4,4)								

Stratum continues onto next page

Notes:

1. No groundwater encountered.
2. Borehole stable during excavation.
3. ES - Environmental Sample. D - Disturbed Sample. SPT - Standard Penetration Test.
4. Installation: 0.00-0.50m 50mm plain standpipe with bentonite seal; 0.50-1.00m slotted standpipe with gravel filter and geowrap. Gas tap, bung and flush cover installed at ground level.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
1.65	116		
3.45	102		
4.45	86		
5.45	76		

Hammer Information	
Energy Ratio	Serial No.
70%	PBWS4

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	0.50	1.00

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**WS02**	Location Type:	Dynamic (windowless) sampler
Coords:	381566.61E/394130.33N	Level:	28.52mOD
Status:	FINAL	Scale:	1:25
Final Depth:	5.45 m		
Sheet 2 of 2		Date Start:	30/04/2024
Date End:	30/04/2024		

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	5.45	WLS	Window Sampler			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						23.07	5.45		Stiff becoming softer brown mottled bluish grey slightly gravelly CLAY. Gravel is angular to rounded, fine to medium siltstone, sandstone, and coal. [GLACIOFLUVIAL SHEET DEPOSITS]			
									EOH at 5.45m - Achieved target depth			
	6.0											
	7.0											
	8.0											
	9.0											
	10.0											

Notes:

1. No groundwater encountered.
2. Borehole stable during excavation.
3. ES - Environmental Sample. D - Disturbed Sample. SPT - Standard Penetration Test.
4. Installation: 0.00-0.50m 50mm plain standpipe with bentonite seal; 0.50-1.00m slotted standpipe with gravel filter and geowrap. Gas tap, bung and flush cover installed at ground level.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
1.65	116			70%	PBWS4
3.45	102				
4.45	86			Install Response Zones	
5.45	76			Ref / From (m) / To (m)	

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**WS03**	Location Type:	Dynamic (windowless) sampler
Coords:	381502.05E/394121.54N	Level:	28.83mOD
Status:	FINAL	Scale:	1:25
Final Depth:	5.45 m	Sheet	1 of 2
Date Start:	30/04/2024	Date End:	30/04/2024

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	5.45	WLS	Window Sampler			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						28.73	0.10		Asphalt hardstanding.			
									[MADE GROUND]			
						28.58	0.25		Yellowish grey sandy gravel. Sand is fine. Gravel is angular medium to coarse Limestone.			
		0.30	ES 1						[MADE GROUND]			
						28.23	0.60		Black slightly sandy slightly gravelly silt. Sand is fine. Gravel is sub-angular and sub-rounded fine and medium brick. Occasional ash noted.			
		0.70	ES 2						[MADE GROUND]			
						27.83	1.00		Soft to firm orange brown mottled bluish grey slightly sandy slightly gravelly silty CLAY. Sand is fine. Gravel is angular to rounded, fine to medium siltstone and sandstone. [GLACIOFLUVIAL SHEET DEPOSITS]			
	1.0			SPT(S) 1.20m N=7 (1,1/1,2,2,2)					Stiff dark brown mottled grey CLAY. [GLACIOFLUVIAL SHEET DEPOSITS]			
		1.50	D							1.20 2.00	100	100
	2.0			SPT(S) 2.00m N=14 (1,2/3,3,4,4)								
		2.50	D							2.00 3.00	87	60
	3.0			SPT(S) 3.00m N=15 (2,2/3,4,4,4)								
		3.50	D							3.00 4.00	77	100
	4.0			SPT(S) 4.00m N=12 (2,2/2,3,3,4)								
		4.50	D							4.00 5.00	67	100
	5.0			SPT(S) 5.00m N=15 (2,2/3,4,4,4)								

Stratum continues onto next page

Notes:

1. Borehole remained dry.
2. Borehole stable during excavation.
3. Roots and rootlets observed to 2m bgl.
4. ES - Environmental Sample. D - Disturbed Sample. SPT - Standard Penetration Test.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
1.65	116		
3.45	102		
4.45	86		
5.45	76		

Hammer Information	
Energy Ratio	Serial No.
70%	PBWS4

Install Response Zones		
Ref	From (m)	To (m)

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**WS03**	Location Type:	Dynamic (windowless) sampler
Coords:	381502.05E/394121.54N	Level:	28.83mOD
Status:	FINAL	Scale:	1:25
Final Depth:	5.45 m	Date Start:	30/04/2024
Date End:	30/04/2024	Sheet	2 of 2

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	5.45	WLS	Window Sampler			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						23.38	5.45		Stiff dark brown mottled grey CLAY. [GLACIOFLUVIAL SHEET DEPOSITS]			
									EOH at 5.45m - Achieved target depth			

6.0
7.0
8.0
9.0
10.0

Notes:

1. Borehole remained dry.
2. Borehole stable during excavation.
3. Roots and rootlets observed to 2m bgl.
4. ES - Environmental Sample. D - Disturbed Sample. SPT - Standard Penetration Test.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
1.65	116			70%	PBWS4
3.45	102			Install Response Zones	
4.45	86			Ref / From (m) / To (m)	
5.45	76				

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**WS04**	Location Type:	Dynamic (windowless) sampler
Coords:	381502.16E/394092.27N	Level:	29.02mOD
Status:	FINAL	Scale:	1:25
Final Depth:	5.45 m		
Sheet 1 of 2		Date Start:	30/04/2024
Date End:	30/04/2024		

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	5.45	WLS	Window Sampler			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						28.92	0.10		Asphalt hardstanding.			
									[MADE GROUND]			
						28.72	0.30		Yellowish grey sandy gravel. Sand is… Gravel is angular medium to coarse Limestone.			
									[MADE GROUND]			
		0.40	ES 1			28.52	0.50		Black gravelly sand. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to medium of siltstone, slate and clinker.			
		0.60	ES 2						Occasional ash and faint hydrocarbon odour noted.			
									[MADE GROUND]			
									Stiff brown mottled bluish grey slightly sandy slightly gravelly CLAY. Sand is fine and medium. Gravel is angular to rounded, fine to medium siltstone and sandstone.			
									[GLACIOFLUVIAL SHEET DEPOSITS]			
	1.0			SPT(S) 1.20m N=7 (1,1/1,2,2,2)								
		1.50	D							1.20 2.00	100	100
	2.0			SPT(S) 2.00m N=14 (1,2/3,3,4,4)								
		2.50	D							2.00 3.00	87	100
	3.0			SPT(S) 3.00m N=15 (1,2/3,4,4,4)								
		3.50	D						*from 3.50 to 5.45mbgl - Becomes softer and silty.*	3.00 4.00	77	100
	4.0			SPT(S) 4.00m N=14 (2,2/3,3,4,4)								
		4.50	D							4.00 5.00	67	100
	5.0			SPT(S) 5.00m N=16 (2,3/3,4,4,5)								

Stratum continues onto next page

Notes:

1. Borehole remained dry.
2. Borehole stable during excavation.
3. Roots and rootlets observed to 2m bgl.
4. Installation: 0.00-0.30m 50mm plain standpipe with bentonite seal; 0.30-0.50m slotted standpipe with gravel filter and geowrap. Gas tap,bung and flush cover installed at ground level.
5. ES - Environmental Sample. D - Disturbed Sample. SPT - Standard Penetration Test.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
1.65	116		
2.45	102		
3.45	86		
4.45	76		
5.45	66		

Hammer Information	
Energy Ratio	Serial No.
70%	PBWS4

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	0.30	0.50

CIVIC EARTH

Project Title:	Chorlton Precinct, Manchester	Client:	PJ Livesey Holdings Limited
Project Number:	51013/01	Logged By: CD / Checked By: HG	
Location ID:	WS04	Location Type:	Dynamic (windowless) sampler
Coords:	381502.16E/394092.27N	Level:	29.02mOD
Status:	FINAL	Scale:	1:25
Final Depth:	5.45 m		
Sheet 2 of 2		Date Start:	30/04/2024
Date End:	30/04/2024		

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	5.45	WLS	Window Sampler			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						23.57	5.45		Stiff brown mottled bluish grey slightly sandy slightly gravelly CLAY. Sand is fine and medium. Gravel is angular to rounded, fine to medium siltstone and sandstone. [GLACIOFLUVIAL SHEET DEPOSITS]			
									EOH at 5.45m - Achieved target depth			
	6.0											
	7.0											
	8.0											
	9.0											
	10.0											

Notes:

1. Borehole remained dry.
2. Borehole stable during excavation.
3. Roots and rootlets observed to 2m bgl.
4. Installation: 0.00-0.30m 50mm plain standpipe with bentonite seal; 0.30-0.50m slotted standpipe with gravel filter and geowrap. Gas tap,bung and flush cover installed at ground level.
5. ES - Environmental Sample. D - Disturbed Sample. SPT - Standard Penetration Test.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
1.65	116		
2.45	102		
3.45	86		
4.45	76		
5.45	66		

Hammer Information	
Energy Ratio	Serial No.
70%	PBWS4

Install Response Zones		
Ref	From (m)	To (m)

CIVIC EARTH

Project Title:	Chorlton Precinct, Manchester	Client:	PJ Livesey Holdings Limited
Project Number:	51013/01	Logged By:	CD
		Checked By:	HG
Location ID:	WS05	Location Type:	Dynamic (windowless) sampler
Coords:	381557.67E/394064.17N	Level:	28.13mOD
Status:	FINAL	Scale:	1:25
Final Depth:	0.50 m		
Sheet 1 of 1		Date Start:	29/04/2024
Date End:	29/04/2024		

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	0.50	WLS	Window Sampler			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						27.83	0.30		Asphalt hardstanding. [MADE GROUND]			
						27.63	0.50		Black gravelly sand. Sand is fine to coarse. Gravel is angular to sub-angular fine to coarse of brick and concrete. Rare cobbles of brick and concrete noted. Possible asbestos insulation board encountered. [MADE GROUND]			
									EOH at 0.50m - Terminated on health and safety reasons			
	1.0											
	2.0											
	3.0											
	4.0											
	5.0											

Notes:

1. Terminated in inspection pit due to presence of potential asbestos containing material (ACM).

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio %	Serial No.

Install Response Zones		
Ref	From (m)	To (m)

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**WS05A**	Location Type:	Dynamic (windowless) sampler
Coords:	381551.01E/394063.57N	Level:	28.28mOD
Status:	FINAL	Scale:	1:25
Final Depth:	0.40 m	Date Start:	29/04/2024
Date End:	29/04/2024	Sheet	1 of 1

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	0.40	WLS	Window Sampler			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
		0.20	ES 1			27.98	0.30		Asphalt hardstanding. [MADE GROUND]			
						27.88	0.40		Black gravelly sand. Sand is fine to coarse. Gravel is angular to sub-angular fine to coarse of brick and concrete. Rare cobbles of brick and concrete noted. Possible asbestos insulation board encountered. [MADE GROUND]			
									EOH at 0.40m - Terminated on health and safety reasons			
	1.0											
	2.0											
	3.0											
	4.0											
	5.0											

Notes:

1. Terminated in inspection pit due to presence of potential asbestos containing material (ACM).

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio %	Serial No.

Install Response Zones		
Ref	From (m)	To (m)

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**WS06**	Location Type:	Dynamic (windowless) sampler
Coords:	381611.79E/394044.63N	Level:	28.29mOD
Status:	FINAL	Scale:	1:25
Final Depth:	5.45 m		
Sheet 1 of 2		Date Start:	30/04/2024
Date End:	30/04/2024		

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	5.45	WLS	Window Sampler	3.00	20	3.00

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						28.23	0.06		Block paving. [MADE GROUND] *from 0.00 to 1.80mbgl - Root and rootlets.*			
						27.99	0.30		Light yellowish brown sand. Sand is fine to medium. [MADE GROUND]			
		0.50	ES 1						Dark brown silty gravelly sand. Sand is fine to coarse. Gravel is angular to sub-angular fine to coarse of brick, concrete, ceramic and sandstone. Rare cobbles of concrete and sandstone noted. [MADE GROUND]			
	1.0	1.00	ES 2									
		1.20	D	SPT(S) 1.20m N=4 (1,1/1,1,1,1)		27.09	1.20					
		1.50	ES 3						Very loose light brown to dark brown slightly gravelly SAND. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to medium of sandstone and siltstone. Occasional pockets of firm brown clay noted. [GLACIOFLUVIAL SHEET DEPOSITS]	1.20 2.00	100	100
						26.49	1.80					
	2.0	2.00	D	SPT(S) 2.00m N=7 (1,1/1,2,2,2)					Stiff brown mottled bluish grey slightly gravelly CLAY. Gravel is angular to rounded, fine to medium siltstone and sandstone. [GLACIOFLUVIAL SHEET DEPOSITS] *from 2.00 to 5.45mbgl - Clay becomes silty and sandy. Sand is fine.*			
		2.50	D						*from 2.50 to 5.45mbgl - Bands of fine and medium SAND to base.*	2.00 3.00	87	90
	3.0	3.00	D	SPT(S) 3.00m N=10 (1,1/2,2,3,3)	▼							
		3.50	D							3.00 4.00	77	90
	4.0	4.00	D	SPT(S) 4.00m N=9 (1,1/2,2,2,3)								
		4.50	D							4.00 5.00	67	80
	5.0	5.00	D	SPT(S) 5.00m N=10 (1,1/2,2,3,3)								

Stratum continues onto next page

Notes:

1. Seepages noted through sand horizons within TILL.
2. Borehole unstable through water bearing sand horizons.
3. ES - Environmental Sample. D - Disturbed Sample. SPT - Standard Penetration Test.
4. Installation: 0.00-2.00m 50mm plain standpipe with bentonite seal; 2.00-5.45m slotted standpipe with gravel filter and geowrap. Gas tap,bung and flush cover installed at ground level.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
1.65	116		
2.45	102		
4.45	86		
5.45	76		

Hammer Information	
Energy Ratio	Serial No.
70%	PBWS4

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	2.00	5.00

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**WS06**	Location Type:	Dynamic (windowless) sampler
Coords:	381611.79E/394044.63N	Level:	28.29mOD
Status:	FINAL	Scale:	1:25
Final Depth:	5.45 m	Date Start:	30/04/2024
Date End:	30/04/2024	Sheet 2 of 2	

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	5.45	WLS	Window Sampler	3.00	20	3.00

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						22.84	5.45		Stiff brown mottled bluish grey slightly gravelly CLAY. Gravel is angular to rounded, fine to medium siltstone and sandstone. [GLACIOFLUVIAL SHEET DEPOSITS]			
									EOH at 5.45m - Achieved target depth			

6.0
7.0
8.0
9.0
10.0

Notes:

1. Seepages noted through sand horizons within TILL.
2. Borehole unstable through water bearing sand horizons.
3. ES - Environmental Sample. D - Disturbed Sample. SPT - Standard Penetration Test.
4. Installation: 0.00-2.00m 50mm plain standpipe with bentonite seal; 2.00-5.45m slotted standpipe with gravel filter and geowrap. Gas tap,bung and flush cover installed at ground level.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
1.65	116		
2.45	102		
4.45	86		
5.45	76		

Hammer Information	
Energy Ratio	Serial No.
70%	PBWS4

Install Response Zones		
Ref	From (m)	To (m)

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**WS07**	Location Type:	Dynamic (windowless) sampler
Coords:	381601.02E/394089.86N	Level:	28.17mOD
Status:	FINAL	Scale:	1:25
Final Depth:	5.45 m	Date Start:	30/04/2024
Date End:	30/04/2024	Sheet	1 of 2

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	5.45	WLS	Window Sampler			

Inst/ Backfill	Depth (m)	Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	WS Run	Window Sampling Dia (mm)	Recovery (%)
						28.11	0.06		Block paving. [MADE GROUND] *from 0.00 to 2.00mbgl - Roots and rootlets observed.*			
						27.87	0.30		Light yellowish brown sand. Sand is fine to medium. [MADE GROUND]			
		0.50	ES 1						Soft dark brown slightly sandy slightly gravelly silt. Sand is fine to medium. Gravel is angular to sub-rounded fine to coarse of brick. [MADE GROUND] *from 0.40 to 0.50mbgl - Metal plate noted.*			
	1.0	1.00	ES 2									
		1.20	D	SPT(S) 1.20m N=2 (1,0/0,1,0,1)								
		1.50	D			26.67	1.50					
		1.60	ES 3						Stiff brown mottled bluish grey slightly gravelly CLAY. Gravel is angular to rounded, fine and medium coal and red siltstone. Rare grey sub-angular medium claystone nodules noted. [GLACIOFLUVIAL SHEET DEPOSITS]	1.20 2.00	100	100
	2.0	2.00	D	SPT(S) 2.00m N=14 (2,3/3,3,4,4)								
		2.50	D						*from 2.40 to 2.50mbgl - Band of fine to medium SAND.*	2.00 3.00	87	100
	3.0	3.00	D	SPT(S) 3.00m N=12 (2,2/2,3,3,4)					*from 2.90 to 5.00mbgl - Clay becomes silty and sandy. Sand is fine.*			
		3.50	D							3.00 4.00	77	100
	4.0	4.00	D	SPT(S) 4.00m N=11 (1,2/2,3,3,3)								
		4.50	D							4.00 5.00	67	80
	5.0	5.00	D	SPT(S) 5.00m N=13 (2,2/3,3,3,4)								

Stratum continues onto next page

Notes:

1. Borehole remained dry.
2. Borehole stable during excavation.
3. ES - Environmental Sample. D - Disturbed Sample. SPT - Standard Penetration Test.
4. Installation: 0.00-0.50m 50mm plain standpipe with bentonite seal; 0.50-1.50m slotted standpipe with gravel filter and geowrap. Gas tap,bung and flush cover installed at ground level.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
1.65	116		
3.45	102		
4.45	86		
5.45	76		

Hammer Information	
Energy Ratio	Serial No.
70%	PBWS4

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	0.50	1.50

CIVIC EARTH

Project Title:	Chorlton Precinct, Manchester	Client:	PJ Livesey Holdings Limited
Project Number:	51013/01	Logged By: CD Checked By: HG	

Location ID:	WS07
Status:	FINAL
Sheet 2 of 2	

Location Type: Dynamic (windowless) sampler

Coords: 381601.02E/394089.86N Level: 28.17mOD

Scale: 1:25 Final Depth: 5.45 m

Date Start: 30/04/2024 Date End: 30/04/2024

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	5.45	WLS	Window Sampler			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						22.72	5.45		Stiff brown mottled bluish grey slightly gravelly CLAY. Gravel is angular to rounded, fine and medium coal and red siltstone. Rare grey sub-angular medium claystone nodules noted. [GLACIOFLUVIAL SHEET DEPOSITS] *from 5.00 to 5.45mbgl - SPT sample is very sandy.*			
									EOH at 5.45m - Achieved target depth			

6.0
7.0
8.0
9.0
10.0

Notes:

1. Borehole remained dry.
2. Borehole stable during excavation.
3. ES - Environmental Sample. D - Disturbed Sample. SPT - Standard Penetration Test.
4. Installation: 0.00-0.50m 50mm plain standpipe with bentonite seal; 0.50-1.50m slotted standpipe with gravel filter and geowrap. Gas tap,bung and flush cover installed at ground level.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
1.65	116			70%	PBWS4
3.45	102				
4.45	86			Install Response Zones	
5.45	76			Ref / From (m) / To (m)	

CIVIC EARTH

Project Title:	Chorlton Precinct, Manchester	Client:	PJ Livesey Holdings Limited
Project Number:	51013/01	Logged By:	CD
		Checked By:	HG
Location ID:	WS08	Location Type:	Dynamic (windowless) sampler
Coords:	381633.43E/394066.23N	Level:	28.30mOD
Status:	FINAL	Scale:	1:25
Final Depth:	5.45 m		
Sheet 1 of 2		Date Start:	29/04/2024
Date End:	29/04/2024		

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	5.45	WLS	Window Sampler			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
		0.20	ES 1			28.00	0.30		Vegetation over dark brown silty sand. Sand is fine to medium. [MADE GROUND]			
		0.50	ES 2			27.50	0.80		Dark brown and greyish brown ashy slightly gravelly sand. Sands is fine to coarse. Gravel is angular to sub-angular fine to coarse brick, concrete, and slate. [MADE GROUND]			
	1.0	1.00	ES 3						Medium to dense orange brown SAND. Sand is fine to coarse. [GLACIOFLUVIAL SHEET DEPOSITS]			
		1.20	D	SPT(S) 1.20m N=16 (3,4/4,4,4,4)					*from 1.30 to 2.00mbgl - Greyish brown with black staining.*	1.20 2.00	100	100
									from 1.80 to 2.00mbgl - Becomes clayey.			
	2.0	2.00	D	SPT(S) 2.00m N=14 (2,3/3,3,4,4)		26.30	2.00		Medium dense orange brown clayey SAND. Sand is fine to coarse. [GLACIOFLUVIAL SHEET DEPOSITS]			
		2.00	ES 4						*from 2.20 to 2.30mbgl - Horizon of angular fine to medium coal gravel.*	2.00 3.00	87	100
	3.0	3.00	D	SPT(S) 3.00m N=13 (2,2/3,3,3,4)		25.10	3.20		Firm to stiff dark brown silty CLAY. [GLACIOFLUVIAL SHEET DEPOSITS]			
		3.50	D							3.00 4.00	77	95
	4.0	4.00	D	SPT(S) 4.00m N=15 (2,3/3,4,4,4)								
		4.50	D							4.00 5.00	67	95
	5.0	5.00	D	SPT(S) 5.00m N=15 (2,3/3,4,4,4)					*from 4.75 to 5.45mbgl - Becoming gravelly. Gravel is sub-rounded to rounded fine to medium of sandstone and siltstone.*			

Stratum continues onto next page

Notes:

1. Borehole remained dry.
2. Borehole stable during excavation.
3. Roots and rootlets observed to 0.5m bgl.
4. ES - Environmental Sample. D - Disturbed Sample. SPT - Standard Penetration Test.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
1.65	116		
2.45	102		
3.45	86		
4.45	76		
5.45	66		

Hammer Information	
Energy Ratio	Serial No.
70%	PBWS4

Install Response Zones		
Ref	From (m)	To (m)

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**WS08**	Location Type:	Dynamic (windowless) sampler
Coords:	381633.43E/394066.23N	Level:	28.30mOD
Status:	FINAL	Scale:	1:25
Final Depth:	5.45 m	Date Start:	29/04/2024
Date End:	29/04/2024	Sheet	2 of 2

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	5.45	WLS	Window Sampler			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						22.85	5.45		Firm to stiff dark brown silty CLAY. [GLACIOFLUVIAL SHEET DEPOSITS]			
									EOH at 5.45m - Achieved target depth			

Notes:

1. Borehole remained dry.
2. Borehole stable during excavation.
3. Roots and rootlets observed to 0.5m bgl.
4. ES - Environmental Sample. D - Disturbed Sample. SPT - Standard Penetration Test.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
1.65	116		
2.45	102		
3.45	86		
4.45	76		
5.45	66		

Hammer Information	
Energy Ratio	Serial No.
70%	PBWS4

Install Response Zones		
Ref	From (m)	To (m)

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**WS09**	Location Type:	Dynamic (windowless) sampler
Coords:	381627.03E/394095.31N	Level:	28.17mOD
Status:	FINAL	Scale:	1:25
Final Depth:	5.45 m	Date Start:	29/04/2024
Date End:	29/04/2024	Sheet	1 of 2

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	5.45	WLS	Window Sampler	3.00	20	3.00

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						28.02	0.15		Asphalt hardstanding. [MADE GROUND]			
						27.87	0.30		*from 0.00 to 0.50mbgl - Roots and rootlets observed.* Light brown slightly clayey sandy gravel. Gravel is angular medium to coarse of grey limestone. Sand is fine to coarse. [MADE GROUND]			
		0.50	ES 1						Black gravelly sand. Sand is fine to coarse. Gravel is angular to sub-rounded fine to coarse brick, coal, and clinker. Occasional ash noted. [MADE GROUND]			
	1.0	1.00	ES 2			27.17	1.00					
		1.20	D	SPT(S) 1.20m N=4 (1,1/1,1,1,1)					Black and dark brown silty gravelly sand. Sand is fine to coarse. Gravel is angular to sub-rounded fine to medium of brick, siltstone, and sandstone. [MADE GROUND]			
						26.57	1.60			1.20 2.00	100	100
	2.0	2.00 2.00	D ES 3	SPT(S) 2.00m N=6 (1,1/2,1,2,1)					Loose light brown with occasional dark staining slightly gravelly SAND. Sand is fine to coarse. Gravel is angular to sub-rounded fine to medium of coal, sandstone, and siltstone. [GLACIOFLUVIAL SHEET DEPOSITS]			
									from 2.30 to 2.40mbgl - Sand is orange brown.	2.00 3.00	87	100
	3.0	3.00	D	SPT(S) 3.00m N=6 (1,1/1,1,2,2)	▼							
						24.67	3.50			3.00 4.00	77	70
									Firm dark brown slightly sandy clayey SILT. Sand is fine to medium. [GLACIOFLUVIAL SHEET DEPOSITS]			
	4.0	4.00	D	SPT(S) 4.00m N=10 (1,1/2,2,3,3)								
										4.00 5.00	67	60
	5.0	5.00	D	SPT(S) 5.00m N=11 (1,2/2,3,3,3)								

Stratum continues onto next page

Notes:

1. Groundwater encountered at 3mbgl.
2. Borehole unstable through sand horizons.
3. Roots and rootlets observed to 0.5m bgl.
4. ES - Environmental Sample. D - Disturbed Sample. SPT - Standard Penetration Test.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
1.65	116			70%	PBWS4
2.45	102				
3.45	86			Install Response Zones	
4.45	66			Ref / From (m) / To (m)	
5.45	116				

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**WS09**	Location Type:	Dynamic (windowless) sampler
Coords:	381627.03E/394095.31N	Level:	28.17mOD
Status:	FINAL	Scale:	1:25
Final Depth:	5.45 m	Date Start:	29/04/2024
Date End:	29/04/2024	Sheet	2 of 2

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	5.45	WLS	Window Sampler	3.00	20	3.00

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						22.72	5.45		Firm dark brown slightly sandy clayey SILT. Sand is fine to medium. [GLACIOFLUVIAL SHEET DEPOSITS]			
									EOH at 5.45m - Achieved target depth			

6.0
7.0
8.0
9.0
10.0

Notes:

1. Groundwater encountered at 3mbgl.
2. Borehole unstable through sand horizons.
3. Roots and rootlets observed to 0.5m bgl.
4. ES - Environmental Sample. D - Disturbed Sample. SPT - Standard Penetration Test.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
1.65	116		
2.45	102		
3.45	86		
4.45	66		
5.45	116		

Hammer Information	
Energy Ratio	Serial No.
70%	PBWS4

Install Response Zones		
Ref	From (m)	To (m)

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**WS10**	Location Type:	Dynamic (windowless) sampler
Coords:	381615.66E/394120.12N	Level:	28.18mOD
Status:	FINAL	Scale:	1:25
Final Depth:	5.45 m		
Sheet 1 of 2		Date Start:	29/04/2024
Date End:	29/04/2024		

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	5.45	WLS	Window Sampler			

Inst/ Backfill	Depth (m)	Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	WS Run	Window Sampling Dia (mm)	Recovery (%)
						28.08	0.10		Vegetation overlying dark brown sandy silt. Sand is fine to medium. [MADE GROUND]			
									from 0.00 to 2.00mbgl - Roots and rootlets observed.			
		0.30	ES 1			27.93	0.25		Orange brown sand. Sand is fine and medium. [MADE GROUND]			
						27.78	0.40		Dark brown sandy slightly gravelly silt. Sand is fine to medium. Gravel is angular to sub-rounded fine to medium of clinker. [MADE GROUND]			
		0.50	ES 2									
		0.60	ES 2						Loose dark brown clayey gravelly sand. Sand is fine to coarse. Gravel is angular to sub-angular fine to coarse of brick and concrete. Occasional pockets of silt and rare cobbles of sandstone and concrete noted. [MADE GROUND]			
	1.0	1.00	ES 3									
		1.20	D	SPT(S) 1.20m N=6 (1,1/1,2,1,2)								
		1.50	ES 4			26.68	1.50		Dark orange brown SAND. Sand is fine to medium. [GLACIOFLUVIAL SHEET DEPOSITS]	1.20 2.00	100	100
						26.48	1.70		Soft to firm dark brown mottled orange slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to sub-rounded fine and medium of quartz and coal. [GLACIOFLUVIAL SHEET DEPOSITS]			
	2.0	2.00 2.00	D D SPT	SPT(S) 2.00m N=13 (1,2/3,3,3,4)								
		2.50	D							2.00 3.00	87	100
	3.0	3.00	D	SPT(S) 3.00m N=15 (2,3/3,4,4,4)					*from 3.00 to 5.45mbgl - Clay is silty locally SILT. Sand is fine and medium. Gravel is sub-rounded to rounded fine sandstone and siltstone.*			
		3.50	D							3.00 4.00	77	70
	4.0	4.00	D	SPT(S) 4.00m N=17 (2,3/4,4,4,5)								
		4.50	D							4.00 5.00	67	60
	5.0	5.00	D	SPT(S) 5.00m N=17 (2,3/4,4,4,5)								

Stratum continues onto next page

Notes:

1. Borehole remained dry.
2. Borehole stable during excavation.
3. Roots and rootlets observed to 2mbgl.
4. ES - Environmental Sample. D - Disturbed Sample. SPT - Standard Penetration Test.
5. Installation: 0.00-0.50m 50mm plain standpipe with bentonite seal; 0.50-5.45m slotted standpipe with gravel filter and geowrap. Gas tap,bung and flush cover installed at ground level.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
1.65	102		
2.45	86		
4.45	76		
5.45	66		

Hammer Information	
Energy Ratio	Serial No.
70%	PBWS4

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	0.50	1.50

CIVIC EARTH

Project Title:	**Chorlton Precinct, Manchester**	Client:	**PJ Livesey Holdings Limited**
Project Number:	**51013/01**	Logged By: CD / Checked By: HG	
Location ID:	**WS10**	Location Type:	Dynamic (windowless) sampler
Coords:	381615.66E/394120.12N	Level:	28.18mOD
Status:	FINAL	Scale:	1:25
Final Depth:	5.45 m	Date Start:	29/04/2024
Date End:	29/04/2024	Sheet	2 of 2

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	5.45	WLS	Window Sampler			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						22.73	5.45		Soft to firm dark brown mottled orange slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to sub-rounded fine and medium of quartz and coal. [GLACIOFLUVIAL SHEET DEPOSITS]			
									EOH at 5.45m - Achieved target depth			

6.0
7.0
8.0
9.0
10.0

Notes:

1. Borehole remained dry.
2. Borehole stable during excavation.
3. Roots and rootlets observed to 2mbgl.
4. ES - Environmental Sample. D - Disturbed Sample. SPT - Standard Penetration Test.
5. Installation: 0.00-0.50m 50mm plain standpipe with bentonite seal; 0.50-5.45m slotted standpipe with gravel filter and geowrap. Gas tap,bung and flush cover installed at ground level.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
1.65	102		
2.45	86		
4.45	76		
5.45	66		

Hammer Information	
Energy Ratio	Serial No.
70%	PBWS4

Install Response Zones		
Ref	From (m)	To (m)

Appendix C

Ground Gas and Groundwater Monitoring Records

Ground Gas and Groundwater Monitoring Record Sheet

JOB DETAILS:

Client: Civic Earth
Site: Chorlton-cum-Hardy
Date: 21/05/2024

Quote No:
Visit No: 1 **of** 3
Operator: Ian Sidgwick **Project Manager:** Jake Townsend

Monitoring Point	GAS CONCENTRATIONS												VOLATILES		FLOW DATA				WELL AND WATER DATA		Comments
	Methane (%v/v)		%LEL		Carbon dioxide (%v/v)		Carbon monoxide (ppmv)		Hydrogen sulphide (ppmv)		Oxygen (%v/v)		PID Peak (ppm)	Product thickness (mm)	Flow rate (l/hr)		Differential borehole Pressure (mb)	Time for flow to equalise (secs)	Water level (mbgl)	Depth of well (mbgl)	
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Min.	Steady			Peak	Steady					
BH1D	ND	ND	ND	ND	11.2	11.2	ND	ND	ND	ND	4.7	4.7	0.9	ND	0.0	0.0	-0.07	30	4.49	12.12	
BH1S	ND	ND	ND	ND	15.7	15.7	ND	ND	ND	ND	0.5	0.5	0.5	ND	0.0	0.0	0.03	30	1.73	2.56	Well dried out
BH2	ND	ND	ND	ND	0.5	0.3	ND	ND	ND	ND	19.5	19.6	0.5	ND	0.0	0.0	-0.07	30	4.84	13.21	
BH3	ND	ND	ND	ND	0.1	0.1	ND	ND	ND	ND	19.3	19.5	0.4	ND	0.0	0.0	-0.05	30	4.43	16.33	
BH4D	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19.5	19.5	0.3	ND	0.0	0.0	0.28	30	4.26	12.11	
BH4S	ND	ND	ND	ND	0.2	ND	ND	ND	ND	ND	19.3	19.3	0.3	ND	0.0	0.0	0.02	30	1.16	2.83	
WS2	ND	ND	ND	ND	7.4	7.4	ND	ND	ND	ND	7.8	7.8	0.3	ND	0.0	0.0	0.07	30	0.95	0.99	Insufficient liquid to sample
WS4	ND	ND	ND	ND	1.7	1.7	ND	ND	ND	ND	17.8	17.8	0.6	ND	0.0	0.0	-0.14	30	0.45	0.51	Insufficient liquid to sample
WS6	ND	ND	ND	ND	0.1	0.1	ND	ND	ND	ND	18.0	18.0	0.6	ND	0.0	0.0	0.03	30	1.56	4.79	
WS7	ND	ND	ND	ND	1.6	1.6	ND	ND	ND	ND	17.8	17.8	0.4	ND	0.0	0.0	0.05	30	1.32	1.59	
WS10	ND	ND	ND	ND	1.2	1.2	ND	ND	ND	ND	18.8	18.8	0.4	ND	0.0	0.0	0.05	30	1.47	1.58	Insufficient liquid to sample
Max	**ND**	**ND**	**ND**	**ND**	**15.7**	**15.7**	**ND**	**ND**	**ND**	**ND**	**19.5**	**19.6**	**0.9**	**ND**	**0.0**	**0.0**	**0**	**30**	**4.84**	**16.33**	
Min	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**0.5**	**0.5**	**0.3**	**ND**	**0.0**	**0.0**	**-0.1**	**30**	**0.45**	**0.51**	

ND - Not detected
NR - Not recorded
NA - Non applicable

METEOROLOGICAL AND SITE INFORMATION:

(Select correct box with X or enter data, as applicable)

State of ground:	X	Dry		Moist		Wet		Snow		Frozen
Wind:	X	Calm		Light		Moderate		Strong		
Cloud cover:		None	X	Slight		Cloudy		Overcast		
Precipitation:	X	None		Slight		Moderate		Heavy		
Time monitoring performed:			10:00	Start			13:30	End		
Barometric pressure (mbar):			1007	Start			1008	End		
Pressure trend (Daily):				Falling	X	Steady		Rising		
Source:	Online									
Air Temperature (Deg. C):			14	Before			23	After		

INSTRUMENTATION TECHNICAL SPECIFICATIONS:

Ground gas meter: G507573
Gas Range: **CH_4** 0 - 100% **CO_2** 0 - 100% **O_2** 0 - 25%
Gas Flow range: +/- 26 l/hour
Differential Pressure: +/- 150 mb
Date of last calibration: 15/04/2024
Date of next calibration: 15/10/2024

Ambient air check: **CH_4** 0.0 **CO_2** 0.0 **O_2** 20.6

Ground Gas and Groundwater Monitoring Record Sheet

JOB DETAILS:

Client: Civic Earth
Site: Chorlton-cum-Hardy
Date: 31/05/2024

Quote No:
Visit No: 2 **of** 3
Operator: Ian Sidgwick **Project Manager:** Jake Townsend

Monitoring Point	GAS CONCENTRATIONS: Methane (%v/v) Peak	Methane (%v/v) Steady	%LEL Peak	%LEL Steady	Carbon dioxide (%v/v) Peak	Carbon dioxide (%v/v) Steady	Carbon monoxide (ppmv) Peak	Carbon monoxide (ppmv) Steady	Hydrogen sulphide (ppmv) Peak	Hydrogen sulphide (ppmv) Steady	Oxygen (%v/v) Min.	Oxygen (%v/v) Steady	VOLATILES: PID Peak (ppm)	Product thickness (mm)	FLOW DATA: Flow rate (l/hr) Peak	Flow rate (l/hr) Steady	Differential borehole Pressure (mb)	Time for flow to equalise (secs)	WELL AND WATER DATA: Water level (mbgl)	Depth of well (mbgl)	Comments
BH1D	ND	ND	ND	ND	9.7	9.7	ND	ND	ND	ND	9.7	9.7	0.5	ND	0.0	0.0	0.01	30	4.47	11.80	
BH1S	ND	ND	ND	ND	11.8	11.8	ND	ND	ND	ND	4.9	4.9	0.3	ND	0.0	0.0	-0.14	30	1.71	2.04	
BH2	ND	ND	ND	ND	0.5	0.4	3	1	ND	ND	19.7	19.7	0.5	ND	-4.2	-0.1	-4.15	120	4.77	13.12	
BH3	ND	ND	ND	ND	0.1	0.1	ND	ND	ND	ND	20.0	20.0	0.2	ND	0.0	0.0	-0.16	30	4.37	15.86	
BH4D	ND	ND	ND	ND	0.1	0.1	ND	ND	ND	ND	19.9	19.9	0.2	ND	0.0	0.0	-0.10	30	4.26	12.07	
BH4S	ND	ND	ND	ND	0.2	ND	ND	ND	ND	ND	20.0	20.1	0.2	ND	0.0	0.0	-0.02	30	1.14	2.82	
WS2	ND	ND	ND	ND	5.6	5.3	ND	ND	ND	ND	12.2	12.2	0.2	ND	0.0	0.0	-0.07	30	0.96	0.98	
WS4	ND	ND	ND	ND	0.1	0.1	5	1	ND	ND	19.5	19.5	0.6	ND	0.0	0.0	-0.10	30	0.44	0.54	
WS6	ND	ND	ND	ND	0.2	0.2	ND	ND	ND	ND	18.1	18.1	0.3	ND	0.0	0.0	-0.05	30	1.45	4.77	
WS7	ND	ND	ND	ND	1.8	1.8	ND	ND	ND	ND	12.9	12.9	0.4	ND	0.0	0.0	-0.05	30	1.21	1.59	
WS10	ND	ND	ND	ND	2.0	2.0	ND	ND	ND	ND	18.4	18.4	0.3	ND	0.0	0.0	0.19	30	1.48	1.58	
Max	**ND**	**ND**	**ND**	**ND**	**11.8**	**11.8**	**5**	**1**	**ND**	**ND**	**20.0**	**20.1**	**0.6**	**ND**	**0.0**	**0.0**	**0**	**120**	**4.77**	**15.86**	
Min	**ND**	**ND**	**ND**	**ND**	**0.1**	**ND**	**ND**	**ND**	**ND**	**ND**	**4.9**	**4.9**	**0.2**	**ND**	**-4.2**	**-0.1**	**-4.2**	**30**	**0.44**	**0.54**	

ND - Not detected
NR - Not recorded
NA - Non applicable

METEOROLOGICAL AND SITE INFORMATION:

(Select correct box with X or enter data, as applicable)

State of ground:	X	Dry		Moist		Wet		Snow		Frozen
Wind:	X	Calm		Light		Moderate		Strong		
Cloud cover:		None	X	Slight		Cloudy		Overcast		
Precipitation:	X	None		Slight		Moderate		Heavy		
Time monitoring performed:			08:00	Start			09:20	End		
Barometric pressure (mbar):			1016	Start			1017	End		
Pressure trend (Daily):				Falling	X	Steady		Rising		
Source:	Online									
Air Temperature (Deg. C):			14	Before			16	After		

INSTRUMENTATION TECHNICAL SPECIFICATIONS:

Ground gas meter: G507573
Gas Range: **CH_4** 0 - 100% **CO_2** 0 - 100% **O_2** 0 - 25%
Gas Flow range: +/- 26 l/hour
Differential Pressure: +/- 150 mb
Date of last calibration: 15/04/2024
Date of next calibration: 15/10/2024

Ambient air check: **CH_4** 0.0 **CO_2** 0.0 **O_2** 20.5

Ground Gas and Groundwater Monitoring Record Sheet

JOB DETAILS:

Client: Civic Earth
Site: Chorlton-cum-Hardy
Date: 07/06/2024

Quote No:
Visit No: 3 **of** 3
Operator: Ian Sidgwick **Project Manager:** Jake Townsend

Monitoring Point	GAS CONCENTRATIONS: Methane (%v/v) Peak	Methane (%v/v) Steady	%LEL Peak	%LEL Steady	Carbon dioxide (%v/v) Peak	Carbon dioxide (%v/v) Steady	Carbon monoxide (ppmv) Peak	Carbon monoxide (ppmv) Steady	Hydrogen sulphide (ppmv) Peak	Hydrogen sulphide (ppmv) Steady	Oxygen (%v/v) Min.	Oxygen (%v/v) Steady	VOLATILES: PID Peak (ppm)	Product thickness (mm)	FLOW DATA: Flow rate (l/hr) Peak	Flow rate (l/hr) Steady	Differential borehole Pressure (mb)	Time for flow to equalise (secs)	WELL AND WATER DATA: Water level (mbgl)	Depth of well (mbgl)	Comments
BH1D	ND	ND	ND	ND	9.4	9.4	ND	ND	ND	ND	11.2	11.2	0.0	ND	0.0	0.0	0.23	30	4.47	11.89	
BH1S	ND	ND	ND	ND	13.1	13.1	ND	ND	ND	ND	3.2	3.2	0.3	ND	0.0	0.0	-0.24	30	1.69	2.55	
BH2	ND	ND	ND	ND	0.4	0.4	1	1	ND	ND	20.0	20.0	0.2	ND	0.0	0.0	-0.10	30	4.83	12.97	
BH3	ND	ND	ND	ND	0.5	0.5	ND	ND	ND	ND	19.3	19.3	0.3	ND	-5.8	-0.2	-7.16	90	3.99	15.89	
BH4D	ND	ND	ND	ND	0.2	ND	ND	ND	ND	ND	20.0	20.1	0.2	ND	0.0	0.0	-0.05	30	4.27	12.09	
BH4S	ND	ND	ND	ND	0.1	ND	ND	ND	ND	ND	20.0	20.0	0.1	ND	0.0	0.0	-0.02	30	1.14	2.79	
WS2	ND	ND	ND	ND	3.4	3.4	ND	ND	ND	ND	16.1	16.1	0.1	ND	0.0	0.0	-0.09	30	Dry	0.98	
WS4	ND	ND	ND	ND	1.5	1.4	ND	ND	ND	ND	18.7	18.7	0.5	ND	0.0	0.0	-0.14	30	0.45	0.55	
WS6	ND	ND	ND	ND	0.2	0.2	ND	ND	ND	ND	18.0	18.0	0.2	ND	-7.1	-0.2	-11.51	120	1.25	4.77	
WS7	ND	ND	ND	ND	7.3	7.3	ND	ND	ND	ND	9.0	9.0	0.0	ND	0.0	0.0	-0.12	30	1.32	1.59	
WS10	ND	ND	ND	ND	1.7	1.7	ND	ND	ND	ND	18.7	18.7	0.1	ND	0.0	0.0	-0.12	30	1.47	1.58	
Max	**ND**	**ND**	**ND**	**ND**	**13.1**	**13.1**	**1**	**1**	**ND**	**ND**	**20.0**	**20.1**	**0.5**	**ND**	**0.0**	**0.0**	**0**	**120**	**4.83**	**15.89**	
Min	**ND**	**ND**	**ND**	**ND**	**0.1**	**ND**	**ND**	**ND**	**ND**	**ND**	**3.2**	**3.2**	**0.0**	**ND**	**-7.1**	**-0.2**	**-11.5**	**30**	**DRY**	**0.55**	

ND - Not detected
NR - Not recorded
NA - Non applicable

METEOROLOGICAL AND SITE INFORMATION:

(Select correct box with X or enter data, as applicable)

State of ground:	X	Dry		Moist		Wet		Snow		Frozen
Wind:	X	Calm		Light		Moderate		Strong		
Cloud cover:		None	X	Slight		Cloudy		Overcast		
Precipitation:	X	None		Slight		Moderate		Heavy		
Time monitoring performed:			09:30	Start			10:30	End		
Barometric pressure (mbar):			1011	Start			1012	End		
Pressure trend (Daily):				Falling	X	Steady		Rising		
Source:	Online									
Air Temperature (Deg. C):			14	Before			15	After		

INSTRUMENTATION TECHNICAL SPECIFICATIONS:

Ground gas meter: G507573
Gas Range: **CH_4** 0 - 100% **CO_2** 0 - 100% **O_2** 0 - 25%
Gas Flow range: +/- 26 l/hour
Differential Pressure: +/- 150 mb
Date of last calibration: 15/04/2024
Date of next calibration: 15/10/2024

Ambient air check: **CH_4** 0.0 **CO_2** 0.0 **O_2** 20.7

Appendix D

Chemical Laboratory Analysis Results

Civic Earth Limited
Carvers Warehouse
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Manchester
M1 2HG

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e: reception@i2analytical.com

Analytical Report Number : 24-018024

Project / Site name:	Chorlton Precinct	**Samples received on:**	03/05/2024
Your job number:	51013/01	**Samples instructed on/ Analysis started on:**	07/05/2024
Your order number:	PO-0040	**Analysis completed by:**	13/05/2024
Report Issue Number:	1	**Report issued on:**	14/05/2024
Samples Analysed:	2 soil samples		

Signed:

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

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

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

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

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

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.

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

Analytical Report Number: 24-018024
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				190553	190554
Sample Reference				BH03	BH03
Sample Number				ES1	ES2
Depth (m)				0.50	0.80
Date Sampled				29/04/2024	29/04/2024
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	13	16
Total mass of sample received	kg	0.1	NONE	1.1	1.2
Asbestos					
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	-
Asbestos Analyst ID	N/A	N/A	N/A	MJN	-
General Inorganics					
pH (L099)	pH Units	N/A	MCERTS	7.8	7.9
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	1000	310
Organic Matter (automated)	%	0.1	MCERTS	3.2	1.5
Total Phenols					
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0
Speciated PAHs					
Naphthalene	mg/kg	0.05	MCERTS	0.99	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.17	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	4.5	0.11
Fluorene	mg/kg	0.05	MCERTS	3.4	0.08
Phenanthrene	mg/kg	0.05	MCERTS	18	0.3
Anthracene	mg/kg	0.05	MCERTS	6.1	0.13
Fluoranthene	mg/kg	0.05	MCERTS	24	0.54
Pyrene	mg/kg	0.05	MCERTS	20	0.47
Benzo(a)anthracene	mg/kg	0.05	MCERTS	9.6	0.19
Chrysene	mg/kg	0.05	MCERTS	9.7	0.19
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	10	0.23
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	4.5	0.08
Benzo(a)pyrene	mg/kg	0.05	MCERTS	8.9	0.16
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	4.2	0.08
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.94	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	4.3	0.1
Coronene	mg/kg	0.05	NONE	1.2	0.06
Total PAH					
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	130	2.64
Total WAC-17 PAHs	mg/kg	0.85	NONE	131	2.7

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number: 24-018024
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				190553	190554
Sample Reference				BH03	BH03
Sample Number				ES1	ES2
Depth (m)				0.50	0.80
Date Sampled				29/04/2024	29/04/2024
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Heavy Metals / Metalloids					
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	3.2	< 1.0
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	11
Barium (aqua regia extractable)	mg/kg	1	MCERTS	770	210
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.9	1.5
Boron (water soluble)	mg/kg	0.2	MCERTS	0.8	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.5	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	35	37
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	35	37
Copper (aqua regia extractable)	mg/kg	1	MCERTS	32	23
Lead (aqua regia extractable)	mg/kg	1	MCERTS	290	19
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	22	39
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	27	39
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	76	58
Petroleum Hydrocarbons					
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	0.92
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	NONE	< 0.020 ###	1.6 ###
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	NONE	< 0.050 ###	2.1 ###
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL	mg/kg	2	MCERTS	3.2	< 2.0
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL	mg/kg	8	MCERTS	9.2	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL	mg/kg	8	MCERTS	45	< 8.0
TPHCWG - Aliphatic >C5 - C35 EH_CU+HS_1D_AL	mg/kg	10	NONE	58 ###	< 10 ###
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	10
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	< 0.010 ###	7.6 ###
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	< 0.050 ###	4.3 ###
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	1.1	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	11	3.2
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	74	< 10
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	120	17
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	200 ###	42 ###
VOCs					
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0

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

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number : 24-018024
Project / Site name: Chorlton Precinct

* 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 *
190553	BH03	ES1	0.5	Brown loam with gravel and vegetation
190554	BH03	ES2	0.8	Brown clay with gravel

Analytical Report Number : 24-018024
Project / Site name: Chorlton Precinct

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
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
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	L038B	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Speciated EPA-16 PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Chromium III in soil	In-house method by calculation from total Cr and Cr VI	In-house method by calculation	L080	W	NONE
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080	W	MCERTS
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	MCERTS

Analytical Report Number : 24-018024
Project / Site name: Chorlton Precinct

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
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099	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.

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

- 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 may be compromised.

Sample Deviation Report

Analytical Report Number : 24-018024
Project / Site name: Chorlton Precinct

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
BH03	ES1	S	190553	c	Total cyanide in soil	L080	c
BH03	ES2	S	190554	c	Total cyanide in soil	L080	c

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Analytical Report Number : 24-019479

Project / Site name:	Chorlton Precinct	**Samples received on:**	14/05/2024
Your job number:	51013 01	**Samples instructed on/ Analysis started on:**	15/05/2024
Your order number:	PO 0040	**Analysis completed by:**	21/05/2024
Report Issue Number:	1	**Report issued on:**	21/05/2024
Samples Analysed:	2 soil samples		

Signed:

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

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

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

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

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

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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.

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

Analytical Report Number: 24-019479
Project / Site name: Chorlton Precinct
Your Order No: PO 0040

Lab Sample Number				198099	198100
Sample Reference				BH02	BH02
Sample Number				ES2	ES3
Depth (m)				0.60	1.00
Date Sampled				13/05/2024	13/05/2024
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	15	18
Total mass of sample received	kg	0.1	NONE	0.8	0.7
Asbestos					
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	-
Asbestos Analyst ID	N/A	N/A	N/A	KSZ	-
General Inorganics					
pH (L099)	pH Units	N/A	MCERTS	7.8	8
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	230	160
Organic Matter (automated)	%	0.1	MCERTS	2.3	1.1
Total Phenols					
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0
Speciated PAHs					
Naphthalene	mg/kg	0.05	MCERTS	0.87	0.2
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.62	1.4
Fluorene	mg/kg	0.05	MCERTS	0.55	1.3
Phenanthrene	mg/kg	0.05	MCERTS	2.7	6
Anthracene	mg/kg	0.05	MCERTS	0.51	1.1
Fluoranthene	mg/kg	0.05	MCERTS	4.3	5.6
Pyrene	mg/kg	0.05	MCERTS	3.4	4.4
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.4	1.8
Chrysene	mg/kg	0.05	MCERTS	1.4	1.7
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.6	1.6
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.52	0.76
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.3	1.4
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.63	0.73
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.26	0.2
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.68	0.73
Coronene	mg/kg	0.05	NONE	0.31	< 0.05
Total PAH					
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	20.6	28.9
Total WAC-17 PAHs	mg/kg	0.85	NONE	20.9	28.9

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Analytical Report Number: 24-019479
Project / Site name: Chorlton Precinct
Your Order No: PO 0040

Lab Sample Number				198099	198100
Sample Reference				BH02	BH02
Sample Number				ES2	ES3
Depth (m)				0.60	1.00
Date Sampled				13/05/2024	13/05/2024
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Heavy Metals / Metalloids					
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	2.9	2.9
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	16	17
Barium (aqua regia extractable)	mg/kg	1	MCERTS	170	180
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.2	1.7
Boron (water soluble)	mg/kg	0.2	MCERTS	0.3	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	29	44
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	29	44
Copper (aqua regia extractable)	mg/kg	1	MCERTS	45	29
Lead (aqua regia extractable)	mg/kg	1	MCERTS	40	18
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.6	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	24	38
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.4	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	30	45
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	49	59
Petroleum Hydrocarbons					
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	NONE	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL	mg/kg	2	MCERTS	7.6	< 2.0
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL	mg/kg	8	MCERTS	24	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL	mg/kg	8	MCERTS	100	< 8.0
TPHCWG - Aliphatic >C5 - C35 EH_CU+HS_1D_AL	mg/kg	10	NONE	130	< 10
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	3.9	2.3
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	19	11
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	51	25
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	74	38
VOCs					
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0

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

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Analytical Report Number : 24-019479
Project / Site name: Chorlton Precinct

* 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 *
198099	BH02	ES2	0.6	Brown clay and sand with gravel and vegetation
198100	BH02	ES3	1	Brown clay

Analytical Report Number : 24-019479
Project / Site name: Chorlton Precinct

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
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
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	L038B	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Speciated EPA-16 PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Chromium III in soil	In-house method by calculation from total Cr and Cr VI	In-house method by calculation	L080	W	NONE
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080	W	MCERTS
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	MCERTS

Analytical Report Number : 24-019479
Project / Site name: Chorlton Precinct

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
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099	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.

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

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Analytical Report Number : 24-019494

Replaces Analytical Report Number: 24-019494, issue no. 1
Additional analysis undertaken.
Asbestos Quantification added to sample 198136 as per client's request

Project / Site name:	Chorlton Precinct	**Samples received on:**	13/05/2024
Your job number:	51013-01	**Samples instructed on/ Analysis started on:**	15/05/2024
Your order number:	PO-0040	**Analysis completed by:**	21/05/2024
Report Issue Number:	2	**Report issued on:**	04/06/2024
Samples Analysed:	4 soil samples		



Signed:

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

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

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

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

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

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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.

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

Analytical Report Number: 24-019494
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				198135	198136	198137	198138
Sample Reference				WS01	BH01	BH01	BH01
Sample Number				2	2	4	5
Depth (m)				0.80	1.00	2.60	2.90
Date Sampled				09/05/2024	09/05/2024	09/05/2024	09/05/2024
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	16	6.9	29	14
Total mass of sample received	kg	0.1	NONE	0.7	0.8	0.9	0.8
Asbestos							
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Detected	Not-detected	-
Asbestos Analyst ID	N/A	N/A	N/A	IZJ	IZJ	IZJ	-
Actinolite detected	Type	N/A	ISO 17025	-	Not-detected	-	-
Amosite detected	Type	N/A	ISO 17025	-	Detected	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	Not-detected	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	Not-detected	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	Not-detected	-	-
Tremolite detected	Type	N/A	ISO 17025	-	Not-detected	-	-
Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	< 0.001	-	-
Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	Loose Fibres	-	-
General Inorganics							
pH (L099)	pH Units	N/A	MCERTS	7.9	9.3	7.2	8.4
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	550	620	810	220
Organic Matter (automated)	%	0.1	MCERTS	2.4	2.4	7.8	1.6
Total Phenols							
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs							
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	0.4	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.2	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.26	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	0.31	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.19	2.8	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.9	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.31	5.5	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.33	5.5	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.2	2.9	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.28	3.3	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.36	3.5	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.11	1.4	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.31	3.2	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.18	1.6	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.05	0.33	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.24	1.9	< 0.05	< 0.05
Coronene	mg/kg	0.05	NONE	0.09	0.7	< 0.05	< 0.05
Total PAH							
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	-	-	< 0.80	< 0.80
Total WAC-17 PAHs	mg/kg	0.85	NONE	2.65	34.7	< 0.85	< 0.85

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Analytical Report Number: 24-019494
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				198135	198136	198137	198138
Sample Reference				WS01	BH01	BH01	BH01
Sample Number				2	2	4	5
Depth (m)				0.80	1.00	2.60	2.90
Date Sampled				09/05/2024	09/05/2024	09/05/2024	09/05/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Heavy Metals / Metalloids							
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	3.8	4.2	1.4	2.6
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	25	27	10	11
Barium (aqua regia extractable)	mg/kg	1	MCERTS	170	180	44	110
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.8	1.2	0.46	1.2
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6	0.4	1.3	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	32	12	8.8	27
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	32	12	8.8	27
Copper (aqua regia extractable)	mg/kg	1	MCERTS	56	59	17	26
Lead (aqua regia extractable)	mg/kg	1	MCERTS	70	120	32	11
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	33	18	8	29
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.4	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	43	29	14	30
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	110	64	25	61
Petroleum Hydrocarbons							
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >C5 - C35 EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	1.3	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	< 2.0	4.4	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	25	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	49	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	79	< 10	< 10

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Analytical Report Number: 24-019494
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				198135	198136	198137	198138
Sample Reference				WS01	BH01	BH01	BH01
Sample Number				2	2	4	5
Depth (m)				0.80	1.00	2.60	2.90
Date Sampled				09/05/2024	09/05/2024	09/05/2024	09/05/2024
Time Taken				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	-	-
Trans 1,2-dichloroethylene	µg/kg	5	NONE	< 5.0	< 5.0	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5	ISO 17025	< 5.0	< 5.0	-	-
2,2-Dichloropropane	µg/kg	5	NONE	< 5.0	< 5.0	-	-
Chloroform	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	-	-
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	< 5.0	< 5.0	-	-
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Carbontetrachloride	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	< 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	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Styrene	µg/kg	5	ISO 17025	< 5.0	< 5.0	-	-
Bromoform	µg/kg	5	NONE	< 5.0	< 5.0	-	-
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0	-	-
1,1,2,2-Tetrachloroethane	µg/kg	5	NONE	< 5.0	< 5.0	-	-
Bromobenzene	µg/kg	5	NONE	< 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	-	-
1,4-Dichlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0	-	-
1,2-Dichlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0	-	-

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Analytical Report Number: 24-019494
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				198135	198136	198137	198138
Sample Reference				WS01	BH01	BH01	BH01
Sample Number				2	2	4	5
Depth (m)				0.80	1.00	2.60	2.90
Date Sampled				09/05/2024	09/05/2024	09/05/2024	09/05/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Butylbenzene	µg/kg	5	NONE	< 5.0	< 5.0	-	-
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	< 0.1	< 0.1	-	-
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	-	-
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	0.3	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-
2,6-Dinitrotoluene	mg/kg	0.1	NONE	< 0.1	< 0.1	-	-
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	-	-
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	< 0.30	< 0.30	-	-
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	-	-
Butyl benzyl phthalate	mg/kg	0.3	NONE	< 0.3	< 0.3	-	-

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Analytical Report Number: 24-019494
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				198135	198136	198137	198138
Sample Reference				WS01	BH01	BH01	BH01
Sample Number				2	2	4	5
Depth (m)				0.80	1.00	2.60	2.90
Date Sampled				09/05/2024	09/05/2024	09/05/2024	09/05/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
PCBs by GC-MS							
PCB Congener 118	mg/kg	0.001	MCERTS	< 0.001	-	-	-
PCBs							
PCB Congener 077	mg/kg	0.001	NONE	< 0.001	-	-	-
PCB Congener 081	mg/kg	0.001	NONE	< 0.001	-	-	-
PCB Congener 105	mg/kg	0.001	NONE	< 0.001	-	-	-
PCB Congener 114	mg/kg	0.001	NONE	< 0.001	-	-	-
PCB Congener 123	mg/kg	0.001	NONE	< 0.001	-	-	-
PCB Congener 126	mg/kg	0.001	NONE	< 0.001	-	-	-
PCB Congener 156	mg/kg	0.001	NONE	< 0.001	-	-	-
PCB Congener 157	mg/kg	0.001	NONE	< 0.001	-	-	-
PCB Congener 167	mg/kg	0.001	NONE	< 0.001	-	-	-
PCB Congener 169	mg/kg	0.001	NONE	< 0.001	-	-	-
PCB Congener 189	mg/kg	0.001	NONE	< 0.001	-	-	-
Total PCBs	mg/kg	0.012	NONE	< 0.012	-	-	-

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

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Analytical Report Number: 24-019494
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

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

Quantitative Analysis

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

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

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

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
198136	BH01	1.00	133	Loose Fibres	**Amosite**	< 0.001	**< 0.001**

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

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

Analytical Report Number : 24-019494
Project / Site name: Chorlton Precinct

* 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 *
198135	WS01	2	0.8	Brown clay and sand with gravel
198136	BH01	2	1	Brown sand with gravel
198137	BH01	4	2.6	Brown clay and loam with gravel and vegetation
198138	BH01	5	2.9	Brown clay with gravel

Analytical Report Number : 24-019494
Project / Site name: Chorlton Precinct

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
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references	HSE Report No: 83/1996, HSG 248 (2021), HSG 264 (2012) & SCA Blue Book (draft)	A006B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
PCBs WHO 12 in soil	Determination of PCBs (WHO-12 Congeners) by GC-MS	In-house method based on USEPA 8082	L027B	D	NONE
PCB's By GC-MS in soil	Determination of PCB by extraction with hexane followed by GC-MS	In-house method based on USEPA 8082	L027B	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
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	L038B	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Chromium III in soil	In-house method by calculation from total Cr and Cr VI	In-house method by calculation	L080	W	NONE
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080	W	MCERTS
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	MCERTS

Analytical Report Number : 24-019494
Project / Site name: Chorlton Precinct

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
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099	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.

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

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Analytical Report Number : 24-020527

Project / Site name:	Chorlton Precinct	**Samples received on:**	01/05/2024
Your job number:	51013 01	**Samples instructed on/ Analysis started on:**	21/05/2024
Your order number:	PO-0040	**Analysis completed by:**	27/05/2024
Report Issue Number:	1	**Report issued on:**	30/05/2024
Samples Analysed:	4 10:1 WAC samples		

Signed:

Joanna Wawrzeczko
Senior 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

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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.

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Waste Acceptance Criteria Analytical Results

Report No:	**24-020527**						
					Client: CIVICEARTH		
Location	**Chorlton Precinct**						
Lab Reference (Sample Number)	204246				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	30/04/2024				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS02 ES1						
Depth (m)	0.50						
Solid Waste Analysis							
TOC (%)**	1.5				3%	5%	6%
Loss on Ignition (%) **	4.0				--	--	10%
BTEX (µg/kg) **	< 5.0				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	1.14				100	--	--
pH (units)**	7.5				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	0.89				--	To be evaluated	To be evaluated
Eluate Analysis (BS EN 12457 - 2 preparation utilising end over end leaching procedure)	10:1			10:1	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
	mg/l			mg/kg			
Arsenic *	0.00216			0.0216	0.5	2	25
Barium *	0.0200			0.200	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	0.0011			0.011	0.5	10	70
Copper *	0.037			0.37	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.0116			0.116	0.5	10	30
Nickel *	0.0021			0.021	0.4	10	40
Lead *	0.0043			0.043	0.5	10	50
Antimony *	0.0049			0.049	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.021			0.21	4	50	200
Chloride *	33			330	800	15000	25000
Fluoride*	0.53			5.3	10	150	500
Sulphate *	30			300	1000	20000	50000
TDS*	110			1100	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	13.3			133	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	0.8						
Dry Matter (%)	84						
Moisture (%)	16						

Results are expressed on a dry weight basis, after correction for moisture content where applicable.
*= UKAS accredited (liquid eluate analysis only)

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

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
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Waste Acceptance Criteria Analytical Results

Report No:	**24-020527**						
					Client: CIVICEARTH		
Location	**Chorlton Precinct**						
Lab Reference (Sample Number)	204247				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	30/04/2024				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS04 ES1						
Depth (m)	0.40						
Solid Waste Analysis							
TOC (%)**	1.0				3%	5%	6%
Loss on Ignition (%) **	3.5				--	--	10%
BTEX (µg/kg) **	< 5.0				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	62				500	--	--
Total PAH (WAC-17) (mg/kg)	53.6				100	--	--
pH (units)**	8.4				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	19				--	To be evaluated	To be evaluated
Eluate Analysis (BS EN 12457 - 2 preparation utilising end over end leaching procedure)	10:1			10:1	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
	mg/l			mg/kg			
Arsenic *	0.00498			0.0498	0.5	2	25
Barium *	0.106			1.06	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	0.0029			0.029	0.5	10	70
Copper *	0.015			0.15	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.00460			0.0460	0.5	10	30
Nickel *	0.0037			0.037	0.4	10	40
Lead *	0.0029			0.029	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.019			0.19	4	50	200
Chloride *	2.9			29	800	15000	25000
Fluoride*	0.31			3.1	10	150	500
Sulphate *	14			140	1000	20000	50000
TDS*	48			480	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	6.36			63.6	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	0.8						
Dry Matter (%)	89						
Moisture (%)	11						

Results are expressed on a dry weight basis, after correction for moisture content where applicable. *= UKAS accredited (liquid eluate analysis only)

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Waste Acceptance Criteria Analytical Results

Report No:	**24-020527**						
					Client: CIVICEARTH		
Location	**Chorlton Precinct**						
Lab Reference (Sample Number)	204248				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	30/04/2024				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS07 ES1						
Depth (m)	0.50						
Solid Waste Analysis							
TOC (%)**	2.5				3%	5%	6%
Loss on Ignition (%) **	6.2				--	--	10%
BTEX (µg/kg) **	< 5.0				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	87				500	--	--
Total PAH (WAC-17) (mg/kg)	54.3				100	--	--
pH (units)**	7.6				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	2.3				--	To be evaluated	To be evaluated
Eluate Analysis (BS EN 12457 - 2 preparation utilising end over end leaching procedure)	10:1			10:1	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
	mg/l			mg/kg			
Arsenic *	0.00278			0.0278	0.5	2	25
Barium *	0.0205			0.205	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	< 0.00040			< 0.0040	0.5	10	70
Copper *	0.021			0.21	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.00245			0.0245	0.5	10	30
Nickel *	0.0020			0.020	0.4	10	40
Lead *	0.0020			0.020	0.5	10	50
Antimony *	0.0054			0.054	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.015			0.15	4	50	200
Chloride *	2.2			22	800	15000	25000
Fluoride*	0.35			3.5	10	150	500
Sulphate *	23			230	1000	20000	50000
TDS*	42			420	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	11.5			115	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	0.5						
Dry Matter (%)	85						
Moisture (%)	15						

Results are expressed on a dry weight basis, after correction for moisture content where applicable.
*= UKAS accredited (liquid eluate analysis only)

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Waste Acceptance Criteria Analytical Results

Report No:	**24-020527**						
					Client: CIVICEARTH		
Location	**Chorlton Precinct**						
Lab Reference (Sample Number)	204249				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	30/04/2024				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS10 ES1						
Depth (m)	0.30						
Solid Waste Analysis							
TOC (%)**	2.8				3%	5%	6%
Loss on Ignition (%) **	7.1				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	7.9				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	6.2				--	To be evaluated	To be evaluated
Eluate Analysis (BS EN 12457 - 2 preparation utilising end over end leaching procedure)	10:1			10:1	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
	mg/l			mg/kg			
Arsenic *	0.00339			0.0339	0.5	2	25
Barium *	0.0226			0.226	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	0.0010			0.010	0.5	10	70
Copper *	0.019			0.19	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.00765			0.0765	0.5	10	30
Nickel *	0.00081			0.0081	0.4	10	40
Lead *	0.0013			0.013	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.0076			0.076	4	50	200
Chloride *	1.6			16	800	15000	25000
Fluoride*	0.70			7.0	10	150	500
Sulphate *	12			120	1000	20000	50000
TDS*	67			670	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	10.9			109	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	0.8						
Dry Matter (%)	87						
Moisture (%)	13						

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

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Analytical Report Number : 24-020527
Project / Site name: Chorlton Precinct

* 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 *
204246	WS02	ES1	0.5	Brown clay and sand with gravel
204247	WS04	ES1	0.4	Brown sand with gravel
204248	WS07	ES1	0.5	Brown loam and sand with gravel and vegetation
204249	WS10	ES1	0.3	Brown loam and sand with gravel and vegetation

Analytical Report Number : 24-020527
Project / Site name: Chorlton Precinct

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
pH at 20°C in soil	Determination of pH in soil by addition of water followed by electrometric measurement	In-house method	L005B	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
PCB's By GC-MS in soil	Determination of PCB by extraction with hexane followed by GC-MS	In-house method based on USEPA 8082	L027B	D	MCERTS
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by electrometric measurement	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L031B	W	ISO 17025
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination	L033B	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR Analyser	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	W	NONE
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025
Sample Preparation		In-house method	L043B	W	NONE
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe	In-house method based on Guidance an Sampling and Testing of Wastes to Meet Landfill Waste Acceptance	L046B	W	NONE
Loss on ignition of soil @ 450°C	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	In-house method	L047	D	MCERTS
Speciated EPA-16 PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L076B/L088	D/W	NONE
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	ISO 17025

Analytical Report Number : 24-020527
Project / Site name: Chorlton Precinct

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 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser	In-house based on MEWAM Method ISBN 0117516260	L082B	W	ISO 17025
WAC Leachate 10:1		In-house method	L043B	W	NONE

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 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 : 24-020527
Project / Site name: Chorlton Precinct

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
WS02	ES1	S	204246	c	BTEX and/or Volatile organic compounds in soil	L073B	c
WS02	ES1	S	204246	c	PCB's By GC-MS in soil	L027B	c
WS02	ES1	S	204246	c	Speciated EPA-16 PAHs and/or Semi-volatile organic compounds in soil	L064B	c
WS02	ES1	S	204246	c	Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	L076B/L088	c
WS04	ES1	S	204247	c	BTEX and/or Volatile organic compounds in soil	L073B	c
WS04	ES1	S	204247	c	PCB's By GC-MS in soil	L027B	c
WS04	ES1	S	204247	c	Speciated EPA-16 PAHs and/or Semi-volatile organic compounds in soil	L064B	c
WS04	ES1	S	204247	c	Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	L076B/L088	c
WS07	ES1	S	204248	c	BTEX and/or Volatile organic compounds in soil	L073B	c
WS07	ES1	S	204248	c	PCB's By GC-MS in soil	L027B	c
WS07	ES1	S	204248	c	Speciated EPA-16 PAHs and/or Semi-volatile organic compounds in soil	L064B	c
WS07	ES1	S	204248	c	Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	L076B/L088	c

4041

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Analytical Report Number : 24-021004

Project / Site name:	Chorlton Precinct	**Samples received on:**	22/05/2024
Your job number:	51013	**Samples instructed on/ Analysis started on:**	23/05/2024
Your order number:	PO-0040	**Analysis completed by:**	28/05/2024
Report Issue Number:	1	**Report issued on:**	31/05/2024
Samples Analysed:	5 water samples		

Signed:

Joanna Wawrzeczko
Senior 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

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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.
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Analytical Report Number: 24-021004
Project / Site name: Chorlton Precinct

Your Order No: PO-0040

Lab Sample Number				206816	206817	206818	206819	206820
Sample Reference				BH1D	BH1S	BH3	BH4D	BH4S
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				4.49	1.73	4.43	4.26	1.16
Date Sampled				21/05/2024	21/05/2024	21/05/2024	21/05/2024	21/05/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
General Inorganics								
pH (L099)	pH Units	N/A	ISO 17025	7.9	7.9	10	8.6	7.8
Total Cyanide (Low Level 1 µg/l)	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Sulphate as SO_4	mg/l	0.045	ISO 17025	74.4	146	U/S *U/S	88.2	494
Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	370	460	290	770	1100
Dissolved Organic Carbon (DOC)	mg/l	0.1	ISO 17025	3.26	13.3	8.81	6.96	6.79
Hardness - Total	mgCaCO3/l	1	ISO 17025	295	116	U/S *U/S	97	701
Total Phenols								
Total Phenols (Monohydric) Low Level	µg/l	1	NONE	2.1	1	1.1	< 1.0	2.6
Speciated PAHs								
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.25	1.5	1
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.62	1.9	3.7
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.32	0.95	1.4
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.74	2.7	4.3
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.34	0.79	1.3
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	0.21	1.1	2.3	3.7
Pyrene	µg/l	0.01	ISO 17025	< 0.01	0.21	0.93	2	3.3
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.41	0.82	1.3
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.45	0.9	1.4
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.45	0.97	1.3
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.16	0.35	0.39
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.37	0.9	1.2
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.16	0.37	0.42
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.17	0.47	0.53
Total PAH								
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	0.42	6.49	16.9	25.1
Heavy Metals / Metalloids								
Antimony (dissolved)	µg/l	0.4	ISO 17025	1.1	3.1	U/S *U/S	2.9	1.6
Arsenic (dissolved)	µg/l	0.15	ISO 17025	3.81	12.8	U/S *U/S	3.73	3.69
Barium (dissolved)	µg/l	0.06	ISO 17025	95	38	U/S *U/S	55	130
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1	< 0.1	U/S *U/S	< 0.1	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	< 0.02	< 0.02	U/S *U/S	< 0.02	0.02
Chromium (dissolved)	µg/l	0.2	ISO 17025	0.2	0.7	U/S *U/S	< 0.2	< 0.2
Copper (dissolved)	µg/l	0.5	ISO 17025	0.9	7.9	U/S *U/S	1.5	0.6
Lead (dissolved)	µg/l	0.2	ISO 17025	0.3	1.8	U/S *U/S	< 0.2	0.5
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	< 0.05	U/S *U/S	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	1.2	2.5	U/S *U/S	1.7	5.9
Selenium (dissolved)	µg/l	0.6	ISO 17025	120	290	U/S *U/S	12	1.2
Vanadium (dissolved)	µg/l	0.2	ISO 17025	0.6	17	U/S *U/S	3.8	0.3
Zinc (dissolved)	µg/l	0.5	ISO 17025	7.1	3.7	U/S *U/S	2.5	5.7
Boron (dissolved)	µg/l	10	ISO 17025	160	66	U/S *U/S	160	130
Calcium (dissolved)	mg/l	0.012	ISO 17025	53	22	U/S *U/S	13	250
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0	< 5.0	U/S *U/S	< 5.0	< 5.0
Chromium (III)	µg/l	5	NONE	< 5.0	< 5.0	U/S *U/S	< 5.0	< 5.0

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The results included within the report relate only to the sample(s) submitted for testing.

4041

Analytical Report Number: 24-021004
Project / Site name: Chorlton Precinct

Your Order No: PO-0040

Lab Sample Number				206816	206817	206818	206819	206820
Sample Reference				BH1D	BH1S	BH3	BH4D	BH4S
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				4.49	1.73	4.43	4.26	1.16
Date Sampled				21/05/2024	21/05/2024	21/05/2024	21/05/2024	21/05/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Petroleum Hydrocarbons								
TPH - Aliphatic >C5 - C6 $_{HS\_1D\_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >C6 - C8 $_{HS\_1D\_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >C8 - C10 $_{HS\_1D\_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >C10 - C12 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >C12 - C16 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	20	18
TPH - Aliphatic >C16 - C21 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	30	33
TPH - Aliphatic >C21 - C35 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	60	30
TPH - Aliphatic >C5 - C35 $_{HS+EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	110	81
TPH - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC10 - EC12 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	10
TPH - Aromatic >EC12 - EC16 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10	15	25	37
TPH - Aromatic >EC16 - EC21 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	10	20	50	58
TPH - Aromatic >EC21 - EC35 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	15	30	20	15
TPH - Aromatic >EC5 - EC35 $_{HS+EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	25	65	95	120
VOCs								
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Benzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Toluene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Ethylbenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
p & m-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
o-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0

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

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Analytical Report Number : 24-021004
Project / Site name: Chorlton Precinct

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	L012B	W	ISO 17025
Dissolved Organic Carbon in water	Determination of dissolved organic carbon in water by TOC/DOC NDIR Analyser	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	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	L039B	W	ISO 17025
Total Hardness of water	Determination of hardness in waters by calculation from calcium and magnesium	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L045B	W	ISO 17025
Total petroleum hydrocarbons with carbon banding by GC-MS in water	Determination of total petroleum hydrocarbons in water by GC-MS/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L070B	W	NONE
BTEX and/or Volatile organic compounds in water	Determination of volatile organic compounds in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA 8260	L073B	W	ISO 17025
Chromium III in water	In-house method by calculation from total Cr and Cr VI	In-house method by calculation	L080	W	NONE
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	W	ISO 17025
Monohydric phenols (low level) 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	L080	W	NONE
Total cyanide (low level) 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	L080	W	NONE
Total petroleum hydrocarbons by GC-MS HS in water	Determination of total petroleum hydrocarbons in water by GC-MS HS	In-house method	L088	W	ISO 17025
pH at 20°C in water (automated)	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In-house method	L099	W	ISO 17025
Speciated EPA-16 PAHs and/or Semi-volatile organic compounds in water	Determination of semi-volatile organic compounds (including PAH) in leachate by extraction in dichloromethane followed by GC-MS	In-house method based on USEPA 8270	L102B	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	L082B	W	ISO 17025

4041

Analytical Report Number : 24-021004
Project / Site name: Chorlton Precinct

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 in water	Determination of sulphate in water after filtration by acidification followed by ICP-OES. Accredited Matrices SW, GW, PW, PrW, LL	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	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

*U/S - Unsuitable for analysis due to sample matrix.

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Analytical Report Number : 24-017413-2

Replaces Analytical Report Number: 24-017413, issue no. 1
Client references/information amended.
Sample ID's amended for all samples as per client's request & quantification carried out

Project / Site name:	Chorlton Precinct	**Samples received on:**	01/05/2024
Your job number:	51013 01	**Samples instructed on/ Analysis started on:**	01/05/2024
Your order number:	PO-0040	**Analysis completed by:**	08/05/2024
Report Issue Number:	3	**Report issued on:**	22/05/2024
Samples Analysed:	22 soil samples		

Izabela Wójcik
Signed:

Izabela Wójcik
Senior 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

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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.

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

Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187101	187102	187103	187104	187105
Sample Reference				BH04	BH04	WS02	WS02	WS03
Sample Number				ES1	ES2	ES1	ES2	ES1
Depth (m)				0.60	1.00	0.50	1.00	0.30
Date Sampled				29/04/2024	29/04/2024	29/04/2024	29/04/2024	29/04/2024
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	38.1	55.5	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	8.2	7	12	15	18
Total mass of sample received	kg	0.1	NONE	1.1	1.1	1.2	1.1	1.1
Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	-	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	EWS	EWS	EWS	-	EWS
Actinolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Amosite detected	Type	N/A	ISO 17025	-	-	-	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	-	-	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	-	-	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Tremolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	-	-	-
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	11.1	9.5	8	8.5	7.1
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	3100	1300	340	300	380
Organic Matter (automated)	%	0.1	MCERTS	1.2	1.2	2.8	1.5	5.3
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	0.83	2.3	< 0.05	< 0.05	0.76
Acenaphthylene	mg/kg	0.05	MCERTS	0.19	0.21	< 0.05	< 0.05	0.19
Acenaphthene	mg/kg	0.05	MCERTS	7.2	7.7	0.11	< 0.05	3.9
Fluorene	mg/kg	0.05	MCERTS	5.4	5.8	0.08	< 0.05	3
Phenanthrene	mg/kg	0.05	MCERTS	31	33	0.56	0.08	15
Anthracene	mg/kg	0.05	MCERTS	11	11	0.13	< 0.05	3.6
Fluoranthene	mg/kg	0.05	MCERTS	34	38	0.56	0.06	22
Pyrene	mg/kg	0.05	MCERTS	28	31	0.5	0.06	19
Benzo(a)anthracene	mg/kg	0.05	MCERTS	11	14	0.24	< 0.05	7.4
Chrysene	mg/kg	0.05	MCERTS	11	12	0.24	< 0.05	7.1
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	9.7	11	0.27	< 0.05	9.6
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	4.6	5.4	0.09	< 0.05	3.5
Benzo(a)pyrene	mg/kg	0.05	MCERTS	9.3	11	0.22	< 0.05	8.9
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	4.1	4.8	0.1	< 0.05	4.1
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.79	1	< 0.05	< 0.05	0.75
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	4.3	5	0.11	< 0.05	4.4
Coronene	mg/kg	0.05	NONE	1.6	2.1	< 0.05	< 0.05	1.8
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	173	193	3.21	< 0.80	113
Total WAC-17 PAHs	mg/kg	0.85	NONE	175	195	3.21	< 0.85	115

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187101	187102	187103	187104	187105
Sample Reference				BH04	BH04	WS02	WS02	WS03
Sample Number				ES1	ES2	ES1	ES2	ES1
Depth (m)				0.60	1.00	0.50	1.00	0.30
Date Sampled				29/04/2024	29/04/2024	29/04/2024	29/04/2024	29/04/2024
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								
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	1.1	1.4	1.9	< 1.0	3.8
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.2	9.1	16	10	36
Barium (aqua regia extractable)	mg/kg	1	MCERTS	510	540	67	150	220
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.48	0.49	0.81	1.3	1.7
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2	0.3	0.4	< 0.2	1
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.6	0.8	< 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	17	16	12	31	15
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	17	16	12	31	15
Copper (aqua regia extractable)	mg/kg	1	MCERTS	19	16	36	22	78
Lead (aqua regia extractable)	mg/kg	1	MCERTS	53	59	63	12	170
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	0.4	< 0.3	1.4
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	10	13	15	35	27
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	18	17	22	33	37
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	87	93	74	60	71
Petroleum Hydrocarbons								
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	2.5	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	3.8	< 2.0	< 2.0	3.2
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL	mg/kg	8	MCERTS	8.4	10	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL	mg/kg	8	MCERTS	54	50	< 8.0	< 8.0	26
TPHCWG - Aliphatic >C5 - C35 EH_CU+HS_1D_AL	mg/kg	10	NONE	62	66	< 10	< 10	30
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	4.8	1.4	< 1.0	< 1.0	2.4
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	25	22	< 2.0	< 2.0	13
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	120	110	< 10	< 10	59
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	160	140	< 10	< 10	100
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	320	280	< 10	< 10	170
VOCs								
Chloromethane	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
Chloroethane	µg/kg	5	NONE	-	-	< 5.0	-	-
Bromomethane	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
Vinyl Chloride	µg/kg	5	NONE	-	-	< 5.0	-	-
Trichlorofluoromethane	µg/kg	5	NONE	-	-	< 5.0	-	-
1,1-Dichloroethene	µg/kg	5	NONE	-	-	< 5.0	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	NONE	-	-	< 5.0	-	-
Trans 1,2-dichloroethylene	µg/kg	5	NONE	-	-	< 5.0	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
2,2-Dichloropropane	µg/kg	5	NONE	-	-	< 5.0	-	-
Chloroform	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
1,1,1-Trichloroethane	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
1,2-Dichloroethane	µg/kg	5	ISO 17025	-	-	< 5.0	-	-

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187101	187102	187103	187104	187105
Sample Reference				BH04	BH04	WS02	WS02	WS03
Sample Number				ES1	ES2	ES1	ES2	ES1
Depth (m)				0.60	1.00	0.50	1.00	0.30
Date Sampled				29/04/2024	29/04/2024	29/04/2024	29/04/2024	29/04/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
1,1-Dichloropropene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbontetrachloride	µg/kg	5	NONE	-	-	< 5.0	-	-
1,2-Dichloropropane	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
Trichloroethene	µg/kg	5	ISO 17025	-	-	< 5.0 ##	-	-
Dibromomethane	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
Bromodichloromethane	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
Cis-1,3-dichloropropene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
Trans-1,3-dichloropropene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
1,3-Dichloropropane	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
Dibromochloromethane	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
Tetrachloroethene	µg/kg	5	NONE	-	-	< 5.0	-	-
1,2-Dibromoethane	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
Chlorobenzene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
1,1,1,2-Tetrachloroethane	µg/kg	5	ISO 17025	-	-	< 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
Styrene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
Bromoform	µg/kg	5	NONE	-	-	< 5.0	-	-
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
1,1,2,2-Tetrachloroethane	µg/kg	5	NONE	-	-	< 5.0	-	-
Bromobenzene	µg/kg	5	NONE	-	-	< 5.0	-	-
n-Propylbenzene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
2-Chlorotoluene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
4-Chlorotoluene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
1,3,5-Trimethylbenzene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
tert-Butylbenzene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
1,2,4-Trimethylbenzene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
sec-Butylbenzene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
1,3-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
p-Isopropyltoluene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
1,4-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
1,2-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
Butylbenzene	µg/kg	5	NONE	-	-	< 5.0	-	-
1,2-Dibromo-3-chloropropane	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
1,2,4-Trichlorobenzene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-
Hexachlorobutadiene	µg/kg	5	NONE	-	-	< 5.0	-	-
1,2,3-Trichlorobenzene	µg/kg	5	ISO 17025	-	-	< 5.0	-	-

SVOCs

Aniline	mg/kg	0.1	NONE	-	-	< 0.1	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	< 0.2	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187101	187102	187103	187104	187105
Sample Reference				BH04	BH04	WS02	WS02	WS03
Sample Number				ES1	ES2	ES1	ES2	ES1
Depth (m)				0.60	1.00	0.50	1.00	0.30
Date Sampled				29/04/2024	29/04/2024	29/04/2024	29/04/2024	29/04/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Hexachloroethane	mg/kg	0.05	ISO 17025	-	-	< 0.05	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	< 0.2	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
2-Nitrophenol	mg/kg	0.3	NONE	-	-	< 0.3	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	< 0.1	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	< 0.1	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	NONE	-	-	< 0.1	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	NONE	-	-	< 0.2	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	< 0.1	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
2,6-Dinitrotoluene	mg/kg	0.1	NONE	-	-	< 0.1	-	-
2,4-Dinitrotoluene	mg/kg	0.2	NONE	-	-	< 0.2	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
4-Nitroaniline	mg/kg	0.2	NONE	-	-	< 0.2	-	-
Azobenzene	mg/kg	0.3	NONE	-	-	< 0.3	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.30	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Dibutyl phthalate	mg/kg	0.2	NONE	-	-	< 0.2	-	-
Anthraquinone	mg/kg	0.3	NONE	-	-	< 0.3	-	-
Butyl benzyl phthalate	mg/kg	0.3	NONE	-	-	< 0.3	-	-
PCBs by GC-MS								
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
PCBs								
PCB Congener 077	mg/kg	0.001	NONE	-	-	< 0.001	-	-
PCB Congener 081	mg/kg	0.001	NONE	-	-	< 0.001	-	-
PCB Congener 105	mg/kg	0.001	NONE	-	-	< 0.001	-	-
PCB Congener 114	mg/kg	0.001	NONE	-	-	< 0.001	-	-
PCB Congener 123	mg/kg	0.001	NONE	-	-	< 0.001	-	-
PCB Congener 126	mg/kg	0.001	NONE	-	-	< 0.001	-	-
PCB Congener 156	mg/kg	0.001	NONE	-	-	< 0.001	-	-
PCB Congener 157	mg/kg	0.001	NONE	-	-	< 0.001	-	-
PCB Congener 167	mg/kg	0.001	NONE	-	-	< 0.001	-	-
PCB Congener 169	mg/kg	0.001	NONE	-	-	< 0.001	-	-
PCB Congener 189	mg/kg	0.001	NONE	-	-	< 0.001	-	-
Total PCBs	mg/kg	0.012	NONE	-	-	< 0.012	-	-

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

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187106	187107	187108	187109	187110
Sample Reference				WS04	WS04	WS05A	WS06	WS06
Sample Number				ES1	ES2	ES1	ES1	ES2
Depth (m)				0.40	0.60	0.20	0.50	1.00
Date Sampled				29/04/2024	29/04/2024	29/04/2024	29/04/2024	29/04/2024
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	36.7	< 0.1	< 0.1	38.3	48.3
Moisture Content	%	0.01	NONE	11	17	10	7.9	8.2
Total mass of sample received	kg	0.1	NONE	1.2	1.1	1.4	1.2	1.1
Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	-	Detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	EWS	-	EWS	EWS	EWS
Actinolite detected	Type	N/A	ISO 17025	-	-	Not-detected	-	-
Amosite detected	Type	N/A	ISO 17025	-	-	Detected	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	-	Not-detected	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	-	Not-detected	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	-	Not-detected	-	-
Tremolite detected	Type	N/A	ISO 17025	-	-	Not-detected	-	-
Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	1.182	-	-
Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	Sheeting/Board Debris	-	-
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	8.4	8.2	7.8	9.9	11
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	650	260	3500	680	1100
Organic Matter (automated)	%	0.1	MCERTS	2	0.8	2.1	0.9	0.8
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	0.16	< 0.05	0.61	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.12	< 0.05	0.73	0.1	0.06
Acenaphthene	mg/kg	0.05	MCERTS	1.3	0.08	6.6	0.2	0.12
Fluorene	mg/kg	0.05	MCERTS	0.89	0.09	4.4	0.21	0.1
Phenanthrene	mg/kg	0.05	MCERTS	6.5	0.79	24	2.3	1.2
Anthracene	mg/kg	0.05	MCERTS	1.3	0.13	9.1	0.57	0.29
Fluoranthene	mg/kg	0.05	MCERTS	11	1	41	4.3	2.2
Pyrene	mg/kg	0.05	MCERTS	9.3	0.79	37	4	2
Benzo(a)anthracene	mg/kg	0.05	MCERTS	3.8	0.31	16	2.1	0.99
Chrysene	mg/kg	0.05	MCERTS	3.4	0.32	17	2	1
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	3.8	0.32	15	2.2	1.1
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	1.5	0.09	7.5	0.85	0.46
Benzo(a)pyrene	mg/kg	0.05	MCERTS	3.3	0.24	15	2	1
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.5	0.12	6.6	0.87	0.5
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.31	< 0.05	1.4	0.18	0.1
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.6	0.15	7.2	1	0.58
Coronene	mg/kg	0.05	NONE	0.5	< 0.05	3	0.58	0.34
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	49.9	4.41	210	22.9	11.7
Total WAC-17 PAHs	mg/kg	0.85	NONE	50.4	4.41	213	23.5	12

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187106	187107	187108	187109	187110
Sample Reference				WS04	WS04	WS05A	WS06	WS06
Sample Number				ES1	ES2	ES1	ES1	ES2
Depth (m)				0.40	0.60	0.20	0.50	1.00
Date Sampled				29/04/2024	29/04/2024	29/04/2024	29/04/2024	29/04/2024
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								
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	1.1	< 1.0	3.8	1.1	< 1.0
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13	13	14	6.6	6.7
Barium (aqua regia extractable)	mg/kg	1	MCERTS	730	180	250	140	100
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.66	1.6	0.7	0.4	0.35
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2	0.3	1.5	0.6	0.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	2.3	< 0.2	0.9	0.3	0.3
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	9.8	38	20	9.5	9.5
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	9.8	38	20	9.5	9.5
Copper (aqua regia extractable)	mg/kg	1	MCERTS	29	19	37	12	11
Lead (aqua regia extractable)	mg/kg	1	MCERTS	32	14	160	31	29
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	20	36	21	9.1	7.9
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.2	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	19	44	25	11	11
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	59	44	180	42	36
Petroleum Hydrocarbons								
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	< 2.0	12	< 2.0	2.1
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	27	< 8.0	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	84	< 8.0	8.8
TPHCWG - Aliphatic >C5 - C35 EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	< 10	120	< 10	11
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	4.1	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	6.9	2.8	30	3.7	2.5
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	18	< 10	130	14	11
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	20	< 10	260	19	13
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	45	< 10	430	36	26
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	-	-	-	-	-
Trans 1,2-dichloroethylene	µg/kg	5	NONE	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
2,2-Dichloropropane	µg/kg	5	NONE	-	-	-	-	-
Chloroform	µg/kg	5	ISO 17025	-	-	-	-	-
1,1,1-Trichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
1,2-Dichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187106	187107	187108	187109	187110
Sample Reference				WS04	WS04	WS05A	WS06	WS06
Sample Number				ES1	ES2	ES1	ES1	ES2
Depth (m)				0.40	0.60	0.20	0.50	1.00
Date Sampled				29/04/2024	29/04/2024	29/04/2024	29/04/2024	29/04/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
1,1-Dichloropropene	µg/kg	5	ISO 17025	-	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	-	-	-	-	-
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbontetrachloride	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	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
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	< 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
Styrene	µg/kg	5	ISO 17025	-	-	-	-	-
Bromoform	µg/kg	5	NONE	-	-	-	-	-
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	5	NONE	-	-	-	-	-
Bromobenzene	µg/kg	5	NONE	-	-	-	-	-
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	-	-	-	-	-
1,4-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,2-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
Butylbenzene	µg/kg	5	NONE	-	-	-	-	-
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	-	-	-	-	-

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187106	187107	187108	187109	187110
Sample Reference				WS04	WS04	WS05A	WS06	WS06
Sample Number				ES1	ES2	ES1	ES1	ES2
Depth (m)				0.40	0.60	0.20	0.50	1.00
Date Sampled				29/04/2024	29/04/2024	29/04/2024	29/04/2024	29/04/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
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	-	-	-	-	-
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	-	-	-	-	-
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	-	-	-	-	-
Azobenzene	mg/kg	0.3	NONE	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	NONE	-	-	-	-	-
Anthraquinone	mg/kg	0.3	NONE	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	NONE	-	-	-	-	-
PCBs by GC-MS								
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	-	-
PCBs								
PCB Congener 077	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 081	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 105	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 114	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 123	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 126	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 156	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 157	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 167	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 169	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 189	mg/kg	0.001	NONE	-	-	-	-	-
Total PCBs	mg/kg	0.012	NONE	-	-	-	-	-

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

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187111	187112	187113	187114	187115
Sample Reference				WS06	WS07	WS07	WS08	WS08
Sample Number				ES3	ES1	ES2	ES1	ES2
Depth (m)				1.50	0.50	1.00	0.20	0.50
Date Sampled				29/04/2024	29/04/2024	29/04/2024	29/04/2024	29/04/2024
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	16	18	16	13
Total mass of sample received	kg	0.1	NONE	1.1	1.1	1.1	1.1	1.1
Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	-	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	-	EWS	EWS	KSZ	KSZ
Actinolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Amosite detected	Type	N/A	ISO 17025	-	-	-	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	-	-	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	-	-	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Tremolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	-	-	-
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	8.9	7	7.1	7.5	8
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	96	890	560	770	1000
Organic Matter (automated)	%	0.1	MCERTS	0.5	4	4.2	4.1	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	0.13	0.05	0.08	0.59
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.07	< 0.05	0.18	0.11
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.16	< 0.05	0.2	0.41
Fluorene	mg/kg	0.05	MCERTS	< 0.05	0.14	< 0.05	0.21	0.31
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	1.8	0.26	2.6	3
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.3	< 0.05	0.61	0.61
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	2.9	0.47	4.7	4.6
Pyrene	mg/kg	0.05	MCERTS	< 0.05	2.9	0.52	4.6	4.7
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	1.3	0.28	2.4	2.3
Chrysene	mg/kg	0.05	MCERTS	< 0.05	1.8	0.37	2.4	2.7
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	1.7	0.35	2.8	2.3
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.7	0.18	0.9	1.1
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	1.5	0.37	2.4	2.3
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.72	0.16	1.1	1.1
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.19	< 0.05	0.27	0.28
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.88	0.21	1.3	1.3
Coronene	mg/kg	0.05	NONE	< 0.05	0.51	0.17	0.55	0.65
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	17.1	3.22	26.9	27.7
Total WAC-17 PAHs	mg/kg	0.85	NONE	< 0.85	17.6	3.38	27.4	28.3

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187111	187112	187113	187114	187115
Sample Reference				WS06	WS07	WS07	WS08	WS08
Sample Number				ES3	ES1	ES2	ES1	ES2
Depth (m)				1.50	0.50	1.00	0.20	0.50
Date Sampled				29/04/2024	29/04/2024	29/04/2024	29/04/2024	29/04/2024
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								
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	1.1	2.8	2.3	2.8	4.5
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	4.2	19	15	15	15
Barium (aqua regia extractable)	mg/kg	1	MCERTS	50	120	84	150	450
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.55	0.93	0.86	0.78	0.65
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2	0.2	0.5	0.3	< 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	12	13	11	14	12
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	12	13	11	14	12
Copper (aqua regia extractable)	mg/kg	1	MCERTS	12	59	39	50	39
Lead (aqua regia extractable)	mg/kg	1	MCERTS	8.2	160	100	170	810
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	0.6	1.6	< 0.3	1.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	11	15	16	16	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	14	23	19	22	22
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	33	92	86	98	340
Petroleum Hydrocarbons								
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >C5 - C35 EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	2.2
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	< 2.0	2.1	< 2.0	< 2.0	6.6
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	< 10	< 10	12	14
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	14	12	24	22
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	16	12	36	44
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	-	-	-	-	-
Trans 1,2-dichloroethylene	µg/kg	5	NONE	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
2,2-Dichloropropane	µg/kg	5	NONE	-	-	-	-	-
Chloroform	µg/kg	5	ISO 17025	-	-	-	-	-
1,1,1-Trichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
1,2-Dichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187111	187112	187113	187114	187115
Sample Reference				WS06	WS07	WS07	WS08	WS08
Sample Number				ES3	ES1	ES2	ES1	ES2
Depth (m)				1.50	0.50	1.00	0.20	0.50
Date Sampled				29/04/2024	29/04/2024	29/04/2024	29/04/2024	29/04/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
1,1-Dichloropropene	µg/kg	5	ISO 17025	-	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	-	-	-	-	-
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbontetrachloride	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	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
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	< 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
Styrene	µg/kg	5	ISO 17025	-	-	-	-	-
Bromoform	µg/kg	5	NONE	-	-	-	-	-
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	5	NONE	-	-	-	-	-
Bromobenzene	µg/kg	5	NONE	-	-	-	-	-
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	-	-	-	-	-
1,4-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,2-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
Butylbenzene	µg/kg	5	NONE	-	-	-	-	-
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	-	-	-	-	-

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187111	187112	187113	187114	187115
Sample Reference				WS06	WS07	WS07	WS08	WS08
Sample Number				ES3	ES1	ES2	ES1	ES2
Depth (m)				1.50	0.50	1.00	0.20	0.50
Date Sampled				29/04/2024	29/04/2024	29/04/2024	29/04/2024	29/04/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
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	-	-	-	-	-
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	-	-	-	-	-
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	-	-	-	-	-
Azobenzene	mg/kg	0.3	NONE	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	NONE	-	-	-	-	-
Anthraquinone	mg/kg	0.3	NONE	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	NONE	-	-	-	-	-
PCBs by GC-MS								
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	-	-
PCBs								
PCB Congener 077	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 081	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 105	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 114	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 123	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 126	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 156	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 157	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 167	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 169	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 189	mg/kg	0.001	NONE	-	-	-	-	-
Total PCBs	mg/kg	0.012	NONE	-	-	-	-	-

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

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187116	187117	187118	187119	187120
Sample Reference				WS08	WS09	WS09	WS09	WS10
Sample Number				ES3	ES1	ES2	ES3	ES1
Depth (m)				1,00	0.50	1.00	2 00	0.30
Date Sampled				29/04/2024	29/04/2024	29/04/2024	29/04/2024	29/04/2024
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	10	14	18	14	13
Total mass of sample received	kg	0.1	NONE	1.1	1.2	1.2	1.1	1.2
Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	-	Not-detected	Not-detected	-	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	-	KSZ	KSZ	-	KSZ
Actinolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Amosite detected	Type	N/A	ISO 17025	-	-	-	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	-	-	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	-	-	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Tremolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	-	-	-
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	8	7.9	7.2	7.9	7.8
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	95	360	250	110	440
Organic Matter (automated)	%	0.1	MCERTS	0.7	3	3.1	1	6
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	0.06	< 0.05	0.06	9.3
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.06	< 0.05	0.48	52
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.23	0.17	0.21	21
Fluorene	mg/kg	0.05	MCERTS	0.05	0.17	0.14	0.5	60
Phenanthrene	mg/kg	0.05	MCERTS	0.33	0.85	1	3.9	480
Anthracene	mg/kg	0.05	MCERTS	0.07	0.24	0.21	0.84	110
Fluoranthene	mg/kg	0.05	MCERTS	0.26	2.4	1.3	3.7	430
Pyrene	mg/kg	0.05	MCERTS	0.23	2.4	1.3	3.6	390
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.08	1.2	0.58	1.7	200
Chrysene	mg/kg	0.05	MCERTS	0.08	1.3	0.64	1.7	200
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.09	1.7	0.73	1.9	190
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.06	0.6	0.23	0.77	65
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.1	1.4	0.63	1.8	160
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.06	0.76	0.35	0.95	65
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.19	0.09	0.21	25
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.76	0.4	0.98	74
Coronene	mg/kg	0.05	NONE	< 0.05	0.52	0.23	0.6	31
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	1.42	14.4	7.85	23.4	-
Total WAC-17 PAHs	mg/kg	0.85	NONE	1.42	14.9	8.08	24	2560

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187116	187117	187118	187119	187120
Sample Reference				WS08	WS09	WS09	WS09	WS10
Sample Number				ES3	ES1	ES2	ES3	ES1
Depth (m)				1,00	0.50	1.00	2 00	0.30
Date Sampled				29/04/2024	29/04/2024	29/04/2024	29/04/2024	29/04/2024
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								
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	< 1.0	1.4	< 1.0	< 1.0	2.8
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	3.4	11	22	4.8	18
Barium (aqua regia extractable)	mg/kg	1	MCERTS	9	250	130	26	180
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.21	0.55	1.4	0.27	1
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	0.5	0.3	0.5
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	7.4	8.3	32	6.2	15
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	7.4	8.3	32	6.2	15
Copper (aqua regia extractable)	mg/kg	1	MCERTS	9.8	33	38	10	45
Lead (aqua regia extractable)	mg/kg	1	MCERTS	4.4	69	77	16	130
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	0.5	< 0.3	0.5
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	6.4	10	27	5.5	18
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	9.4	14	36	12	25
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	14	82	49	17	73
Petroleum Hydrocarbons								
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	1.7
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	7.3
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	13
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	21
TPHCWG - Aliphatic >C5 - C35 EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	< 10	< 10	< 10	43
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	5.6
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	< 2.0	3.3	< 2.0	3.9	130
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	13	< 10	< 10	650
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	18	16	13	540
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	35	16	17	1300
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	-	-	-	-	-
Trans 1,2-dichloroethylene	µg/kg	5	NONE	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
2,2-Dichloropropane	µg/kg	5	NONE	-	-	-	-	-
Chloroform	µg/kg	5	ISO 17025	-	-	-	-	-
1,1,1-Trichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
1,2-Dichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187116	187117	187118	187119	187120
Sample Reference				WS08	WS09	WS09	WS09	WS10
Sample Number				ES3	ES1	ES2	ES3	ES1
Depth (m)				1,00	0.50	1.00	2 00	0.30
Date Sampled				29/04/2024	29/04/2024	29/04/2024	29/04/2024	29/04/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
1,1-Dichloropropene	µg/kg	5	ISO 17025	-	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	-	-	-	-	-
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbontetrachloride	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	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
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	< 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
Styrene	µg/kg	5	ISO 17025	-	-	-	-	-
Bromoform	µg/kg	5	NONE	-	-	-	-	-
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	5	NONE	-	-	-	-	-
Bromobenzene	µg/kg	5	NONE	-	-	-	-	-
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	-	-	-	-	-
1,4-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,2-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
Butylbenzene	µg/kg	5	NONE	-	-	-	-	-
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	-	-	-	-	-

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187116	187117	187118	187119	187120
Sample Reference				WS08	WS09	WS09	WS09	WS10
Sample Number				ES3	ES1	ES2	ES3	ES1
Depth (m)				1,00	0.50	1.00	2 00	0.30
Date Sampled				29/04/2024	29/04/2024	29/04/2024	29/04/2024	29/04/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
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	-	-	-	-	-
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	-	-	-	-	-
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	-	-	-	-	-
Azobenzene	mg/kg	0.3	NONE	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	NONE	-	-	-	-	-
Anthraquinone	mg/kg	0.3	NONE	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	NONE	-	-	-	-	-
PCBs by GC-MS								
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	-	-
PCBs								
PCB Congener 077	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 081	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 105	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 114	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 123	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 126	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 156	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 157	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 167	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 169	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 189	mg/kg	0.001	NONE	-	-	-	-	-
Total PCBs	mg/kg	0.012	NONE	-	-	-	-	-

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

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187121	187122
Sample Reference				WS10	WS10
Sample Number				ES2	ES3
Depth (m)				0.60	1.00
Date Sampled				29/04/2024	29/04/2024
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	15	17
Total mass of sample received	kg	0.1	NONE	1.1	1.2
Asbestos					
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	KSZ	KSZ
Actinolite detected	Type	N/A	ISO 17025	-	-
Amosite detected	Type	N/A	ISO 17025	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	-
Tremolite detected	Type	N/A	ISO 17025	-	-
Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-
Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-
General Inorganics					
pH (L099)	pH Units	N/A	MCERTS	7.9	7.7
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	660	440
Organic Matter (automated)	%	0.1	MCERTS	3.1	4.1
Total Phenols					
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0
Speciated PAHs					
Naphthalene	mg/kg	0.05	MCERTS	0.13	0.12
Acenaphthylene	mg/kg	0.05	MCERTS	0.19	0.43
Acenaphthene	mg/kg	0.05	MCERTS	0.47	0.28
Fluorene	mg/kg	0.05	MCERTS	0.36	0.64
Phenanthrene	mg/kg	0.05	MCERTS	4.7	5
Anthracene	mg/kg	0.05	MCERTS	1.5	1.3
Fluoranthene	mg/kg	0.05	MCERTS	12	5.8
Pyrene	mg/kg	0.05	MCERTS	11	5.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	5.3	2.6
Chrysene	mg/kg	0.05	MCERTS	5.2	2.5
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	6.6	2.7
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	2.4	0.84
Benzo(a)pyrene	mg/kg	0.05	MCERTS	5.9	2.3
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	3.1	1.1
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.88	0.29
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	3.5	1.2
Coronene	mg/kg	0.05	NONE	2.2	0.73
Total PAH					
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	63.2	32.3
Total WAC-17 PAHs	mg/kg	0.85	NONE	65.4	33

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187121	187122
Sample Reference				WS10	WS10
Sample Number				ES2	ES3
Depth (m)				0.60	1.00
Date Sampled				29/04/2024	29/04/2024
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Heavy Metals / Metalloids					
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	2.6	3.6
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	16	18
Barium (aqua regia extractable)	mg/kg	1	MCERTS	180	110
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.78	0.93
Boron (water soluble)	mg/kg	0.2	MCERTS	0.5	0.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	16	13
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	16	13
Copper (aqua regia extractable)	mg/kg	1	MCERTS	49	40
Lead (aqua regia extractable)	mg/kg	1	MCERTS	110	80
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	1.5
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	16	16
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	24	23
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	81	39
Petroleum Hydrocarbons					
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	NONE	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL	mg/kg	2	MCERTS	3.7	< 2.0
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL	mg/kg	8	MCERTS	19	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL	mg/kg	8	MCERTS	52	< 8.0
TPHCWG - Aliphatic >C5 - C35 EH_CU+HS_1D_AL	mg/kg	10	NONE	74	< 10
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	7.7	6.5
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	65	21
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	110	26
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	180	53
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	-	-
Trans 1,2-dichloroethylene	µg/kg	5	NONE	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5	ISO 17025	-	-
2,2-Dichloropropane	µg/kg	5	NONE	-	-
Chloroform	µg/kg	5	ISO 17025	-	-
1,1,1-Trichloroethane	µg/kg	5	ISO 17025	-	-
1,2-Dichloroethane	µg/kg	5	ISO 17025	-	-

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187121	187122
Sample Reference				WS10	WS10
Sample Number				ES2	ES3
Depth (m)				0.60	1.00
Date Sampled				29/04/2024	29/04/2024
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
1,1-Dichloropropene	µg/kg	5	ISO 17025	-	-
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	-	-
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0
Carbontetrachloride	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	< 5.0	< 5.0
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	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0
Styrene	µg/kg	5	ISO 17025	-	-
Bromoform	µg/kg	5	NONE	-	-
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	ISO 17025	-	-
1,1,2,2-Tetrachloroethane	µg/kg	5	NONE	-	-
Bromobenzene	µg/kg	5	NONE	-	-
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	-	-
1,4-Dichlorobenzene	µg/kg	5	ISO 17025	-	-
1,2-Dichlorobenzene	µg/kg	5	ISO 17025	-	-
Butylbenzene	µg/kg	5	NONE	-	-
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	-	-

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Lab Sample Number				187121	187122
Sample Reference				WS10	WS10
Sample Number				ES2	ES3
Depth (m)				0.60	1.00
Date Sampled				29/04/2024	29/04/2024
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
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	-	-
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	-	-
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	-	-
Azobenzene	mg/kg	0.3	NONE	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-
Dibutyl phthalate	mg/kg	0.2	NONE	-	-
Anthraquinone	mg/kg	0.3	NONE	-	-
Butyl benzyl phthalate	mg/kg	0.3	NONE	-	-
PCBs by GC-MS					
PCB Congener 118	mg/kg	0.001	MCERTS	-	-
PCBs					
PCB Congener 077	mg/kg	0.001	NONE	-	-
PCB Congener 081	mg/kg	0.001	NONE	-	-
PCB Congener 105	mg/kg	0.001	NONE	-	-
PCB Congener 114	mg/kg	0.001	NONE	-	-
PCB Congener 123	mg/kg	0.001	NONE	-	-
PCB Congener 126	mg/kg	0.001	NONE	-	-
PCB Congener 156	mg/kg	0.001	NONE	-	-
PCB Congener 157	mg/kg	0.001	NONE	-	-
PCB Congener 167	mg/kg	0.001	NONE	-	-
PCB Congener 169	mg/kg	0.001	NONE	-	-
PCB Congener 189	mg/kg	0.001	NONE	-	-
Total PCBs	mg/kg	0.012	NONE	-	-

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

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Analytical Report Number: 24-017413
Project / Site name: Chorlton Precinct
Your Order No: PO-0040

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

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

Quantitative Analysis

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

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

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

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
187108	WS05A	0.20	101	Sheeting/Board Debris	**Amosite**	1.182	**1.182**

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

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Analytical Report Number : 24-017413
Project / Site name: Chorlton Precinct

* 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 *
187101	BH04	ES1	0.6	Brown loam and sand with concrete and brick
187102	BH04	ES2	1	Brown loam and sand with concrete and brick
187103	WS02	ES1	0.5	Brown loam and clay with gravel and vegetation
187104	WS02	ES2	1	Brown clay
187105	WS03	ES1	0.3	Brown loam and clay with gravel
187106	WS04	ES1	0.4	Brown loam and clay with stones and gravel
187107	WS04	ES2	0.6	Brown clay with gravel
187108	WS05A	ES1	0.2	Brown clay and sand with gravel and tar
187109	WS06	ES1	0.5	Brown loam and clay with gravel and stones
187110	WS06	ES2	1	Brown loam and sand with concrete and brick
187111	WS06	ES3	1.5	Brown sand with gravel
187112	WS07	ES1	0.5	Brown loam and sand with gravel and vegetation
187113	WS07	ES2	1	Brown loam and sand with gravel and vegetation
187114	WS08	ES1	0.2	Brown loam and sand with gravel and vegetation
187115	WS08	ES2	0.5	Brown sand with gravel
187116	WS08	ES3	1,00	Brown sand with gravel
187117	WS09	ES1	0.5	Brown sand with gravel
187118	WS09	ES2	1	Brown clay and sand with gravel
187119	WS09	ES3	2 00	Brown clay and sand with gravel
187120	WS10	ES1	0.3	Brown sand with gravel
187121	WS10	ES2	0.6	Brown loam and sand with gravel and vegetation
187122	WS10	ES3	1	Brown clay and sand with gravel

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Analytical Report Number : 24-017413
Project / Site name: Chorlton Precinct

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
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references	HSE Report No: 83/1996, HSG 248 (2021), HSG 264 (2012) & SCA Blue Book (draft)	A006B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
PCBs WHO 12 in soil	Determination of PCBs (WHO-12 Congeners) by GC-MS	In-house method based on USEPA 8082	L027B	D	NONE
PCB's By GC-MS in soil	Determination of PCB by extraction with hexane followed by GC-MS	In-house method based on USEPA 8082	L027B	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
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	L038B	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Speciated EPA-16 PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Chromium III in soil	In-house method by calculation from total Cr and Cr VI	In-house method by calculation	L080	W	NONE
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080	W	MCERTS
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	MCERTS

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number : 24-017413
Project / Site name: Chorlton Precinct

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
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099	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.

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

- Quality control parameter has a high recovery (outside of limit); however the associated result is below the reporting limit, other checks applied prior to reporting the data have been accepted. The result should be considered as being deviating and may be compromised.

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The results included within the report relate only to the sample(s) submitted for testing.

Appendix E

Geotechnical Laboratory Analysis Results

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Civic Earth Limited
Carvers Warehouse
77 Dale Street
Manchester
M1 2HG

24 June 2024
Report No : GEO/40589/01

For the attention of Mr A Petts

Date samples received	16/05/2024
Date written instructions received	31/05/2024
Date testing commenced	01/06/2024
Date of sample disposal	**22/07/2024**

Our ref **GEO / 40589**
Your Ref **51013**

Project **CHORLTON PRECINCT**

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

LABORATORY TEST REPORT

Item No	Test Quantity	Description
1	~	Geotechnical Test Summary
~	32	Water Content
~	20	Liquid & Plastic Limits
2	5	Particle Size Distribution
3	15	Unconsolidated Undrained Triaxial Compression

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

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

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

Yours faithfully
on behalf of **GEOLABS Limited**

S Burke
Senior Technician

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SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L	W/S Mg mg/L	
BH01	3.45-3.70	9	D	Brown and grey mottled slightly gravelly slightly sandy silty CLAY. Gravel is fine to medium. Sand is fine.	26.1	46	20	26	99										
BH01	5.00-5.45	U12	U	Firm sandy gravelly clayey SILT.	13.5					2.26	1.99	Undisturbed	100	171	86				
BH01	7.95-8.25	21	D	Dark brown slightly gravelly sandy CLAY. Gravel is fine to medium. Sand is fine.	18.6	36	18	18	97										
BH01	10.50-10.95		U	Firm sandy gravelly clayey SILT. Gravel is fine to medium.	22.5					2.09	1.71	Undisturbed	210	123	61				
BH01	12.45-13.00	24	B	Dark brown slightly gravelly clayey silty SAND.															Particle Size Distribution
BH01	13.50-13.95		U	Firm laminated brown sandy clayey SILT.	19.0														
BH01	13.95-14.25	26	D	Brown sandy silty CLAY. Sand is fine.	19.2	28	20	8.0	100										
BH01	16.50-16.95	U30	U	Firm laminated brown sandy clayey SILT.	21.5														
BH01	18.00-18.45	32	D	Brown slightly gravelly slightly sandy silty CLAY. Gravel is fine. Sand is fine.	17.8	39	20	19	100										
BH02	2.00-2.45	9	D	Brown slightly gravelly slightly sandy silty CLAY. Gravel is fine. Sand is fine.	22.9	46	20	26	98										

Sample type: B (Bulk disturb.) BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

GEO / 40589

Project Name:

CHORLTON PRECINCT
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SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L	W/S Mg mg/L	
BH02	3.00-3.45	U11	U	Firm brown gravelly CLAY. Gravel is fine to medium.	22.7					2.11	1.72	Undisturbed	60	156	78				
BH02	7.50-7.95	U19	U	Firm to stiff sandy gravelly clayey SILT.	15.4					2.25	1.95	Undisturbed	150	194	97				
BH02	9.00-9.45	22	D	Brown sandy silty CLAY. Sand is fine.	18.9	37	17	20	98										
BH02	10.50-10.95	U20	U	Soft to firm brown slightly sandy slightly gravelly clayey SILT.	16.7					2.20	1.89	Undisturbed	210	192	96				
BH02	15.00-15.45	U36	U	Firm laminated sandy clayey SILT.	22.9														
BH02	16.50-16.95	34	D	Brown sandy silty CLAY. Sand is fine.	19.1	45	23	22	100										
BH02	18.00-18.45	U36	U	Firm laminated brown sandy clayey SILT.	23.6					2.07	1.68	Undisturbed	360	160	80				
BH02	21.70	41	D	Brown sandy silty CLAY. Sand is fine.	20.4	39	19	20	100										
BH02	24.00-24.45	U44	U	Firm laminated brown sandy clayey SILT.	20.9														
BH02	29.55-30.00	U52	U	Very stiff dark grey CLAY.	22.6					0.21	0.17	Undisturbed	590	344	172				

Sample type: B (Bulk disturb.) BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by



S Burke - Senior Technician
24/06/2024

Project Number:

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Project Name:

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SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L	W/S Mg mg/L	
BH03	1.20-1.65		U	Stiff slightly sandy slightly gravelly clayey SILT.	20.9					2.14	1.77	Undisturbed	25	240	120				
BH03	3.00-3.45	U7	U	Firm brown slightly sandy slightly gravelly clayey SILT. Gravel is fine to medium.	24.6					2.11	1.69	Undisturbed	60	131	66				
BH03	4.00-4.45	9	D	Brown slightly gravelly slightly sandy silty CLAY. Gravel is fine. Sand is fine.	24.6	47	19	28	98										
BH03	7.50-7.95	U15	U	Firm brown slightly gravelly sandy clayey SILT. Gravel is fine to medium.	14.2					2.29	2.01	Undisturbed	150	151	76				
BH03	7.95-8.20	16	D	Brown slightly gravelly slightly sandy silty CLAY. Gravel is fine to medium. Sand is fine.	15.6	31	14	17	97										
BH03	10.50-10.95	U24	U	Firm brown slightly sandy gravelly clayey SILT.	23.2					2.16	1.75	Undisturbed	210	127	64				
BH03	14.40-15.00	24	B	Greyish brown slightly silty very sandy GRAVEL.															Particle Size Distribution
BH03	15.00-15.45	25	B	Greyish brown slightly silty very sandy GRAVEL.															Particle Size Distribution
BH03	16.50-16.95		U	Firm to stiff laminated brown sandy silty CLAY.	20.7														
BH03	16.95-17.20		D	Brown sandy silty CLAY. Sand is fine.	24.8	41	20	21	100										

Sample type: B (Bulk disturb.) BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

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Project Name:

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SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L	W/S Mg mg/L	
BH03	19.95-20.20	U32	U	Firm laminated brown sandy silty CLAY.	23.9					2.11	1.71	Undisturbed	330	159	79				
BH03	25.50-25.95	U40	U	Firm laminated brown sandy clayey SILT.	22.5														
BH03	28.50-28.95		U	Firm laminated brown sandy clayey SILT.	22.0														
BH04	4.00-4.45	U6	U	Firm brown sandy clayey SILT.	16.9														
BH04	6.00-6.45	U10	U	Firm brown slightly sandy slightly gravelly SILT. Gravel is fine to medium.	16.0					2.25	1.94	Undisturbed	120	197	98				
BH04	9.45-9.70	U41	D	Brown slightly gravelly slightly sandy silty CLAY. Gravel is fine to medium. Sand is fine.	19.3	47	18	29	97										
BH04	12.00-12.45		U	Soft brown slightly sandy gravelly clayey SILT.	13.8														
BH04	15.00-15.45	25	B	Greyish brown slightly silty SAND and GRAVEL.															Particle Size Distribution
BH04	16.50-16.95	27	B	Greyish brown very sandy GRAVEL.															Particle Size Distribution
BH04	18.00-18.45	U29	U	Stiff brown laminated slightly sandy gravelly clayey SILT.	24.2					2.11	1.70	Undisturbed	360	195	98				

Sample type: B (Bulk disturb.) BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

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S Burke - Senior Technician
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Project Number:

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Project Name:

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SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L	W/S Mg mg/L	
BH04	21.00-21.45	U34	U	Firm to stiff laminated brown sandy clayey SILT.	22.1														
BH04	24.00-24.45	U39	U	Firm laminated brown slightly sandy clayey SILT.	25.8					2.12	1.68	Undisturbed	480	149	74				
BH04	27.00-27.45	U48	U	Very soft silty clayey SAND.	26.7														
BH04	30.00-30.45		U	Firm laminated brown sandy clayey SILT.	25.6														
WS10	2.00	SPT	D	Brown slightly gravelly slightly sandy CLAY. Gravel is fine. Sand is fine.	18.2	47	19	28	99										
WS2	1.50		D	Brown and grey mottled slightly fine to medium gravelly slightly sandy silty CLAY. Gravel is fin to medium. Sand is fine.	19.8	47	22	25	97										
WS3	2.50		D	Dark brown slightly gravelly sandy CLAY. Gravel is fine to medium. Sand is fine.	19.8	48	24	24	97										
WS4	3.50		D	Dark brown slightly gravelly sandy CLAY with some pockets of orangish sand. Gravel is fine to medium. Sand is fine.	21.2	48	19	29	98										
WS6	4.50		D	Dark brown slightly gravelly sandy silty CLAY. Gravel is fine to medium. Sand is fine.	14.9	23	12	11	97										
WS7	5.00	SPT	D	Brown slightly gravelly slightly sandy CLAY. Gravel is fine. Sand is fine.	17.3	33	17	16	97										

Sample type: B (Bulk disturb.) BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by

S Burke - Senior Technician
24/06/2024

Project Number:

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Project Name:

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SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L	W/S Mg mg/L	
WS8	3.50		D	Brown slightly gravelly slightly sandy CLAY. Gravel is fine. Sand is fine.	17.9	39	18	21	98										
WS9	4.00		D	Brown slightly gravelly slightly sandy CLAY. Gravel is fine. Sand is fine.	14.3	23	11	12	97										

Sample type: B (Bulk disturb.) BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by

S Burke

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BS EN ISO 17892-4 : 2016

PARTICLE SIZE DISTRIBUTION

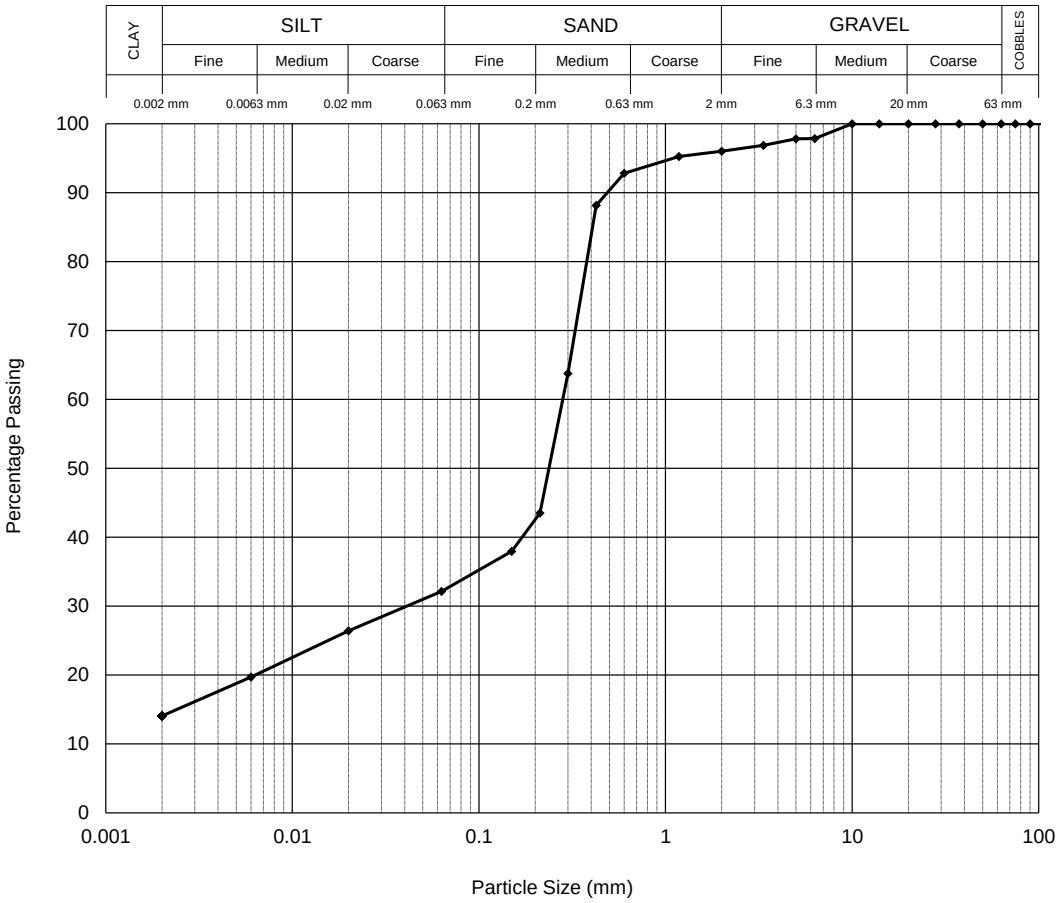
Location	BH01
Sample Ref	24
Sample Depth	12.45-13.00 m
Sample Type	B

Description

Dark brown slightly gravelly clayey silty SAND.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve
BS EN ISO 17892-4 : 2016 : Clause 5.4 - Sedimentation by Pipette

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	100
14.0 mm	100
10.0 mm	100
6.30 mm	98
5.00 mm	98
3.35 mm	97
2.00 mm	96
1.18 mm	95
600 µm	93
425 µm	88
300 µm	64
212 µm	44
150 µm	38
63 µm	32



Sedimentation	
No Pre-treatment used	
Temp (°C)	25.0
Size	% Pass
20 µm	26
6 µm	20
2 µm	14

Particle Density 2.70(A) Mg/m³

Particle Proportions	
Cobbles	0.0
Gravel	4.0
Sand	63.9
Silt	18.1
Clay	14.0

Tested by MJ
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

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Project Name:

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BS EN ISO 17892-4 : 2016

PARTICLE SIZE DISTRIBUTION

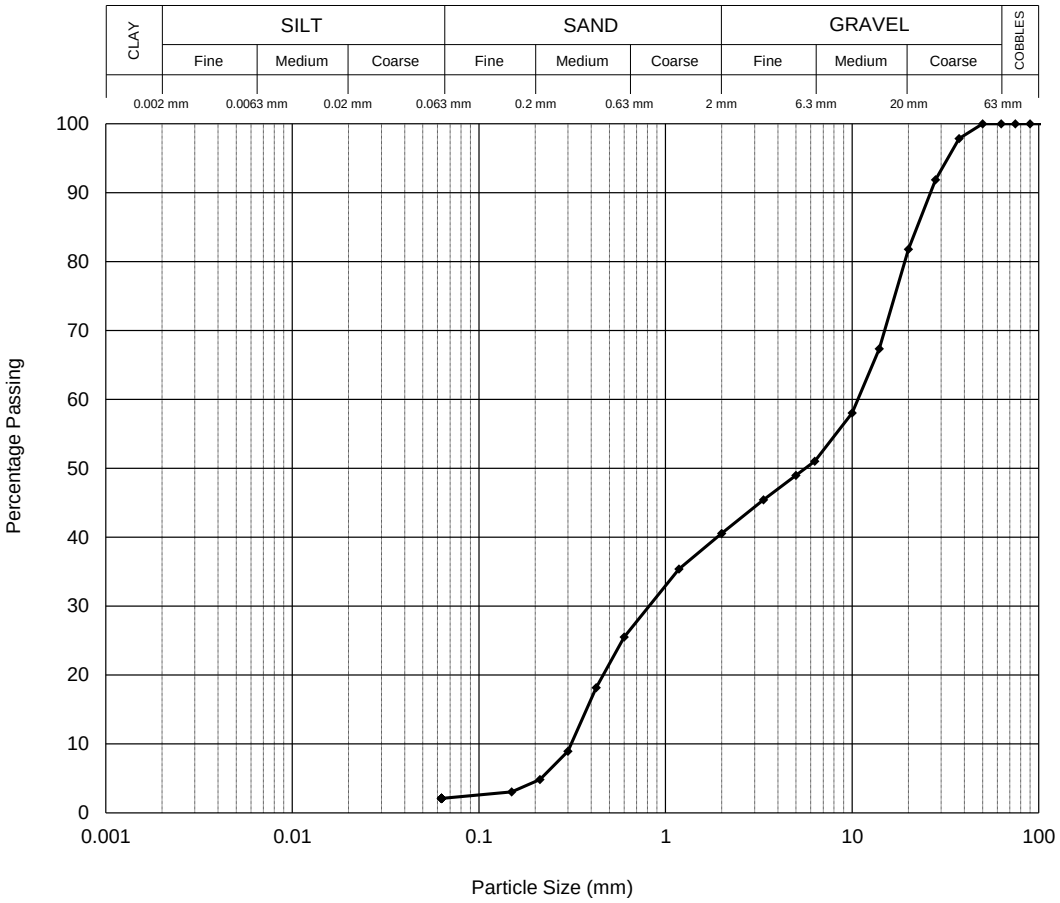
Location	BH03
Sample Ref	24
Sample Depth	14.40-15.00 m
Sample Type	B

Description

Greyish brown slightly silty very sandy GRAVEL.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	98
28.0 mm	92
20.0 mm	82
14.0 mm	67
10.0 mm	58
6.30 mm	51
5.00 mm	49
3.35 mm	45
2.00 mm	41
1.18 mm	35
600 µm	26
425 µm	18
300 µm	9
212 µm	5
150 µm	3
63 µm	2



Particle Proportions	
Cobbles	0.0
Gravel	59.4
Sand	38.5
Silt & Clay	2.1

Tested by MJ
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

GEO / 40589

Project Name:

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BS EN ISO 17892-4 : 2016

PARTICLE SIZE DISTRIBUTION

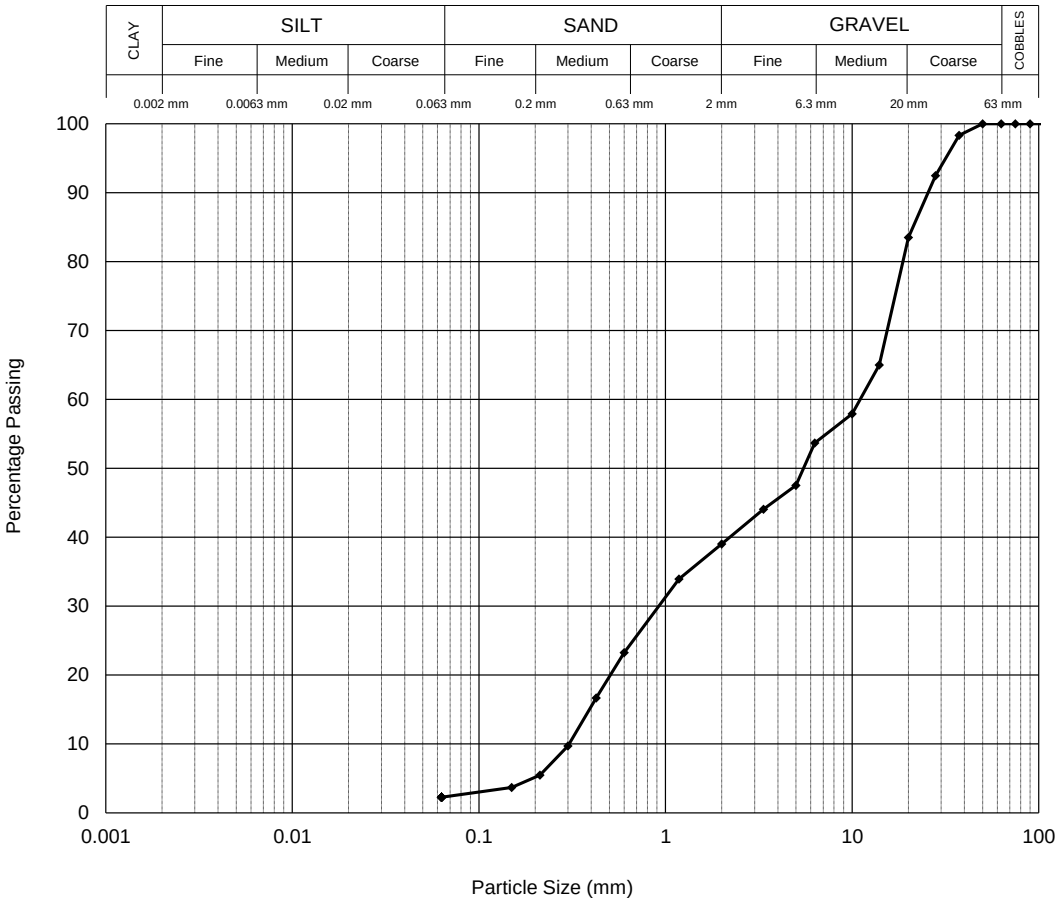
Location	BH03
Sample Ref	25
Sample Depth	15.00-15.45 m
Sample Type	B

Description

Greyish brown slightly silty very sandy GRAVEL.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	98
28.0 mm	92
20.0 mm	84
14.0 mm	65
10.0 mm	58
6.30 mm	54
5.00 mm	48
3.35 mm	44
2.00 mm	39
1.18 mm	34
600 µm	23
425 µm	17
300 µm	10
212 µm	5
150 µm	4
63 µm	2



Particle Proportions	
Cobbles	0.0
Gravel	61.0
Sand	36.8
Silt & Clay	2.2

Tested by MJ
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

GEO / 40589

Project Name:

CHORLTON PRECINCT
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UKAS TESTING
1982

BS EN ISO 17892-4 : 2016

PARTICLE SIZE DISTRIBUTION

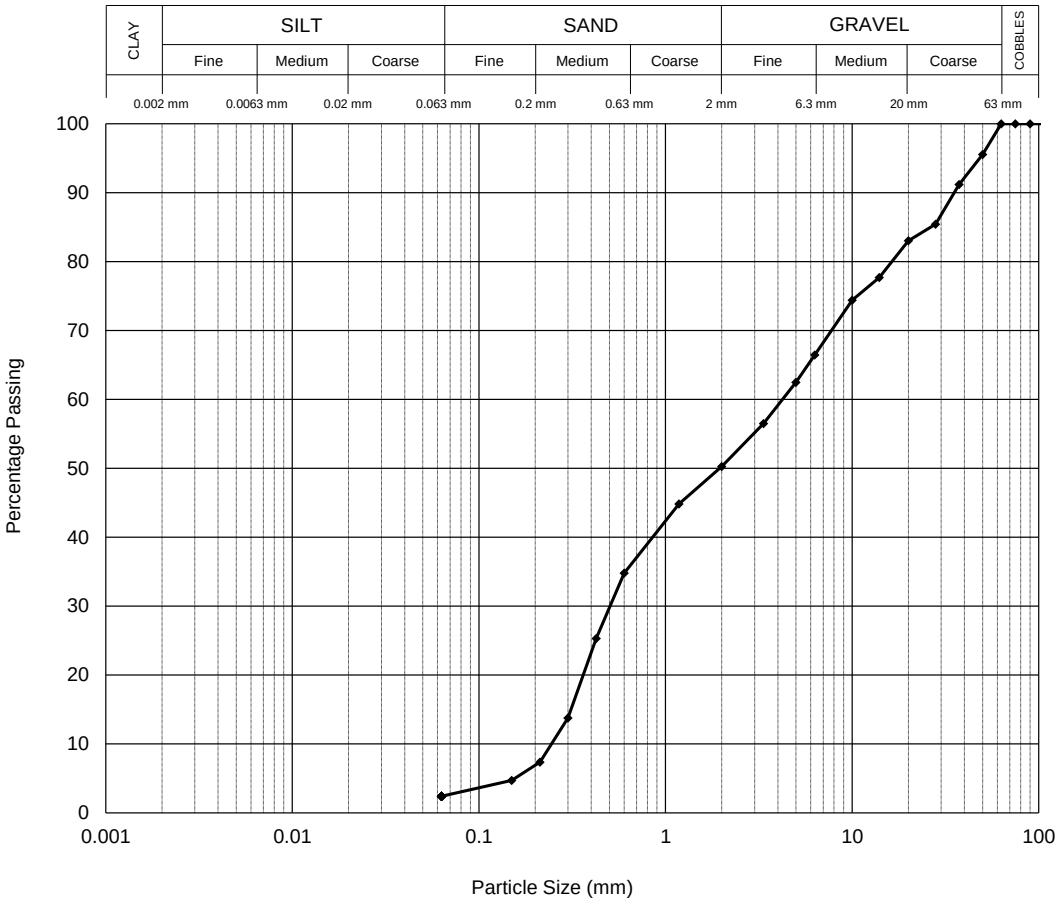
Location	BH04
Sample Ref	25
Sample Depth	15.00-15.45 m
Sample Type	B

Description

Greyish brown slightly silty SAND and GRAVEL.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	96
37.5 mm	91
28.0 mm	85
20.0 mm	83
14.0 mm	78
10.0 mm	74
6.30 mm	66
5.00 mm	62
3.35 mm	56
2.00 mm	50
1.18 mm	45
600 µm	35
425 µm	25
300 µm	14
212 µm	7
150 µm	5
63 µm	2



Particle Proportions	
Cobbles	0.0
Gravel	49.7
Sand	47.8
Silt & Clay	2.5

Tested by MJ
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

GEO / 40589

Project Name:

CHORLTON PRECINCT
51013

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BS EN ISO 17892-4 : 2016

PARTICLE SIZE DISTRIBUTION

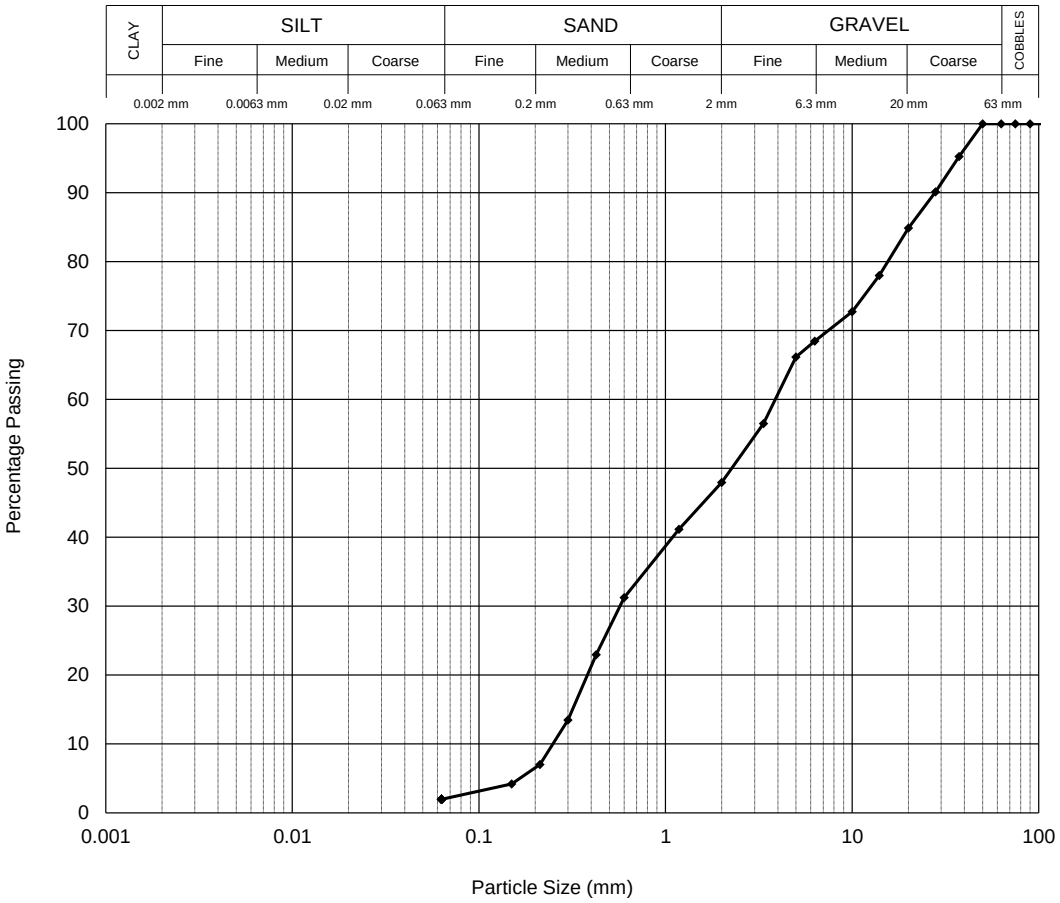
Location	BH04
Sample Ref	27
Sample Depth	16.50-16.95 m
Sample Type	B

Description

Greyish brown very sandy GRAVEL.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	95
28.0 mm	90
20.0 mm	85
14.0 mm	78
10.0 mm	73
6.30 mm	68
5.00 mm	66
3.35 mm	56
2.00 mm	48
1.18 mm	41
600 µm	31
425 µm	23
300 µm	13
212 µm	7
150 µm	4
63 µm	2



Particle Proportions	
Cobbles	0.0
Gravel	52.1
Sand	46.0
Silt & Clay	1.9

Tested by MJ
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

GEO / 40589

Project Name:

CHORLTON PRECINCT
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BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH01
Sample Ref	U12
Sample Depth	5.00-5.45 m
Sample Type	U

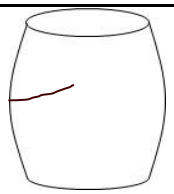
Description:

Firm sandy gravelly clayey SILT.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	174.7
Diameter	(mm)	101.7
Water content	(%)	13.5
Bulk density	(Mg/m³)	2.26
Dry density	(Mg/m³)	1.99
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	174.6
Membrane correction	(kPa)	1.2
Mean rate of shear	(%/min)	2.3
Cell pressure	(kPa)	100
Strain at failure	(%)	22.3
Maximum deviator stress	(kPa)	171
Shear Stress Cu	(kPa)	86

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	120

Tested by ME
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

GEO / 40589

Project Name:

CHORLTON PRECINCT
51013

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BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH01
Sample Depth	10.50-10.95 m
Sample Type	U

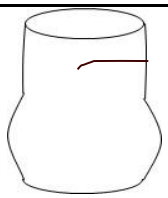
Description:

Firm sandy gravelly clayey SILT. Gravel is fine to medium.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	201.3
Diameter	(mm)	101.2
Water content	(%)	22.5
Bulk density	(Mg/m³)	2.09
Dry density	(Mg/m³)	1.71
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	201.1
Membrane correction	(kPa)	1.1
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	210
Strain at failure	(%)	19.9
Maximum deviator stress	(kPa)	123
Shear Stress Cu	(kPa)	61

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	170

Tested by ME
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

GEO / 40589

Project Name:

CHORLTON PRECINCT
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UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH02
Sample Ref	U11
Sample Depth	3.00-3.45 m
Sample Type	U

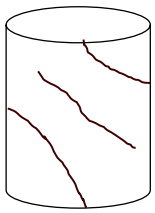
Description:

Firm brown gravelly CLAY. Gravel is fine to medium.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	200.7
Diameter	(mm)	101.4
Water content	(%)	22.7
Bulk density	(Mg/m³)	2.11
Dry density	(Mg/m³)	1.72
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	200.7
Membrane correction	(kPa)	1.1
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	60
Strain at failure	(%)	19.9
Maximum deviator stress	(kPa)	156
Shear Stress Cu	(kPa)	78

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	200

Tested by ME
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

GEO / 40589

Project Name:

CHORLTON PRECINCT
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UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH02
Sample Ref	U19
Sample Depth	7.50-7.95 m
Sample Type	U

Description:

Firm to stiff sandy gravelly clayey SILT.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	175.3
Diameter	(mm)	101.6
Water content	(%)	15.4
Bulk density	(Mg/m³)	2.25
Dry density	(Mg/m³)	1.95
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	175.3
Membrane correction	(kPa)	1.1
Mean rate of shear	(%/min)	2.3
Cell pressure	(kPa)	150
Strain at failure	(%)	20.0
Maximum deviator stress	(kPa)	194
Shear Stress Cu	(kPa)	97

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	270

Tested by ME
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

GEO / 40589

Project Name:

CHORLTON PRECINCT
51013

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BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH02
Sample Ref	U20
Sample Depth	10.50-10.95 m
Sample Type	U

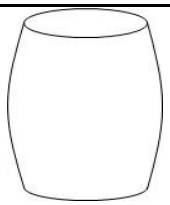
Description:

Firm to stiff brown slightly sandy slightly gravelly clayey SILT.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	200.3
Diameter	(mm)	100.3
Water content	(%)	16.7
Bulk density	(Mg/m³)	2.20
Dry density	(Mg/m³)	1.89
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	200.1
Membrane correction	(kPa)	1.1
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	210
Strain at failure	(%)	20.0
Maximum deviator stress	(kPa)	192
Shear Stress Cu	(kPa)	96

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	140

Tested by ME
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

GEO / 40589

Project Name:

CHORLTON PRECINCT
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BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH02
Sample Ref	U36
Sample Depth	18.00-18.45 m
Sample Type	U

Description:

Firm laminated brown sandy clayey SILT.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	201.3
Diameter	(mm)	102.0
Water content	(%)	23.6
Bulk density	(Mg/m³)	2.07
Dry density	(Mg/m³)	1.68
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	200.7
Membrane correction	(kPa)	0.8
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	360
Strain at failure	(%)	13.0
Maximum deviator stress	(kPa)	160
Shear Stress Cu	(kPa)	80

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	220

Tested by ME
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

GEO / 40589

Project Name:

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UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH02
Sample Ref	U52
Sample Depth	29.55-30.00 m
Sample Type	U

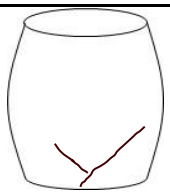
Description:

Very stiff dark grey CLAY.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	151.0
Diameter	(mm)	102.4
Water content	(%)	22.6
Bulk density	(Mg/m³)	0.21
Dry density	(Mg/m³)	0.17
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	150.5
Membrane correction	(kPa)	1.1
Mean rate of shear	(%/min)	2.6
Cell pressure	(kPa)	590
Strain at failure	(%)	19.9
Maximum deviator stress	(kPa)	344
Shear Stress Cu	(kPa)	172

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	80

Tested by ME
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

GEO / 40589

Project Name:

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UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH03
Sample Depth	1.20-1.65 m
Sample Type	U

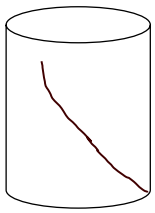
Description:

Stiff slightly sandy slightly gravelly clayey SILT.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	201.3
Diameter	(mm)	101.1
Water content	(%)	20.9
Bulk density	(Mg/m³)	2.14
Dry density	(Mg/m³)	1.77
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	201.3
Membrane correction	(kPa)	0.7
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	25
Strain at failure	(%)	9.9
Maximum deviator stress	(kPa)	240
Shear Stress Cu	(kPa)	120

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	130

Tested by ME
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

GEO / 40589

Project Name:

CHORLTON PRECINCT
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UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH03
Sample Ref	U7
Sample Depth	3.00-3.45 m
Sample Type	U

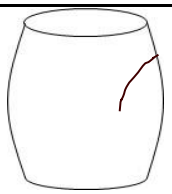
Description:

Firm brown slightly sandy slightly gravelly clayey SILT. Gravel is fine to medium.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	200.7
Diameter	(mm)	101.8
Water content	(%)	24.6
Bulk density	(Mg/m³)	2.11
Dry density	(Mg/m³)	1.69
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	200.7
Membrane correction	(kPa)	1.1
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	60
Strain at failure	(%)	19.9
Maximum deviator stress	(kPa)	131
Shear Stress Cu	(kPa)	66

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	140

Tested by ME
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

GEO / 40589

Project Name:

CHORLTON PRECINCT
51013

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BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH03
Sample Ref	U15
Sample Depth	7.50-7.95 m
Sample Type	U

Description:

Firm brown slightly gravelly sandy clayey SILT. Gravel is fine to medium.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	200.7
Diameter	(mm)	101.2
Water content	(%)	14.2
Bulk density	(Mg/m³)	2.29
Dry density	(Mg/m³)	2.01
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	200.6
Membrane correction	(kPa)	1.1
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	150
Strain at failure	(%)	19.9
Maximum deviator stress	(kPa)	151
Shear Stress Cu	(kPa)	76

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	120

Tested by ME
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

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UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH03
Sample Ref	U24
Sample Depth	10.50-10.95 m
Sample Type	U

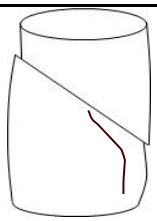
Description:

Firm brown slightly sandy gravelly clayey SILT.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	200.7
Diameter	(mm)	101.7
Water content	(%)	23.2
Bulk density	(Mg/m³)	2.16
Dry density	(Mg/m³)	1.75
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	200.4
Membrane correction	(kPa)	0.8
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	210
Strain at failure	(%)	13.5
Maximum deviator stress	(kPa)	127
Shear Stress Cu	(kPa)	64

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	100

Tested by ME
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

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Project Name:

CHORLTON PRECINCT
51013

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UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH03
Sample Ref	U32
Sample Depth	19.95-20.20 m
Sample Type	U

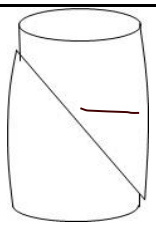
Description:

Firm laminated brown sandy silty CLAY.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	194.7
Diameter	(mm)	101.8
Water content	(%)	23.9
Bulk density	(Mg/m³)	2.11
Dry density	(Mg/m³)	1.71
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	194.5
Membrane correction	(kPa)	1.1
Mean rate of shear	(%/min)	2.1
Cell pressure	(kPa)	330
Strain at failure	(%)	20.1
Maximum deviator stress	(kPa)	159
Shear Stress Cu	(kPa)	79

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	60

Tested by ME
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

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Project Name:

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UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH04
Sample Ref	U10
Sample Depth	6.00-6.45 m
Sample Type	U

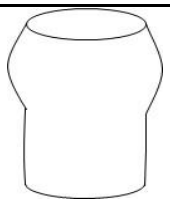
Description:

Firm brown slightly sandy slightly gravelly clayey SILT. Gravel is fine to medium.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	201.3
Diameter	(mm)	101.1
Water content	(%)	16.0
Bulk density	(Mg/m³)	2.25
Dry density	(Mg/m³)	1.94
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	201.3
Membrane correction	(kPa)	1.1
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	120
Strain at failure	(%)	19.9
Maximum deviator stress	(kPa)	197
Shear Stress Cu	(kPa)	98

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	130

Tested by ME
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

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Project Name:

CHORLTON PRECINCT
51013

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UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH04
Sample Ref	U29
Sample Depth	18.00-18.45 m
Sample Type	U

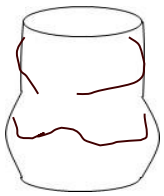
Description:

Stiff brown laminated slightly sandy gravelly clayey SILT.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	174.7
Diameter	(mm)	102.1
Water content	(%)	24.2
Bulk density	(Mg/m³)	2.11
Dry density	(Mg/m³)	1.70
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	174.3
Membrane correction	(kPa)	1.1
Mean rate of shear	(%/min)	2.3
Cell pressure	(kPa)	360
Strain at failure	(%)	20.1
Maximum deviator stress	(kPa)	195
Shear Stress Cu	(kPa)	98

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	180

Tested by ME
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

GEO / 40589

Project Name:

CHORLTON PRECINCT
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UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH04
Sample Ref	U39
Sample Depth	24.00-24.45 m
Sample Type	U

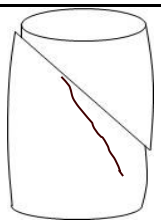
Description:

Firm laminated brown slightly sandy clayey SILT.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	175.0
Diameter	(mm)	101.4
Water content	(%)	25.8
Bulk density	(Mg/m³)	2.12
Dry density	(Mg/m³)	1.68
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	174.8
Membrane correction	(kPa)	1.1
Mean rate of shear	(%/min)	2.3
Cell pressure	(kPa)	480
Strain at failure	(%)	20.0
Maximum deviator stress	(kPa)	149
Shear Stress Cu	(kPa)	74

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	70

Tested by ME
Checked and Approved by

S Burke

S Burke - Senior Technician
24/06/2024

Project Number:

GEO / 40589

Project Name:

CHORLTON PRECINCT
51013

GEOLABS®
UKAS TESTING
1982

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Analytical Report Number : 24-023174

Replaces Analytical Report Number: 24-023174, issue no. 1
Client references/information amended.
Site name changed as per clients request

Project / Site name:	Chorlton Precinct	**Samples received on:**	05/06/2024
Your job number:	51013	**Samples instructed on/ Analysis started on:**	05/06/2024
Your order number:		**Analysis completed by:**	11/06/2024
Report Issue Number:	2	**Report issued on:**	28/06/2024
Samples Analysed:	19 soil samples		

Signed:

Adam Fenwick
Technical Reviewer
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.

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

Analytical Report Number: 24-023174
Project / Site name: Chorlton Precinct

Lab Sample Number				217497	217498	217499	217500	217501
Sample Reference				WS2	WS3	WS6	WS7	WS8
Sample Number				3	3	1	1	2
Depth (m)				2.00	3.50	1.20	1.20	2.00
Date Sampled				Deviating	Deviating	Deviating	Deviating	Deviating
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	14	15	12	17	6.9
Total mass of sample received	kg	0.1	NONE	0.4	0.7	0.4	0.4	0.3
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	8.3	8.5	8.1	7.4	7.8
Total Sulphate as SO_4	%	0.005	MCERTS	0.032	0.026	0.007	0.052	0.012
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	140	77	17	350	56
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	69.3	38.5	8.64	173	28.2
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	41	3.6	1.2	3.3	1
Total Sulphur	mg/kg	50	MCERTS	170	240	< 50	380	320
Total Sulphur	%	0.005	MCERTS	0.017	0.024	< 0.005	0.038	0.032
Water Soluble Nitrate (2:1) as N	mg/kg	2	NONE	< 2.0	< 2.0	< 2.0	6.3	< 2.0
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	< 2.0	< 2.0	< 2.0	3.7	< 2.0
Heavy Metals / Metalloids								
Magnesium (leachate equivalent)	mg/l	2.5	NONE	25	16	< 2.5	5.5	4.6
Magnesium (water soluble)	mg/kg	5	NONE	51	31	< 5.0	11	9.2

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

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Analytical Report Number: 24-023174
Project / Site name: Chorlton Precinct

Lab Sample Number				217502	217503	217504	217505	217506
Sample Reference				WS9	WS10	BH01	BH01	BH01
Sample Number				3	7	35	22	27
Depth (m)				3.00	4.50	1.20-1.65	11.20	14.60
Date Sampled				Deviating	Deviating	Deviating	Deviating	Deviating
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	42.7	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	11	12	9	15	15
Total mass of sample received	kg	0.1	NONE	0.2	0.6	0.5	0.6	0.5
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	8.5	8.3	8.2	9.1	8.4
Total Sulphate as SO_4	%	0.005	MCERTS	0.028	0.029	0.058	0.011	0.077
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	200	160	250	57	280
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	99.7	78.4	127	28.5	141
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	3.1	3.9	9.4	1.9	12
Total Sulphur	mg/kg	50	MCERTS	1100	690	540	500	760
Total Sulphur	%	0.005	MCERTS	0.108	0.069	0.054	0.05	0.076
Water Soluble Nitrate (2:1) as N	mg/kg	2	NONE	4.9	< 2.0	< 2.0	< 2.0	< 2.0
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	2.7	< 2.0	< 2.0	< 2.0	< 2.0
Heavy Metals / Metalloids								
Magnesium (leachate equivalent)	mg/l	2.5	NONE	12	12	4.6	6.2	10
Magnesium (water soluble)	mg/kg	5	NONE	24	24	9.3	12	20

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Analytical Report Number: 24-023174
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Lab Sample Number				217507	217508	217509	217510	217511
Sample Reference				BH02	BH02	BH02	BH03	BH03
Sample Number				4	29	28	1	34
Depth (m)				0.50	12.90	19.50-19.95	0.30-0.70	21.00-21.45
Date Sampled				Deviating	Deviating	Deviating	Deviating	Deviating
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	16	16	17	18	17
Total mass of sample received	kg	0.1	NONE	0.5	0.5	0.5	1.2	0.6
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	8.1	8.9	8.5	8.1	8.5
Total Sulphate as SO_4	%	0.005	MCERTS	0.028	0.019	0.04	0.124	0.035
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	130	110	190	900	230
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	65.8	57.2	94.1	452	115
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	14	2.2	7.8	52	6
Total Sulphur	mg/kg	50	MCERTS	170	550	510	680	530
Total Sulphur	%	0.005	MCERTS	0.017	0.055	0.051	0.068	0.053
Water Soluble Nitrate (2:1) as N	mg/kg	2	NONE	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Heavy Metals / Metalloids								
Magnesium (leachate equivalent)	mg/l	2.5	NONE	11	7.1	8.1	13	9
Magnesium (water soluble)	mg/kg	5	NONE	22	14	16	27	18

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Lab Sample Number				217512	217513	217514	217515
Sample Reference				BH04	BH04	BH04	BH04
Sample Number				1	20	26	40
Depth (m)				0.50-1.20	10.50	16.00	24.45-24.70
Date Sampled				Deviating	Deviating	Deviating	Deviating
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	33	< 0.1	59.7	< 0.1
Moisture Content	%	0.01	NONE	13	16	6.9	22
Total mass of sample received	kg	0.1	NONE	1	0.6	0.7	0.5
General Inorganics							
pH (L099)	pH Units	N/A	MCERTS	9.1	8.5	8.8	8.6
Total Sulphate as SO_4	%	0.005	MCERTS	0.161	0.058	0.025	0.032
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	330	360	210	170
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	166	182	106	82.8
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	59	2.9	3.2	11
Total Sulphur	mg/kg	50	MCERTS	780	1100	85	580
Total Sulphur	%	0.005	MCERTS	0.078	0.108	0.009	0.058
Water Soluble Nitrate (2:1) as N	mg/kg	2	NONE	5.3	< 2.0	< 2.0	< 2.0
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	3	< 2.0	< 2.0	< 2.0
Heavy Metals / Metalloids							
Magnesium (leachate equivalent)	mg/l	2.5	NONE	8	24	7.8	6.8
Magnesium (water soluble)	mg/kg	5	NONE	16	48	16	14

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* 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 *
217497	WS2	3	2	Brown clay
217498	WS3	3	3.5	Brown clay
217499	WS6	1	1.2	Brown clay and sand with gravel
217500	WS7	1	1.2	Brown loam and clay with gravel and vegetation
217501	WS8	2	2	Brown sand with gravel
217502	WS9	3	3	Brown clay and sand with gravel
217503	WS10	7	4.5	Brown clay with gravel
217504	BH01	35	1.20-1.65	Brown loam and sand with gravel and stones
217505	BH01	22	11.2	Brown sandy clay
217506	BH01	27	14.6	Brown sandy clay
217507	BH02	4	0.5	Brown clay and sand
217508	BH02	29	12.9	Brown clay and sand
217509	BH02	28	19.50-19.95	Brown clay and sand
217510	BH03	1	0.30-0.70	Brown clay and loam with rubble and brick
217511	BH03	34	21.00-21.45	Brown clay and sand
217512	BH04	1	0.50-1.20	Brown clay and sand with gravel and stones
217513	BH04	20	10.5	Brown clay
217514	BH04	26	16	Brown gravely sand with stones
217515	BH04	40	24.45-24.70	Brown clay

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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
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
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	L038B	D	NONE
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
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	L038B	D	MCERTS
Water Soluble Nitrate (2:1) as N 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	L078B	W	NONE
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser	In-house method	L082B	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099	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.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution

Analytical Report Number : 24-023174
Project / Site name: Chorlton Precinct

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
BH01	22	S	217505	a	Chloride, water soluble, in soil	L082B	a
BH01	22	S	217505	a	Magnesium, water soluble, in soil	L038B	a
BH01	22	S	217505	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
BH01	22	S	217505	a	Total Sulphur in soil	L038B	a
BH01	22	S	217505	a	Total sulphate (as SO4 in soil)	L038B	a
BH01	22	S	217505	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
BH01	22	S	217505	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
BH01	22	S	217505	a	pH in soil (automated)	L099	a
BH01	27	S	217506	a	Chloride, water soluble, in soil	L082B	a
BH01	27	S	217506	a	Magnesium, water soluble, in soil	L038B	a
BH01	27	S	217506	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
BH01	27	S	217506	a	Total Sulphur in soil	L038B	a
BH01	27	S	217506	a	Total sulphate (as SO4 in soil)	L038B	a
BH01	27	S	217506	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
BH01	27	S	217506	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
BH01	27	S	217506	a	pH in soil (automated)	L099	a
BH01	35	S	217504	a	Chloride, water soluble, in soil	L082B	a
BH01	35	S	217504	a	Magnesium, water soluble, in soil	L038B	a
BH01	35	S	217504	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
BH01	35	S	217504	a	Total Sulphur in soil	L038B	a
BH01	35	S	217504	a	Total sulphate (as SO4 in soil)	L038B	a
BH01	35	S	217504	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
BH01	35	S	217504	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
BH01	35	S	217504	a	pH in soil (automated)	L099	a
BH02	28	S	217509	a	Chloride, water soluble, in soil	L082B	a
BH02	28	S	217509	a	Magnesium, water soluble, in soil	L038B	a
BH02	28	S	217509	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
BH02	28	S	217509	a	Total Sulphur in soil	L038B	a
BH02	28	S	217509	a	Total sulphate (as SO4 in soil)	L038B	a
BH02	28	S	217509	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
BH02	28	S	217509	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
BH02	28	S	217509	a	pH in soil (automated)	L099	a
BH02	29	S	217508	a	Chloride, water soluble, in soil	L082B	a
BH02	29	S	217508	a	Magnesium, water soluble, in soil	L038B	a
BH02	29	S	217508	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
BH02	29	S	217508	a	Total Sulphur in soil	L038B	a
BH02	29	S	217508	a	Total sulphate (as SO4 in soil)	L038B	a
BH02	29	S	217508	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
BH02	29	S	217508	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
BH02	29	S	217508	a	pH in soil (automated)	L099	a
BH02	4	S	217507	a	Chloride, water soluble, in soil	L082B	a
BH02	4	S	217507	a	Magnesium, water soluble, in soil	L038B	a
BH02	4	S	217507	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
BH02	4	S	217507	a	Total Sulphur in soil	L038B	a
BH02	4	S	217507	a	Total sulphate (as SO4 in soil)	L038B	a
BH02	4	S	217507	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
BH02	4	S	217507	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
BH02	4	S	217507	a	pH in soil (automated)	L099	a
BH03	1	S	217510	a	Chloride, water soluble, in soil	L082B	a
BH03	1	S	217510	a	Magnesium, water soluble, in soil	L038B	a
BH03	1	S	217510	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
BH03	1	S	217510	a	Total Sulphur in soil	L038B	a
BH03	1	S	217510	a	Total sulphate (as SO4 in soil)	L038B	a
BH03	1	S	217510	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
BH03	1	S	217510	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
BH03	1	S	217510	a	pH in soil (automated)	L099	a
BH03	34	S	217511	a	Chloride, water soluble, in soil	L082B	a
BH03	34	S	217511	a	Magnesium, water soluble, in soil	L038B	a

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Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
BH03	34	S	217511	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
BH03	34	S	217511	a	Total Sulphur in soil	L038B	a
BH03	34	S	217511	a	Total sulphate (as SO4 in soil)	L038B	a
BH03	34	S	217511	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
BH03	34	S	217511	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
BH03	34	S	217511	a	pH in soil (automated)	L099	a
BH04	1	S	217512	a	Chloride, water soluble, in soil	L082B	a
BH04	1	S	217512	a	Magnesium, water soluble, in soil	L038B	a
BH04	1	S	217512	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
BH04	1	S	217512	a	Total Sulphur in soil	L038B	a
BH04	1	S	217512	a	Total sulphate (as SO4 in soil)	L038B	a
BH04	1	S	217512	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
BH04	1	S	217512	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
BH04	1	S	217512	a	pH in soil (automated)	L099	a
BH04	20	S	217513	a	Chloride, water soluble, in soil	L082B	a
BH04	20	S	217513	a	Magnesium, water soluble, in soil	L038B	a
BH04	20	S	217513	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
BH04	20	S	217513	a	Total Sulphur in soil	L038B	a
BH04	20	S	217513	a	Total sulphate (as SO4 in soil)	L038B	a
BH04	20	S	217513	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
BH04	20	S	217513	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
BH04	20	S	217513	a	pH in soil (automated)	L099	a
BH04	26	S	217514	a	Chloride, water soluble, in soil	L082B	a
BH04	26	S	217514	a	Magnesium, water soluble, in soil	L038B	a
BH04	26	S	217514	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
BH04	26	S	217514	a	Total Sulphur in soil	L038B	a
BH04	26	S	217514	a	Total sulphate (as SO4 in soil)	L038B	a
BH04	26	S	217514	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
BH04	26	S	217514	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
BH04	26	S	217514	a	pH in soil (automated)	L099	a
BH04	40	S	217515	a	Chloride, water soluble, in soil	L082B	a
BH04	40	S	217515	a	Magnesium, water soluble, in soil	L038B	a
BH04	40	S	217515	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
BH04	40	S	217515	a	Total Sulphur in soil	L038B	a
BH04	40	S	217515	a	Total sulphate (as SO4 in soil)	L038B	a
BH04	40	S	217515	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
BH04	40	S	217515	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
BH04	40	S	217515	a	pH in soil (automated)	L099	a
WS10	7	S	217503	a	Chloride, water soluble, in soil	L082B	a
WS10	7	S	217503	a	Magnesium, water soluble, in soil	L038B	a
WS10	7	S	217503	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
WS10	7	S	217503	a	Total Sulphur in soil	L038B	a
WS10	7	S	217503	a	Total sulphate (as SO4 in soil)	L038B	a
WS10	7	S	217503	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
WS10	7	S	217503	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
WS10	7	S	217503	a	pH in soil (automated)	L099	a
WS2	3	S	217497	a	Chloride, water soluble, in soil	L082B	a
WS2	3	S	217497	a	Magnesium, water soluble, in soil	L038B	a
WS2	3	S	217497	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
WS2	3	S	217497	a	Total Sulphur in soil	L038B	a
WS2	3	S	217497	a	Total sulphate (as SO4 in soil)	L038B	a
WS2	3	S	217497	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
WS2	3	S	217497	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
WS2	3	S	217497	a	pH in soil (automated)	L099	a
WS3	3	S	217498	a	Chloride, water soluble, in soil	L082B	a
WS3	3	S	217498	a	Magnesium, water soluble, in soil	L038B	a
WS3	3	S	217498	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
WS3	3	S	217498	a	Total Sulphur in soil	L038B	a

Sample Deviation Report

Analytical Report Number : 24-023174
Project / Site name: Chorlton Precinct

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
WS3	3	S	217498	a	Total sulphate (as SO4 in soil)	L038B	a
WS3	3	S	217498	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
WS3	3	S	217498	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
WS3	3	S	217498	a	pH in soil (automated)	L099	a
WS6	1	S	217499	a	Chloride, water soluble, in soil	L082B	a
WS6	1	S	217499	a	Magnesium, water soluble, in soil	L038B	a
WS6	1	S	217499	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
WS6	1	S	217499	a	Total Sulphur in soil	L038B	a
WS6	1	S	217499	a	Total sulphate (as SO4 in soil)	L038B	a
WS6	1	S	217499	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
WS6	1	S	217499	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
WS6	1	S	217499	a	pH in soil (automated)	L099	a
WS7	1	S	217500	a	Chloride, water soluble, in soil	L082B	a
WS7	1	S	217500	a	Magnesium, water soluble, in soil	L038B	a
WS7	1	S	217500	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
WS7	1	S	217500	a	Total Sulphur in soil	L038B	a
WS7	1	S	217500	a	Total sulphate (as SO4 in soil)	L038B	a
WS7	1	S	217500	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
WS7	1	S	217500	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
WS7	1	S	217500	a	pH in soil (automated)	L099	a
WS8	2	S	217501	a	Chloride, water soluble, in soil	L082B	a
WS8	2	S	217501	a	Magnesium, water soluble, in soil	L038B	a
WS8	2	S	217501	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
WS8	2	S	217501	a	Total Sulphur in soil	L038B	a
WS8	2	S	217501	a	Total sulphate (as SO4 in soil)	L038B	a
WS8	2	S	217501	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
WS8	2	S	217501	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
WS8	2	S	217501	a	pH in soil (automated)	L099	a
WS9	3	S	217502	a	Chloride, water soluble, in soil	L082B	a
WS9	3	S	217502	a	Magnesium, water soluble, in soil	L038B	a
WS9	3	S	217502	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
WS9	3	S	217502	a	Total Sulphur in soil	L038B	a
WS9	3	S	217502	a	Total sulphate (as SO4 in soil)	L038B	a
WS9	3	S	217502	a	Water Soluble Nitrate (2:1) as N in soil	L078	a
WS9	3	S	217502	a	Water Soluble Nitrate (2:1) as N in soil	L078B	a
WS9	3	S	217502	a	pH in soil (automated)	L099	a

Appendix F

Contamination Assessment

Table A: Human Health Data Assessment - Potential Risks to Human Health from Soils

Land Use Category:	Residential without Home Grown Produce							SOM:	2.5%
Stratum:	Made Ground							No. Samples	21
Determinand	**S4UL mg/kg**	**SSL [VSL] mg/kg**	**Min recorded (mg/kg)**	**Max recorded (mg/kg)**	**No. Samples exceeding GAC**	**No. Samples exceeding SSL/VSL**	**Outliers Identified?**	**US_{95} incl. Outliers (mg/kg)**	**US_{95} excl. Outliers (mg/kg)**
Arsenic	40	-	6.6	36	0	-	0	27.00	-
Beryllium	1.7	-	0.35	1.8	2	-	0	1.70	-
Boron	11,000	-	<0.2	1.5	0	-	0	1.00	-
Cadmium	85	-	<0.2	2.3	0	-	0	0.90	-
Chromium (III)	910	-	8.3	35	0	-	0	32.00	-
Chromium (VI)	6	-	<1.8	<1.8	0	-	0	<1.8	-
Copper	7,100	-	11	78	0	-	0	59.00	-
Lead	310	-	29	810	1	-	1	290.00	176.00
Mercury	56	-	<0.3	1.6	0	-	0	1.50	-
Nickel	180	-	7.9	33	0	-	0	27.00	-
Selenium	430	-	<1	1.4	0	-	0	1.40	-
Vanadium	1,200	-	11	43	0	-	0	37.00	-
Zinc	40,000	-	36	340	0	-	0	180.00	-
Benzene	0.70	-	<0.005	<0.005	0	-	0	<0.01	-
Toluene	1,900	-	<0.005	<0.005	0	-	0	<0.01	-
Ethyl benzene	190	-	<0.005	<0.005	0	-	0	<0.01	-
o-Xylene	210	-	<0.005	<0.005	0	-	0	<0.01	-
m- & p-Xylene	180	-	<0.005	<0.005	0	-	0	<0.01	-
Total Phenols	750	-	<1	<1	0	-	0	<1	-
Total Cyanide	34	-	<1	<1	0	-	0	<1	-
Aliphatic EC >5-6	78	-	<0.02	<0.02	0	-	0	<0.02	-
Aliphatic EC >6-8	230	-	<0.02	<0.02	0	-	0	<0.02	-
Aliphatic EC >8-10	65	-	<0.05	<0.05	0	-	0	<0.05	-
Aliphatic EC >10-12	330	[118]	<1	2.5	0	N/A	0	1.70	-
Aliphatic EC >12-16	2,400	[59]	<2	12	0	N/A	0	7.60	-
Aliphatic EC >16-35	92,000	21	<8	127	0	N/A	0	108.00	-
Aromatic EC >5-7	690	-	<0.01	<0.01	0	-	0	<0.01	-
Aromatic EC >7-8	1,800	-	<0.01	<0.01	0	-	0	<0.01	-
Aromatic EC >8-10	110	-	<0.05	<0.05	0	-	0	<0.05	-
Aromatic EC >10-12	590	-	<1	5.6	0	-	0	4.80	-
Aromatic EC >12-16	2,300	419	<2	130	0	N/A	0	30.00	-
Aromatic EC >16-21	1,900	-	<10	650	0	-	0	130.00	-
Aromatic EC >21-35	1,900	-	<10	540	0	-	0	260.00	-
Acenaphthene	4,700	141	<0.05	21	0	N/A	0	7.63	-
Acenaphthylene	4,600	212	<0.05	52	0	N/A	0	0.69	-
Anthracene	35,000	-	<0.05	110	0	-	0	11.00	-
Benzo(a)anthracene	14	-	0.11	200	3	-	1	15.70	13.70
Benzo(a)pyrene	3.2	-	<0.05	160	11	-	1	14.40	10.83
Benzo(b)fluoranthene	4.0	-	0.15	190	9	-	1	14.40	10.90
Benzo(g,h,i)perylene	360	-	<0.05	74	0	-	0	6.87	-
Benzo(k)fluoranthene	110	-	<0.05	65	0	-	0	7.18	-
Chrysene	31	-	0.14	200	1	-	0	16.25	-
Dibenzo(a,h)anthracene	0.32	-	<0.05	25	10	-	1	1.34	0.99
Fluoranthene	1,600	-	0.24	430	0	-	0	40.55	-
Fluorene	3,800	76.5	<0.05	60	0	N/A	0	5.74	-
Indeno(1,2,3,cd)pyrene	46	-	0.1	65	1	-	0	6.33	-
Naphthalene	5.6	-	<0.05	9.3	1	-	0	1.91	-
Phenanthrene	1,500	-	0.18	480	0	-	0	32.70	-
Pyrene	3,800	-	0.24	390	0	-	0	36.10	-
Asbestos in Soils	Number of Samples with Positive Asbestos ID				2	0	0	-	-

Notes:

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B. S4ULs for metals are presented for 6% SOM using suitably cautious inputs as S4ULs are not sensitive to SOM.

C. C4SL stated for lead.

D. S4UL for phenol relates to C_6H_5OH.

E. ATRISK^{soil} Soil Screening Value (SSV) stated for cyanide based on acute exposure to 0-6 year old child.

F. SSL = Solubility Saturation Limit. VSL = Volatile Saturation Limit.

Table B: Human Health Data Assessment - Potential Risks to Human Health from Soils

Land Use Category:	Residential without Home Grown Produce							SOM:	1.0%
Stratum:	Glaciofluvial Sheet Deposits							No. Samples	9
Determinand	**S4UL mg/kg**	**SSL [VSL] mg/kg**	**Min recorded (mg/kg)**	**Max recorded (mg/kg)**	**No. Samples exceeding GAC**	**No. Samples exceeding SSL/VSL**	**Outliers Identified?**	**US_{95} incl. Outliers (mg/kg)**	**US_{95} excl. Outliers (mg/kg)**
Arsenic	40	-	3.4	17	0	-	0	15.40	-
Beryllium	1.7	-	0.21	1.7	0	-	0	1.66	-
Boron	11,000	-	<0.2	1.3	0	-	0	0.90	-
Cadmium	85	-	<0.2	<0.2	0	-	0	<0.2	-
Chromium (III)	910	-	6.2	44	0	-	0	41.60	-
Chromium (VI)	6	-	<1.8	<1.8	0	-	0	<1.8	-
Copper	7,100	-	9.8	29	0	-	0	27.80	-
Lead	310	-	4.4	32	0	-	0	26.80	-
Mercury	56	-	<0.3	<0.3	0	-	0	<0.3	-
Nickel	180	-	5.5	39	0	-	0	38.60	-
Selenium	430	-	<1.0	<1.0	0	-	0	<1.0	-
Vanadium	1,200	-	9.4	45	0	-	0	44.60	-
Zinc	40,000	-	14	61	0	-	0	60.60	-
Benzene	0.38	-	<0.005	<0.005	0	-	0	<0.01	-
Toluene	880	[869]	<0.005	<0.005	0	N/A	0	<0.01	-
Ethyl benzene	83	-	<0.005	<0.005	0	-	0	<0.01	-
o-Xylene	88	-	<0.005	<0.005	0	-	0	<0.01	-
m- & p-Xylene	79	-	<0.005	<0.005	0	-	0	<0.01	-
Total Phenols	750	-	<1.0	<1.0	0	-	0	<0.01	-
Total Cyanide	34	-	<1.0	<1.0	0	-	0	<0.01	-
Aliphatic EC5-6	42	-	<0.02	0.92	0	-	0	0.54	-
Aliphatic EC >6-8	100	-	<0.02	1.6	0	-	0	0.95	-
Aliphatic EC >8-10	27	-	<0.05	2.1	0	-	0	1.24	-
Aliphatic EC >10-12	130	[48]	<1.0	<1.0	0	N/A	0	<0.01	-
Aliphatic EC >12-16	1,100	24	<2.0	<2.0	0	N/A	0	<2.0	-
Aliphatic EC >16-35	65,000	8.48	<8.0	<8.0	0	N/A	0	<16	-
Aromatic EC5-7	370	-	<0.01	10	0	-	0	6.00	-
Aromatic EC >7-8	860	-	<0.01	7.6	0	-	0	4.56	-
Aromatic EC >8-10	47	-	<0.05	4.3	0	-	0	2.56	-
Aromatic EC >10-12	250	-	<1.0	<1.0	0	-	0	<1.0	-
Aromatic EC >12-16	1,800	-	<2.0	3.9	0	-	0	3.62	-
Aromatic EC >16-21	1,900	-	<10	11	0	-	0	2.60	-
Aromatic EC >21-35	1,900	-	<10	25	0	-	0	21.80	-
Acenaphthene	3,000	57	<0.05	1.4	0	N/A	0	0.92	-
Acenaphthylene	2,900	86.1	<0.05	0.48	0	N/A	0	0.27	-
Anthracene	31,000	[1.17]	<0.05	1.1	0	N/A	0	1.00	-
Benzo(a)anthracene	11	-	<0.05	1.8	0	-	0	1.76	-
Benzo(a)pyrene	3.2	-	<0.05	1.8	0	-	0	1.64	-
Benzo(b)fluoranthene	3.9	-	<0.05	1.9	0	-	0	1.78	-
Benzo(g,h,i)perylene	360	-	<0.05	0.98	0	-	0	0.88	-
Benzo(k)fluoranthene	110	-	<0.05	0.77	0	-	0	0.77	-
Chrysene	30	-	<0.05	1.7	0	-	0	1.70	-
Dibenzo(a,h)anthracene	0.31	-	<0.05	0.21	0	-	0	0.21	-
Fluoranthene	1,500	-	<0.05	5.6	0	-	0	4.84	-
Fluorene	2,800	30.9	<0.05	1.3	0	N/A	0	0.98	-
Indeno(1,2,3,cd)pyrene	45	-	<0.05	0.95	0	-	0	0.86	-
Naphthalene	2.3	-	<0.05	0.2	0	-	0	0.14	-
Phenanthrene	1,300	36	<0.05	6	0	N/A	0	0.65	-
Pyrene	3,700	-	<0.05	4.4	0	-	0	4.08	-

Notes:

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B. S4ULs for metals are presented for 6% SOM using suitably cautious inputs as S4ULs are not sensitive to SOM.

C. C4SL stated for lead.

D. S4UL for phenol relates to C_6H_5OH.

E. ATRISK^{soil} Soil Screening Value (SSV) stated for cyanide based on acute exposure to 0-6 year old child.

F. SSL = Solubility Saturation Limit. VSL = Volatile Saturation Limit.

CIVIC EARTH

Table C: Human Health Data Assessment - Potential Groundwater Vapour Risk to Human Health from Groundwater					
Land Use Category:	**Residential**			**No. Samples**	2
Water Body / Stratum:	**Made Ground (Perched)**				
Determinand	**GAC_{gwvap} (µg/l)**	**Minimum Recorded (µg/l)**	**Maximum Recorded (µg/l)**	**No. Samples exceeding GAC_{gwvap}**	**Outliers Identified?**
Benzene	210	< 3.0	< 3.0	0	0
Toluene	230,000	< 3.0	< 3.0	0	0
Ethylbenzene	10,000	< 3.0	< 3.0	0	0
Total xylene	9,500	< 3.0	< 3.0	0	0
Methyl tertiary butyl ether (MTBE)	83,000	< 3.0	< 3.0	0	0
TPH aromatic >EC5 to EC7	210,000	< 1.0	< 1.0	0	0
TPH aromatic >EC7 to EC8	220,000	< 1.0	< 1.0	0	0
TPH aromatic >EC8 to EC10	1,900	< 1.0	< 1.0	0	0
TPH aromatic >EC10 to EC12	6,800	< 10	10	0	0
TPH aromatic >EC12 to EC16	39,000	< 10	37	0	0
TPH aliphatic >EC5 to EC6	1,900	< 1.0	< 1.0	0	0
TPH aliphatic >EC6 to EC8	1,500	< 1.0	< 1.0	0	0
TPH aliphatic >EC8 to EC10	57	< 1.0	< 1.0	0	0
TPH aliphatic >EC10 to EC12	37	< 10	< 10	0	0
Acenaphthene	170,000	< 0.01	3.7	0	0
Acenaphthylene	220,000	< 0.01	< 0.01	0	0
Fluorene	210,000	< 0.01	1.4	0	0
Naphthalene	220	< 0.01	1	0	0

Notes:

A. Criteria sourced from SoBRA (2017) *Development of Generic Assessment Criteria for Assessing Vapour Risks to Human Health from Volatile Contaminants in Groundwater.*

B. GAC for acenaphthene, acenaphythylene and fluorene exceed aqueous solubility. An assessment should be made for the potential presence of free product.
C. GAC for TPH aromatic EC5 to EC7 should be compared to the GAC for benzene to assess for potential genotoxic mutagenic effects.

CIVIC EARTH

Table D: Human Health Data Assessment - Potential Groundwater Vapour Risk to Human Health from Groundwater					
Land Use Category:	**Residential**			**No. Samples**	3
Water Body / Stratum:	**Glaciofluvial Sheet Deposits (Secondary A aquifer)**				
Determinand	**GAC_{gwvap} (µg/l)**	**Minimum Recorded (µg/l)**	**Maximum Recorded (µg/l)**	**No. Samples exceeding GAC_{gwvap}**	**Outliers Identified?**
Benzene	210	< 3.0	< 3.0	0	0
Toluene	230,000	< 3.0	< 3.0	0	0
Ethylbenzene	10,000	< 3.0	< 3.0	0	0
Total xylene	9,500	< 3.0	< 3.0	0	0
Methyl tertiary butyl ether (MTBE)	83,000	< 3.0	< 3.0	0	0
TPH aromatic EC5 to EC7	210,000	< 1.0	< 1.0	0	0
TPH aromatic >EC7 to EC8	220,000	< 1.0	< 1.0	0	0
TPH aromatic >EC8 to EC10	1,900	< 1.0	< 1.0	0	0
TPH aromatic >EC10 to EC12	6,800	< 10	< 10	0	0
TPH aromatic >EC12 to EC16	39,000	< 10	25	0	0
TPH aliphatic EC5 to EC6	1,900	< 1.0	< 1.0	0	0
TPH aliphatic >EC6 to EC8	1,500	< 1.0	< 1.0	0	0
TPH aliphatic >EC8 to EC10	57	< 1.0	< 1.0	0	0
TPH aliphatic >EC10 to EC12	37	< 10	20	0	0
Acenaphthene	170,000	< 0.01	1.9	0	0
Acenaphthylene	220,000	< 0.01	< 0.01	0	0
Fluorene	210,000	< 0.01	0.95	0	0
Naphthalene	220	< 0.01	1.5	0	0

Notes:

A. Criteria sourced from SoBRA (2017) *Development of Generic Assessment Criteria for Assessing Vapour Risks to Human Health from Volatile Contaminants in Groundwater.*

B. GAC for acenaphthene, acenaphythylene and fluorene exceed aqueous solubility. An assessment should be made for the potential presence of free product.
C. GAC for TPH aromatic EC5 to EC7 should be compared to the GAC for benzene to assess for potential genotoxic mutagenic effects.

Table E: Controlled Waters Data Assessment - Potential Risks to Groundwater (Freshwater) from Dissolved Phase Contaminants							
Water Body		**Perched Water (Made Ground)**				**No. Samples**	2
Determinand	**EQS (µg/l) [Annual Average]**	**EQS (µg/l) [Max. Allowable]**	**Min recorded (µg/l)**	**Max recorded (µg/l)**	**Bioavailble Concentration (µg/l)**	**No. Samples exceeding EQS**	**Notes**
Arsenic	50	*	3.69	12.8	-	0	A
Beryllium	*	15	<0.1	<0.1	-	0	J
Boron	2,000	*	66	130	-	0	H
Cadmium	0.25	1.5	<0.02	0.02	-	0	A
Chromium (III)	4.7	32	< 5.0	< 5.0	-	0	A
Chromium (VI)	3.4	*	< 5.0	< 5.0	-	0	A
Copper	1.0	*	0.6	7.9	0.02 to 0.26	0	A
Lead	1.2	14	0.5	1.8	0.07 to 0.14	0	A, B
Mercury	*	0.07	<0.05	<0.05	-	0	A
Nickel	4	34	2.5	5.9	0.45 to 1.55	0	A, B
Zinc	12.3	*	3.7	5.7	0.70 to 1.83	0	A, E
Total Phenols	7.7	46	1	2.6	-	0	A
Total Cyanide	1	5	< 1.0	< 1.0	-	0	F
Free Cyanide	1	5	-	-	-	-	A
Total TPH	*	10	25	201	-	2	K
Anthracene	0.1	0.1	< 0.01	1.3	-	1	A
Benzo(a)pyrene	0.00017	0.27	< 0.01	1.2	-	1	A
Benzo(b)fluoranthene	*	0.017	< 0.01	1.3	-	1	A, G
Benzo(k)fluoranthene	*	0.017	< 0.01	0.39	-	1	A, G
Benzo(ghi)perylene	*	0.0082	< 0.01	0.53	-	1	A, G
Fluoranthene	0.0063	0.12	0.21	3.7	-	2	A
Naphthalene	2	130	< 0.01	1	-	0	A
Benzene	10	50	< 3.0	< 3.0	-	0	A
Toluene	74	380	< 3.0	< 3.0	-	0	A
Ammoniacal Nitrogen as N	*	750	460	1100	-	1	I
pH	*	6.0 to 9.0	7.8	7.9	-	0	H
Hardness (mg $CaCo_3$/l)	*	*	116	701	-	-	

Notes:

* No assessment criteria defined.

A. EQS outlined within Water Framework Directive 2015

B. Freshwater Annual Average EQS value for bioavailable fraction for lead, copper, nickel and zinc. Bioavailable fraction assessed using UKTAG Metal Bioavailability Tool (MBAT).

C. PAH is sum concentration of four PAH compounds [benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene and indeno(1,2,3-cd)pyrene.

D. Cadium EQS based on hardness of 200mg/l or more.

E. Zinc EQS based on 10.9 µg/l plus ambient background concentration for all other freshwaters not listed.

F. EQS for free cyanide stated for total cyanide. Laboratory limit of detection for total cyanide is 1 µg/l (the EQS for free cyanide). If total cyanide is present, analysis for free cyanide is carried out.

G. The annual average EQS in water refer to the concentration of benzo(a)pyrene, on the toxicity of which they are based. Benzo(a)pyrene can be considered as a marker for the other PAHs.

H. Environment Agency Freshwaters Specific Pollutants and Operational Environmental Quality Standards

I. Based on a 'moderate' quality river (Water Framework Directive 2015).

J. Dutch Indication Level of Serious Contamination

Table F: Controlled Waters Data Assessment - Potential Risks to Groundwater (Freshwater) from Dissolved Phase Contaminants							
Water Body		**Secondary A Aquifer (GSD)**				**No. Samples**	2 to 3
Determinand	**EQS (µg/l) [Annual Average]**	**EQS (µg/l) [Max. Allowable]**	**Min recorded (µg/l)**	**Max recorded (µg/l)**	**Bioavailble Concentration (µg/l)**	**No. Samples exceeding EQS**	**Notes**
Arsenic	50	*	3.73	3.81	-	0	A, L
Beryllium	*	15	<0.1	<0.1	-	0	J, L
Boron	2,000	*	160	160	-	0	H, L
Cadmium	0.25	1.5	<0.02	<0.02	-	0	A, L
Chromium (III)	4.7	32	< 5.0	< 5.0	-	0	A, L
Chromium (VI)	3.4	*	< 5.0	< 5.0	-	0	A, L
Copper	1.0	*	0.9	1.5	0.09 to 0.13	0	A, L
Lead	1.2	14	<0.2	0.3	0.03 to 0.09	0	A, B, L
Mercury	*	0.07	<0.05	<0.05	-	0	A, L
Nickel	4	34	1.2	1.7	0.05 to 1.41	0	A, B, L
Zinc	12.3	*	2.5	7.1	0.75 to 3.23	0	A, E, L
Total Phenols	7.7	46	<1.0	2.1	-	0	A
Total Cyanide	1	5	< 1.0	< 1.0	-	0	F
Free Cyanide	1	5	-	-	-	0	A
Total TPH	*	10	<10	205	-	2	K
Anthracene	0.1	0.1	< 0.01	0.79	-	2	A
Benzo(a)pyrene	0.00017	0.27	< 0.01	0.9	-	2	A
Benzo(b)fluoranthene	*	0.017	< 0.01	0.97	-	2	A, G
Benzo(k)fluoranthene	*	0.017	< 0.01	0.35	-	2	A, G
Benzo(ghi)perylene	*	0.0082	< 0.01	0.47	-	2	A, G
Fluoranthene	0.0063	0.12	< 0.01	2.3	-	2	A
Naphthalene	2	130	< 0.01	1.5	-	0	A
Benzene	10	50	< 3.0	< 3.0	-	0	A
Toluene	74	380	< 3.0	< 3.0	-	0	A
Ammoniacal Nitrogen as N	*	750	290	770	-	1	I
pH	*	6.0 to 9.0	7.9	10	-	1	H
Hardness (mg $CaCo_3$/l)	*	*	97	295	-	-	L

Notes:

* No assessment criteria defined.

A. EQS outlined within Water Framework Directive 2015

B. Freshwater Annual Average EQS value for bioavailable fraction for lead, copper, nickel and zinc. Bioavailable fraction assessed using UKTAG Metal Bioavailability Tool (MBAT).

C. PAH is sum concentration of four PAH compounds [benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene and indeno(1,2,3-cd)pyrene.

D. Cadium EQS based on hardness of 200mg/l or more.

E. Zinc EQS based on 10.9 µg/l plus ambient background concentration for all other freshwaters.

F. EQS for free cyanide stated for total cyanide. Laboratory limit of detection for total cyanide is 1 µg/l (the EQS for free cyanide). If total cyanide is present, analysis for free cyanide is carried out.

G. The annual average EQS in water refer to the concentration of benzo(a)pyrene, on the toxicity of which they are based. Benzo(a)pyrene can be considered as a marker for the other PAHs.

H. Environment Agency Freshwaters Specific Pollutants and Operational Environmental Quality Standards

I. Based on a 'moderate' quality river (Water Framework Directive 2015).

J. Dutch Indication Level of Serious Contamination

Table G: Controlled Waters Data Assessment - Potential Risks to Drinking Water from Dissolved Phase Contaminants						
Water Body		**Perched Water (Made Ground)**			**No. Samples**	2
Determinand	**Drinking Water Value (µg/l)**	**Min recorded (µg/l)**	**Max recorded (µg/l)**	**Bioavailble Concentration (µg/l)**	**No. Samples exceeding EQS**	**Notes**
Arsenic	10	3.69	12.8	-	1	A
Boron	1,000	66	130	-	0	A
Cadmium	5	<0.02	0.02	-	0	A
Chromium	50	< 5.0	< 5.0	-	0	A
Copper	2,000	0.6	7.9	0.02 to 0.26	0	A, B
Lead	10	0.5	1.8	0.07 to 0.14	0	A, B
Mercury	1	<0.05	<0.05	-	0	A
Nickel	20	2.5	5.9	0.45 to 1.55	0	A, B
Selenium	10	1.2	290	-	1	A
Zinc	5,000	3.7	5.7	0.70 to 1.83	0	A, B
Total Phenols	0.5	1	2.6	-	1	D
Total Cyanide	50	< 1.0	< 1.0	-	0	A
Total TPH	10	25	201	-	2	D
TPH Aliphatic EC5-6	15,000	< 1.0	< 1.0	-	0	G
TPH Aliphatic EC>6-8	15,000	< 1.0	< 1.0	-	0	G
TPH Aliphatic EC>8-10	300	< 1.0	< 1.0	-	0	G
TPH Aliphatic EC>10-12	300	< 10	< 10	-	0	G
TPH Alipihatic EC>12-16	300	< 10	18	-	0	G
TPH Aromatic EC>5-7	10	< 1.0	< 1.0	-	0	G
TPH Aromatic EC>7-8	700	< 1.0	< 1.0	-	0	G
TPH Aromatic EC>8-10	300	< 1.0	< 1.0	-	0	G
TPH Aromatic EC>10-12	90	< 10	10	-	0	G
TPH Aromatic EC>12-16	90	< 10	37	-	0	G
TPH Aromatic EC>16-21	90	10	58	-	0	G
TPH Aromatic EC>21-35	90	15	15	-	0	G
PAH	0.1	<0.04	2.22	-	1	A, C
Benzo(a)pyrene	0.01	< 0.01	1.2	-	1	A
Benzene	1	< 3.0	< 3.0	-	0	A
Toluene	700	< 3.0	< 3.0	-	0	E
Ethylbenzene	300	< 3.0	< 3.0	-	0	E
p & m-xylene	500	< 3.0	< 3.0	-	0	E, F
o-xylene	500	< 3.0	< 3.0	-	0	E, F
Ammoniacal Nitrogen as N	500	460	1100	-	1	A
pH	6.5 to 9.5	7.8	7.9	-	0	A
Total Sulphate (mg SO_4/l)	250	146	494	-	1	A
Hardness (mg $CaCo_3$/l)	-	116	701	-	-	-

Notes:

* No assessment criteria defined.

A. DWV outlined within the Water Supply (Water Quality) Regulations 2018.

B. Bioavailable fraction assessed using UKTAG Metal Bioavailability Tool (MBAT).

C. PAH is sum concentration of four PAH compounds [benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene and indeno(1,2,3-cd)pyrene.

D. DWV outlined within the Water Supply (Water Quality) Regulations 1989.

E. WHO Guidelines for Drinking Water Quality, 4th Edition 2017.

F. DWV for p-xylene stated; DWV for o-xylene is 500µg/l.

G. WHO Petroleum Products in Drinking Water, 2008

Table H: Controlled Waters Data Assessment - Potential Risks to Drinking Water from Dissolved Phase Contaminants						
Water Body		**Secondary A Aquifer (GFSD)**			**No. Samples**	2 to 3
Determinand	**Drinking Water Value (µg/l)**	**Min recorded (µg/l)**	**Max recorded (µg/l)**	**Bioavailble Concentration (µg/l)**	**No. Samples exceeding EQS**	**Notes**
Arsenic	10	3.73	3.81	-	0	A, H
Boron	1,000	160	160	-	0	A, H
Cadmium	5	<0.02	<0.02	-	0	A, H
Chromium	50	< 5.0	< 5.0	-	0	A, H
Copper	2,000	0.9	1.5	0.09 to 0.13	0	A, B, H
Lead	10	<0.2	0.3	0.03 to 0.09	0	A, B, H
Mercury	1	<0.05	<0.05	-	0	A, H
Nickel	20	1.2	1.7	0.05 to 1.41	0	A, B, H
Selenium	10	12	120	-	2	A, H
Zinc	5,000	2.5	7.1	0.75 to 3.23	0	A, B, H
Total Phenols	0.5	< 1.0	2.1	-	2	D
Total Cyanide	50	< 1.0	< 1.0	-	0	A
Total TPH	10	<10	205	-	2	D
TPH Aliphatic EC5-6	15,000	< 1.0	< 1.0	-	0	G
TPH Aliphatic EC>6-8	15,000	< 1.0	< 1.0	-	0	G
TPH Aliphatic EC>8-10	300	< 1.0	< 1.0	-	0	G
TPH Aliphatic EC>10-12	300	< 10	< 10	-	0	G
TPH Alipihatic EC>12-16	300	< 10	20	-	0	G
TPH Aromatic EC>5-7	10	< 1.0	< 1.0	-	0	G
TPH Aromatic EC>7-8	700	< 1.0	< 1.0	-	0	G
TPH Aromatic EC>8-10	300	< 1.0	< 1.0	-	0	G
TPH Aromatic EC>10-12	90	< 10	< 10	-	0	G
TPH Aromatic EC>12-16	90	< 10	25	-	0	G
TPH Aromatic EC>16-21	90	< 10	50	-	0	G
TPH Aromatic EC>21-35	90	< 10	30	-	0	G
PAH	0.1	<0.04	2.16	-	2	A, C
Benzo(a)pyrene	0.01	< 0.01	0.9	-	2	A
Benzene	1	< 3.0	< 3.0	-	0	A
Toluene	700	< 3.0	< 3.0	-	0	E
Ethylbenzene	300	< 3.0	< 3.0	-	0	E
p & m-xylene	500	< 3.0	< 3.0	-	0	E, F
o-xylene	500	< 3.0	< 3.0	-	0	E, F
Ammoniacal Nitrogen as N	500	290	770	-	1	A
pH	6.5 to 9.5	7.9	10	-	1	A
Total Sulphate (mg SO_4/l)	250	74.4	88.2	-	0	A, H
Hardness (mg $CaCo_3$/l)	-	97	295	-	-	H

Notes:

* No assessment criteria defined.

A. DWV outlined within the Water Supply (Water Quality) Regulations 2018.

B. Bioavailable fraction assessed using UKTAG Metal Bioavailability Tool (MBAT).

C. PAH is sum concentration of four PAH compounds [benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene and indeno(1,2,3-cd)pyrene.

D. DWV outlined within the Water Supply (Water Quality) Regulations 1989.

E. WHO Guidelines for Drinking Water Quality, 4th Edition 2017.

F. DWV for p-xylene stated; DWV for o-xylene is 500µg/l.

G. WHO Petroleum Products in Drinking Water, 2008

CIVIC EARTH

Table I: Soil Data Assessment - Potential Risks to Plants and Vegetation

Stratum:	Made Ground					No. Samples	21
Determinand	**Assessment Threshold (mg/kg)**	**Min recorded (mg/kg)**	**Max recorded (mg/kg)**	**No. Samples exceeding GAC**	**Outliers Identified?**	**US_{95} incl. Outliers (mg/kg)**	**US_{95} excl. Outliers (mg/kg)**
Boron (water soluble)	5	<0.02	1.5	0	Yes	1.00	-
Copper	135	11	78	0	Yes	59.00	-
Nickel	75	7.9	33	0	Yes	27.00	-
Zinc	200	36	340	1	Yes	180.0	113.5

Stratum:	Glaciofluvial Sheet Deposits					No. Samples	9
Determinand	**Assessment Threshold (mg/kg)**	**Min recorded (mg/kg)**	**Max recorded (mg/kg)**	**No. Samples exceeding GAC**	**Outliers Identified?**	**US_{95} incl. Outliers (mg/kg)**	**US_{95} excl. Outliers (mg/kg)**
Boron (water soluble)	5	<0.02	1.3	0	Yes	0.90	0.3
Copper	135	9.8	29	0	0	27.80	-
Nickel	75	5.5	39	0	0	38.60	-
Zinc	200	14	61	0	0	60.60	-

Notes:

A. Copper, Nickel and Zinc thresholds based on BSI (2015) *Specification for Topsoil and Requirements for Use.* BS 3882:2015. Based on pH values 6-7
B. Limit for phytotoxic effect for boron stated. Based on Nable, Banuelos and Paull (1997). *Boron Toxicity.* Plant and Soil, Volume 193, pp. 181-198.

Table J: Soil Data Assessment - Potential Risks to Buried Water Supply Pipes

Materials Tested:	Existing ground materials (Made Ground)							
Test Group	**Testing Required**	**PE Threshold**	**Metal Pipes / Barrier Pipes**	**Laboratory Limit of Detection**	**Testing UKAS Accredited**	**Max. Concentration at Proposed Pipe Depth**	**Maximum Site Concentration**	**Locations and Depths of Exceedances**
Total VOCs	Where Preliminary Risk Assessment has identified land potentially affected by contamination	0.5	Pass	5	-	<5.0	<5.0	N/A
Total BTEX & MTBE		0.1	Pass	5	MCERTS	<5.0	<5.0	N/A
Total SVOCs (excluding PAHs and those substances marked with *)		2	Pass	0.3	-	<0.3	<0.3	N/A
EC5-EC10 aliphatic and aromatic hydrocarbons		2	Pass	0.1	None	<0.05	<0.05	N/A
EC10-EC16 aliphatic and aromatic hydrocarbons		10	Pass	4	MCERTS	29.7	348.6	See Note 2
EC16-EC40 aliphatic and aromatic hydrocarbons		500	Pass	36	MCERTS	463.8	1224	WS05A (0.2m), WS10 (0.3m)
Phenols* (from SVOC analysis) (Note 3)		2	Pass	1	MCERTS	<1	<1	N/A
Cresols and chlorinated phenols* (from SVOC analysis)		2	Pass	-	-	-	-	-
Ethers*	Only where identified	0.5	Pass	-	-	-	-	-
Nitrobenzene*		0.5	Pass	-	-	-	-	-
Ketones*		0.5	Pass	-	-	-	-	-
Aldehydes*		0.5	Pass	-	-	-	-	-
Amines		Fail	Pass	-	-	-	-	-
Corrosive	Conductivity, Redox & pH	Pass	See Note 1	N/A	MCERTS	pH 7.1 to 11.1	pH 7 to 11.1	N/A

Notes:

Test Groups in accordance with Appendix G of UKWIR Guidance.

Water pipes are normally laid at 0.75m to 1.35m below finished ground level.

Presence of liquid phase free product in soil or groundwater to be noted.

Note 1 - for wrapped steel, corrosive if pH is less than 7 and conductivity is greater than 400µS/cm. For wrapped ductile iron, corrosive if pH is less than 5, Eh is not neutral and conductivity is greater than 400µS/cm. For copper, corrosive if pH is less than 5 and Eh is positive.

Note 2 - BH02 (0.6m), BH03 (0.5m), BH04 (0.6m), BH04 (1m), WS03 (0.3m), WS05A (0.2m)

Note 3 - Total phenols (monohydric) analysis results

Appendix G

HazWaste Online Classification Reports

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.

CNPZF-K6F4P-ILTRL

This Waste Classification Report contains user defined substances. See Appendix A for details.

Job name

24-017413_HWOL

Description/Comments

i2 Analytical Report 24-017413

Project

51013/01

Site

Chorlton Precinct

Classified by

Name:
Kirsty Poore
Date:
03 Jun 2024 14:50 GMT
Telephone:
07983 740199

Company:
Civic Earth Limited
77 Dale Street
Manchester
M12HG

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	05 Oct 2023

Next 3 year Refresher due by Oct 2026

Purpose of classification

2 - Material Characterisation

Address of the waste

Chorlton-cum-Hardy, Manchester **Post Code** M21 9AQ

SIC for the process giving rise to the waste

41201 Construction of commercial buildings

Description of industry/producer giving rise to the waste

Redevelopment of commercial land into new mixed use development

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

Waste created during excavation of soils during site investigation

Description of the waste

Made Ground and Natural Soil

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	BH04-ES1-29042024-0.60	0.6	Non Hazardous		3
2	BH04-ES2-29042024-1.00	1.0	Non Hazardous		6
3	WS02-ES1-29042024-0.50	0.5	Non Hazardous		9
4	WS02-ES2-29042024-1.00	1.0	Non Hazardous		15
5	WS03-ES1-29042024-0.30	0.3	Non Hazardous		18
6	WS04-ES1-29042024-0.40	0.4	Non Hazardous		21
7	WS04-ES2-29042024-0.60	0.6	Non Hazardous		24
8	WS05A-ES1-29042024-0.20	0.2	Hazardous	HP 5, HP 7	27
9	WS06-ES1-29042024-0.50	0.5	Non Hazardous		30
10	WS06-ES2-29042024-1.00	1.0	Non Hazardous		33
11	WS06-ES3-29042024-1.50	1.5	Non Hazardous		36
12	WS07-ES1-29042024-0.50	0.5	Non Hazardous		39
13	WS07-ES2-29042024-1.00	1.0	Non Hazardous		42
14	WS08-ES1-29042024-0.20	0.2	Non Hazardous		45
15	WS08-ES2-29042024-0.50	0.5	Non Hazardous		48
16	WS08-ES3-29042024-1,00	1.0	Non Hazardous		51
17	WS09-ES1-29042024-0.50	0.5	Non Hazardous		54
18	WS09-ES2-29042024-1.00	1.0	Non Hazardous		57
19	WS09-ES3-29042024-2 00	2.0	Non Hazardous		60
20	WS10-ES1-29042024-0.30	0.3	Hazardous	HP 7, HP 11	63
21	WS10-ES2-29042024-0.60	0.6	Non Hazardous		66
22	WS10-ES3-29042024-1.00	1.0	Non Hazardous		69

Related documents

#	Name	Description
1	24-017413_HWOL.hwol	i2 Analytical .hwol file used to populate the Job
2	Civic Earth Soil Suite 3 Waste Stream - i2	waste stream template used to create this Job

Report

Created by: Kirsty Poore

Created date: 03 Jun 2024 14:50 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	72
Appendix B: Rationale for selection of metal species	76
Appendix C: Version	77

Classification of sample: BH04-ES1-29042024-0.60

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

Sample details

Sample name:
BH04-ES1-29042024-0.60
Sample Depth:
0.6 m
Moisture content:
8.2%
(wet weight 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: 8.2% Wet Weight 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	pH			PH		11.1 pH		11.1 pH	11.1 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		1.1 mg/kg	1.197	1.209 mg/kg	0.000121 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		8.2 mg/kg	1.534	11.546 mg/kg	0.00115 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		510 mg/kg	1.623	760.077 mg/kg	0.076 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.48 mg/kg	2.775	1.223 mg/kg	0.000122 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		<0.2 mg/kg	3.22	<0.644 mg/kg	<0.0000644 %		<**LOD**
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.629 mg/kg	0.0000629 %	✓	
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		17 mg/kg	1.462	24.846 mg/kg	0.00248 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		19 mg/kg	1.126	19.638 mg/kg	0.00196 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	53 mg/kg		48.654 mg/kg	0.00487 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
14		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									
15		nickel { nickel sulfate }				10	mg/kg	2.637	24.205	mg/kg	0.00242 %	✓	
		028-009-00-5	232-104-9	7786-81-4									
16		selenium { nickel selenate }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
		028-031-00-5	239-125-2	15060-62-5									
17		vanadium { divanadium pentaoxide; vanadium pentoxide }				18	mg/kg	1.785	29.498	mg/kg	0.00295 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
18		zinc { zinc chloride }				87	mg/kg	2.085	166.482	mg/kg	0.0166 %	✓	
		030-003-00-2	231-592-0	7646-85-7									
19		TPH (C6 to C40) petroleum group				382	mg/kg		350.676	mg/kg	0.0351 %	✓	
				TPH									
20		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
21		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
22		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<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]									
24		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									
25		naphthalene				0.83	mg/kg		0.762	mg/kg	0.0000762 %	✓	
		601-052-00-2	202-049-5	91-20-3									
26		acenaphthylene				0.19	mg/kg		0.174	mg/kg	0.0000174 %	✓	
			205-917-1	208-96-8									
27		acenaphthene				7.2	mg/kg		6.61	mg/kg	0.000661 %	✓	
			201-469-6	83-32-9									
28		fluorene				5.4	mg/kg		4.957	mg/kg	0.000496 %	✓	
			201-695-5	86-73-7									
29		phenanthrene				31	mg/kg		28.458	mg/kg	0.00285 %	✓	
			201-581-5	85-01-8									
30		anthracene				11	mg/kg		10.098	mg/kg	0.00101 %	✓	
			204-371-1	120-12-7									
31		fluoranthene				34	mg/kg		31.212	mg/kg	0.00312 %	✓	
			205-912-4	206-44-0									
32		pyrene				28	mg/kg		25.704	mg/kg	0.00257 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				11	mg/kg		10.098	mg/kg	0.00101 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				11	mg/kg		10.098	mg/kg	0.00101 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				9.7	mg/kg		8.905	mg/kg	0.00089 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				4.6	mg/kg		4.223	mg/kg	0.000422 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				9.3	mg/kg		8.537	mg/kg	0.000854 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				4.1	mg/kg		3.764	mg/kg	0.000376 %	✓	
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				0.79	mg/kg		0.725	mg/kg	0.0000725 %	✓	
		601-041-00-2	200-181-8	53-70-3									
40		benzo[ghi]perylene				4.3	mg/kg		3.947	mg/kg	0.000395 %	✓	
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				1.6	mg/kg		1.469	mg/kg	0.000147 %	✓	
			205-881-7	191-07-1									
42		asbestos				<			<		<		ND
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
43		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<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]									
										Total:	0.161 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0351%)

Classification of sample: BH04-ES2-29042024-1.00

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

Sample details

Sample name:
BH04-ES2-29042024-1.00
Sample Depth:
1.0 m
Moisture content:
7%
(wet weight 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: 7% Wet Weight 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	pH			PH		9.5 pH		9.5 pH	9.5 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		1.4 mg/kg	1.197	1.559 mg/kg	0.000156 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		9.1 mg/kg	1.534	12.981 mg/kg	0.0013 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		540 mg/kg	1.623	815.308 mg/kg	0.0815 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.49 mg/kg	2.775	1.265 mg/kg	0.000126 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.898 mg/kg	0.0000898 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.8 mg/kg	1.142	0.85 mg/kg	0.000085 %	✓	
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16 mg/kg	1.462	23.385 mg/kg	0.00234 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		16 mg/kg	1.126	16.753 mg/kg	0.00168 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	59 mg/kg		54.87 mg/kg	0.00549 %	✓	

#		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
14		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
15		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		13	mg/kg	2.637	31.878	mg/kg	0.00319 %	✓	
16		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
17		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		17	mg/kg	1.785	28.224	mg/kg	0.00282 %	✓	
18		zinc { zinc chloride }	030-003-00-2	231-592-0	7646-85-7		93	mg/kg	2.085	180.29	mg/kg	0.018 %	✓	
19		TPH (C6 to C40) petroleum group			TPH		346	mg/kg		321.78	mg/kg	0.0322 %	✓	
20		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
21		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
22		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
24		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
25		naphthalene	601-052-00-2	202-049-5	91-20-3		2.3	mg/kg		2.139	mg/kg	0.000214 %	✓	
26		acenaphthylene		205-917-1	208-96-8		0.21	mg/kg		0.195	mg/kg	0.0000195 %	✓	
27		acenaphthene		201-469-6	83-32-9		7.7	mg/kg		7.161	mg/kg	0.000716 %	✓	
28		fluorene		201-695-5	86-73-7		5.8	mg/kg		5.394	mg/kg	0.000539 %	✓	
29		phenanthrene		201-581-5	85-01-8		33	mg/kg		30.69	mg/kg	0.00307 %	✓	
30		anthracene		204-371-1	120-12-7		11	mg/kg		10.23	mg/kg	0.00102 %	✓	
31		fluoranthene		205-912-4	206-44-0		38	mg/kg		35.34	mg/kg	0.00353 %	✓	
32		pyrene		204-927-3	129-00-0		31	mg/kg		28.83	mg/kg	0.00288 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		14	mg/kg		13.02	mg/kg	0.0013 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		12	mg/kg		11.16	mg/kg	0.00112 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		11	mg/kg		10.23	mg/kg	0.00102 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		5.4	mg/kg		5.022	mg/kg	0.000502 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		11	mg/kg		10.23	mg/kg	0.00102 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		4.8	mg/kg		4.464	mg/kg	0.000446 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		1	mg/kg		0.93	mg/kg	0.000093 %	✓	
40		benzo[ghi]perylene		205-883-8	191-24-2		5	mg/kg		4.65	mg/kg	0.000465 %	✓	

#		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							
41		coronene				2.1 mg/kg		1.953 mg/kg	0.000195 %	✓	
			205-881-7	191-07-1							
42		asbestos				<		<	<		ND
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5							
43		xylene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<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]							
								Total:	0.168 %		

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
ND	Not detected
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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0322%)

Classification of sample: WS02-ES1-29042024-0.50

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

Sample details

Sample name:
WS02-ES1-29042024-0.50
Sample Depth:
0.5 m
Moisture content:
12%
(wet weight 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% Wet Weight 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	pH			PH		8 pH		8 pH	8pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		1.9 mg/kg	1.197	2.002 mg/kg	0.0002 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		16 mg/kg	1.534	21.597 mg/kg	0.00216 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		67 mg/kg	1.623	95.72 mg/kg	0.00957 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.81 mg/kg	2.775	1.978 mg/kg	0.000198 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.4 mg/kg	3.22	1.133 mg/kg	0.000113 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<**LOD**
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		36 mg/kg	1.126	35.668 mg/kg	0.00357 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	63 mg/kg		55.44 mg/kg	0.00554 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
14		mercury { mercury dichloride }				0.4	mg/kg	1.353	0.476	mg/kg	0.0000476 %	✓	
		080-010-00-X	231-299-8	7487-94-7									
15		nickel { nickel sulfate }				15	mg/kg	2.637	34.804	mg/kg	0.00348 %	✓	
		028-009-00-5	232-104-9	7786-81-4									
16		selenium { nickel selenate }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
		028-031-00-5	239-125-2	15060-62-5									
17		vanadium { divanadium pentaoxide; vanadium pentoxide }				22	mg/kg	1.785	34.561	mg/kg	0.00346 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
18		zinc { zinc chloride }				74	mg/kg	2.085	135.744	mg/kg	0.0136 %	✓	
		030-003-00-2	231-592-0	7646-85-7									
19		TPH (C6 to C40) petroleum group				<20	mg/kg		<20	mg/kg	<0.002 %		<LOD
				TPH									
20		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
21		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
22		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<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]									
24		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									
25		naphthalene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
26		acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-917-1	208-96-8									
27		acenaphthene				0.11	mg/kg		0.0968	mg/kg	0.00000968 %	✓	
			201-469-6	83-32-9									
28		fluorene				0.08	mg/kg		0.0704	mg/kg	0.00000704 %	✓	
			201-695-5	86-73-7									
29		phenanthrene				0.56	mg/kg		0.493	mg/kg	0.0000493 %	✓	
			201-581-5	85-01-8									
30		anthracene				0.13	mg/kg		0.114	mg/kg	0.0000114 %	✓	
			204-371-1	120-12-7									
31		fluoranthene				0.56	mg/kg		0.493	mg/kg	0.0000493 %	✓	
			205-912-4	206-44-0									
32		pyrene				0.5	mg/kg		0.44	mg/kg	0.000044 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				0.24	mg/kg		0.211	mg/kg	0.0000211 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				0.24	mg/kg		0.211	mg/kg	0.0000211 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				0.27	mg/kg		0.238	mg/kg	0.0000238 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				0.09	mg/kg		0.0792	mg/kg	0.00000792 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				0.22	mg/kg		0.194	mg/kg	0.0000194 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				0.1	mg/kg		0.088	mg/kg	0.0000088 %	✓	
			205-893-2	193-39-5									
39		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									
40		benzo[ghi]perylene				0.11	mg/kg		0.0968	mg/kg	0.00000968 %	✓	
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		asbestos				<			<		<		**ND**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
43		polychlorobiphenyls; PCB				<0.012	mg/kg		<0.012	mg/kg	<0.0000012 %		<**LOD**
		602-039-00-4	215-648-1	1336-36-3									
44		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**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]									
45		aniline				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		612-008-00-7	200-539-3	62-53-3									
46		anthraquinone				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
		606-151-00-4	201-549-0	84-65-1									
47		azobenzene				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
		611-001-00-6	203-102-5	103-33-3									
48		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									
49		bis(2-chloroethyl) ether				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		603-029-00-2	203-870-1	111-44-4									
50		bis(2-chloroethoxy)methane				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
			203-920-2	111-91-1									
51		2,2'-oxybis[2-chloropropane]				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			254-554-5	39638-32-9									
52		4-bromophenylphenylether				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
			202-952-4	101-55-3									
53		carbazole				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
			201-696-0	86-74-8									
54		chlorocresol; 4-chloro-m-cresol; 4-chloro-3-methylphenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		604-014-00-3	200-431-6	59-50-7									
55		2-chloronaphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			202-079-9	91-58-7									
56		dibenzofuran				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
			205-071-3	132-64-9									
57		2,4-dichlorophenol				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
		604-011-00-7	204-429-6	120-83-2									
58		diethyl phthalate				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
			201-550-6	84-66-2									
59		dibutyl phthalate; DBP				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		607-318-00-4	201-557-4	84-74-2									
60		dimethyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-011-6	131-11-3									
61		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]				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
		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]									
62		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]									

#		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									
63		hexachlorobenzene				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		602-065-00-6	204-273-9	118-74-1									
64		hexachloroethane				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			200-666-4	67-72-1									
65		3,5,5-trimethylcyclohex-2-enone; isophorone				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		606-012-00-8	201-126-0	78-59-1									
66		2-methyl naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			202-078-3	91-57-6									
67		nitrobenzene				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		609-003-00-7	202-716-0	98-95-3									
68		2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		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]									
69		2-nitrophenol				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
			201-857-5	88-75-5									
70		4-chloroaniline				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		612-137-00-9	203-401-0	106-47-8									
71		4-chlorophenylphenylether				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
			230-281-7	7005-72-3									
72		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
73		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]									
74		2,4,5-trichlorophenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-017-00-X	202-467-8	95-95-4									
75		2,4,6-trichlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-018-00-5	201-795-9	88-06-2									
76		2,6-dinitrotoluene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-049-00-8	210-106-0	606-20-2									
77		bromodichloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			200-856-7	75-27-4									
78		bromobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-060-00-9	203-623-8	108-86-1									
79		bromomethane; methylbromide				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-002-00-2	200-813-2	74-83-9									
80		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									
81		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									
82		n-butylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			203-209-7	104-51-8									
83		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]									
84		chlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-033-00-1	203-628-5	108-90-7									
85		chloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-009-00-0	200-830-5	75-00-3									
86		chloromethane; methyl chloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-001-00-7	200-817-4	74-87-3									
87		1,2-dibromoethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-010-00-6	203-444-5	106-93-4									
88		dibromochloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			204-704-0	124-48-1									
89		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									

#		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									
90		dibromomethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-003-00-8	200-824-2	74-95-3									
91		1,1-dichloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-011-00-1	200-863-5	75-34-3									
92		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									
93		1,2-dichloroethane; ethylene dichloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-012-00-7	203-458-1	107-06-2									
94		2,2-dichloropropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			209-832-0	594-20-7									
95		1,1-dichloropropene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-031-00-0	209-253-3	563-58-6									
96		1,3-dichloropropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			205-531-3	142-28-9									
97		1,1,2-trichlorotrifluoroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			200-936-1	76-13-1									
98		hexachlorobutadiene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			201-765-5	87-68-3									
99		cumene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-024-00-X	202-704-5	98-82-8									
100		4-isopropyltoluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			202-796-7	99-87-6									
101		1,3-dichlorbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-067-00-7	208-792-1	541-73-1									
102		Propylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			203-132-9	103-65-1									
103		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									
104		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									
105		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									
106		sec-butylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			205-227-0	135-98-8									
107		styrene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-026-00-0	202-851-5	100-42-5									
108		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									
109		1,2,3-trichlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			201-757-1	87-61-6									
110		trichloroethylene; trichloroethene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-027-00-9	201-167-4	79-01-6									
111		trichlorofluoromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			200-892-3	75-69-4									
112		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									
113		chloroform; trichloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-006-00-4	200-663-8	67-66-3									
114		trans-1,3-dichloropropene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			431-460-4	10061-02-6									
115		tetrachloroethylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-028-00-4	204-825-9	127-18-4									
116		carbon tetrachloride; tetrachloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-008-00-5	200-262-8	56-23-5									
117		1,1,1,2-tetrachloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			211-135-1	630-20-6									
118		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									

#		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									
119		vinyl chloride; chloroethylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-023-00-7	200-831-0	75-01-4									
120		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									
121		tert-butylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
			202-632-4	98-06-6									
122		bromoform; tribromomethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-007-00-X	200-854-6	75-25-2									
123		m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4]				<0.5	mg/kg		<0.5	mg/kg	<0.00005 %		<**LOD**
		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]									
124		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]									
125		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]									
										Total:	0.0477 %		

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)
	Determinand defined by classifier (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
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS02-ES2-29042024-1.00

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

Sample details

Sample name:
WS02-ES2-29042024-1.00
Sample Depth:
1.0 m
Moisture content:
15%
(wet weight 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% Wet Weight 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	pH			PH		8.5 pH		8.5 pH	8.5 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		10 mg/kg	1.534	13.038 mg/kg	0.0013 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		150 mg/kg	1.623	206.993 mg/kg	0.0207 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.3 mg/kg	2.775	3.067 mg/kg	0.000307 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		<0.2 mg/kg	3.22	<0.644 mg/kg	<0.0000644 %		<**LOD**
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<**LOD**
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		31 mg/kg	1.462	45.308 mg/kg	0.00453 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		22 mg/kg	1.126	21.054 mg/kg	0.00211 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	12 mg/kg		10.2 mg/kg	0.00102 %	✓	

#		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
14		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
15		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		35	mg/kg	2.637	78.441	mg/kg	0.00784 %	✓	
16		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
17		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		33	mg/kg	1.785	50.074	mg/kg	0.00501 %	✓	
18		zinc { zinc chloride }	030-003-00-2	231-592-0	7646-85-7		60	mg/kg	2.085	106.311	mg/kg	0.0106 %	✓	
19		TPH (C6 to C40) petroleum group			TPH		<20	mg/kg		<20	mg/kg	<0.002 %		<LOD
20		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
21		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
22		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
24		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
25		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
26		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
27		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
28		fluorene		201-695-5	86-73-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
29		phenanthrene		201-581-5	85-01-8		0.08	mg/kg		0.068	mg/kg	0.0000068 %	✓	
30		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
31		fluoranthene		205-912-4	206-44-0		0.06	mg/kg		0.051	mg/kg	0.0000051 %	✓	
32		pyrene		204-927-3	129-00-0		0.06	mg/kg		0.051	mg/kg	0.0000051 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
34		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
37		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
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
40		benzo[ghi]perylene		205-883-8	191-24-2		<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									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**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]									
										Total:	0.0567 %		

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: WS03-ES1-29042024-0.30

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

Sample details

Sample name:
WS03-ES1-29042024-0.30
Sample Depth:
0.3 m
Moisture content:
18%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 18% Wet Weight 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		pH			PH		7.1	pH		7.1	pH	7.1 pH		
2		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
3		monohydric phenols			P1186		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
4		antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		3.8	mg/kg	1.197	3.73	mg/kg	0.000373 %	✓	
5		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		36	mg/kg	1.534	45.28	mg/kg	0.00453 %	✓	
6		barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		220	mg/kg	1.623	292.874	mg/kg	0.0293 %	✓	
7		beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.7	mg/kg	2.775	3.869	mg/kg	0.000387 %	✓	
8		boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		1	mg/kg	3.22	2.64	mg/kg	0.000264 %	✓	
9		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2	mg/kg	1.142	<0.228	mg/kg	<0.0000228 %		<**LOD**
10		chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8	mg/kg	2.27	<4.086	mg/kg	<0.000409 %		<**LOD**
11		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 %		
12		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		78	mg/kg	1.126	72.012	mg/kg	0.0072 %	✓	
13		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	170	mg/kg		139.4	mg/kg	0.0139 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
14		mercury { mercury dichloride }				1.4	mg/kg	1.353	1.554	mg/kg	0.000155 %	✓	
		080-010-00-X	231-299-8	7487-94-7									
15		nickel { nickel sulfate }				27	mg/kg	2.637	58.376	mg/kg	0.00584 %	✓	
		028-009-00-5	232-104-9	7786-81-4									
16		selenium { nickel selenate }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
		028-031-00-5	239-125-2	15060-62-5									
17		vanadium { divanadium pentaoxide; vanadium pentoxide }				37	mg/kg	1.785	54.163	mg/kg	0.00542 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
18		zinc { zinc chloride }				71	mg/kg	2.085	121.361	mg/kg	0.0121 %	✓	
		030-003-00-2	231-592-0	7646-85-7									
19		TPH (C6 to C40) petroleum group				200	mg/kg		164	mg/kg	0.0164 %	✓	
				TPH									
20		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
21		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
22		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<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]									
24		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									
25		naphthalene				0.76	mg/kg		0.623	mg/kg	0.0000623 %	✓	
		601-052-00-2	202-049-5	91-20-3									
26		acenaphthylene				0.19	mg/kg		0.156	mg/kg	0.0000156 %	✓	
			205-917-1	208-96-8									
27		acenaphthene				3.9	mg/kg		3.198	mg/kg	0.00032 %	✓	
			201-469-6	83-32-9									
28		fluorene				3	mg/kg		2.46	mg/kg	0.000246 %	✓	
			201-695-5	86-73-7									
29		phenanthrene				15	mg/kg		12.3	mg/kg	0.00123 %	✓	
			201-581-5	85-01-8									
30		anthracene				3.6	mg/kg		2.952	mg/kg	0.000295 %	✓	
			204-371-1	120-12-7									
31		fluoranthene				22	mg/kg		18.04	mg/kg	0.0018 %	✓	
			205-912-4	206-44-0									
32		pyrene				19	mg/kg		15.58	mg/kg	0.00156 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				7.4	mg/kg		6.068	mg/kg	0.000607 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				7.1	mg/kg		5.822	mg/kg	0.000582 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				9.6	mg/kg		7.872	mg/kg	0.000787 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				3.5	mg/kg		2.87	mg/kg	0.000287 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				8.9	mg/kg		7.298	mg/kg	0.00073 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				4.1	mg/kg		3.362	mg/kg	0.000336 %	✓	
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				0.75	mg/kg		0.615	mg/kg	0.0000615 %	✓	
		601-041-00-2	200-181-8	53-70-3									
40		benzo[ghi]perylene				4.4	mg/kg		3.608	mg/kg	0.000361 %	✓	
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
41		coronene				1.8 mg/kg		1.476 mg/kg	0.000148 %	✓	
			205-881-7	191-07-1							
42		asbestos				<		<	<		**ND**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5							
43		xylene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		**<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]							
									Total:	0.109 %	

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
ND	Not detected
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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0164%)

Classification of sample: WS04-ES1-29042024-0.40

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

Sample details

Sample name:
WS04-ES1-29042024-0.40
Sample Depth:
0.4 m
Moisture content:
11%
(wet weight 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% Wet Weight 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	pH			PH		8.4 pH		8.4 pH	8.4 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		1.1 mg/kg	1.197	1.172 mg/kg	0.000117 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		13 mg/kg	1.534	17.747 mg/kg	0.00177 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		730 mg/kg	1.623	1054.77 mg/kg	0.105 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.66 mg/kg	2.775	1.63 mg/kg	0.000163 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		<0.2 mg/kg	3.22	<0.644 mg/kg	<0.0000644 %		<**LOD**
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		2.3 mg/kg	1.142	2.338 mg/kg	0.000234 %	✓	
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9.8 mg/kg	1.462	14.323 mg/kg	0.00143 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		29 mg/kg	1.126	29.059 mg/kg	0.00291 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	32 mg/kg		28.48 mg/kg	0.00285 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
14		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									
15		nickel { nickel sulfate }				20	mg/kg	2.637	46.933	mg/kg	0.00469 %	✓	
		028-009-00-5	232-104-9	7786-81-4									
16		selenium { nickel selenate }				1.2	mg/kg	2.554	2.727	mg/kg	0.000273 %	✓	
		028-031-00-5	239-125-2	15060-62-5									
17		vanadium { divanadium pentaoxide; vanadium pentoxide }				19	mg/kg	1.785	30.187	mg/kg	0.00302 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
18		zinc { zinc chloride }				59	mg/kg	2.085	109.458	mg/kg	0.0109 %	✓	
		030-003-00-2	231-592-0	7646-85-7									
19		TPH (C6 to C40) petroleum group				45	mg/kg		40.05	mg/kg	0.004 %	✓	
				TPH									
20		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
21		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
22		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**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]									
24		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									
25		naphthalene				0.16	mg/kg		0.142	mg/kg	0.0000142 %	✓	
		601-052-00-2	202-049-5	91-20-3									
26		acenaphthylene				0.12	mg/kg		0.107	mg/kg	0.0000107 %	✓	
			205-917-1	208-96-8									
27		acenaphthene				1.3	mg/kg		1.157	mg/kg	0.000116 %	✓	
			201-469-6	83-32-9									
28		fluorene				0.89	mg/kg		0.792	mg/kg	0.0000792 %	✓	
			201-695-5	86-73-7									
29		phenanthrene				6.5	mg/kg		5.785	mg/kg	0.000579 %	✓	
			201-581-5	85-01-8									
30		anthracene				1.3	mg/kg		1.157	mg/kg	0.000116 %	✓	
			204-371-1	120-12-7									
31		fluoranthene				11	mg/kg		9.79	mg/kg	0.000979 %	✓	
			205-912-4	206-44-0									
32		pyrene				9.3	mg/kg		8.277	mg/kg	0.000828 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				3.8	mg/kg		3.382	mg/kg	0.000338 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				3.4	mg/kg		3.026	mg/kg	0.000303 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				3.8	mg/kg		3.382	mg/kg	0.000338 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				1.5	mg/kg		1.335	mg/kg	0.000133 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				3.3	mg/kg		2.937	mg/kg	0.000294 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				1.5	mg/kg		1.335	mg/kg	0.000133 %	✓	
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				0.31	mg/kg		0.276	mg/kg	0.0000276 %	✓	
		601-041-00-2	200-181-8	53-70-3									
40		benzo[ghi]perylene				1.6	mg/kg		1.424	mg/kg	0.000142 %	✓	
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				0.5	mg/kg		0.445	mg/kg	0.0000445 %	✓	
			205-881-7	191-07-1									
42		asbestos				<			<		<		**ND**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
43		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<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]									
										Total:	0.143 %		

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
ND	Not detected
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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.004%)

Classification of sample: WS04-ES2-29042024-0.60

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

Sample details

Sample name:
WS04-ES2-29042024-0.60
Sample Depth:
0.6 m
Moisture content:
17%
(wet weight 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% Wet Weight 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		pH			PH		8.2	pH		8.2	pH	8.2 pH		
2		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
3		monohydric phenols			P1186		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
4		antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<1	mg/kg	1.197	<1.197	mg/kg	<0.00012 %		<**LOD**
5		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		13	mg/kg	1.534	16.551	mg/kg	0.00166 %	✓	
6		barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		180	mg/kg	1.623	242.547	mg/kg	0.0243 %	✓	
7		beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.6	mg/kg	2.775	3.686	mg/kg	0.000369 %	✓	
8		boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3	mg/kg	3.22	0.802	mg/kg	0.0000802 %	✓	
9		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2	mg/kg	1.142	<0.228	mg/kg	<0.0000228 %		<**LOD**
10		chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8	mg/kg	2.27	<4.086	mg/kg	<0.000409 %		<**LOD**
11		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		38	mg/kg	1.462	55.539	mg/kg	0.00555 %		
12		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		19	mg/kg	1.126	17.755	mg/kg	0.00178 %	✓	
13		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	14	mg/kg		11.62	mg/kg	0.00116 %	✓	

#		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
14		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
15		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		36	mg/kg	2.637	78.784	mg/kg	0.00788 %	✓	
16		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
17		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		44	mg/kg	1.785	65.195	mg/kg	0.00652 %	✓	
18		zinc { zinc chloride }	030-003-00-2	231-592-0	7646-85-7		44	mg/kg	2.085	76.127	mg/kg	0.00761 %	✓	
19		TPH (C6 to C40) petroleum group			TPH		<20	mg/kg		<20	mg/kg	<0.002 %		<LOD
20		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
21		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
22		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
24		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
25		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
26		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
27		acenaphthene		201-469-6	83-32-9		0.08	mg/kg		0.0664	mg/kg	0.00000664 %	✓	
28		fluorene		201-695-5	86-73-7		0.09	mg/kg		0.0747	mg/kg	0.00000747 %	✓	
29		phenanthrene		201-581-5	85-01-8		0.79	mg/kg		0.656	mg/kg	0.0000656 %	✓	
30		anthracene		204-371-1	120-12-7		0.13	mg/kg		0.108	mg/kg	0.0000108 %	✓	
31		fluoranthene		205-912-4	206-44-0		1	mg/kg		0.83	mg/kg	0.000083 %	✓	
32		pyrene		204-927-3	129-00-0		0.79	mg/kg		0.656	mg/kg	0.0000656 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.31	mg/kg		0.257	mg/kg	0.0000257 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		0.32	mg/kg		0.266	mg/kg	0.0000266 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.32	mg/kg		0.266	mg/kg	0.0000266 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.09	mg/kg		0.0747	mg/kg	0.00000747 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.24	mg/kg		0.199	mg/kg	0.0000199 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		0.12	mg/kg		0.0996	mg/kg	0.00000996 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
40		benzo[ghi]perylene		205-883-8	191-24-2		0.15	mg/kg		0.125	mg/kg	0.0000124 %	✓	

#		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									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**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]									
										Total:	0.0604 %		

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: WS05A-ES1-29042024-0.20

Hazardous Waste
Classified as **17 05 03 ***
in the List of Waste

Sample details

Sample name:
WS05A-ES1-29042024-0.20
Sample Depth:
0.2 m
Moisture content:
10%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 5: Specific Target Organ Toxicity (STOT)/Aspiration Toxicity "waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration"

Hazard Statements hit:

STOT RE 1; H372 "Causes damage to organs [or state all organs affected, if known] through prolonged or repeated exposure [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

asbestos: (conc.: 1.064%)

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

Hazard Statements hit:

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

Because of determinand:

asbestos: (conc.: 1.064%)

Determinands

Moisture content: 10% Wet Weight 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	pH			PH		7.8 pH		7.8 pH	7.8 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		3.8 mg/kg	1.197	4.094 mg/kg	0.000409 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		14 mg/kg	1.534	19.327 mg/kg	0.00193 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		250 mg/kg	1.623	365.281 mg/kg	0.0365 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.7 mg/kg	2.775	1.748 mg/kg	0.000175 %	✓	

#	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
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		1.5 mg/kg	3.22	4.347 mg/kg	0.000435 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.9 mg/kg	1.142	0.925 mg/kg	0.0000925 %	✓	
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
11	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 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		37 mg/kg	1.126	37.492 mg/kg	0.00375 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	160 mg/kg		144 mg/kg	0.0144 %	✓	
14	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
15	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		21 mg/kg	2.637	49.833 mg/kg	0.00498 %	✓	
16	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
17	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		25 mg/kg	1.785	40.167 mg/kg	0.00402 %	✓	
18	zinc { zinc chloride }	030-003-00-2	231-592-0	7646-85-7		180 mg/kg	2.085	337.692 mg/kg	0.0338 %	✓	
19	TPH (C6 to C40) petroleum group			TPH		550 mg/kg		495 mg/kg	0.0495 %	✓	
20	benzene	601-020-00-8	200-753-7	71-43-2		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
21	toluene	601-021-00-3	203-625-9	108-88-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
22	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
23	o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
24	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
25	naphthalene	601-052-00-2	202-049-5	91-20-3		0.61 mg/kg		0.549 mg/kg	0.0000549 %	✓	
26	acenaphthylene		205-917-1	208-96-8		0.73 mg/kg		0.657 mg/kg	0.0000657 %	✓	
27	acenaphthene		201-469-6	83-32-9		6.6 mg/kg		5.94 mg/kg	0.000594 %	✓	
28	fluorene		201-695-5	86-73-7		4.4 mg/kg		3.96 mg/kg	0.000396 %	✓	
29	phenanthrene		201-581-5	85-01-8		24 mg/kg		21.6 mg/kg	0.00216 %	✓	
30	anthracene		204-371-1	120-12-7		9.1 mg/kg		8.19 mg/kg	0.000819 %	✓	
31	fluoranthene		205-912-4	206-44-0		41 mg/kg		36.9 mg/kg	0.00369 %	✓	
32	pyrene		204-927-3	129-00-0		37 mg/kg		33.3 mg/kg	0.00333 %	✓	
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		16 mg/kg		14.4 mg/kg	0.00144 %	✓	

#		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									
34		chrysene				17	mg/kg		15.3	mg/kg	0.00153 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				15	mg/kg		13.5	mg/kg	0.00135 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				7.5	mg/kg		6.75	mg/kg	0.000675 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				15	mg/kg		13.5	mg/kg	0.00135 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38	●	indeno[123-cd]pyrene				6.6	mg/kg		5.94	mg/kg	0.000594 %	✓	
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				1.4	mg/kg		1.26	mg/kg	0.000126 %	✓	
		601-041-00-2	200-181-8	53-70-3									
40	●	benzo[ghi]perylene				7.2	mg/kg		6.48	mg/kg	0.000648 %	✓	
			205-883-8	191-24-2									
41	●	coronene				3	mg/kg		2.7	mg/kg	0.00027 %	✓	
			205-881-7	191-07-1									
42		asbestos				1.182	%		1.064	%	1.064 %	✓	
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
43		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<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]									
										Total:	1.237 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated 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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0495%)

Classification of sample: WS06-ES1-29042024-0.50

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

Sample details

Sample name:
WS06-ES1-29042024-0.50
Sample Depth:
0.5 m
Moisture content:
7.9%
(wet weight 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: 7.9% Wet Weight 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	pH			PH		9.9 pH		9.9 pH	9.9 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		1.1 mg/kg	1.197	1.213 mg/kg	0.000121 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		6.6 mg/kg	1.534	9.324 mg/kg	0.000932 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		140 mg/kg	1.623	209.331 mg/kg	0.0209 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.4 mg/kg	2.775	1.022 mg/kg	0.000102 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.6 mg/kg	3.22	1.779 mg/kg	0.000178 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.3 mg/kg	1.142	0.316 mg/kg	0.0000316 %	✓	
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9.5 mg/kg	1.462	13.885 mg/kg	0.00139 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12 mg/kg	1.126	12.443 mg/kg	0.00124 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	31 mg/kg		28.551 mg/kg	0.00286 %	✓	

#		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
14		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
15		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		9.1	mg/kg	2.637	22.098	mg/kg	0.00221 %	✓	
16		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
17		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		11	mg/kg	1.785	18.086	mg/kg	0.00181 %	✓	
18		zinc { zinc chloride }	030-003-00-2	231-592-0	7646-85-7		42	mg/kg	2.085	80.633	mg/kg	0.00806 %	✓	
19		TPH (C6 to C40) petroleum group			TPH		36	mg/kg		33.156	mg/kg	0.00332 %	✓	
20		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
21		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
22		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
24		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
25		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
26		acenaphthylene		205-917-1	208-96-8		0.1	mg/kg		0.0921	mg/kg	0.00000921 %	✓	
27		acenaphthene		201-469-6	83-32-9		0.2	mg/kg		0.184	mg/kg	0.0000184 %	✓	
28		fluorene		201-695-5	86-73-7		0.21	mg/kg		0.193	mg/kg	0.0000193 %	✓	
29		phenanthrene		201-581-5	85-01-8		2.3	mg/kg		2.118	mg/kg	0.000212 %	✓	
30		anthracene		204-371-1	120-12-7		0.57	mg/kg		0.525	mg/kg	0.0000525 %	✓	
31		fluoranthene		205-912-4	206-44-0		4.3	mg/kg		3.96	mg/kg	0.000396 %	✓	
32		pyrene		204-927-3	129-00-0		4	mg/kg		3.684	mg/kg	0.000368 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		2.1	mg/kg		1.934	mg/kg	0.000193 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		2	mg/kg		1.842	mg/kg	0.000184 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		2.2	mg/kg		2.026	mg/kg	0.000203 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.85	mg/kg		0.783	mg/kg	0.0000783 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		2	mg/kg		1.842	mg/kg	0.000184 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		0.87	mg/kg		0.801	mg/kg	0.0000801 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.18	mg/kg		0.166	mg/kg	0.0000166 %	✓	
40		benzo[ghi]perylene		205-883-8	191-24-2		1	mg/kg		0.921	mg/kg	0.0000921 %	✓	

#		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							
41		coronene				0.58 mg/kg		0.534 mg/kg	0.0000534 %	✓	
			205-881-7	191-07-1							
42		asbestos				<		<	<		**ND**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5							
43		xylene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		**<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]							
									Total:	0.0463 %	

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
ND	Not detected
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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00332%)

Classification of sample: WS06-ES2-29042024-1.00

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

Sample details

Sample name:
WS06-ES2-29042024-1.00
Sample Depth:
1.0 m
Moisture content:
8.2%
(wet weight 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: 8.2% Wet Weight 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	pH			PH		11 pH		11 pH	11pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		6.7 mg/kg	1.534	9.434 mg/kg	0.000943 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		100 mg/kg	1.623	149.035 mg/kg	0.0149 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.35 mg/kg	2.775	0.892 mg/kg	0.0000892 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.4 mg/kg	3.22	1.182 mg/kg	0.000118 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.3 mg/kg	1.142	0.315 mg/kg	0.0000315 %	✓	
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9.5 mg/kg	1.462	13.885 mg/kg	0.00139 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		11 mg/kg	1.126	11.369 mg/kg	0.00114 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	29 mg/kg		26.622 mg/kg	0.00266 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
14		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									
15		nickel { nickel sulfate }				7.9	mg/kg	2.637	19.122	mg/kg	0.00191 %	✓	
		028-009-00-5	232-104-9	7786-81-4									
16		selenium { nickel selenate }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
		028-031-00-5	239-125-2	15060-62-5									
17		vanadium { divanadium pentaoxide; vanadium pentoxide }				11	mg/kg	1.785	18.027	mg/kg	0.0018 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
18		zinc { zinc chloride }				36	mg/kg	2.085	68.889	mg/kg	0.00689 %	✓	
		030-003-00-2	231-592-0	7646-85-7									
19		TPH (C6 to C40) petroleum group				37	mg/kg		33.966	mg/kg	0.0034 %	✓	
				TPH									
20		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
21		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
22		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**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]									
24		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									
25		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26		acenaphthylene				0.06	mg/kg		0.0551	mg/kg	0.00000551 %	✓	
			205-917-1	208-96-8									
27		acenaphthene				0.12	mg/kg		0.11	mg/kg	0.000011 %	✓	
			201-469-6	83-32-9									
28		fluorene				0.1	mg/kg		0.0918	mg/kg	0.00000918 %	✓	
			201-695-5	86-73-7									
29		phenanthrene				1.2	mg/kg		1.102	mg/kg	0.00011 %	✓	
			201-581-5	85-01-8									
30		anthracene				0.29	mg/kg		0.266	mg/kg	0.0000266 %	✓	
			204-371-1	120-12-7									
31		fluoranthene				2.2	mg/kg		2.02	mg/kg	0.000202 %	✓	
			205-912-4	206-44-0									
32		pyrene				2	mg/kg		1.836	mg/kg	0.000184 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				0.99	mg/kg		0.909	mg/kg	0.0000909 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				1	mg/kg		0.918	mg/kg	0.0000918 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				1.1	mg/kg		1.01	mg/kg	0.000101 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				0.46	mg/kg		0.422	mg/kg	0.0000422 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				1	mg/kg		0.918	mg/kg	0.0000918 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				0.5	mg/kg		0.459	mg/kg	0.0000459 %	✓	
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				0.1	mg/kg		0.0918	mg/kg	0.00000918 %	✓	
		601-041-00-2	200-181-8	53-70-3									
40		benzo[ghi]perylene				0.58	mg/kg		0.532	mg/kg	0.0000532 %	✓	
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				0.34	mg/kg		0.312	mg/kg	0.0000312 %	✓	
			205-881-7	191-07-1									
42		asbestos				<			<		<		**ND**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
43		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<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]									
										Total:	0.0375 %		

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
ND	Not detected
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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0034%)

Classification of sample: WS06-ES3-29042024-1.50

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

Sample details

Sample name:
WS06-ES3-29042024-1.50
Sample Depth:
1.5 m
Moisture content:
12%
(wet weight 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% Wet Weight 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	pH			PH		8.9 pH		8.9 pH	8.9 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		1.1 mg/kg	1.197	1.159 mg/kg	0.000116 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		4.2 mg/kg	1.534	5.669 mg/kg	0.000567 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		50 mg/kg	1.623	71.433 mg/kg	0.00714 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.55 mg/kg	2.775	1.343 mg/kg	0.000134 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		<0.2 mg/kg	3.22	<0.644 mg/kg	<0.0000644 %		<LOD
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12 mg/kg	1.126	11.889 mg/kg	0.00119 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	8.2 mg/kg		7.216 mg/kg	0.000722 %	✓	

#		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
14		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
15		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		11	mg/kg	2.637	25.523	mg/kg	0.00255 %	✓	
16		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
17		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		14	mg/kg	1.785	21.993	mg/kg	0.0022 %	✓	
18		zinc { zinc chloride }	030-003-00-2	231-592-0	7646-85-7		33	mg/kg	2.085	60.534	mg/kg	0.00605 %	✓	
19		TPH (C6 to C40) petroleum group			TPH		<20	mg/kg		<20	mg/kg	<0.002 %		<LOD
20		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
21		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
22		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
24		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
25		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
26		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
27		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
28		fluorene		201-695-5	86-73-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
29		phenanthrene		201-581-5	85-01-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
30		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
31		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
32		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
34		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
37		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
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
40		benzo[ghi]perylene		205-883-8	191-24-2		<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									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**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]									
										Total:	0.0256 %		

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: WS07-ES1-29042024-0.50

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

Sample details

Sample name:
WS07-ES1-29042024-0.50
Sample Depth:
0.5 m
Moisture content:
16%
(wet weight 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% Wet Weight 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	pH			PH		7 pH		7 pH	7pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		2.8 mg/kg	1.197	2.816 mg/kg	0.000282 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		19 mg/kg	1.534	24.481 mg/kg	0.00245 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		120 mg/kg	1.623	163.646 mg/kg	0.0164 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.93 mg/kg	2.775	2.168 mg/kg	0.000217 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.2 mg/kg	3.22	0.541 mg/kg	0.0000541 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<**LOD**
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13 mg/kg	1.462	19 mg/kg	0.0019 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		59 mg/kg	1.126	55.799 mg/kg	0.00558 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	160 mg/kg		134.4 mg/kg	0.0134 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
14		mercury { mercury dichloride }				0.6	mg/kg	1.353	0.682	mg/kg	0.0000682 %	✓	
		080-010-00-X	231-299-8	7487-94-7									
15		nickel { nickel sulfate }				15	mg/kg	2.637	33.222	mg/kg	0.00332 %	✓	
		028-009-00-5	232-104-9	7786-81-4									
16		selenium { nickel selenate }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
		028-031-00-5	239-125-2	15060-62-5									
17		vanadium { divanadium pentaoxide; vanadium pentoxide }				23	mg/kg	1.785	34.49	mg/kg	0.00345 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
18		zinc { zinc chloride }				92	mg/kg	2.085	161.092	mg/kg	0.0161 %	✓	
		030-003-00-2	231-592-0	7646-85-7									
19		TPH (C6 to C40) petroleum group				16	mg/kg		13.44	mg/kg	0.00134 %	✓	
				TPH									
20		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
21		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
22		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**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]									
24		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									
25		naphthalene				0.13	mg/kg		0.109	mg/kg	0.0000109 %	✓	
		601-052-00-2	202-049-5	91-20-3									
26		acenaphthylene				0.07	mg/kg		0.0588	mg/kg	0.00000588 %	✓	
			205-917-1	208-96-8									
27		acenaphthene				0.16	mg/kg		0.134	mg/kg	0.0000134 %	✓	
			201-469-6	83-32-9									
28		fluorene				0.14	mg/kg		0.118	mg/kg	0.0000118 %	✓	
			201-695-5	86-73-7									
29		phenanthrene				1.8	mg/kg		1.512	mg/kg	0.000151 %	✓	
			201-581-5	85-01-8									
30		anthracene				0.3	mg/kg		0.252	mg/kg	0.0000252 %	✓	
			204-371-1	120-12-7									
31		fluoranthene				2.9	mg/kg		2.436	mg/kg	0.000244 %	✓	
			205-912-4	206-44-0									
32		pyrene				2.9	mg/kg		2.436	mg/kg	0.000244 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				1.3	mg/kg		1.092	mg/kg	0.000109 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				1.8	mg/kg		1.512	mg/kg	0.000151 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				1.7	mg/kg		1.428	mg/kg	0.000143 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				0.7	mg/kg		0.588	mg/kg	0.0000588 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				1.5	mg/kg		1.26	mg/kg	0.000126 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				0.72	mg/kg		0.605	mg/kg	0.0000605 %	✓	
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				0.19	mg/kg		0.16	mg/kg	0.000016 %	✓	
		601-041-00-2	200-181-8	53-70-3									
40		benzo[ghi]perylene				0.88	mg/kg		0.739	mg/kg	0.0000739 %	✓	
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				0.51	mg/kg		0.428	mg/kg	0.0000428 %	✓	
			205-881-7	191-07-1									
42		asbestos				<			<		<		**ND**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
43		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<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]									
										Total:	0.067 %		

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
ND	Not detected
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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00134%)

Classification of sample: WS07-ES2-29042024-1.00

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

Sample details

Sample name:
WS07-ES2-29042024-1.00
Sample Depth:
1.0 m
Moisture content:
18%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 18% Wet Weight 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	pH			PH		7.1 pH		7.1 pH	7.1 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		2.3 mg/kg	1.197	2.258 mg/kg	0.000226 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		15 mg/kg	1.534	18.867 mg/kg	0.00189 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		84 mg/kg	1.623	111.825 mg/kg	0.0112 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.86 mg/kg	2.775	1.957 mg/kg	0.000196 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.5 mg/kg	3.22	1.32 mg/kg	0.000132 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	16.077 mg/kg	0.00161 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		39 mg/kg	1.126	36.006 mg/kg	0.0036 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	100 mg/kg		82 mg/kg	0.0082 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
14		mercury { mercury dichloride }				1.6	mg/kg	1.353	1.776	mg/kg	0.000178 %	✓	
		080-010-00-X	231-299-8	7487-94-7									
15		nickel { nickel sulfate }				16	mg/kg	2.637	34.593	mg/kg	0.00346 %	✓	
		028-009-00-5	232-104-9	7786-81-4									
16		selenium { nickel selenate }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
		028-031-00-5	239-125-2	15060-62-5									
17		vanadium { divanadium pentaoxide; vanadium pentoxide }				19	mg/kg	1.785	27.813	mg/kg	0.00278 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
18		zinc { zinc chloride }				86	mg/kg	2.085	147	mg/kg	0.0147 %	✓	
		030-003-00-2	231-592-0	7646-85-7									
19		TPH (C6 to C40) petroleum group				12	mg/kg		9.84	mg/kg	0.000984 %	✓	
				TPH									
20		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
21		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
22		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<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]									
24		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									
25		naphthalene				0.05	mg/kg		0.041	mg/kg	0.0000041 %	✓	
		601-052-00-2	202-049-5	91-20-3									
26		acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-917-1	208-96-8									
27		acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-469-6	83-32-9									
28		fluorene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-695-5	86-73-7									
29		phenanthrene				0.26	mg/kg		0.213	mg/kg	0.0000213 %	✓	
			201-581-5	85-01-8									
30		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
31		fluoranthene				0.47	mg/kg		0.385	mg/kg	0.0000385 %	✓	
			205-912-4	206-44-0									
32		pyrene				0.52	mg/kg		0.426	mg/kg	0.0000426 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				0.28	mg/kg		0.23	mg/kg	0.000023 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				0.37	mg/kg		0.303	mg/kg	0.0000303 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				0.35	mg/kg		0.287	mg/kg	0.0000287 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				0.18	mg/kg		0.148	mg/kg	0.0000148 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				0.37	mg/kg		0.303	mg/kg	0.0000303 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				0.16	mg/kg		0.131	mg/kg	0.0000131 %	✓	
			205-893-2	193-39-5									
39		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									
40		benzo[ghi]perylene				0.21	mg/kg		0.172	mg/kg	0.0000172 %	✓	
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
41		coronene				0.17 mg/kg		0.139 mg/kg	0.0000139 %	✓	
			205-881-7	191-07-1							
42		asbestos				<		<	<		**ND**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5							
43		xylene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		**<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]							
									Total:	0.0504 %	

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
ND	Not detected
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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00098%)

Classification of sample: WS08-ES1-29042024-0.20

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

Sample details

Sample name:
WS08-ES1-29042024-0.20
Sample Depth:
0.2 m
Moisture content:
16%
(wet weight 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% Wet Weight 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	pH			PH		7.5 pH		7.5 pH	7.5 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		2.8 mg/kg	1.197	2.816 mg/kg	0.000282 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		15 mg/kg	1.534	19.327 mg/kg	0.00193 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		150 mg/kg	1.623	204.558 mg/kg	0.0205 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.78 mg/kg	2.775	1.818 mg/kg	0.000182 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.811 mg/kg	0.0000811 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<**LOD**
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	20.462 mg/kg	0.00205 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		50 mg/kg	1.126	47.287 mg/kg	0.00473 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	170 mg/kg		142.8 mg/kg	0.0143 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
14		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									
15		nickel { nickel sulfate }				16	mg/kg	2.637	35.437	mg/kg	0.00354 %	✓	
		028-009-00-5	232-104-9	7786-81-4									
16		selenium { nickel selenate }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
		028-031-00-5	239-125-2	15060-62-5									
17		vanadium { divanadium pentaoxide; vanadium pentoxide }				22	mg/kg	1.785	32.99	mg/kg	0.0033 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
18		zinc { zinc chloride }				98	mg/kg	2.085	171.598	mg/kg	0.0172 %	✓	
		030-003-00-2	231-592-0	7646-85-7									
19		TPH (C6 to C40) petroleum group				36	mg/kg		30.24	mg/kg	0.00302 %	✓	
				TPH									
20		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
21		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
22		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<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]									
24		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									
25		naphthalene				0.08	mg/kg		0.0672	mg/kg	0.00000672 %	✓	
		601-052-00-2	202-049-5	91-20-3									
26		acenaphthylene				0.18	mg/kg		0.151	mg/kg	0.0000151 %	✓	
			205-917-1	208-96-8									
27		acenaphthene				0.2	mg/kg		0.168	mg/kg	0.0000168 %	✓	
			201-469-6	83-32-9									
28		fluorene				0.21	mg/kg		0.176	mg/kg	0.0000176 %	✓	
			201-695-5	86-73-7									
29		phenanthrene				2.6	mg/kg		2.184	mg/kg	0.000218 %	✓	
			201-581-5	85-01-8									
30		anthracene				0.61	mg/kg		0.512	mg/kg	0.0000512 %	✓	
			204-371-1	120-12-7									
31		fluoranthene				4.7	mg/kg		3.948	mg/kg	0.000395 %	✓	
			205-912-4	206-44-0									
32		pyrene				4.6	mg/kg		3.864	mg/kg	0.000386 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				2.4	mg/kg		2.016	mg/kg	0.000202 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				2.4	mg/kg		2.016	mg/kg	0.000202 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				2.8	mg/kg		2.352	mg/kg	0.000235 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				0.9	mg/kg		0.756	mg/kg	0.0000756 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				2.4	mg/kg		2.016	mg/kg	0.000202 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				1.1	mg/kg		0.924	mg/kg	0.0000924 %	✓	
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				0.27	mg/kg		0.227	mg/kg	0.0000227 %	✓	
		601-041-00-2	200-181-8	53-70-3									
40		benzo[ghi]perylene				1.3	mg/kg		1.092	mg/kg	0.000109 %	✓	
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				0.55	mg/kg		0.462	mg/kg	0.0000462 %	✓	
			205-881-7	191-07-1									
42		asbestos				<			<		<		**ND**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
43		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<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]									
										Total:	0.0743 %		

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
ND	Not detected
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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00302%)

Classification of sample: WS08-ES2-29042024-0.50

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

Sample details

Sample name:
WS08-ES2-29042024-0.50
Sample Depth:
0.5 m
Moisture content:
13%
(wet weight 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% Wet Weight 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		pH			PH		8	pH		8	pH	8pH		
2		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
3		monohydric phenols			P1186		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
4		antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		4.5	mg/kg	1.197	4.687	mg/kg	0.000469 %	✓	
5		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		15	mg/kg	1.534	20.017	mg/kg	0.002 %	✓	
6		barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		450	mg/kg	1.623	635.589	mg/kg	0.0636 %	✓	
7		beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.65	mg/kg	2.775	1.569	mg/kg	0.000157 %	✓	
8		boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		<0.2	mg/kg	3.22	<0.644	mg/kg	<0.0000644 %		<**LOD**
9		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2	mg/kg	1.142	<0.228	mg/kg	<0.0000228 %		<**LOD**
10		chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8	mg/kg	2.27	<4.086	mg/kg	<0.000409 %		<**LOD**
11		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12	mg/kg	1.462	17.539	mg/kg	0.00175 %		
12		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		39	mg/kg	1.126	38.201	mg/kg	0.00382 %	✓	
13		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	810	mg/kg		704.7	mg/kg	0.0705 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
14		mercury { mercury dichloride }				1.3	mg/kg	1.353	1.531	mg/kg	0.000153 %	✓	
		080-010-00-X	231-299-8	7487-94-7									
15		nickel { nickel sulfate }				13	mg/kg	2.637	29.821	mg/kg	0.00298 %	✓	
		028-009-00-5	232-104-9	7786-81-4									
16		selenium { nickel selenate }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
		028-031-00-5	239-125-2	15060-62-5									
17		vanadium { divanadium pentaoxide; vanadium pentoxide }				22	mg/kg	1.785	34.168	mg/kg	0.00342 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
18		zinc { zinc chloride }				340	mg/kg	2.085	616.601	mg/kg	0.0617 %	✓	
		030-003-00-2	231-592-0	7646-85-7									
19		TPH (C6 to C40) petroleum group				44	mg/kg		38.28	mg/kg	0.00383 %	✓	
				TPH									
20		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
21		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
22		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**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]									
24		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									
25		naphthalene				0.59	mg/kg		0.513	mg/kg	0.0000513 %	✓	
		601-052-00-2	202-049-5	91-20-3									
26		acenaphthylene				0.11	mg/kg		0.0957	mg/kg	0.00000957 %	✓	
			205-917-1	208-96-8									
27		acenaphthene				0.41	mg/kg		0.357	mg/kg	0.0000357 %	✓	
			201-469-6	83-32-9									
28		fluorene				0.31	mg/kg		0.27	mg/kg	0.000027 %	✓	
			201-695-5	86-73-7									
29		phenanthrene				3	mg/kg		2.61	mg/kg	0.000261 %	✓	
			201-581-5	85-01-8									
30		anthracene				0.61	mg/kg		0.531	mg/kg	0.0000531 %	✓	
			204-371-1	120-12-7									
31		fluoranthene				4.6	mg/kg		4.002	mg/kg	0.0004 %	✓	
			205-912-4	206-44-0									
32		pyrene				4.7	mg/kg		4.089	mg/kg	0.000409 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				2.3	mg/kg		2.001	mg/kg	0.0002 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				2.7	mg/kg		2.349	mg/kg	0.000235 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				2.3	mg/kg		2.001	mg/kg	0.0002 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				1.1	mg/kg		0.957	mg/kg	0.0000957 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				2.3	mg/kg		2.001	mg/kg	0.0002 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				1.1	mg/kg		0.957	mg/kg	0.0000957 %	✓	
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				0.28	mg/kg		0.244	mg/kg	0.0000244 %	✓	
		601-041-00-2	200-181-8	53-70-3									
40		benzo[ghi]perylene				1.3	mg/kg		1.131	mg/kg	0.000113 %	✓	
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
41		coronene				0.65 mg/kg		0.566 mg/kg	0.0000566 %	✓	
			205-881-7	191-07-1							
42		asbestos				<		<	<		**ND**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5							
43		xylene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		**<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]							
									Total:	0.218 %	

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
ND	Not detected
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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00383%)

Classification of sample: WS08-ES3-29042024-1,00

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

Sample details

Sample name:
WS08-ES3-29042024-1,00
Sample Depth:
1.0 m
Moisture content:
10%
(wet weight 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: 10% Wet Weight 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	pH			PH		8 pH		8 pH	8pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		3.4 mg/kg	1.534	4.694 mg/kg	0.000469 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		9 mg/kg	1.623	13.15 mg/kg	0.00132 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.21 mg/kg	2.775	0.525 mg/kg	0.0000525 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		<0.2 mg/kg	3.22	<0.644 mg/kg	<0.0000644 %		<**LOD**
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<**LOD**
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7.4 mg/kg	1.462	10.816 mg/kg	0.00108 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9.8 mg/kg	1.126	9.93 mg/kg	0.000993 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	4.4 mg/kg		3.96 mg/kg	0.000396 %	✓	

#		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
14		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
15		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		6.4	mg/kg	2.637	15.187	mg/kg	0.00152 %	✓	
16		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
17		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		9.4	mg/kg	1.785	15.103	mg/kg	0.00151 %	✓	
18		zinc { zinc chloride }	030-003-00-2	231-592-0	7646-85-7		14	mg/kg	2.085	26.265	mg/kg	0.00263 %	✓	
19		TPH (C6 to C40) petroleum group			TPH		<20	mg/kg		<20	mg/kg	<0.002 %		<LOD
20		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
21		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
22		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
24		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
25		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
26		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
27		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
28		fluorene		201-695-5	86-73-7		0.05	mg/kg		0.045	mg/kg	0.0000045 %	✓	
29		phenanthrene		201-581-5	85-01-8		0.33	mg/kg		0.297	mg/kg	0.0000297 %	✓	
30		anthracene		204-371-1	120-12-7		0.07	mg/kg		0.063	mg/kg	0.0000063 %	✓	
31		fluoranthene		205-912-4	206-44-0		0.26	mg/kg		0.234	mg/kg	0.0000234 %	✓	
32		pyrene		204-927-3	129-00-0		0.23	mg/kg		0.207	mg/kg	0.0000207 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.08	mg/kg		0.072	mg/kg	0.0000072 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		0.08	mg/kg		0.072	mg/kg	0.0000072 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.09	mg/kg		0.081	mg/kg	0.0000081 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.06	mg/kg		0.054	mg/kg	0.0000054 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.1	mg/kg		0.09	mg/kg	0.000009 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		0.06	mg/kg		0.054	mg/kg	0.0000054 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
40		benzo[ghi]perylene		205-883-8	191-24-2		<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									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**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]									
										Total:	0.0133 %		

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: WS09-ES1-29042024-0.50

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

Sample details

Sample name:
WS09-ES1-29042024-0.50
Sample Depth:
0.5 m
Moisture content:
14%
(wet weight 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% Wet Weight 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	pH			PH		7.9 pH		7.9 pH	7.9 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		1.4 mg/kg	1.197	1.441 mg/kg	0.000144 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		11 mg/kg	1.534	14.51 mg/kg	0.00145 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		250 mg/kg	1.623	349.047 mg/kg	0.0349 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.55 mg/kg	2.775	1.313 mg/kg	0.000131 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		<0.2 mg/kg	3.22	<0.644 mg/kg	<0.0000644 %		<**LOD**
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<**LOD**
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8.3 mg/kg	1.462	12.131 mg/kg	0.00121 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		33 mg/kg	1.126	31.953 mg/kg	0.0032 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	69 mg/kg		59.34 mg/kg	0.00593 %	✓	

#		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
14		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
15		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		10	mg/kg	2.637	22.675	mg/kg	0.00227 %	✓	
16		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
17		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		14	mg/kg	1.785	21.494	mg/kg	0.00215 %	✓	
18		zinc { zinc chloride }	030-003-00-2	231-592-0	7646-85-7		82	mg/kg	2.085	147	mg/kg	0.0147 %	✓	
19		TPH (C6 to C40) petroleum group			TPH		35	mg/kg		30.1	mg/kg	0.00301 %	✓	
20		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
21		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
22		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
24		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
25		naphthalene	601-052-00-2	202-049-5	91-20-3		0.06	mg/kg		0.0516	mg/kg	0.00000516 %	✓	
26		acenaphthylene		205-917-1	208-96-8		0.06	mg/kg		0.0516	mg/kg	0.00000516 %	✓	
27		acenaphthene		201-469-6	83-32-9		0.23	mg/kg		0.198	mg/kg	0.0000198 %	✓	
28		fluorene		201-695-5	86-73-7		0.17	mg/kg		0.146	mg/kg	0.0000146 %	✓	
29		phenanthrene		201-581-5	85-01-8		0.85	mg/kg		0.731	mg/kg	0.0000731 %	✓	
30		anthracene		204-371-1	120-12-7		0.24	mg/kg		0.206	mg/kg	0.0000206 %	✓	
31		fluoranthene		205-912-4	206-44-0		2.4	mg/kg		2.064	mg/kg	0.000206 %	✓	
32		pyrene		204-927-3	129-00-0		2.4	mg/kg		2.064	mg/kg	0.000206 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		1.2	mg/kg		1.032	mg/kg	0.000103 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		1.3	mg/kg		1.118	mg/kg	0.000112 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		1.7	mg/kg		1.462	mg/kg	0.000146 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.6	mg/kg		0.516	mg/kg	0.0000516 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.4	mg/kg		1.204	mg/kg	0.00012 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		0.76	mg/kg		0.654	mg/kg	0.0000654 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.19	mg/kg		0.163	mg/kg	0.0000163 %	✓	
40		benzo[ghi]perylene		205-883-8	191-24-2		0.76	mg/kg		0.654	mg/kg	0.0000654 %	✓	

#		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							
41		coronene				0.52 mg/kg		0.447 mg/kg	0.0000447 %	✓	
			205-881-7	191-07-1							
42		asbestos				<		<	<		**ND**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5							
43		xylene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		**<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]							
									Total:	0.0715 %	

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00301%)

Classification of sample: WS09-ES2-29042024-1.00

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

Sample details

Sample name:
WS09-ES2-29042024-1.00
Sample Depth:
1.0 m
Moisture content:
18%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 18% Wet Weight 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	pH			PH		7.2	pH		7.2	pH	7.2 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<1	mg/kg	1.197	<1.197	mg/kg	<0.00012 %		<**LOD**
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		22	mg/kg	1.534	27.671	mg/kg	0.00277 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		130	mg/kg	1.623	173.062	mg/kg	0.0173 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.4	mg/kg	2.775	3.186	mg/kg	0.000319 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.5	mg/kg	3.22	1.32	mg/kg	0.000132 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2	mg/kg	1.142	<0.228	mg/kg	<0.0000228 %		<**LOD**
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8	mg/kg	2.27	<4.086	mg/kg	<0.000409 %		<**LOD**
11	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 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		38	mg/kg	1.126	35.083	mg/kg	0.00351 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	77	mg/kg		63.14	mg/kg	0.00631 %	✓	

#		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
14		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.5	mg/kg	1.353	0.555	mg/kg	0.0000555 %	✓	
15		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		27	mg/kg	2.637	58.376	mg/kg	0.00584 %	✓	
16		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
17		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		36	mg/kg	1.785	52.699	mg/kg	0.00527 %	✓	
18		zinc { zinc chloride }	030-003-00-2	231-592-0	7646-85-7		49	mg/kg	2.085	83.756	mg/kg	0.00838 %	✓	
19		TPH (C6 to C40) petroleum group			TPH		16	mg/kg		13.12	mg/kg	0.00131 %	✓	
20		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
21		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
22		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
24		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**
25		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
26		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
27		acenaphthene		201-469-6	83-32-9		0.17	mg/kg		0.139	mg/kg	0.0000139 %	✓	
28		fluorene		201-695-5	86-73-7		0.14	mg/kg		0.115	mg/kg	0.0000115 %	✓	
29		phenanthrene		201-581-5	85-01-8		1	mg/kg		0.82	mg/kg	0.000082 %	✓	
30		anthracene		204-371-1	120-12-7		0.21	mg/kg		0.172	mg/kg	0.0000172 %	✓	
31		fluoranthene		205-912-4	206-44-0		1.3	mg/kg		1.066	mg/kg	0.000107 %	✓	
32		pyrene		204-927-3	129-00-0		1.3	mg/kg		1.066	mg/kg	0.000107 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.58	mg/kg		0.476	mg/kg	0.0000476 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		0.64	mg/kg		0.525	mg/kg	0.0000525 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.73	mg/kg		0.599	mg/kg	0.0000599 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.23	mg/kg		0.189	mg/kg	0.0000189 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.63	mg/kg		0.517	mg/kg	0.0000517 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		0.35	mg/kg		0.287	mg/kg	0.0000287 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.09	mg/kg		0.0738	mg/kg	0.00000738 %	✓	
40		benzo[ghi]perylene		205-883-8	191-24-2		0.4	mg/kg		0.328	mg/kg	0.0000328 %	✓	

#		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									
41		coronene				0.23	mg/kg		0.189	mg/kg	0.0000189 %	✓	
			205-881-7	191-07-1									
42		asbestos				<			<		<		**ND**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
43		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<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]									
										Total:	0.0576 %		

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
ND	Not detected
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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00131%)

Classification of sample: WS09-ES3-29042024-2 00

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

Sample details

Sample name:
WS09-ES3-29042024-2 00
Sample Depth:
2.0 m
Moisture content:
14%
(wet weight 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% Wet Weight 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	pH			PH		7.9 pH		7.9 pH	7.9 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<LOD
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		4.8 mg/kg	1.534	6.332 mg/kg	0.000633 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		26 mg/kg	1.623	36.301 mg/kg	0.00363 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.27 mg/kg	2.775	0.644 mg/kg	0.0000644 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.831 mg/kg	0.0000831 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6.2 mg/kg	1.462	9.062 mg/kg	0.000906 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	9.683 mg/kg	0.000968 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	16 mg/kg		13.76 mg/kg	0.00138 %	✓	

#		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
14		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
15		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		5.5	mg/kg	2.637	12.472	mg/kg	0.00125 %	✓	
16		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
17		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		12	mg/kg	1.785	18.423	mg/kg	0.00184 %	✓	
18		zinc { zinc chloride }	030-003-00-2	231-592-0	7646-85-7		17	mg/kg	2.085	30.476	mg/kg	0.00305 %	✓	
19		TPH (C6 to C40) petroleum group			TPH		17	mg/kg		14.62	mg/kg	0.00146 %	✓	
20		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
21		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
22		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
24		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
25		naphthalene	601-052-00-2	202-049-5	91-20-3		0.06	mg/kg		0.0516	mg/kg	0.00000516 %	✓	
26		acenaphthylene		205-917-1	208-96-8		0.48	mg/kg		0.413	mg/kg	0.0000413 %	✓	
27		acenaphthene		201-469-6	83-32-9		0.21	mg/kg		0.181	mg/kg	0.0000181 %	✓	
28		fluorene		201-695-5	86-73-7		0.5	mg/kg		0.43	mg/kg	0.000043 %	✓	
29		phenanthrene		201-581-5	85-01-8		3.9	mg/kg		3.354	mg/kg	0.000335 %	✓	
30		anthracene		204-371-1	120-12-7		0.84	mg/kg		0.722	mg/kg	0.0000722 %	✓	
31		fluoranthene		205-912-4	206-44-0		3.7	mg/kg		3.182	mg/kg	0.000318 %	✓	
32		pyrene		204-927-3	129-00-0		3.6	mg/kg		3.096	mg/kg	0.00031 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		1.7	mg/kg		1.462	mg/kg	0.000146 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		1.7	mg/kg		1.462	mg/kg	0.000146 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		1.9	mg/kg		1.634	mg/kg	0.000163 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.77	mg/kg		0.662	mg/kg	0.0000662 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.8	mg/kg		1.548	mg/kg	0.000155 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		0.95	mg/kg		0.817	mg/kg	0.0000817 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.21	mg/kg		0.181	mg/kg	0.0000181 %	✓	
40		benzo[ghi]perylene		205-883-8	191-24-2		0.98	mg/kg		0.843	mg/kg	0.0000843 %	✓	

#		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									
41		coronene				0.6	mg/kg		0.516	mg/kg	0.0000516 %	✓	
			205-881-7	191-07-1									
42		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**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]									
										Total:	0.0185 %		

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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00146%)

Classification of sample: WS10-ES1-29042024-0.30

Hazardous Waste
Classified as **17 05 03 ***
in the List of Waste

Sample details

Sample name:
WS10-ES1-29042024-0.30
Sample Depth:
0.3 m
Moisture content:
13%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.117%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.117%)

Determinands

Moisture content: 13% Wet Weight 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	pH			PH		7.8 pH		7.8 pH	7.8 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		2.8 mg/kg	1.197	2.916 mg/kg	0.000292 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		18 mg/kg	1.534	24.02 mg/kg	0.0024 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		180 mg/kg	1.623	254.236 mg/kg	0.0254 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1 mg/kg	2.775	2.415 mg/kg	0.000241 %	✓	

#		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
8		boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.5	mg/kg	3.22	1.401	mg/kg	0.00014 %	✓	
9		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2	mg/kg	1.142	<0.228	mg/kg	<0.0000228 %		<**LOD**
10		chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8	mg/kg	2.27	<4.086	mg/kg	<0.000409 %		<**LOD**
11		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 %		
12		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		45	mg/kg	1.126	44.079	mg/kg	0.00441 %	✓	
13		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	130	mg/kg		113.1	mg/kg	0.0113 %	✓	
14		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.5	mg/kg	1.353	0.589	mg/kg	0.0000589 %	✓	
15		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		18	mg/kg	2.637	41.29	mg/kg	0.00413 %	✓	
16		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
17		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		25	mg/kg	1.785	38.828	mg/kg	0.00388 %	✓	
18		zinc { zinc chloride }	030-003-00-2	231-592-0	7646-85-7		73	mg/kg	2.085	132.388	mg/kg	0.0132 %	✓	
19		TPH (C6 to C40) petroleum group			TPH		1343	mg/kg		1168.41	mg/kg	0.117 %	✓	
20		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
21		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
22		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
24		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**
25		naphthalene	601-052-00-2	202-049-5	91-20-3		9.3	mg/kg		8.091	mg/kg	0.000809 %	✓	
26		acenaphthylene		205-917-1	208-96-8		52	mg/kg		45.24	mg/kg	0.00452 %	✓	
27		acenaphthene		201-469-6	83-32-9		21	mg/kg		18.27	mg/kg	0.00183 %	✓	
28		fluorene		201-695-5	86-73-7		60	mg/kg		52.2	mg/kg	0.00522 %	✓	
29		phenanthrene		201-581-5	85-01-8		480	mg/kg		417.6	mg/kg	0.0418 %	✓	
30		anthracene		204-371-1	120-12-7		110	mg/kg		95.7	mg/kg	0.00957 %	✓	
31		fluoranthene		205-912-4	206-44-0		430	mg/kg		374.1	mg/kg	0.0374 %	✓	
32		pyrene		204-927-3	129-00-0		390	mg/kg		339.3	mg/kg	0.0339 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		200	mg/kg		174	mg/kg	0.0174 %	✓	

#		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									
34		chrysene				200	mg/kg		174	mg/kg	0.0174 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				190	mg/kg		165.3	mg/kg	0.0165 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				65	mg/kg		56.55	mg/kg	0.00565 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				160	mg/kg		139.2	mg/kg	0.0139 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				65	mg/kg		56.55	mg/kg	0.00565 %	✓	
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				25	mg/kg		21.75	mg/kg	0.00217 %	✓	
		601-041-00-2	200-181-8	53-70-3									
40		benzo[ghi]perylene				74	mg/kg		64.38	mg/kg	0.00644 %	✓	
			205-883-8	191-24-2									
41		coronene				31	mg/kg		26.97	mg/kg	0.0027 %	✓	
			205-881-7	191-07-1									
42		asbestos				<			<		<		**ND**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
43		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<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]									
										Total:	0.408 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.117%)

Classification of sample: WS10-ES2-29042024-0.60

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

Sample details

Sample name:
WS10-ES2-29042024-0.60
Sample Depth:
0.6 m
Moisture content:
15%
(wet weight 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% Wet Weight 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	pH			PH		7.9 pH		7.9 pH	7.9 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		2.6 mg/kg	1.197	2.646 mg/kg	0.000265 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		16 mg/kg	1.534	20.861 mg/kg	0.00209 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		180 mg/kg	1.623	248.391 mg/kg	0.0248 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.78 mg/kg	2.775	1.84 mg/kg	0.000184 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.5 mg/kg	3.22	1.368 mg/kg	0.000137 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16 mg/kg	1.462	23.385 mg/kg	0.00234 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		49 mg/kg	1.126	46.893 mg/kg	0.00469 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	110 mg/kg		93.5 mg/kg	0.00935 %	✓	

#		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
14		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
15		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		16	mg/kg	2.637	35.859	mg/kg	0.00359 %	✓	
16		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
17		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		24	mg/kg	1.785	36.418	mg/kg	0.00364 %	✓	
18		zinc { zinc chloride }	030-003-00-2	231-592-0	7646-85-7		81	mg/kg	2.085	143.519	mg/kg	0.0144 %	✓	
19		TPH (C6 to C40) petroleum group			TPH		254	mg/kg		215.9	mg/kg	0.0216 %	✓	
20		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
21		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
22		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
24		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
25		naphthalene	601-052-00-2	202-049-5	91-20-3		0.13	mg/kg		0.111	mg/kg	0.0000111 %	✓	
26		acenaphthylene		205-917-1	208-96-8		0.19	mg/kg		0.161	mg/kg	0.0000161 %	✓	
27		acenaphthene		201-469-6	83-32-9		0.47	mg/kg		0.399	mg/kg	0.0000399 %	✓	
28		fluorene		201-695-5	86-73-7		0.36	mg/kg		0.306	mg/kg	0.0000306 %	✓	
29		phenanthrene		201-581-5	85-01-8		4.7	mg/kg		3.995	mg/kg	0.0004 %	✓	
30		anthracene		204-371-1	120-12-7		1.5	mg/kg		1.275	mg/kg	0.000127 %	✓	
31		fluoranthene		205-912-4	206-44-0		12	mg/kg		10.2	mg/kg	0.00102 %	✓	
32		pyrene		204-927-3	129-00-0		11	mg/kg		9.35	mg/kg	0.000935 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		5.3	mg/kg		4.505	mg/kg	0.000451 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		5.2	mg/kg		4.42	mg/kg	0.000442 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		6.6	mg/kg		5.61	mg/kg	0.000561 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		2.4	mg/kg		2.04	mg/kg	0.000204 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		5.9	mg/kg		5.015	mg/kg	0.000502 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		3.1	mg/kg		2.635	mg/kg	0.000263 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.88	mg/kg		0.748	mg/kg	0.0000748 %	✓	
40		benzo[ghi]perylene		205-883-8	191-24-2		3.5	mg/kg		2.975	mg/kg	0.000298 %	✓	

#		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							
41		coronene				2.2 mg/kg		1.87 mg/kg	0.000187 %	✓	
			205-881-7	191-07-1							
42		asbestos				<		<	<		**ND**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5							
43		xylene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		**<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]							
									Total:	0.0936 %	

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
ND	Not detected
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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0216%)

Classification of sample: WS10-ES3-29042024-1.00

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

Sample details

Sample name:
WS10-ES3-29042024-1.00
Sample Depth:
1.0 m
Moisture content:
17%
(wet weight 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% Wet Weight 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	pH			PH		7.7 pH		7.7 pH	7.7 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		3.6 mg/kg	1.197	3.577 mg/kg	0.000358 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		18 mg/kg	1.534	22.916 mg/kg	0.00229 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		110 mg/kg	1.623	148.223 mg/kg	0.0148 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.93 mg/kg	2.775	2.142 mg/kg	0.000214 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.5 mg/kg	3.22	1.336 mg/kg	0.000134 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13 mg/kg	1.462	19 mg/kg	0.0019 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		40 mg/kg	1.126	37.379 mg/kg	0.00374 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	80 mg/kg		66.4 mg/kg	0.00664 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
14		mercury { mercury dichloride }				1.5	mg/kg	1.353	1.685	mg/kg	0.000169 %	✓	
		080-010-00-X	231-299-8	7487-94-7									
15		nickel { nickel sulfate }				16	mg/kg	2.637	35.015	mg/kg	0.0035 %	✓	
		028-009-00-5	232-104-9	7786-81-4									
16		selenium { nickel selenate }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
		028-031-00-5	239-125-2	15060-62-5									
17		vanadium { divanadium pentaoxide; vanadium pentoxide }				23	mg/kg	1.785	34.079	mg/kg	0.00341 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
18		zinc { zinc chloride }				39	mg/kg	2.085	67.476	mg/kg	0.00675 %	✓	
		030-003-00-2	231-592-0	7646-85-7									
19		TPH (C6 to C40) petroleum group				53	mg/kg		43.99	mg/kg	0.0044 %	✓	
				TPH									
20		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
21		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
22		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**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]									
24		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									
25		naphthalene				0.12	mg/kg		0.0996	mg/kg	0.00000996 %	✓	
		601-052-00-2	202-049-5	91-20-3									
26		acenaphthylene				0.43	mg/kg		0.357	mg/kg	0.0000357 %	✓	
			205-917-1	208-96-8									
27		acenaphthene				0.28	mg/kg		0.232	mg/kg	0.0000232 %	✓	
			201-469-6	83-32-9									
28		fluorene				0.64	mg/kg		0.531	mg/kg	0.0000531 %	✓	
			201-695-5	86-73-7									
29		phenanthrene				5	mg/kg		4.15	mg/kg	0.000415 %	✓	
			201-581-5	85-01-8									
30		anthracene				1.3	mg/kg		1.079	mg/kg	0.000108 %	✓	
			204-371-1	120-12-7									
31		fluoranthene				5.8	mg/kg		4.814	mg/kg	0.000481 %	✓	
			205-912-4	206-44-0									
32		pyrene				5.3	mg/kg		4.399	mg/kg	0.00044 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				2.6	mg/kg		2.158	mg/kg	0.000216 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				2.5	mg/kg		2.075	mg/kg	0.000208 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				2.7	mg/kg		2.241	mg/kg	0.000224 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				0.84	mg/kg		0.697	mg/kg	0.0000697 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				2.3	mg/kg		1.909	mg/kg	0.000191 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				1.1	mg/kg		0.913	mg/kg	0.0000913 %	✓	
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				0.29	mg/kg		0.241	mg/kg	0.0000241 %	✓	
		601-041-00-2	200-181-8	53-70-3									
40		benzo[ghi]perylene				1.2	mg/kg		0.996	mg/kg	0.0000996 %	✓	
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				0.73	mg/kg		0.606	mg/kg	0.0000606 %	✓	
			205-881-7	191-07-1									
42		asbestos				<			<		<		**ND**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
43		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<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]									
										Total:	0.052 %		

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
ND	Not detected
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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0044%)

Appendix A: Classifier defined and non GB MCL determinands

pH (CAS Number: PH)

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

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

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

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

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

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

GB MCL index number: 082-001-00-6
Description/Comments: Worst Case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers lead compounds from smelting industries, flue dust and similar to be Carcinogenic category 1A
Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html (worst case lead compounds). Review date 29/09/2015

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

Description/Comments: 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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- **coronene** (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases; SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en
Data source date: 16 Jun 2014
Hazard Statements: STOT SE 2; H371

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

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

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

- **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

2,2'-oxybis[2-chloropropane] (EC Number: 254-554-5, CAS Number: 39638-32-9)

Description/Comments:
Data source: European Chemicals Agency's Classification & Labelling Inventory database
Data source date: 24 Apr 2024
Hazard Statements: Acute Tox. 3; H301 , Muta. 2; H341

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

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

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

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

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

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-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-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

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

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

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

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

1,1,2-trichlorotrifluoroethane (EC Number: 200-936-1, CAS Number: 76-13-1)

Description/Comments:
Data source: European Chemicals Agency's Classification & Labelling Inventory database
Data source date: 24 Apr 2024
Hazard Statements: Eye Irrit. 2; H319 , Aquatic Chronic 2; H411 , Ozone 1; H420

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

Propylbenzene (EC Number: 203-132-9, CAS Number: 103-65-1)

Description/Comments:
Data source: European Chemicals Agency's Classification & Labelling Inventory database
Data source date: 24 Apr 2024
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , 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

- **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

- **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

- **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

- **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

- **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

Appendix B: Rationale for selection of metal 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}

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

antimony {antimony trioxide}

Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings.

arsenic {arsenic pentoxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: arsenates, weed killers, metal adhesives, insecticides, fungicides, wood preservatives, coloured gases, printing and dyeing.

barium {barium diboron tetraoxide}

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough metal and Cr(VI) present to make the worst case CLP (metal chromate) (noting concentrations not at hazardous levels in any case).

beryllium {beryllium oxide}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: most common (non alloy) form, used in ceramics.

boron {diboron trioxide}

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

cadmium {cadmium oxide}

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

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

Worst case species based on hazard statements/molecular weight.

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

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

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected.

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

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough metal and Cr(VI) present to make the worst case CLP (metal chromate) (noting concentrations not at hazardous levels in any case).

mercury {mercury dichloride}

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

nickel {nickel sulfate}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: copper refining, electroplating and rechargeable batteries. Worst case compounds in CLP not expected as either very soluble and/or compounds industrial useage not related to site history.

selenium {nickel selenate}

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

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case species.

zinc {zinc chloride}

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough metal and Cr(VI) present to make the worst case CLP (metal chromate) (noting concentrations not at hazardous levels in any case).

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2024.155.6087.11248 (03 Jun 2024)
HazWasteOnline Database: 2024.149.6082.11243 (28 May 2024)

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

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.

GAVMI-L9SQ8-JCO2G

Job name

24-018024_HWOL

Description/Comments

i2 Analytical Report 24-018024

Project

51013/01

Site

Chorlton Precinct

Classified by

Name:
Kirsty Poore
Date:
03 Jun 2024 14:53 GMT
Telephone:
07983 740199

Company:
Civic Earth Limited
77 Dale Street
Manchester
M12HG

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	05 Oct 2023

Next 3 year Refresher due by Oct 2026

Purpose of classification

2 - Material Characterisation

Address of the waste

Chorlton-cum-Hardy, Manchester **Post Code** M21 9AQ

SIC for the process giving rise to the waste

41201 Construction of commercial buildings

Description of industry/producer giving rise to the waste

Redevelopment of commercial land into new mixed use development

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

Waste created during excavation of soils during site investigation

Description of the waste

Made Ground and Natural Soil

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	BH03-ES1-29042024-0.50	0.5	Non Hazardous		3
2	BH03-ES2-29042024-0.80	0.8	Non Hazardous		6

Related documents

#	Name	Description
1	24-018024_HWOL.hwol	i2 Analytical .hwol file used to populate the Job
2	Civic Earth Soil Suite 3 Waste Stream - i2	waste stream template used to create this Job

Report

Created by: Kirsty Poore

Created date: 03 Jun 2024 14:53 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	9
Appendix B: Rationale for selection of metal species	10
Appendix C: Version	11

Classification of sample: BH03-ES1-29042024-0.50

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

Sample details

Sample name:
BH03-ES1-29042024-0.50
Sample Depth:
0.5 m
Moisture content:
13%
(wet weight 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% Wet Weight 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	pH			PH		7.8	pH		7.8	pH	7.8 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		3.2	mg/kg	1.197	3.333	mg/kg	0.000333 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		12	mg/kg	1.534	16.014	mg/kg	0.0016 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		770	mg/kg	1.623	1087.564	mg/kg	0.109 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.9	mg/kg	2.775	2.173	mg/kg	0.000217 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.8	mg/kg	3.22	2.241	mg/kg	0.000224 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.5	mg/kg	1.142	0.497	mg/kg	0.0000497 %	✓	
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8	mg/kg	2.27	<4.086	mg/kg	<0.000409 %		<**LOD**
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		35	mg/kg	1.462	51.154	mg/kg	0.00512 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		32	mg/kg	1.126	31.345	mg/kg	0.00313 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	290	mg/kg		252.3	mg/kg	0.0252 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
14		mercury { mercury dichloride }				0.3	mg/kg	1.353	0.353	mg/kg	0.0000353 %	✓	
		080-010-00-X	231-299-8	7487-94-7									
15		nickel { nickel sulfate }				22	mg/kg	2.637	50.466	mg/kg	0.00505 %	✓	
		028-009-00-5	232-104-9	7786-81-4									
16		selenium { nickel selenate }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
		028-031-00-5	239-125-2	15060-62-5									
17		vanadium { divanadium pentaoxide; vanadium pentoxide }				27	mg/kg	1.785	41.934	mg/kg	0.00419 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
18		zinc { zinc chloride }				76	mg/kg	2.085	137.829	mg/kg	0.0138 %	✓	
		030-003-00-2	231-592-0	7646-85-7									
19		TPH (C6 to C40) petroleum group				258	mg/kg		224.46	mg/kg	0.0224 %	✓	
				TPH									
20		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
21		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
22		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**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]									
24		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									
25		naphthalene				0.99	mg/kg		0.861	mg/kg	0.0000861 %	✓	
		601-052-00-2	202-049-5	91-20-3									
26		acenaphthylene				0.17	mg/kg		0.148	mg/kg	0.0000148 %	✓	
			205-917-1	208-96-8									
27		acenaphthene				4.5	mg/kg		3.915	mg/kg	0.000392 %	✓	
			201-469-6	83-32-9									
28		fluorene				3.4	mg/kg		2.958	mg/kg	0.000296 %	✓	
			201-695-5	86-73-7									
29		phenanthrene				18	mg/kg		15.66	mg/kg	0.00157 %	✓	
			201-581-5	85-01-8									
30		anthracene				6.1	mg/kg		5.307	mg/kg	0.000531 %	✓	
			204-371-1	120-12-7									
31		fluoranthene				24	mg/kg		20.88	mg/kg	0.00209 %	✓	
			205-912-4	206-44-0									
32		pyrene				20	mg/kg		17.4	mg/kg	0.00174 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				9.6	mg/kg		8.352	mg/kg	0.000835 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				9.7	mg/kg		8.439	mg/kg	0.000844 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				10	mg/kg		8.7	mg/kg	0.00087 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				4.5	mg/kg		3.915	mg/kg	0.000392 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				8.9	mg/kg		7.743	mg/kg	0.000774 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				4.2	mg/kg		3.654	mg/kg	0.000365 %	✓	
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				0.94	mg/kg		0.818	mg/kg	0.0000818 %	✓	
		601-041-00-2	200-181-8	53-70-3									
40		benzo[ghi]perylene				4.3	mg/kg		3.741	mg/kg	0.000374 %	✓	
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				1.2	mg/kg		1.044	mg/kg	0.000104 %	✓	
			205-881-7	191-07-1									
42		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**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]									
										Total:	0.202 %		

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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0224%)

Classification of sample: BH03-ES2-29042024-0.80

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

Sample details

Sample name:
BH03-ES2-29042024-0.80
Sample Depth:
0.8 m
Moisture content:
16%
(wet weight 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% Wet Weight 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	pH			PH		7.9 pH		7.9 pH	7.9 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<LOD
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		11 mg/kg	1.534	14.173 mg/kg	0.00142 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		210 mg/kg	1.623	286.381 mg/kg	0.0286 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.5 mg/kg	2.775	3.497 mg/kg	0.00035 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.811 mg/kg	0.0000811 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		37 mg/kg	1.462	54.078 mg/kg	0.00541 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		23 mg/kg	1.126	21.752 mg/kg	0.00218 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	19 mg/kg		15.96 mg/kg	0.0016 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
14		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									
15		nickel { nickel sulfate }				39	mg/kg	2.637	86.378	mg/kg	0.00864 %	✓	
		028-009-00-5	232-104-9	7786-81-4									
16		selenium { nickel selenate }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
		028-031-00-5	239-125-2	15060-62-5									
17		vanadium { divanadium pentaoxide; vanadium pentoxide }				39	mg/kg	1.785	58.483	mg/kg	0.00585 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
18		zinc { zinc chloride }				58	mg/kg	2.085	101.558	mg/kg	0.0102 %	✓	
		030-003-00-2	231-592-0	7646-85-7									
19		TPH (C6 to C40) petroleum group				42	mg/kg		35.28	mg/kg	0.00353 %	✓	
				TPH									
20		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
21		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
22		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<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]									
24		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									
25		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
26		acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-917-1	208-96-8									
27		acenaphthene				0.11	mg/kg		0.0924	mg/kg	0.00000924 %	✓	
			201-469-6	83-32-9									
28		fluorene				0.08	mg/kg		0.0672	mg/kg	0.00000672 %	✓	
			201-695-5	86-73-7									
29		phenanthrene				0.3	mg/kg		0.252	mg/kg	0.0000252 %	✓	
			201-581-5	85-01-8									
30		anthracene				0.13	mg/kg		0.109	mg/kg	0.0000109 %	✓	
			204-371-1	120-12-7									
31		fluoranthene				0.54	mg/kg		0.454	mg/kg	0.0000454 %	✓	
			205-912-4	206-44-0									
32		pyrene				0.47	mg/kg		0.395	mg/kg	0.0000395 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				0.19	mg/kg		0.16	mg/kg	0.000016 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				0.19	mg/kg		0.16	mg/kg	0.000016 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				0.23	mg/kg		0.193	mg/kg	0.0000193 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				0.08	mg/kg		0.0672	mg/kg	0.00000672 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				0.16	mg/kg		0.134	mg/kg	0.0000134 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				0.08	mg/kg		0.0672	mg/kg	0.00000672 %	✓	
			205-893-2	193-39-5									
39		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									
40		benzo[ghi]perylene				0.1	mg/kg		0.084	mg/kg	0.0000084 %	✓	
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				0.06	mg/kg		0.0504	mg/kg	0.00000504 %	✓	
			205-881-7	191-07-1									
42		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**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]									
										Total:	0.0692 %		

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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00353%)

Appendix A: Classifier defined and non GB MCL determinands

pH (CAS Number: PH)

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

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

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

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

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

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

GB MCL index number: 082-001-00-6
Description/Comments: Worst Case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers lead compounds from smelting industries, flue dust and similar to be Carcinogenic category 1A
Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html (worst case lead compounds). Review date 29/09/2015

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

Description/Comments: 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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- **coronene** (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases; SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en
Data source date: 16 Jun 2014
Hazard Statements: STOT SE 2; H371

Appendix B: Rationale for selection of metal 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}

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

antimony {antimony trioxide}

Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings.

arsenic {arsenic pentoxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: arsenates, weed killers, metal adhesives, insecticides, fungicides, wood preservatives, coloured gases, printing and dyeing.

barium {barium diboron tetraoxide}

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough metal and Cr(VI) present to make the worst case CLP (metal chromate) (noting concentrations not at hazardous levels in any case).

beryllium {beryllium oxide}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: most common (non alloy) form, used in ceramics.

boron {diboron trioxide}

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

cadmium {cadmium oxide}

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

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

Worst case species based on hazard statements/molecular weight.

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

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

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected.

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

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough metal and Cr(VI) present to make the worst case CLP (metal chromate) (noting concentrations not at hazardous levels in any case).

mercury {mercury dichloride}

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

nickel {nickel sulfate}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: copper refining, electroplating and rechargeable batteries. Worst case compounds in CLP not expected as either very soluble and/or compounds industrial useage not related to site history.

selenium {nickel selenate}

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

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case species.

zinc {zinc chloride}

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough metal and Cr(VI) present to make the worst case CLP (metal chromate) (noting concentrations not at hazardous levels in any case).

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2024.155.6087.11248 (03 Jun 2024)
HazWasteOnline Database: 2024.149.6082.11243 (28 May 2024)

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

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.

GRC8H-1DGZD-FZMRD

Job name

24-019479_HWOL

Description/Comments

i2 Analytical Report 24-019479

Project

51013/01

Site

Chorlton Precinct

Classified by

Name:
Kirsty Poore
Date:
03 Jun 2024 14:57 GMT
Telephone:
07983 740199

Company:
Civic Earth Limited
77 Dale Street
Manchester
M12HG

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	05 Oct 2023

Next 3 year Refresher due by Oct 2026

Purpose of classification

2 - Material Characterisation

Address of the waste

Chorlton-cum-Hardy, Manchester **Post Code** M21 9AQ

SIC for the process giving rise to the waste

41201 Construction of commercial buildings

Description of industry/producer giving rise to the waste

Redevelopment of commercial land into new mixed use development

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

Waste created during excavation of soils during site investigation

Description of the waste

Made Ground and Natural Soil

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	BH02-ES2-13052024-0.60	0.6	Non Hazardous		3
2	BH02-ES3-13052024-1.00	1.0	Non Hazardous		6

Related documents

#	Name	Description
1	24-019479_HWOL.hwol	i2 Analytical .hwol file used to populate the Job
2	Civic Earth Soil Suite 3 Waste Stream - i2	waste stream template used to create this Job

Report

Created by: Kirsty Poore

Created date: 03 Jun 2024 14:57 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	9
Appendix B: Rationale for selection of metal species	10
Appendix C: Version	11

Classification of sample: BH02-ES2-13052024-0.60

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

Sample details

Sample name:
BH02-ES2-13052024-0.60
Sample Depth:
0.6 m
Moisture content:
15%
(wet weight 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% Wet Weight 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	pH			PH		7.8 pH		7.8 pH	7.8 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		2.9 mg/kg	1.197	2.951 mg/kg	0.000295 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		16 mg/kg	1.534	20.861 mg/kg	0.00209 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		170 mg/kg	1.623	234.592 mg/kg	0.0235 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.2 mg/kg	2.775	2.831 mg/kg	0.000283 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.821 mg/kg	0.0000821 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		29 mg/kg	1.462	42.385 mg/kg	0.00424 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		45 mg/kg	1.126	43.065 mg/kg	0.00431 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	40 mg/kg		34 mg/kg	0.0034 %	✓	

#		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
14		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.6	mg/kg	1.353	0.69	mg/kg	0.000069 %	✓	
15		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		24	mg/kg	2.637	53.788	mg/kg	0.00538 %	✓	
16		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		1.4	mg/kg	2.554	3.039	mg/kg	0.000304 %	✓	
17		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		30	mg/kg	1.785	45.522	mg/kg	0.00455 %	✓	
18		zinc { zinc chloride }	030-003-00-2	231-592-0	7646-85-7		49	mg/kg	2.085	86.82	mg/kg	0.00868 %	✓	
19		TPH (C6 to C40) petroleum group			TPH		204	mg/kg		173.4	mg/kg	0.0173 %	✓	
20		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
21		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
22		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
24		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**
25		naphthalene	601-052-00-2	202-049-5	91-20-3		0.87	mg/kg		0.74	mg/kg	0.000074 %	✓	
26		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
27		acenaphthene		201-469-6	83-32-9		0.62	mg/kg		0.527	mg/kg	0.0000527 %	✓	
28		fluorene		201-695-5	86-73-7		0.55	mg/kg		0.468	mg/kg	0.0000468 %	✓	
29		phenanthrene		201-581-5	85-01-8		2.7	mg/kg		2.295	mg/kg	0.00023 %	✓	
30		anthracene		204-371-1	120-12-7		0.51	mg/kg		0.434	mg/kg	0.0000433 %	✓	
31		fluoranthene		205-912-4	206-44-0		4.3	mg/kg		3.655	mg/kg	0.000366 %	✓	
32		pyrene		204-927-3	129-00-0		3.4	mg/kg		2.89	mg/kg	0.000289 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		1.4	mg/kg		1.19	mg/kg	0.000119 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		1.4	mg/kg		1.19	mg/kg	0.000119 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		1.6	mg/kg		1.36	mg/kg	0.000136 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.52	mg/kg		0.442	mg/kg	0.0000442 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.3	mg/kg		1.105	mg/kg	0.000111 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		0.63	mg/kg		0.536	mg/kg	0.0000536 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.26	mg/kg		0.221	mg/kg	0.0000221 %	✓	
40		benzo[ghi]perylene		205-883-8	191-24-2		0.68	mg/kg		0.578	mg/kg	0.0000578 %	✓	

#		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									
41		coronene				0.31	mg/kg		0.264	mg/kg	0.0000264 %	✓	
			205-881-7	191-07-1									
42		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**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]									
										Total:	0.077 %		

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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0173%)

Classification of sample: BH02-ES3-13052024-1.00

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

Sample details

Sample name:
BH02-ES3-13052024-1.00
Sample Depth:
1.0 m
Moisture content:
18%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 18% Wet Weight 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	pH			PH		8 pH		8 pH	8pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		2.9 mg/kg	1.197	2.847 mg/kg	0.000285 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		17 mg/kg	1.534	21.382 mg/kg	0.00214 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		180 mg/kg	1.623	239.625 mg/kg	0.024 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.7 mg/kg	2.775	3.869 mg/kg	0.000387 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.792 mg/kg	0.0000792 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		44 mg/kg	1.462	64.308 mg/kg	0.00643 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		29 mg/kg	1.126	26.774 mg/kg	0.00268 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	18 mg/kg		14.76 mg/kg	0.00148 %	✓	

#		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
14		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
15		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		38	mg/kg	2.637	82.159	mg/kg	0.00822 %	✓	
16		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
17		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		45	mg/kg	1.785	65.873	mg/kg	0.00659 %	✓	
18		zinc { zinc chloride }	030-003-00-2	231-592-0	7646-85-7		59	mg/kg	2.085	100.849	mg/kg	0.0101 %	✓	
19		TPH (C6 to C40) petroleum group			TPH		38	mg/kg		31.16	mg/kg	0.00312 %	✓	
20		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
21		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
22		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
24		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
25		naphthalene	601-052-00-2	202-049-5	91-20-3		0.2	mg/kg		0.164	mg/kg	0.0000164 %	✓	
26		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
27		acenaphthene		201-469-6	83-32-9		1.4	mg/kg		1.148	mg/kg	0.000115 %	✓	
28		fluorene		201-695-5	86-73-7		1.3	mg/kg		1.066	mg/kg	0.000107 %	✓	
29		phenanthrene		201-581-5	85-01-8		6	mg/kg		4.92	mg/kg	0.000492 %	✓	
30		anthracene		204-371-1	120-12-7		1.1	mg/kg		0.902	mg/kg	0.0000902 %	✓	
31		fluoranthene		205-912-4	206-44-0		5.6	mg/kg		4.592	mg/kg	0.000459 %	✓	
32		pyrene		204-927-3	129-00-0		4.4	mg/kg		3.608	mg/kg	0.000361 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		1.8	mg/kg		1.476	mg/kg	0.000148 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		1.7	mg/kg		1.394	mg/kg	0.000139 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		1.6	mg/kg		1.312	mg/kg	0.000131 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.76	mg/kg		0.623	mg/kg	0.0000623 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.4	mg/kg		1.148	mg/kg	0.000115 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		0.73	mg/kg		0.599	mg/kg	0.0000599 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.2	mg/kg		0.164	mg/kg	0.0000164 %	✓	
40		benzo[ghi]perylene		205-883-8	191-24-2		0.73	mg/kg		0.599	mg/kg	0.0000599 %	✓	

#		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							
41		coronene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1							
42		xylene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**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]							
								Total:	0.0688 %		

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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00312%)

Appendix A: Classifier defined and non GB MCL determinands

pH (CAS Number: PH)

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

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

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

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

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

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

GB MCL index number: 082-001-00-6
Description/Comments: Worst Case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers lead compounds from smelting industries, flue dust and similar to be Carcinogenic category 1A
Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html (worst case lead compounds). Review date 29/09/2015

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

Description/Comments: 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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- **coronene** (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases; SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en
Data source date: 16 Jun 2014
Hazard Statements: STOT SE 2; H371

Appendix B: Rationale for selection of metal 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}

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

antimony {antimony trioxide}

Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings.

arsenic {arsenic pentoxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: arsenates, weed killers, metal adhesives, insecticides, fungicides, wood preservatives, coloured gases, printing and dyeing.

barium {barium diboron tetraoxide}

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough metal and Cr(VI) present to make the worst case CLP (metal chromate) (noting concentrations not at hazardous levels in any case).

beryllium {beryllium oxide}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: most common (non alloy) form, used in ceramics.

boron {diboron trioxide}

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

cadmium {cadmium oxide}

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

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

Worst case species based on hazard statements/molecular weight.

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

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

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected.

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

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough metal and Cr(VI) present to make the worst case CLP (metal chromate) (noting concentrations not at hazardous levels in any case).

mercury {mercury dichloride}

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

nickel {nickel sulfate}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: copper refining, electroplating and rechargeable batteries. Worst case compounds in CLP not expected as either very soluble and/or compounds industrial useage not related to site history.

selenium {nickel selenate}

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

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case species.

zinc {zinc chloride}

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough metal and Cr(VI) present to make the worst case CLP (metal chromate) (noting concentrations not at hazardous levels in any case).

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2024.155.6087.11248 (03 Jun 2024)
HazWasteOnline Database: 2024.149.6082.11243 (28 May 2024)

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

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.

JDXYU-EKL49-HYARK

This Waste Classification Report contains user defined substances. See Appendix A for details.

Job name

24-019494_HWOL

Description/Comments

i2 Analytical Report 24-019494

Project

51013/01

Site

Chorlton Precinct

Classified by

Name:
Kirsty Poore
Date:
03 Jun 2024 15:01 GMT
Telephone:
07983 740199

Company:
Civic Earth Limited
77 Dale Street
Manchester
M12HG

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	05 Oct 2023

Next 3 year Refresher due by Oct 2026

Purpose of classification

2 - Material Characterisation

Address of the waste

Chorlton-cum-Hardy, Manchester **Post Code** M21 9AQ

SIC for the process giving rise to the waste

41201 Construction of commercial buildings

Description of industry/producer giving rise to the waste

Redevelopment of commercial land into new mixed use development

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

Waste created during excavation of soils during site investigation

Description of the waste

Made Ground and Natural Soil

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS01-2-09052024-0.80	0.8	Non Hazardous		3
2	BH01-2-09052024-1.00	1.0	Non Hazardous		9
3	BH01-4-09052024-2.60	2.6	Non Hazardous		15
4	BH01-5-09052024-2.90	2.9	Non Hazardous		18

Related documents

#	Name	Description
1	24-019494_HWOL.hwol	i2 Analytical .hwol file used to populate the Job
2	Civic Earth Soil Suite 3 Waste Stream - i2	waste stream template used to create this Job

Report

Created by: Kirsty Poore

Created date: 03 Jun 2024 15:01 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	21
Appendix B: Rationale for selection of metal species	25
Appendix C: Version	26

Classification of sample: WS01-2-09052024-0.80

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

Sample details

Sample name:
WS01-2-09052024-0.80
Sample Depth:
0.8 m
Moisture content:
16%
(wet weight 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% Wet Weight 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	pH			PH		7.9 pH		7.9 pH	7.9 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		3.8 mg/kg	1.197	3.821 mg/kg	0.000382 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		25 mg/kg	1.534	32.211 mg/kg	0.00322 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		170 mg/kg	1.623	231.832 mg/kg	0.0232 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.8 mg/kg	2.775	4.196 mg/kg	0.00042 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.6 mg/kg	3.22	1.623 mg/kg	0.000162 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
11	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 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		56 mg/kg	1.126	52.962 mg/kg	0.0053 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	70 mg/kg		58.8 mg/kg	0.00588 %	✓	

#		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
14		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
15		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		33	mg/kg	2.637	73.089	mg/kg	0.00731 %	✓	
16		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		1.4	mg/kg	2.554	3.003	mg/kg	0.0003 %	✓	
17		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		43	mg/kg	1.785	64.481	mg/kg	0.00645 %	✓	
18		zinc { zinc chloride }	030-003-00-2	231-592-0	7646-85-7		110	mg/kg	2.085	192.61	mg/kg	0.0193 %	✓	
19		TPH (C6 to C40) petroleum group			TPH		<20	mg/kg		<20	mg/kg	<0.002 %		<LOD
20		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
21		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
22		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
24		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
25		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
26		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
27		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
28		fluorene		201-695-5	86-73-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
29		phenanthrene		201-581-5	85-01-8		0.19	mg/kg		0.16	mg/kg	0.000016 %	✓	
30		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
31		fluoranthene		205-912-4	206-44-0		0.31	mg/kg		0.26	mg/kg	0.000026 %	✓	
32		pyrene		204-927-3	129-00-0		0.33	mg/kg		0.277	mg/kg	0.0000277 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.2	mg/kg		0.168	mg/kg	0.0000168 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		0.28	mg/kg		0.235	mg/kg	0.0000235 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.36	mg/kg		0.302	mg/kg	0.0000302 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.11	mg/kg		0.0924	mg/kg	0.00000924 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.31	mg/kg		0.26	mg/kg	0.000026 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		0.18	mg/kg		0.151	mg/kg	0.0000151 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.05	mg/kg		0.042	mg/kg	0.0000042 %	✓	
40		benzo[ghi]perylene		205-883-8	191-24-2		0.24	mg/kg		0.202	mg/kg	0.0000202 %	✓	

#		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									
41		coronene				0.09	mg/kg		0.0756	mg/kg	0.00000756 %	✓	
			205-881-7	191-07-1									
42		polychlorobiphenyls; PCB				<0.012	mg/kg		<0.012	mg/kg	<0.0000012 %		<LOD
		602-039-00-4	215-648-1	1336-36-3									
43		bromodichloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			200-856-7	75-27-4									
44		bromobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-060-00-9	203-623-8	108-86-1									
45		bromomethane; methylbromide				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-002-00-2	200-813-2	74-83-9									
46		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									
47		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									
48		n-butylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			203-209-7	104-51-8									
49		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]									
50		chlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-033-00-1	203-628-5	108-90-7									
51		chloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-009-00-0	200-830-5	75-00-3									
52		chloromethane; methyl chloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-001-00-7	200-817-4	74-87-3									
53		1,2-dibromoethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-010-00-6	203-444-5	106-93-4									
54		dibromochloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			204-704-0	124-48-1									
55		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									
56		dibromomethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-003-00-8	200-824-2	74-95-3									
57		1,1-dichloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-011-00-1	200-863-5	75-34-3									
58		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									
59		1,2-dichloroethane; ethylene dichloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-012-00-7	203-458-1	107-06-2									
60		2,2-dichloropropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			209-832-0	594-20-7									
61		1,1-dichloropropene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-031-00-0	209-253-3	563-58-6									
62		1,3-dichloropropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			205-531-3	142-28-9									
63		1,1,2-trichlorotrifluoroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			200-936-1	76-13-1									
64		hexachlorobutadiene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			201-765-5	87-68-3									
65		cumene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-024-00-X	202-704-5	98-82-8									
66		4-isopropyltoluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			202-796-7	99-87-6									
67		1,3-dichlorbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-067-00-7	208-792-1	541-73-1									
68		Propylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			203-132-9	103-65-1									
69		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									

#		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							
70		xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
71		1,4-dichlorobenzene; p-dichlorobenzene 602-035-00-2	203-400-5	106-46-7		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
72		1,2-dichloropropane; propylene dichloride 602-020-00-0	201-152-2	78-87-5		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
73	●	sec-butylbenzene	205-227-0	135-98-8		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
74		styrene 601-026-00-0	202-851-5	100-42-5		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
75	●	tert-butylbenzene	202-632-4	98-06-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
76		bromoform; tribromomethane 602-007-00-X	200-854-6	75-25-2		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
77		1,1,1-trichloroethane; methyl chloroform 602-013-00-2	200-756-3	71-55-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
78	●	1,2,3-trichlorobenzene	201-757-1	87-61-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
79		trichloroethylene; trichloroethene 602-027-00-9	201-167-4	79-01-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
80	●	trichlorofluoromethane	200-892-3	75-69-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
81		1,1,2,2-tetrachloroethane 602-015-00-3	201-197-8	79-34-5		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
82		chloroform; trichloromethane 602-006-00-4	200-663-8	67-66-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
83	●	trans-1,3-dichloropropene	431-460-4	10061-02-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
84		tetrachloroethylene 602-028-00-4	204-825-9	127-18-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
85		carbon tetrachloride; tetrachloromethane 602-008-00-5	200-262-8	56-23-5		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
86	●	1,1,1,2-tetrachloroethane	211-135-1	630-20-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
87		1,2,4-trimethylbenzene 601-043-00-3	202-436-9	95-63-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
88		vinyl chloride; chloroethylene 602-023-00-7	200-831-0	75-01-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
89		1,1,2-trichloroethane 602-014-00-8	201-166-9	79-00-5		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
90		aniline 612-008-00-7	200-539-3	62-53-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
91		anthraquinone 606-151-00-4	201-549-0	84-65-1		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
92		azobenzene 611-001-00-6	203-102-5	103-33-3		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
93	●	4-bromophenylphenylether	202-952-4	101-55-3		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<**LOD**
94	●	carbazole	201-696-0	86-74-8		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
95		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**
96	●	2-chloronaphthalene	202-079-9	91-58-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
97	●	dibenzofuran	205-071-3	132-64-9		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<**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									
98		2,4-dichlorophenol				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		604-011-00-7	204-429-6	120-83-2									
99		diethyl phthalate				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
			201-550-6	84-66-2									
100		dibutyl phthalate; DBP				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		607-318-00-4	201-557-4	84-74-2									
101		dimethyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-011-6	131-11-3									
102		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]				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		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]									
103		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]									
104		hexachlorobenzene				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		602-065-00-6	204-273-9	118-74-1									
105		hexachloroethane				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			200-666-4	67-72-1									
106		3,5,5-trimethylcyclohex-2-enone; isophorone				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		606-012-00-8	201-126-0	78-59-1									
107		2-methyl naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			202-078-3	91-57-6									
108		nitrobenzene				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		609-003-00-7	202-716-0	98-95-3									
109		2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		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]									
110		2-nitrophenol				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
			201-857-5	88-75-5									
111		4-chloroaniline				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		612-137-00-9	203-401-0	106-47-8									
112		4-chlorophenylphenylether				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
			230-281-7	7005-72-3									
113		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
114		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]									
115		2,4,5-trichlorophenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-017-00-X	202-467-8	95-95-4									
116		2,4,6-trichlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-018-00-5	201-795-9	88-06-2									
117		2,6-dinitrotoluene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-049-00-8	210-106-0	606-20-2									
118		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									
119		bis(2-chloroethyl) ether				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		603-029-00-2	203-870-1	111-44-4									
120		bis(2-chloroethoxy)methane				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
			203-920-2	111-91-1									
121		2,2'-oxybis[2-chloropropane]				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			254-554-5	39638-32-9									

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
122		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]							
123		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]							
124		m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4]				<0.5 mg/kg		<0.5 mg/kg	<0.00005 %		<**LOD**
		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]							
								Total:	0.0803 %		

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)
	Determinand defined by classifier (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: BH01-2-09052024-1.00

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

Sample details

Sample name:
BH01-2-09052024-1.00
Sample Depth:
1.0 m
Moisture content:
6.9%
(wet weight 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: 6.9% Wet Weight 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	pH			PH		9.3 pH		9.3 pH	9.3 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		4.2 mg/kg	1.197	4.681 mg/kg	0.000468 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		27 mg/kg	1.534	38.557 mg/kg	0.00386 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		180 mg/kg	1.623	272.062 mg/kg	0.0272 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.2 mg/kg	2.775	3.101 mg/kg	0.00031 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.4 mg/kg	3.22	1.199 mg/kg	0.00012 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<**LOD**
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		59 mg/kg	1.126	61.844 mg/kg	0.00618 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	120 mg/kg		111.72 mg/kg	0.0112 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
14		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									
15		nickel { nickel sulfate }				18	mg/kg	2.637	44.186	mg/kg	0.00442 %	✓	
		028-009-00-5	232-104-9	7786-81-4									
16		selenium { nickel selenate }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
		028-031-00-5	239-125-2	15060-62-5									
17		vanadium { divanadium pentaoxide; vanadium pentoxide }				29	mg/kg	1.785	48.198	mg/kg	0.00482 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
18		zinc { zinc chloride }				64	mg/kg	2.085	124.204	mg/kg	0.0124 %	✓	
		030-003-00-2	231-592-0	7646-85-7									
19		TPH (C6 to C40) petroleum group				79	mg/kg		73.549	mg/kg	0.00735 %	✓	
				TPH									
20		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
21		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
22		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**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]									
24		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									
25		naphthalene				0.4	mg/kg		0.372	mg/kg	0.0000372 %	✓	
		601-052-00-2	202-049-5	91-20-3									
26		acenaphthylene				0.2	mg/kg		0.186	mg/kg	0.0000186 %	✓	
			205-917-1	208-96-8									
27		acenaphthene				0.26	mg/kg		0.242	mg/kg	0.0000242 %	✓	
			201-469-6	83-32-9									
28		fluorene				0.31	mg/kg		0.289	mg/kg	0.0000289 %	✓	
			201-695-5	86-73-7									
29		phenanthrene				2.8	mg/kg		2.607	mg/kg	0.000261 %	✓	
			201-581-5	85-01-8									
30		anthracene				0.9	mg/kg		0.838	mg/kg	0.0000838 %	✓	
			204-371-1	120-12-7									
31		fluoranthene				5.5	mg/kg		5.121	mg/kg	0.000512 %	✓	
			205-912-4	206-44-0									
32		pyrene				5.5	mg/kg		5.121	mg/kg	0.000512 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				2.9	mg/kg		2.7	mg/kg	0.00027 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				3.3	mg/kg		3.072	mg/kg	0.000307 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				3.5	mg/kg		3.258	mg/kg	0.000326 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				1.4	mg/kg		1.303	mg/kg	0.00013 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				3.2	mg/kg		2.979	mg/kg	0.000298 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				1.6	mg/kg		1.49	mg/kg	0.000149 %	✓	
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				0.33	mg/kg		0.307	mg/kg	0.0000307 %	✓	
		601-041-00-2	200-181-8	53-70-3									
40		benzo[ghi]perylene				1.9	mg/kg		1.769	mg/kg	0.000177 %	✓	
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				0.7	mg/kg		0.652	mg/kg	0.0000652 %	✓	
			205-881-7	191-07-1									
42		asbestos				<0.001	%		<0.001	%	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
43		bromodichloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			200-856-7	75-27-4									
44		bromobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-060-00-9	203-623-8	108-86-1									
45		bromomethane; methylbromide				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-002-00-2	200-813-2	74-83-9									
46		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									
47		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									
48		n-butylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			203-209-7	104-51-8									
49		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]									
50		chlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-033-00-1	203-628-5	108-90-7									
51		chloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-009-00-0	200-830-5	75-00-3									
52		chloromethane; methyl chloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-001-00-7	200-817-4	74-87-3									
53		1,2-dibromoethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-010-00-6	203-444-5	106-93-4									
54		dibromochloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			204-704-0	124-48-1									
55		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									
56		dibromomethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-003-00-8	200-824-2	74-95-3									
57		1,1-dichloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-011-00-1	200-863-5	75-34-3									
58		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									
59		1,2-dichloroethane; ethylene dichloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-012-00-7	203-458-1	107-06-2									
60		2,2-dichloropropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			209-832-0	594-20-7									
61		1,1-dichloropropene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-031-00-0	209-253-3	563-58-6									
62		1,3-dichloropropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			205-531-3	142-28-9									
63		1,1,2-trichlorotrifluoroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			200-936-1	76-13-1									
64		hexachlorobutadiene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			201-765-5	87-68-3									
65		cumene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-024-00-X	202-704-5	98-82-8									
66		4-isopropyltoluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			202-796-7	99-87-6									
67		1,3-dichlorbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-067-00-7	208-792-1	541-73-1									

#		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									
68		Propylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			203-132-9	103-65-1									
69		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									
70		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<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]									
71		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									
72		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									
73		sec-butylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			205-227-0	135-98-8									
74		styrene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-026-00-0	202-851-5	100-42-5									
75		tert-butylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			202-632-4	98-06-6									
76		bromoform; tribromomethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-007-00-X	200-854-6	75-25-2									
77		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									
78		1,2,3-trichlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			201-757-1	87-61-6									
79		trichloroethylene; trichloroethene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-027-00-9	201-167-4	79-01-6									
80		trichlorofluoromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			200-892-3	75-69-4									
81		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									
82		chloroform; trichloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-006-00-4	200-663-8	67-66-3									
83		trans-1,3-dichloropropene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			431-460-4	10061-02-6									
84		tetrachloroethylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-028-00-4	204-825-9	127-18-4									
85		carbon tetrachloride; tetrachloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-008-00-5	200-262-8	56-23-5									
86		1,1,1,2-tetrachloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			211-135-1	630-20-6									
87		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									
88		vinyl chloride; chloroethylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-023-00-7	200-831-0	75-01-4									
89		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									
90		aniline				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		612-008-00-7	200-539-3	62-53-3									
91		anthraquinone				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		606-151-00-4	201-549-0	84-65-1									
92		azobenzene				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		611-001-00-6	203-102-5	103-33-3									
93		4-bromophenylphenylether				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
			202-952-4	101-55-3									
94		carbazole				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
			201-696-0	86-74-8									
95		chlorocresol; 4-chloro-m-cresol; 4-chloro-3-methylphenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-014-00-3	200-431-6	59-50-7									

#		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									
96		2-chloronaphthalene											
			202-079-9	91-58-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
97		dibenzofuran											
			205-071-3	132-64-9		0.2	mg/kg		0.186	mg/kg	0.0000186 %	✓	
98		2,4-dichlorophenol											
		604-011-00-7	204-429-6	120-83-2		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
99		diethyl phthalate											
			201-550-6	84-66-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
100		dibutyl phthalate; DBP											
		607-318-00-4	201-557-4	84-74-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
101		dimethyl phthalate											
			205-011-6	131-11-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
102		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
103		2,4-dinitrotoluene; [1] dinitrotoluene [2]											
		609-007-00-9	204-450-0 [1] 246-836-1 [2]	121-14-2 [1] 25321-14-6 [2]		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
104		hexachlorobenzene											
		602-065-00-6	204-273-9	118-74-1		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
105		hexachloroethane											
			200-666-4	67-72-1		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
106		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
107		2-methyl naphthalene											
			202-078-3	91-57-6		0.3	mg/kg		0.279	mg/kg	0.0000279 %	✓	
108		nitrobenzene											
		609-003-00-7	202-716-0	98-95-3		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
109		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
110		2-nitrophenol											
			201-857-5	88-75-5		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
111		4-chloroaniline											
		612-137-00-9	203-401-0	106-47-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
112		4-chlorophenylphenylether											
			230-281-7	7005-72-3		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
113		phenol											
		604-001-00-2	203-632-7	108-95-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
114		o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]											
		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]		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
115		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
116		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
117		2,6-dinitrotoluene											
		609-049-00-8	210-106-0	606-20-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
118		BBP; benzyl butyl phthalate											
		607-430-00-3	201-622-7	85-68-7		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
119		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

#		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									
120		bis(2-chloroethoxy)methane				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
			203-920-2	111-91-1									
121		2,2'-oxybis[2-chloropropane]				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			254-554-5	39638-32-9									
122		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]									
123		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]									
124		m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4]				<0.5	mg/kg		<0.5	mg/kg	<0.00005 %		<**LOD**
		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]									
										Total:	0.0861 %		

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)
	Determinand defined by classifier (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 No liquid phase present.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00735%)

Classification of sample: BH01-4-09052024-2.60

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

Sample details

Sample name:
BH01-4-09052024-2.60
Sample Depth:
2.6 m
Moisture content:
29%
(wet weight 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: 29% Wet Weight 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	pH			PH		7.2	pH		7.2	pH	7.2 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		1.4	mg/kg	1.197	1.19	mg/kg	0.000119 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		10	mg/kg	1.534	10.891	mg/kg	0.00109 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		44	mg/kg	1.623	50.717	mg/kg	0.00507 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.46	mg/kg	2.775	0.906	mg/kg	0.0000906 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		1.3	mg/kg	3.22	2.972	mg/kg	0.000297 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2	mg/kg	1.142	<0.228	mg/kg	<0.0000228 %		<**LOD**
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8	mg/kg	2.27	<4.086	mg/kg	<0.000409 %		<**LOD**
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8.8	mg/kg	1.462	12.862	mg/kg	0.00129 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		17	mg/kg	1.126	13.589	mg/kg	0.00136 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	32	mg/kg		22.72	mg/kg	0.00227 %	✓	

#		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
14		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
15		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		8	mg/kg	2.637	14.976	mg/kg	0.0015 %	✓	
16		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
17		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		14	mg/kg	1.785	17.745	mg/kg	0.00177 %	✓	
18		zinc { zinc chloride }	030-003-00-2	231-592-0	7646-85-7		25	mg/kg	2.085	37	mg/kg	0.0037 %	✓	
19		TPH (C6 to C40) petroleum group			TPH		<20	mg/kg		<20	mg/kg	<0.002 %		<LOD
20		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
21		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
22		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
24		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
25		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
26		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
27		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
28		fluorene		201-695-5	86-73-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
29		phenanthrene		201-581-5	85-01-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
30		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
31		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
32		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
34		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
37		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
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
40		benzo[ghi]perylene		205-883-8	191-24-2		<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									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**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]									
										Total:	0.0217 %		

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: BH01-5-09052024-2.90

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

Sample details

Sample name:
BH01-5-09052024-2.90
Sample Depth:
2.9 m
Moisture content:
14%
(wet weight 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% Wet Weight 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	pH			PH		8.4 pH		8.4 pH	8.4 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		2.6 mg/kg	1.197	2.677 mg/kg	0.000268 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		11 mg/kg	1.534	14.51 mg/kg	0.00145 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		110 mg/kg	1.623	153.58 mg/kg	0.0154 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.2 mg/kg	2.775	2.864 mg/kg	0.000286 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.831 mg/kg	0.0000831 %	✓	
9	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
11	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 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		26 mg/kg	1.126	25.175 mg/kg	0.00252 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	11 mg/kg		9.46 mg/kg	0.000946 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
14		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									
15		nickel { nickel sulfate }				29	mg/kg	2.637	65.759	mg/kg	0.00658 %	✓	
		028-009-00-5	232-104-9	7786-81-4									
16		selenium { nickel selenate }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
		028-031-00-5	239-125-2	15060-62-5									
17		vanadium { divanadium pentaoxide; vanadium pentoxide }				30	mg/kg	1.785	46.058	mg/kg	0.00461 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
18		zinc { zinc chloride }				61	mg/kg	2.085	109.354	mg/kg	0.0109 %	✓	
		030-003-00-2	231-592-0	7646-85-7									
19		TPH (C6 to C40) petroleum group				<20	mg/kg		<20	mg/kg	<0.002 %		<LOD
				TPH									
20		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
21		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
22		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
23		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<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]									
24		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									
25		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
26		acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-917-1	208-96-8									
27		acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-469-6	83-32-9									
28		fluorene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-695-5	86-73-7									
29		phenanthrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-581-5	85-01-8									
30		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
31		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
32		pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-927-3	129-00-0									
33		benzo[a]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5									
39		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									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
41		coronene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1							
42		xylene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**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]							
								Total:	0.0501 %		

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

pH (CAS Number: PH)

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

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

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

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

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

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

GB MCL index number: 082-001-00-6
Description/Comments: Worst Case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers lead compounds from smelting industries, flue dust and similar to be Carcinogenic category 1A
Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html (worst case lead compounds). Review date 29/09/2015

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

Description/Comments: 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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- **coronene** (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases; SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en
Data source date: 16 Jun 2014
Hazard Statements: STOT SE 2; H371

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

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

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

- **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

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

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

1,1,2-trichlorotrifluoroethane (EC Number: 200-936-1, CAS Number: 76-13-1)

Description/Comments:
Data source: European Chemicals Agency's Classification & Labelling Inventory database
Data source date: 24 Apr 2024
Hazard Statements: Eye Irrit. 2; H319 , Aquatic Chronic 2; H411 , Ozone 1; H420

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

Propylbenzene (EC Number: 203-132-9, CAS Number: 103-65-1)

Description/Comments:
Data source: European Chemicals Agency's Classification & Labelling Inventory database
Data source date: 24 Apr 2024
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , 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

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

- **1,2,3-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

- **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

- **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

- **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

- **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

- **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

- **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

- **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

- **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

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-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-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

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

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

2,2'-oxybis[2-chloropropane] (EC Number: 254-554-5, CAS Number: 39638-32-9)

Description/Comments:
Data source: European Chemicals Agency's Classification & Labelling Inventory database
Data source date: 24 Apr 2024
Hazard Statements: Acute Tox. 3; H301 , Muta. 2; H341

Appendix B: Rationale for selection of metal 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}

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

antimony {antimony trioxide}

Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings.

arsenic {arsenic pentoxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: arsenates, weed killers, metal adhesives, insecticides, fungicides, wood preservatives, coloured gases, printing and dyeing.

barium {barium diboron tetraoxide}

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough metal and Cr(VI) present to make the worst case CLP (metal chromate) (noting concentrations not at hazardous levels in any case).

beryllium {beryllium oxide}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: most common (non alloy) form, used in ceramics.

boron {diboron trioxide}

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

cadmium {cadmium oxide}

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

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

Worst case species based on hazard statements/molecular weight.

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

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

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected.

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

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough metal and Cr(VI) present to make the worst case CLP (metal chromate) (noting concentrations not at hazardous levels in any case).

mercury {mercury dichloride}

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

nickel {nickel sulfate}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: copper refining, electroplating and rechargeable batteries. Worst case compounds in CLP not expected as either very soluble and/or compounds industrial useage not related to site history.

selenium {nickel selenate}

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

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case species.

zinc {zinc chloride}

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough metal and Cr(VI) present to make the worst case CLP (metal chromate) (noting concentrations not at hazardous levels in any case).

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2024.155.6087.11248 (03 Jun 2024)
HazWasteOnline Database: 2024.149.6082.11243 (28 May 2024)

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

Appendix H

Risk Assessment Methodology

Civic Earth Risk Assessment Methodology

Civic Earth's risk assessment methodology is based on the CIRIA C552 (2001) Contaminated Land Risk Assessment – A Guide to Good Practice[1].

The assessment approach is to quantify the potential risk at Phase 1 Stage via risk estimation and risk evaluation. This defines the overall risk category that can be used to identify likely actions to address the potential risk or undertake further risk evaluation.

The methodology is a qualitative approach and is undertaken for each identified potential contaminant linkage (source-pathway-receptor) identified for the site in accordance with the October 2020 Land Contamination Risk Management Guidance (LCRM)[2].

The methodology requires the classification of the following:

- The magnitude of the consequence (severity) of a risk occurring; and
- The magnitude of the probability (likelihood) of a risk occurring.

The potential consequences of contamination risks occurring at a site are classified in accordance with Table 1 below, which is based on CIRIA guidance[1].

Table 1: Classification of Consequence Ratings

Classification	Definition of Consequence	Examples
Severe	Short-term (acute) risks to human health. Short-term (acute) risk of pollution of sensitive water resource or ecosystem Catastrophic damage to crops/ building/ property/ infrastructure, including off-site soils	High concentration of cyanide on the surface of an informal recreation area Major spillage of contaminants from site into controlled waters Explosion causing building collapse
Medium	Long-term (chronic) risks to human health Long-term (chronic) pollution of sensitive water resource Significant change in an ecosystem/contamination of off-site soils	Concentrations of a contaminant on site exceeding the generic or site specific assessment criteria Leaching of contaminants from a site into a major or minor aquifer Death of species within a designated nature reserve
Mild	Pollution of non-sensitive water resource Significant damage to crops/ buildings/ property /infrastructure Damage to an ecosystem or sensitive buildings/structures/services	Pollution of a non-classified groundwater Damage to a building rendering it unsafe to occupy (e.g. foundation damage resulting in instability)
Minor	Easily preventable non-permanent effects Harm, although not necessarily significant harm, which may result in financial loss or expenditure resolve Easily repairable effects of damage to building/ structures/ services	Presence of contamination at concentrations which require the use of personal protective equipment during site work Loss of plants in a landscaping scheme/discolouration of concrete

`The potential probability of the risks being realised are classified in accordance with the ratings set out in Table 2, which are based on CIRIA guidance[1]. It should be noted that where a potential contaminant linkage has not been identified the likelihood is considered to be negligible.

[1] CIRIA, (2001). Contaminated Land Risk Assessment. A Guide to Good Practice. CIRIA C552.

[2] Environment Agency (2020). *Land Contamination Risk Management (LCRM)*.

Table 2: Classification of Probability Ratings

Classification	Definition of Consequence
High likelihood	There is a contaminant linkage and an event that either appears very likely in the short term and almost inevitable in the long term, or there is evidence at the receptor that an event has occurred
Likely	There is a contaminant linkage and all the elements are present in the right place which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term
Low likelihood	There is a contaminant linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such an event would take place and is less likely in the short term
Unlikely	There is a contaminant linkage but circumstances are such that it is improbable that an event would occur even in the very long term

In accordance with C552, the risk classifications for each potential contaminant linkage are classified in accordance with the matrix of consequence and probability set out in Table 3. The definitions for the risk classifications are presented in Table 4.

Table 3: Risk Classification Matrix

		Consequence			
		Severe	Medium	Mild	Minor
Probability	High Likelihood	Very High	High	Moderate	Moderate/Low
	Likely	High	Moderate	Moderate/Low	Low
	Low Likelihood	Moderate	Moderate/Low	Low	Very Low
	Unlikely	Moderate/Low	Low	Very Low	Very Low

Table 4: Risk Classification Definitions

Classification	Definition
Very High	There is a high probability that severe harm could arise to a designated receptor from the identified hazard or there is evidence that severe harm is currently happening. This risk, if realised, is likely to result in substantial liability. Urgent investigation (if not already undertaken) and remediation are likely to be required.
High	Harm is likely to arise to a designated receptor from the identified hazard. Realisation of the risk is likely to result in substantial liability. Urgent investigation (if not already undertaken) and remediation are likely to be required.
Moderate	It is possible that harm could arise to a designated receptor from the identified hazard. However, it is either relatively unlikely that such harm would be severe or if any harm were to occur it is more than likely that the harm would be relatively mild. Urgent investigation (if not already undertaken) is normally required to clarify the potential risk and to determine the potential liability. Some remedial works may be required in the longer term.
Low	It is possible that harm could arise to a designated receptor from the identified hazard, but it is considered likely that this harm, if realised, would at worse normally be mild.
Very Low	There is a low possibility that harm could arise to a designated receptor from the identified hazard. In the event of such harm being realised it is not likely to be severe.

Appendix I

Chemical Acceptability Criteria for Capping Soils/Growth Medium

*Table 1: Maximum Permissible Concentrations for Capping Layer Soils (6% SOM) – **Residential without Home Grown Produce***

Determinand		Maximum Permissible Concentration[1] (mg/kg)[2]	Rationale
Arsenic		40	S4UL[3]
Beryllium		1.7	S4UL[3]
Boron (water soluble)		5	Lower limit for potential phytotoxic effect[4]
Cadmium		85	S4UL[3]
Chromium (III)		910	S4UL[3]
Chromium (VI)		6	S4UL[3]
Lead		310	C4UL[5]
Mercury		56	S4UL[3]
Selenium		180	S4UL[3]
Copper		135	BS 3882:2015 Specification for Topsoil[6]
Nickel		75	BS 3882:2015 Specification for Topsoil[6]
Zinc		200	BS 3882:2015 Specification for Topsoil[6]
Vanadium		1,200	S4UL[3]
Benzo(a)pyrene		3.2	S4UL[3]
Benzo(a)anthracene		11	S4UL[3]
Benzo(b)fluoranthene		3.9	S4UL[3]
Benzo(k)fluoranthene		110	S4UL[3]
Chrysene		30	S4UL[3]
Dibenzo(a,h)anthracene		0.31	S4UL[3]
Indeno(1,2,3-cd)pyrene		45	S4UL[3]
Naphthalene		2.3	S4UL[3]
Total PAH		100	Based on Total PAH threshold for inert WAC
TPH aliphatic	EC5-6	160	S4UL[3]
	EC>6-8	530	S4UL[3]
	EC>8-10	150	S4UL[3]
	EC>10-12	770	S4UL[3]
	EC>12-16	1,000	Hazardous waste threshold[7] (N/A see sum of TPH below)
	EC>16-35	1,000	Hazardous waste threshold[7] (N/A see sum of TPH below)
TPH aromatic	EC5-7	1,000	Hazardous waste threshold[7] (N/A see sum of TPH below)
	EC>7-8	1,000	Hazardous waste threshold[7] (N/A see sum of TPH below)
	EC>8-10	270	S4UL[3]
	EC>10-12	1,000	Hazardous waste threshold[7] (N/A see sum of TPH below)
	EC>12-16	1,000	Hazardous waste threshold[7] (N/A see sum of TPH below)
	EC>16-21	1,000	Hazardous waste threshold[7] (N/A see sum of TPH below)
	EC>21-35	1,000	Hazardous waste threshold[7] (N/A see sum of TPH below)
Sum of TPH aliphatic and aromatic C5-C10		500	Based on Mineral Oil threshold for Inert WAC
Sum of TPH aliphatic and aromatic C10+		500	Based on Mineral Oil threshold for Inert WAC
TPH		1,000	Hazardous waste threshold
pH		5-10	
Monohydric Phenols		750	S4UL[3]
Free Cyanide		34	SSV[8]
Asbestos		No detectable fibres[9]	
SOM		>6%	If SOM <6% then lower criteria may apply for some determinands

Notes:

1. These maximum permissible concentrations (MPCs) are import criteria only and may not be appropriate for human health risk assessment.
2. In mg/kg dry soil except pH and asbestos.
3. S4UL for residential without plant uptake land use based on 6% SOM. Copyright Land Quality Management Limited, reproduced with permission. Publication Number S4UL3892. All rights reserved.
4. Nable, Banuelos and Paul. (1997). Boron Toxicity. Plant and Soil. Vol 193, pages 181-198.
5. Published C4SL for lead (DEFRA, 2014).
6. British Standard BS3882:2015 Specification for Topsoil and requirements for use. Table 1 based on pH 6-7.
7. MPC for TPH fraction limited to 1,000mg/kg based on hazardous waste threshold.
8. ATRISKsoil Soil Screening Value (SSV) stated for cyanide based on acute exposure to 0-6 year old child.
9. Laboratory screen by microscopy may be required subject to source material.

Appendix J

Verification Plan

Item	Remedial Requirements	Development Phase	Site Attendance by Qualified Geoenvironmental Engineer	Supporting Documentation
General	With reference to the Civic Earth RMS, the site's remediation requirements are as follows: **Enabling Works** - Watching brief and discovery strategy; - Decommissioning of existing borehole monitoring wells; - Appropriate material management of arisings associated with enabling works for re-use and/or disposal including off-site disposal to appropriately licenced waste facilities; - Mitigation of risks to controlled waters during enabling works including appropriate management of stockpiles, controlling surface water run-off and appropriate discharge / disposal of perched groundwater; and - Testing of soils at formation level to confirm requirement for capping layer or growth medium in public open space areas. **Construction Phase** - Provision of soil capping layer in areas of soft landscaping in residential areas; - Provision of soil capping layer and/or growth medium (depending on findings of formation level testing) in public open space areas; - Installation of ground gas and radon protective measures; - Appropriate material management of arisings associated with construction works (i.e. foundation works) for re-use and/or disposal including off-site disposal to appropriately licenced waste facilities; - Mitigation of risks to controlled waters during construction works including appropriate management of stockpiles, controlling surface water run-off and appropriate discharge / disposal of perched groundwater; and - Selection and installation of appropriate materials for buried water supply pipes. Amendments will be made as appropriate to account for differing ground conditions encountered during the progress of remedial works.	Enabling Phase & Construction Phase	Watching brief to be carried out by Earthworks Contractor Attendance by Geoenvironmental Engineer should unexpected contamination be encountered	1. Civic Earth Remediation Method Statement 2. Remediation Contractor Remediation Implementation Plan 3. Information to be provided prior to construction phase: - Ground gas and radon protection design 4. Information to be provided during / post enabling phase and construction phase: - As detailed in sections below
Watching Brief and Discovery Strategy	A watching brief should be in place during earthworks and construction works by the Contractor. Should areas of unexpected contamination, including free product and Asbestos, be encountered or suspected, a qualified geoenvironmental engineer will be informed and the risk associated with the contamination assessed in accordance with the discovery strategy outlined in the Civic Earth RMS.	Enabling Phase & Construction Phase	Attendance by Geoenvironmental Engineer should unexpected contamination be encountered to inspect the potential contamination and take samples for chemical laboratory analysis.	Records of site visit and photographs. Chemical test results. Correspondence with and approval of revised remediation strategy with regulator, if applicable.

Item	Remedial Requirements	Development Phase	Site Attendance by Qualified Geoenvironmental Engineer	Supporting Documentation
				Duty of care records for disposal of material.
Additional Ground Gas Monitoring	The site is currently considered to be representative of CS2 and ground gas protection measures are therefore required. However, in consideration of the negligible flow rates recorded and the removal of a significant proportion of Made Ground during the construction of the proposed basements, it is recommended that additional three rounds of monitoring are undertaken, to include at least one monitoring round during a low (<1000mbar) and falling pressure system, to confirm the ground gas regime at the site.	Enabling Phase	Attendance by Geoenvironmental Engineer to undertake additional ground gas monitoring.	Ground gas monitoring records and accompanying gas risk assessment.
Borehole Decomissioning	The existing monitoring wells will be decommissioned in accordance with EA guidance (*Good practice for decommissioning redundant boreholes and wells*). Decommissioning works will include the removal of headworks and backfill of the monitoring wells from base to top with a low permeability material i.e. bentonite/cement grout. Decomissioning works will be carried out prior to commencement of significant groundworks.	Enabling Phase	Visits may be undertaken if third party supervision is required by the Client.	Records of decommissioning including photographs, specification for backfill material and well records (well condition, depth prior to backfilling, well diameter and volume of backfill used).
Testing of Formation Soils in Proposed Public Open Space Areas	Current development proposals indicate a public open is proposed across in the centre of site and comparison of the data against a $POS_{pResi/WO}$ end use indicate that the material tested would not pose an unacceptable risk to human health. It is therefore considered that, subject to additional chemical verification testing of soils at formation level as the testing was limited to shallow soils, capping layers may not be required in the proposed public open space areas, with a growth medium only required. Additional testing be carried out to confirm whether a capping layer is required in public open space areas, unless a capping layer is adopted across the areas of public open space. Soil sampling will be carried out on a 20m grid and chemical laboratory analysis carried out to confirm compliance (or otherwise) with the $POS_{Resi/WO}$ specification set out in Appendix I of the Civic Earth RMS	Enabling Phase	Attendance by Geoenvironmental Engineer to take samples of formation levels soils within public open space areas on a 20m grid.	Records of site visit and photographs. Chemical test results. As-built landscape layout drawings.
Material Management	The Contractor will be responsible for the material management and waste classification. It is considered that the Made Ground material excavated could be re-used on site below capping or hardstanding, subject to final finish levels and the capping layer formation level, under the CL:AIRE protocol. The CL:AIRE protocol requires a Material Management Plan (MMP) to be produced which details where materials will arise from and how they will be used within the limits of the Code of	Enabling Phase & Construction Phase	Visits may be required should additional classification of arisings be required prior to disposal. If material imported for use in bulk earthworks that is not Primary Aggregate, sampling and verification testing at a frequency of 1 per $500m^3$ will be carried out.	Duty of care records for disposal of waste, pumped perched water / groundwater and laboratory test results. Evidence of material management procedures in place including permits, exemptions, MMP, waste haulier permits, waste facility

Item	Remedial Requirements	Development Phase	Site Attendance by Qualified Geoenvironmental Engineer	Supporting Documentation
	Practice. The process would require sign off by a Qualified Person in advance of works commencing and a final validation report to be produced. Uncontaminated clean, naturally occurring arisings may be re-used within the site under the CL:AIRE protocol or re-used off-site under direct transfer under the CL:AIRE protocol. Additionally, screening of uncontaminated granular soils may permit the re-use of this material on site or off-site under the WRAP protocol. All material bound for disposal to landfill will require characterisation in accordance with the Hazardous Waste Regulations 2005 and disposal in accordance with the requirements of the Landfill Regulations (2002, as amended) and the Environmental Protection (Duty of Care) Regulations, 1991. Importation of material for use in the bulk earthworks is not anticipated to be required. However, should importation of material be required, the material will be required to meet POS chemical acceptability screening criteria (see Appendix B), or an alternative screening criteria that is agreed with the regulators prior to import to site. Compliance testing at a frequency of 1 per 500m^3 will be required. It is noted that chemical compliance testing of imported Primary Aggregate would not be required			permits. Imported material for bulk earthworks – Appendix B import specification and site records and laboratory test results for compliance testing.
Mitigation of Risks to Controlled Waters	Appropriate management of stockpiles including stockpiling in designated areas away from drainage channels, segregation of different types of material (e.g. Made Ground and natural soils), and controlling surface water run-off with bunds, liners and coverings. Excavated soils will also be appropriately stored with preventative measures against nuisance odours to protect human health during temporary storage on site. Appropriate management and discharge/ disposal of perched groundwater encountered in excavations and water used during enabling works (e.g. for dust suppression and wheel washing). Temporary drainage systems to be designed and implemented so that they capture waterborne pollution prior to entering any existing drainage systems. Appropriate storage of all hazardous liquids, chemicals and materials where materials are to be stored in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations.	Enabling Phase & Construction Phase	Visits may be undertaken if third party supervision is required by the Client.	Contractor documentation of material and groundwater handling, storage and discharge protocols. Photographs of measures put in place.
Ground Gas Protection Measures	Following progression of the detailed design for the construction phase works the detailed ground gas protective measures will be	Construction Phase	Attendance by Geoenvironmental Engineer or suitably qualified	Gas membrane verification plan, if applicable

Item	Remedial Requirements	Development Phase	Site Attendance by Qualified Geoenvironmental Engineer	Supporting Documentation
	designed, reviewed by a suitably qualified geoenvironmental engineer and agreed with the Local Authority. The installation of the membrane, if incorporated into the design, will require independent inspection and verification by a suitably qualified contractor or geoenvironmental engineer in accordance with the principles of CIRIA C735. If a membrane is included in the ground gas protection solution, a verification plan for the installation of the membrane will be part of the detailed design.		contractor to validate placement of gas membrane.	Ground gas protection detailed design drawings, specification data sheets of materials installed (if applicable) Photographs. Site visit records of third party verification of membrane installation, if applicable
Capping Layers in Residential Areas	Capping layers for the site will meet the following criteria: - 600mm of imported soil with a minimum 150mm topsoil (including 50mm turf/sod); or - 450mm imported soil with a minimum of 150mm topsoil (including 50mm turf/sod) over a geotextile membrane. Thickness of the capping layer may be increased for trees/large shrubs where the thickness is specified by the landscape architect. Where mature trees that are present and to be retained as part of the redevelopment of the site, soil capping may be 'feathered' such that the capping layer can be installed without damaging tree roots. Areas where capping layers require feathering will be set out in the Contractor's Remediation Implementation Plan. The material imported to form the capping layers will be uncontaminated soil from a known and reputable source. The capping soils will meet the chemical criteria for human health with respect to the residential (with home grown produce consumption) end use. The chemical specification is set out in Appendix A of the Civic Earth RMS. Once placed, the capping soils will be sampled and chemical tested by a suitably qualified geoenvironmental engineer to confirm that the material complies with the specifications outlined Appendix I at a frequency of 1 sample per 250m^3, with a minimum of three samples per source. Inspection pits will also be dug through the placed material to confirm the thickness meets the minimum requirements.	Construction Phase	Attendance by Geoenvironmental Engineer to: Validate construction of capping layer. Take samples of imported material for chemical analysis at a frequency of 1 per 250m3 (per material type) and a minimum of 3 samples per source (per material type).	Material source certificates and pre-import chemical test data, to be provided by the Contractor. Site visit records of verification visits including photographs. Chemical test results. As-built landscape layout drawings.
Buried Water Supply Pipes	Completion of a United Utilities Risk Assessment including sampling of soils at depth and location of proposed water supply pipes will be required.	Construction Phase	Visits may be undertaken if third party supervision is required by the Client.	United Utilities Risk Assessment. Confirmation of pipework material choice by United Utilities.

Item	Remedial Requirements	Development Phase	Site Attendance by Qualified Geoenvironmental Engineer	Supporting Documentation
	Completed risk assessment including location plan, soil chemical analysis results and required pipe type will be required for submission to United Utilities for review.			Photographs of pipework installation. Specification of pipework installed.

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