

Bridge College, Openshaw

Site Investigation Report

4 April 2025

Prepared For

The Together Trust, Bridge College



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Site Investigation Report

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Executive Summary

Site Description	The site is roughly rectangular in shape and predominantly comprises open space with soft landscaping and several pedestrian footpaths, and an asphalt car park to the north of the site and a special education school towards the centre of the site. The site has a gentle slope from north to south with ground levels ranging from approximately +60m above Ordnance Datum (mOD) in the north at Whitworth Street to approximately +56mOD in the south. The site is bounded by metal fencing to the north, east and south of the site, with a brick wall with metal fencing bounding the western portion of the site.
Proposed Development	Current development proposals for the site include new school rooms, offices and accommodation in the same style as the existing building. Additionally, four new areas will accommodate new parking spaces including standard, Electric Vehicle (EV), mini-bus and access parking spaces.
Historical Development	Earliest available historical mapping indicates that the site was primarily undeveloped with a <i>Clay Pit</i> and <i>Fire Brick Works</i> within the north of the site. By 1893, mapping indicated the majority of the site to be occupied by an <i>Otto Gas Engine Works</i>, with a <i>Lads' Club & Gymnasium</i> in the north of the site and terraced residential properties in the west of the site. <i>Railway tracks/sidings</i>, a <i>travelling crane</i> and a circular feature (possibly a tank) were indicated within the centre and south of the site, to the south of the <i>Otto Gas Engine Works</i>. A reservoir with two sluices was recorded to encroach onto the northeast of the site. Between 1908 and 1977, mapping indicates the clearance of residential housing in the west of the site and the general expansion of <i>Otto Gas Engine Works</i> to the north, west and south. In addition, a <i>Chimney</i> was indicated near the southern site boundary, and a number of features, possibly tanks, in the southeast corner of the site. The <i>Otto Gas Engine Works</i> was later identified as <i>Crossley Gas and Oil Engine Works</i> by 1922 and later a <i>Works</i> from c.1977. The possible tank features in the southeast of the site were no longer indicated by 1977. Between 1986 and 1994, a number of buildings and railway sidings were cleared in the southeast of the site. Aerial imagery from 2000 indicates the clearance of further buildings in the west of the site and the creation of an open area of soft landscaping. By 2015, aerial imagery indicates the former <i>Works</i> have been replaced by <i>Bridge College</i>.
Published Geology	The site is anticipated to be underlain by the superficial Devensian Glacial Till Deposits. The superficial deposits are indicated to be predominantly underlain by the Etruria Formation (sandstone and mudstone), with the exception of the northeast corner of the site which is indicated to be underlain by the Pennine Upper Coal Measures Formation (mudstone, siltstone and sandstone). A north-south trending fault is recorded approximately 30m east of the site boundary. Deposits of Made Ground have been recorded along the southern boundary of the site, although it is noted that Made Ground is anticipated to be present across the site given the site's history.
Hydrology and Hydrogeological Setting	The superficial Devensian Glacial Till Deposits are designated as a Secondary Undifferentiated aquifer. The underlying Etruria Formation and Pennine Upper Coal Measures Formation are designated as Secondary A aquifers. The site is not located within a groundwater Source Protection Zone (SPZ). There is one groundwater abstraction reported within 1km of the site, located approximately 720m southeast of the site for process water. There is one record of a surface water feature within 250m of the site, located approximately 130m south of the site and is identified as Corn Brook, an inland river not influenced by normal tidal action. Groundwater flow direction is anticipated to be from east to west based on the location of Corn Brook and the general regional topography.
Previous Investigations	A Phase 1 Report and Geo-environmental Appraisal have previously been undertaken for the site by Curtins in January 2009 and April 2009 respectively, followed by a Desk Study and GIR by GEA in 2011. A Remediation Strategy and a report on additional ground contamination were subsequently undertaken by Stockley in August 2011 and April 2012 respectively, and, following redevelopment of the site to its current use an Earthworks Testing and Validation Note by Stockley in September 2012.
Site Investigation	A Phase 2 site investigation was undertaken on 17 and 18 February 2025 by Civic Earth within the areas of proposed development and included 13 window sample boreholes up to 5.45mbgl. Two initial ground gas and groundwater monitoring rounds were subsequently carried out on 5 March and 20 March 2025. The ground conditions were recorded to comprise a variable thickness of Made Ground (up to 2.30m) overlying superficial Devensian Glacial Till Deposits. The Devensian Glacial Till Deposits were proven to 5.45mbgl. A possible olfactory sign of potential hydrocarbon contamination was noted within borehole WS101 within the top of the Devensian Glacial Till Deposits between 1.40mbgl and 1.60mbgl. Boreholes WS103A, WS103B, WS106, WS106A, WS107, WS107A, WS107B, WS108 and WS108A terminated on shallow concrete obstructions. Perched water was encountered in the Made Ground and Devensian Glacial Till Deposits which is variable in level and appears to be limited in nature, confined by surrounding cohesive deposits.
Contamination Assessment	Human Health: A total of 12 soil samples were submitted for chemical analysis; 1 sample from the topsoil, 8 samples from the Made Ground and 3 samples from the Devensian Glacial Till Deposits. The results were 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. Assessment of the Made Ground results indicate that within the areas investigated the contaminant concentrations are generally below their respective assessment thresholds with the exception of arsenic, beryllium and PAHs. Statistical assessment indicates that the elevated concentrations of arsenic and beryllium (borehole WS102 at 0.90mbgl and 2.1mbgl), and PAHs (borehole WS103A at 0.40mbgl) are localised and not widespread across the site. It is understood that hardstanding and/or buildings are proposed across these areas and as such, the risk from the underlying soils will be mitigated as the pathway between source and receptor will be broken. Should the development proposals change and the identified hotspot locations are within areas of soft landscaping, a clean capping layer will be required to mitigate the risks to future site users. The results of the assessment of the topsoil and Devensian Glacial Till Deposits indicate that the contaminant concentrations recorded are below their respective GAC. One groundwater sample was analysed from the perched water within the Devensian Glacial Till Deposits; the results of the assessment indicate that the contaminants are below their respective thresholds and the potential risks to future site users from vapours from groundwater are considered to be low. Ground Gases: The results of the ground gas monitoring rounds undertaken indicate the areas investigated to be representative of CS1.

	Controlled Waters: 1 water sample from the superficial deposits was scheduled for chemical analysis. The results of the water assessment indicate that the concentrations are below the laboratory limit of detection with the exception of naphthalene; however, the concentration recorded is below the EQS. The risks to controlled waters from the Made Ground and perched water are considered to be low given the nearest watercourse (Corn Brook) is approximately 130m south of the site, the discontinuous nature of the perched water and cohesive nature of the Made Ground and Devensian Glacial Till Deposits beneath the site will limit lateral and vertical contaminant migration, and the proposed hardstanding and buildings across the site will limit infiltration and therefore reduce the potential for contaminant migration. Plants and Vegetation: The results show that concentrations of phytotoxic contaminants within the Made Ground present a risk to plant and vegetation growth with exceedances of copper, zinc and nickel identified. The importation of suitable soils would be required in areas of soft landscaping to provide a suitable growth medium.
Preliminary Waste Characterisation	The preliminary waste assessment (carried out using the HazWaste Online Toolkit) indicate that 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) or a non-hazardous waste facility. A total of 3 WAC tests were carried out which indicated that the material tested would be acceptable for disposal at an inert waste facility, with the exception of 1 sample (WS104 at 1.40mbgl) which indicated the material would not be acceptable for disposal at an inert waste facility (due to elevated fluoride) but would be acceptable to a stable non-reactive hazardous waste facility.
Revised Conceptual Site Model	There is considered to be a potential risk to future site users where soil is exposed and construction workers from the Made Ground soils due to the elevated concentrations of heavy metals and PAHs at the identified hotspots. Elevated concentrations of zinc, copper and nickel within the Made Ground are considered to be a potential risk to plants and vegetation. The risks from ground gases and to controlled waters and new buried water supply pipes are considered to be low.
Geoenvironmental Recommendations	It is recommended that a watching brief is carried out by the Contractor during the construction works. Should areas of unexpected contamination, including asbestos, be encountered or suspected, a qualified geoenvironmental engineer should be informed, and the risk associated with the contamination assessed. An appropriate remediation strategy should be devised and implemented for the unexpected contamination where necessary, and the regulators should be informed of additional areas of contamination identified. The regulators should be provided with the risk assessment and proposed remediation methodology for agreement before undertaking the remedial works. The methodology should include appropriate verification works to be completed. It is recommended that the existing monitoring wells are decommissioned prior to commencement of significant groundworks in accordance with EA good practice guidance The importation of suitable soils may be required in areas of soft landscaping to provide a suitable growth medium. The initial total soils analysis indicate that standard polyethylene (PE) pipework would potentially be suitable for use; however, it is recommended that the requirements for new buried water supply pipes are confirmed with the local water supply company once the details of the locations and levels of new water supply pipes are confirmed.
Geotechnical Recommendations	Based on the assumed ground floor finished floor levels for the college building extensions, ground floor formation levels for the extensions to the north and west of the college are likely to be within the Made Ground and/or superficial deposits. It is recommended that foundations are founded within the Devensian Glacial Till 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 the Made Ground. Based on the in-situ testing undertaken within the Devensian Glacial Till Deposits, an allowable bearing capacity of 175kPa could be adopted based a formation level of +52.5mOD and a minimum embedment of 300mm into the top of the stratum. If shallow foundations are to be utilised, the formation level within the top of the Devensian Glacial Till Deposits should be inspected by a suitably qualified engineer to confirm there are no soft spots present at formation level Pavements/roadways founded on the Made Ground or superficial deposits should be designed to a conservative CBR of 2.5%. 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 and/or ground heave. Excavations during the development should not pose difficulties for conventional excavators or earth moving equipment for the identified strata. Localised groundwater control may be required to managed perched water ingress. Buried concrete design classes for the Made Ground and natural Devensian Glacial Till Deposits have both been calculated as DS-1 (AC-1).

1. Introduction

Civic Earth Limited was appointed by Civic Engineers on behalf of The Together Trust, Bridge College (the Client) to produce a geotechnical and geoenvironmental interpretative Site Investigation Report for the proposed redevelopment of Bridge College in Openshaw, Manchester (herein referred to as “the site”).

A Phase 1 Report and Geo-environmental Appraisal have previously been undertaken for the site by Curtins in January 2009¹ and April 2009² respectively, followed by a Desk Study and GIR by GEA in 2011³. A Remediation Strategy and a report on additional ground contamination were subsequently undertaken by Stockley in August 2011⁴ and April 2012⁵ respectively, and following redevelopment of the site an Earthworks Testing and Validation Note by Stockley in September 2012⁶.

As part of the works for the currently proposed additional development of Bridge College, a site-specific desk study was produced for the site by Civic Earth in 2024⁷ which included a review of the above reports and development of a preliminary conceptual site model for the site.

The above reports have been used as supporting documentation in the preparation of this site investigation report, and reference should be made to the reports for full details of the investigations and assessments completed for the site.

The aim of this report is to provide:

- A brief summary of the site history, anticipated geology and historical ground investigation data, hydrogeological setting and preliminary risk assessment and conceptual site model;
- A summary of the ground and groundwater conditions encountered during the Civic Earth site investigation, and analysis and interpretation of chemical and geotechnical laboratory testing carried out as part of the site investigation; and
- Recommendations with respect to the potential risks identified to receptors associated with potential contamination beneath the site, waste disposal and 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 Curtins (2009) *Rolls Royce Crossley, Pottery Lane, Openshaw, Manchester. Phase 1 Detailed Desk Top Study*. 7 January 2009. Reference 50412/GN/0018.

² Curtins (2009) *Rolls Royce Crossley Works, Pottery Lane, Openshaw, Manchester. Geo-Environmental Appraisal*. 14 April 2009. Reference 50412/DM/0107.

³ GEA (2011) *Manchester College Co-Location Project, Pottery Lane, Manchester. Desk Study and Ground Investigation Report*. January 2011. Reference J10145.

⁴ Stockley (2011) *Manchester College Co-Location Project, Manchester. Remediation Strategy*. 15 August 2011. Reference 465-01.

⁵ Stockley (2012) *The Manchester College and Bridge College Co-Location Project: Review of risks associated with additional ground contamination (oil) found under the building*. 24 April 2012. Reference 465-01.

⁶ Stockley (2012) *The Manchester College and Bridge College Co-Location Project: Earthworks Testing and Validation*. 10 September 2012. Reference 465-01.

⁷ Civic Earth (2024) *Bridge College, Manchester. Phase 1 Desk Study*. 19 November 2024. Reference 51121-CE-XX-XX-R-G-1001. Revision P01.

2. Site Context

2.1. Site Location

The site is bound to the north by Whitworth Street, to the southeast by Clayton Lane South, to the west by Pottery Lane and by railway lines to the south. The site is located in Openshaw, approximately 5km east of Manchester City Centre. The postcode for the site is M11 2GR. The National Grid coordinates for the approximate centre of the site are 387320E, 397343N and the site is approximately 3.34 ha in size. The site location is illustrated by the blue line boundary in Plate 1.

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



2.2. Site Description

A site walkover was carried out on 27 September 2024 by an engineer from Civic Earth and full details of the site walkover are included in the Civic Earth Phase 1 Desk Study³.

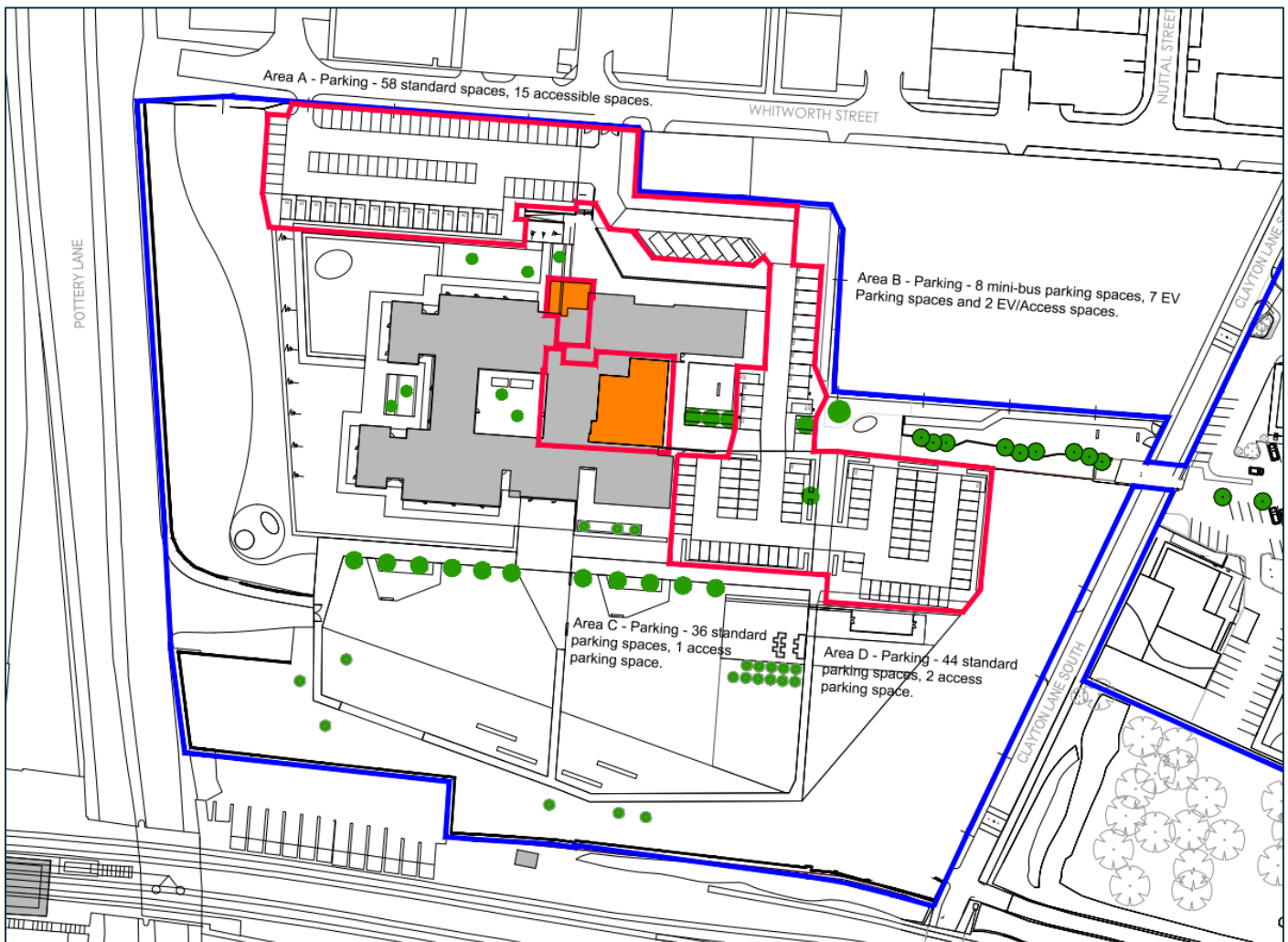
The Phase 1 Desk Study³ summarises that the site is roughly rectangular in shape and predominantly comprises open space with soft landscaping and several pedestrian footpaths, and an asphalt car park to the north of the site and a special education school towards the centre of the site.

The site has a gentle slope from north to south with ground levels ranging from approximately +60m above Ordnance Datum (mOD) in the north at Whitworth Street to approximately +56mOD in the south. The site is bounded by metal fencing to the north, east and south of the site, with a brick wall with metal fencing bounding the western portion of the site.

2.3. Proposed Development

It is understood that the current development proposals for the site include new school rooms, offices and accommodation in the same style as the existing building. Additionally, four new areas labelled Area A, B, C & D (see Plate 2) will accommodate new parking spaces including standard, Electric Vehicle (EV), mini-bus and access parking spaces. The proposed development layout is illustrated in Plate 2; the locations of the proposed new structures are illustrated by the orange areas and the proposed new car parking areas within the red boundaries.

Plate 2: Proposed Development Plans (drawing from Walker Simpson Architects, 0396-WSA-ZZ-ZZ-DR-A-1501-S0-P05)



3. Summary of Civic Earth Data Review and Phase 1 Desk Study

3.1. Introduction

As outlined in Section 1, a series of investigations and reports have previously been produced for the site by Curtins^{1,2}, GEA³ and Stockley^{4,5,6}. These previous investigations and reports were summarised in the Civic Earth Phase 1 Desk Study⁷. The following sections provide a summary of the Civic Earth data review and desk study; for full details the original reports should be referred to.

3.2. Site History

Earliest available historical mapping of the site indicates that the site was primarily undeveloped with a *Clay Pit* and *Fire Brick Works* within the north of the site. By 1893, mapping indicated the majority of the site to be occupied by an *Otto Gas Engine Works*, with a *Lads' Club & Gymnasium* in the north of the site and terraced residential properties in the west of the site. *Railway tracks/sidings*, a *travelling crane* and a circular feature (possibly a tank) were indicated within the centre and south of the site, to the south of the *Otto Gas Engine Works*. A reservoir with two sluices was recorded to encroach onto the northeast of the site.

Between 1908 and 1977, mapping indicate the clearance of residential housing in the west of the site and the general expansion of *Otto Gas Engine Works* to the north, west and south. In addition, a *Chimney* was indicated near the southern site boundary, and a number of features, considered possible to be tanks, in the southeast corner of the site. The *Otto Gas Engine Works* was later identified as *Crossley Gas and Oil Engine Works* by 1922 and later a *Works* from c.1977. The possible tank features in the southeast of the site were no longer indicated by 1977. Between 1986 and 1994, a number of buildings and railway sidings were cleared in the southeast of the site. Aerial imagery from 2000 indicates the clearance of further buildings in the west of the site and the creation of an open area of soft landscaping. By 2015, aerial imagery indicates the former *Works* have been replaced by *Bridge College*.

3.3. Published Geology

With reference to the British Geological Survey (BGS)⁸ website, BGS Sheet 85⁹ and the Groundsure Enviro + Geo Insight report obtained as part of the Civic Earth desk study⁷, the site is anticipated to be underlain by the superficial Devensian Glacial Till Deposits. The superficial deposits are indicated to be predominantly underlain by the Etruria Formation (sandstone and mudstone), with the exception of the northeast corner of the site which is indicated to be underlain by the Pennine Upper Coal Measures Formation (mudstone, siltstone and sandstone). A north south trending fault is recorded approximately 30m east of the site boundary. Deposits of Made Ground have been recorded along the southern boundary of the site; although it is noted that Made Ground is anticipated to be present across the site given the site's history.

3.4. Coal Mining

The site has been identified as being located within a Coal Mining Reporting Area as defined by the Mining Remediation Authority (MRA); however, the site is not located within a Development High Risk Area¹⁰. A Consultant's Coal Mining Report was obtained for the site as part of the Civic Earth Phase 1 Desk Study⁷, which concluded that based on the evidence provided by the MRA and the BGS, the site is considered to be at low risk from historical mining activities and as such, in accordance with MRA guidance¹¹ a further coal mining risk assessment and intrusive coal mining specific site investigation was not considered necessary.

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 superficial Devensian Glacial Till Deposits are designated as a Secondary Undifferentiated aquifer. The underlying Etruria Formation and Pennine Upper Coal Measures Formation are designated as Secondary A aquifers.

The site is not located within a groundwater Source Protection Zone (SPZ). There is one groundwater abstraction reported within 1km of the site, located approximately 720m southeast of the site for process water. There are a further three historical groundwater abstractions within 1km of the site, located approximately 680m northeast, 750m northeast and 990m northeast of the site relating to a range of categories including general cooling, process water, spray irrigation, horticultural watering and general use relating to secondary category (medium loss).

There is one record of a surface water feature within 250m of the site, located approximately 130m south of the site and is identified as Corn Brook, an inland river not influenced by normal tidal action. The brook is a culverted waterbody,

⁸ British Geological Survey (BGS), www.bgs.ac.uk (September 2024)

⁹ BGS (2011) Manchester, Sheet 85. Solid and Drift. 1:50,000.

¹⁰ <https://mapapps2.bgs.ac.uk/coalauthority/home.html> accessed June 2024

¹¹ The Coal Authority (2017). Guidance for Developers. A Risk Based Approach to Development Management. Version 4.

first emerging at Openshaw from two brick pipes, travelling around 750m above ground before dropping into a 5.5km culvert that travels to the south of Manchester centre, finally arriving at the Manchester Ship Canal¹². Groundwater flow direction is anticipated to be from east to west based on the location of Corn Brook and the general regional topography.

3.6. Previous Investigations Associated with Development of the Site to Current Use

3.6.1. Curtins Phase 1 Report (2009)

The Curtins desktop study¹ was carried out to assess the site's geo-environmental setting and potential risks, while also evaluating the need for ground investigations to derive a conceptual site model. The report covers approximately the same extent as the blue line boundary illustrated above within Plate 1. The report concluded that the site posed moderate risks to human health due to potential soil contamination from industrial use. Off-site contamination risks were generally considered to be low, while a nearby landfill to the east was considered to pose a high to moderate hazard. An investigation plan was developed to evaluate soil contamination and ground gas risks for the proposed school development. The scope of recommended investigations including rotary, cable percussive and window sample boreholes, soil and groundwater analysis and gas monitoring.

3.6.2. Curtins Geo-Environmental Appraisal (2009)

The Curtins geoenvironmental appraisal² was undertaken following completion of their desk study. The site investigation included 7 cable percussion boreholes (with follow on rotary to 30m below ground level (mbgl) in boreholes BH1 and BH6) and 15 window sample boreholes. Chemical and geotechnical laboratory analysis was also undertaken. This investigation was completed approximately across the extent of the blue line boundary shown above in Plate 1.

Made Ground was identified in each exploratory hole to depths ranging from 0.7m to 4.7mbgl. The Made Ground typically comprised a sandy, clayey gravel with gravel of brick, ash and metal. Firm to very stiff clay of the Devensian Glacial Till Deposits was encountered below the Made Ground, typically to depths between 10.3m and 15.9m, with some window sample holes encountering granular and silty layers. Weathered mudstone or sandstone was encountered beneath the clay (with the exception of in borehole BH1), where a gravel horizon was encountered. The depth to top of bedrock was typically 10mbgl to 16mbgl. A coal seam was observed in borehole BH6 and it is noted that Curtins considered the risk to surface stability from workings in the seam to be low.

Chemical analysis of 33 soil samples recorded elevated concentrations of sulphate, hydrocarbons and semi-volatile organic compounds (SVOCs) in several locations. Curtins' recommendations included the incorporation of a clean, inert capping layer of at least 450mm thickness in soft landscaped areas with a coloured geotextile layer.

Ground gas monitoring did not detect methane; however, carbon dioxide concentrations were recorded. The report states that a maximum carbon dioxide concentration of 3.9% v/v with a flow rate of 6.4 l/hr was recorded on 3 February 2009 and a maximum carbon dioxide concentration of 4.0% v/v with a flow rate of 5.0 l/hr was recorded on 13 February 2009. Both readings were recorded within borehole BH3. It is noted that the response zone of borehole BH3 is within the Glacial Till and top of the bedrock. A gas-resistant membrane was recommended and given the presence of SVOCs within the shallow soils, it was further recommended that school buildings in affected areas should be provided with "venting media" and a hydrocarbon resistant membrane.

Groundwater analysis undertaken by Curtins indicated that there were slightly elevated concentrations of TPH and tetrachloroethylene (53 µg/l and 14 µg/l respectively) within borehole BH5 when compared to UK Drinking Water Standards. A leachate assessment was also conducted on select samples with elevated concentrations of arsenic, TPH and SVOCs and Curtins concluded that the hydrocarbon contamination within the soils had the potential to leachate (specifically identified in samples from borehole BH3). However, the report considered UK Drinking Water Standards to be very conservative assessment criteria given the encountered ground conditions and associated groundwater vulnerability classification of the encountered strata. Curtins concluded that whilst the results of the leachate assessment suggested the potential for mobile leachate exists, the results of the groundwater and soil analysis (including the additional protection against lateral and vertical migration of contamination afforded by natural clays present) indicated that the risk to controlled waters was low.

The report recommended shallow spread foundations for some parts of the site and piled foundations or vibrocompaction for others, depending on the depth of Made Ground.

3.6.3. GEA Desk Study and Ground Investigation Report (2011)

The purpose of the GEA investigation (carried out on the instructions of Martin Stockley Associates)³ was to assess the ground conditions following the demolition and enabling works package for the proposed school development, which had been carried out to remove obstructions to a depth of approximately 2m and cover the site with a capping layer of crushed brick and concrete. The site investigation included 10 hand held DCP and Mexecone CBR tests undertaken at both ground level and from the base of mechanically excavated trial pits from 1.0mbgl (TP P1 to TP P10), 5 opendrive sampler boreholes (to 5.45mbgl within the proposed footprint of the college, referenced as BH S1 through BH S5) and two hand excavated trial pits to expose existing footings (TP1 and TP2). This investigation was concentrated across the northern, central and southeastern portions of the blue site boundary within Plate 1 above.

¹² <https://substormflow.com/drain/cornbrook/#:~:text=The%20Cornbrook%20is%20first%20seen,the%20south%20of%20Manchester%20centre.> Accessed April 2025.

The GEA investigation generally encountered a 0.2m to 0.9m thick layer of crushed brick and concrete with high fines content, the degree of compaction varying significantly across the site. Below this capping layer, Made Ground consisting mainly of firm and stiff, sandy clay with brick and concrete fragments, as well as occasional gravel and coal fragments, was encountered to depths of between 0.70mbgl and 1.55mbgl. GEA stated that the Made Ground was free of volatile organic compounds, which GEA confirmed via PID head space analysis. However, within the southeastern corner of the site the GEA report records that the trial pits encountered brick rubble in a matrix of clayey, gravelly sand containing ash, clinker, slag, concrete boulders, timbers, and metal fragments, along with a 'coal tar' odour. This fill material extended to depths of 2.2mbgl to 3.5mbgl. In the southwestern corner, loose to medium-dense sandy gravel of crushed concrete, with pockets of firm sandy clay, was encountered to a depth of 4.1mbgl. The natural superficial Devensian Glacial Till Deposits were encountered beneath the Made Ground where the base of this was proven.

Groundwater was recorded as perched seepages within cohesive fill material encountered at TP P1 and TP P5 at a depth of 0.4mbgl, within exploratory locations BH S4, BH S6 and TP P8 at depths of 1.5mbgl, 3.1mbgl and 1.9mbgl respectively and within TP 2 at 2.5mbgl; a pervasive groundwater table was not recorded.

Chemical analysis undertaken as part of the GEA investigation (which GEA compared against the previous investigation completed by Curtins²) identified high pH values and elevated concentrations of total sulphate, lead, PAH and arsenic alongside potentially leachable chromium, copper, lead, nickel, zinc and TPH. GEA state that this contamination is predominantly concentrated within the fines from the identified demolition material and pockets of ash and clinker within the Made Ground. Section 8.0 of the GEA report states that potentially leachable metals, PAH and TPH are encountered within the southeastern corner of the site, which GEA refers to as a "hot spot" related to a former structure in which heavy oil/tar contamination is present. GEA proposed a limited source removal exercise be carried out in this area including the screening of tar free Made Ground for re-use and the removal of any PAH contaminated material or obviously odorous soil for offsite disposal.

As part of the site-specific risk assessment, GEA concluded that outside of the proposed remediation area, the presence of the 0.2m to 0.9m thick layer of crushed brick, concrete and fines across the site (which GEA deemed to be acting as a capping layer) combined with imported topsoil, surfacing and a coloured geotextile separation layer in areas of soft landscaping and open space would break the critical exposure pathways for contamination. GEA stated that in areas where edible plants are to be grown or horticulture is to be carried out, a combined 600mm thickness of imported topsoil and subsoil would be required.

3.6.4. Stockley Remediation Strategy (2011)

Stockley was appointed to provide civil and structural engineering advice for the development of the College and associated landscaping. As part of this scope, Stockley prepared a remediation strategy⁴.

The strategy included for the provision of a capping layer, the remediation of a "Hot Spot" in the southeast of the site and for the re-use of site won materials as a development platform.

The soft landscape treatments were designed to provide a minimum of 450mm of clean material, with the exception of areas intended for planting or horticulture, where a minimum thickness of 600mm for the growth medium was required with the addition of a geotextile membrane or root barrier to form a visual separation from potentially contaminated material. The Contractor was required to certify the importation of clean material and document all material movements in a Materials Management Plan.

Regarding the "Hot Spot" in the southeastern area of the site, the remediation strategy required the Contractor to excavate and screen 300m³ of potentially contaminated material and treat 86m³ to reduce contaminant mobility. Validation testing was required for all treated material before reuse on-site.

The strategy included for approximately 6,000m³ of site-won material to be reused to provide a stable development platform. This material was to be managed in accordance with the CL:AIRE Definition of Waste: Development Industry Code of Practice (March 2011), with testing undertaken to ensure that it could be placed at suitable depths, based on geotechnical and geochemical properties. If hazardous material was identified, it was to be either disposed of at a suitable facility or treated and validated according to an agreed methodology.

3.6.5. Stockley Report on Additional Ground Contamination (2012)

An additional ground investigation⁵ was carried out when piling works discovered oil contamination in the Made Ground beneath the southwest portion of the building footprint. The investigation undertaken on behalf of the Main Contractor, Wates, when construction of the primary structure (foundation, walls, ground floor, and roof) had already been completed, and internal fit out was ongoing. A total of 8 continuous dynamic sampling boreholes were undertaken (BH1, BH2, BH3, BH4, BH4A, BH5, BH6 and BH7) which were advanced to depths of between 1.90mbgl and 5.80mbgl. These encountered Made Ground to depths of between 1.4mbgl and 3.5mbgl over natural clay (Devensian Glacial Till Deposits) where the base of the Made Ground was proven.

Oil contamination was encountered in Boreholes 3, 4, and 4A. Borehole 3 encountered liquid oil at depths between 2.56mbgl and 2.86mbgl in the matrix of the Made Ground. Boreholes 4 and 4A also encountered oil within the Made Ground between 1.99mbgl and 2.49mbgl which primarily comprised broken bricks and clay, liquid oil was again encountered between 2.56mbgl and 2.86mbgl. Despite the presence of oil, the residual risks associated with the contamination were considered low and further remedial action was not deemed to be necessary. The presence of contamination was recorded in the Health and Safety file for future reference during any further development or works

at the site.

3.6.6. Stockley Earthworks Testing and Validation Note (2012)

The Stockley Testing and Validation Note⁶ was produced by Stockley as a record of remediation work completed by September 2012. Regarding the site won material reused to form the development platform, the note states that:

- A total of 5,800m³ of site-won material was excavated, with 20 samples tested, yielding a testing rate of approximately 1 test per 290m³.
- The testing rate was slightly below the required standard of 1 test per 250m³.
- Validation testing was ongoing, with additional confirmation needed from Wates regarding specific materials with elevated contamination levels.
- Confirmation from the contractor was required to ensure proper placement according to Stockley drawings and specifications.
- Imported topsoil and subsoil had been tested according to the Stockley Materials Management Plan.
- An additional 747m³ of clean 6F5 material had been imported, pending contractor confirmation of its cleanliness.

The validation note states that the oil contamination encountered beneath the new school building remained on site. Remediation of the "Hot Spot Area" had been completed, with Stockley visiting the site to witness the remedial works. The note also records that further information was awaited from Wates with regard to a number of issues including:

- Test results for approximately 1,200m³ of excess material generated during site works were still pending.
- Confirmation that all materials had been placed in accordance with project specifications, including relevant Stockley specifications and drawings.
- Confirmation that specific materials with elevated contamination levels had been placed at suitable depths.
- Confirmation that all imported materials were 'clean.'
- Confirmation regarding the treatment of the oil tank.

3.7. Conceptual Site Model

A preliminary qualitative risk assessment was undertaken by Civic Earth⁷ 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. In addition, the assessment highlights that whilst remediation was undertaken as part of the previous site development, there is the potential for residual contamination to be present.

Furthermore, the assessment identified a number of potential geotechnical constraints associated with the anticipated underlying ground conditions, including the potential for below ground obstructions, contamination in soils due to past use, existing basement structures and foundations, variable thickness of Made Ground associated with the development history of the site and potential variability of the underlying superficial deposits.

A supplementary intrusive ground investigation was therefore recommended so that the risks from the identified contaminants could be assessed. It was recommended that this investigation should include laboratory analysis of soil and groundwater samples for the identified contaminants of concern and to confirm ground conditions in areas of development. If obtained, it was deemed that this information could be used to evaluate the potential geotechnical risks and inform the geotechnical design of the project.

The Phase 1 Desk Study report⁷ 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 on 17 and 18 February 2025, and a summary of the intrusive works completed is summarised in Table 1. It is noted that the site investigation was undertaken only in areas where redevelopment is proposed i.e. the new car parks and additional structures.

Table 1: Summary of Exploratory Hole Locations

Location Reference	Type of Exploratory Hole	Ground Level (mOD)	Base Depth (mbgl)	Base Levels (mOD)
WS101	WS	55.23	5.45	49.78
WS102	WS	54.98	5.00	49.98
WS103A	WS	53.92	0.60	53.32
WS103B	WS	53.92	0.60	53.32
WS104	WS	54.23	5.45	48.78
WS105	WS	53.80	4.00	49.80
WS106	WS	53.71	0.40	53.31
WS106A	WS	53.71	0.40	53.31
WS107	WS	53.55	0.40	53.15
WS107A	WS	53.55	0.40	53.15
WS107B	WS	53.55	0.40	53.15
WS108	WS	53.76	1.80	51.96
WS108A	WS	53.76	1.70	52.06

WS = window 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+A1:2020¹³ and BS 10175:2011+A2:2017¹⁴. In-situ Standard Penetration Tests (SPTs) were carried out within the window sample boreholes.

The exploratory hole records are included in [Appendix A](#). An exploratory hole location plan is included in [Appendix B](#); an extract of the exploratory hole location plan is provided in Plate 3.

¹³ British Standards Institution (2015) Code of practice for ground investigations. BS 5930:2015+A1:2020.

¹⁴ British Standards Institution (2017) Investigation of potentially contaminated sites – Code of practice. BS 10175:2011+A2:2017.

Plate 3: Extract of Exploratory Hole Location Plan



4.2. Ground Gas and Groundwater Monitoring

Two rounds of ground gas and groundwater monitoring have been undertaken on 5 March and 20 March 2025, with one groundwater sample being obtained from borehole WS101. 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](#).

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)
WS101	Made Ground	0.50	1.00	54.73	54.23
WS101	Devensian Glacial Till Deposits	3.00	5.00	52.23	50.23
WS104	Made Ground	1.00	2.00	53.23	52.23
WS105	Made Ground	0.50	1.00	53.30	52.80
WS105	Devensian Glacial Till Deposits	1.50	2.80	52.30	51.00

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 [Appendix D](#).

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

4.3.2. Groundwater Testing

The groundwater sample obtained from borehole WS101 was submitted to i2 Analytical Limited (a UKAS and MCERTS accredited laboratory) for chemical water testing. Due to the limited volume of groundwater able to be obtained from the monitoring well, it was requested that analysis for organics was prioritised. The analysis included the following determinants and the results are included in [Appendix D](#).

- 1 Nr. PAHs;
- 1 Nr. BTEX compounds; and
- 1 Nr. TPHs.

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 1377¹⁵. The following tests were scheduled and the results are included in [Appendix E](#):

- 10 Nr. Atterberg Limit (4 Point);
- 10 Nr. natural water content;
- 8 Nr. Building Research Establishment (BRE) Special Digest (SD)¹⁶ Suite – including 2:1 water soluble sulphate, 2:1 water soluble chloride, water soluble magnesium, total sulphate, total sulphur and pH.

¹⁵ British Standard (2018). Methods of testing for soils for civil engineering purposes. BS 1377:2018.

¹⁶ 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]	Thickness (m)
Turf over dark brown mottled black slightly sandy slightly silty CLAY / dark brown organic rich slightly sandy slightly gravelly CLAY. Gravel is subrounded fine to medium of mixed lithologies including quartz, sandstone and mudstone. Frequent rootlets noted. <i>Encountered in boreholes WS105, WS107 to WS107B, WS108 and WS108A.</i> [TOPSOIL]	0.0 [53.80 to 53.55]	0.12 to 0.40
Tarmacadam over concrete / cobbles over light brown to beige slightly gravelly sand / dark brown to reddish brown and black slightly silty gravelly sand. Sand is fine to coarse including ash. Gravel is angular to subangular fine to coarse of brick, concrete, coal, sandstone, limestone, tile and glass. Dark brown to brown mottled black sandy gravelly clay. Gravel is angular to subangular fine to coarse of multiple lithologies including brick, tarmacadam, concrete, coal, tile and occasional fragments of glass and plastic. Sand is fine to coarse. Rootlets, ash and cobbles of brick and concrete. <i>Encountered in WS101, WS102, WS103A, WS103B, WS104, WS105, WS106A, WS106B, WS108 and WS108A.</i> [MADE GROUND]	0.00 to 0.30 [55.23 to 53.50]	>0.40 to 2.30
Brown mottled grey slightly gravelly firm to very stiff CLAY. Gravel is subangular to subrounded fine to medium of multiple lithologies including coal, mudstone and sandstone. <i>Encountered in WS101, WS102, WS104 and WS105.</i> [DEVENSIAN GLACIAL TILL DEPOSITS]	1.30 to 2.30 [53.83 to 52.13]	Proven to 5.45mbgl [49.78mOD]

5.2. Topsoil

Topsoil was encountered from surface in areas of soft landscaping within boreholes WS105, WS107, WS107A, WS107B, WS108 and WS108A, and ranged in thickness between 0.12m and 0.40m. It is noted that concrete obstructions were encountered below the topsoil in boreholes WS107, WS107A and WS107B..

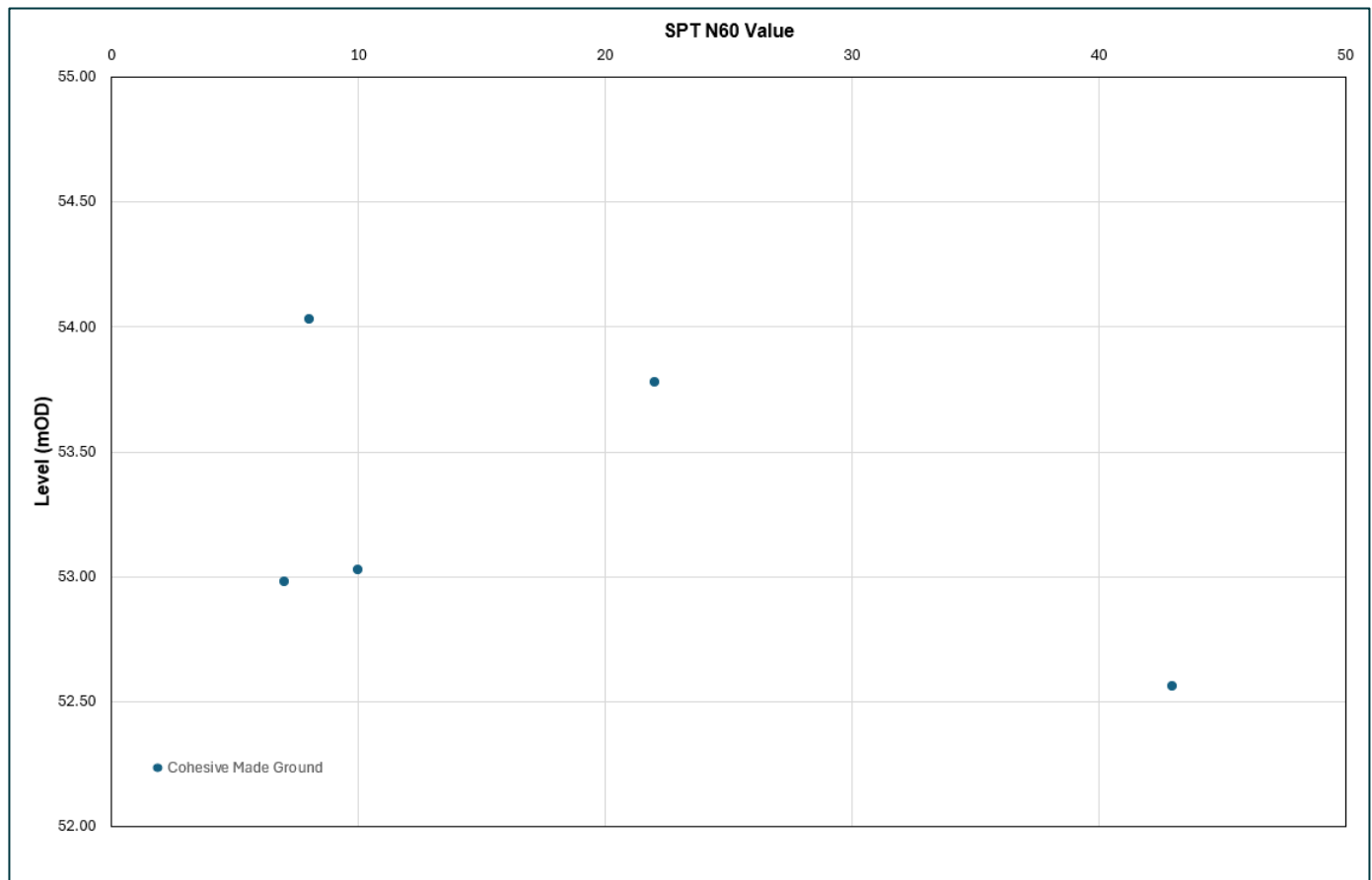
This topsoil material is assumed to comprise part of the clean cover system implemented as part of previous remedial works at the site within areas of soft landscaping. No in-situ or laboratory testing was carried out on the topsoil due to its limited thickness.

5.3. Made Ground

Made Ground was encountered from below hardstanding or from below topsoil at each exploratory hole location and ranged in thickness between 0.40m and 2.30m in thickness. The stratum comprised predominantly cohesive horizons with some granular horizons, both of variable consistency and density. It is noted that prior to the previous remediation at the site, the Curtins investigation² and GEA investigation³ recorded Made Ground to depths of up to 4.70mbgl.

A total of 6 SPTs were undertaken within the cohesive Made Ground horizons where the SPT N60 values were between 7 and >50, correlating to 'firm to stiff' clay¹³. It is noted that where an SPT N60 of >50 was recorded, the presence of a concrete obstruction immediately beneath the Made Ground is considered to have influenced the test and therefore is not considered to be representative of the cohesive material. It is also considered likely that the presence of coarse gravels and cobbles of brick may have influenced the results of the tests within the Made Ground. A summary of the SPT N60 values versus level are provided in Plate 4; the results of the SPT undertaken on a concrete obstruction have been omitted.

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



Sulphate and pH testing was undertaken on one sample of the Made Ground retrieved during the ground investigation. The results are summarised in Table 4.

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

Number of Tests	pH	Water Soluble SO ₄ * (mg/l)	Water Soluble Chloride* (mg/l)	Water Soluble Nitrate as N* (mg/l)
1	9.4	62.5	9	<2.0

*2:1 Leachate Equivalent

A summary of the classification testing undertaken on one sample of the Made Ground is provided in Table 5. The results of the classification testing indicate the material to be clay of intermediate plasticity¹³ with a low volume change potential¹⁷.

Table 5: Summary of Classification Testing – Made Ground

Number of Tests	Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	% Passing (>450µm)	Modified Plasticity Index (%)
1	24.6	42	22	86	17.2

5.4. Devensian Glacial Till Deposits

The Devensian Glacial Till Deposits were encountered in boreholes WS101, WS102, WS104 and WS105. The upper surface of the superficial Devensian Glacial Till Deposits was recorded between 53.83mOD and 52.13mOD and recorded to range between 2.70m and 4.05m in thickness. It is noted that superficial Devensian Glacial Till Deposits were recorded as firm to very stiff clays underlying the Made Ground across the entire site to depths of up to 10.3mbgl to 15.9mbgl during the Curtins investigation².

SPT N60 values ranged from 10 to >50 corresponding to 'firm to very stiff' clay. Correlated c_u values ranged from 50kPa to 420kPa (assuming $f_1 = 5.0$ ¹⁸), correlating to low to very high strength material¹³. It was noted that the value of 420kPa was from a test which was impacted by a fragment of brick falling into the hole and is therefore not considered

¹⁷ NHBC (2013) NHBC Standards. Chapter 4.2 Building near trees.

¹⁸ 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

representative of the stratum. Additionally, a total of 29 hand shear vane tests were undertaken on the Devensian Glacial Till Deposits in the field, recording c_u values between 20kPa and 150 kPa correlating to low to very high strength clay¹³. A summary of the SPT N60 values and undrained shear strengths versus level are provided within Plate 5 and Plate 6 respectively.

A summary of the classification testing undertaken on selected samples from the Devensian Glacial Till Deposits is provided in Table 6. The results of the classification testing indicate the material to be clay and silt of low to intermediate plasticity¹³ with a low to medium volume change potential¹⁷.

Table 6: Summary of Classification Testing – Devensian Glacial Till Deposits

Number of Tests	Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	% Passing (>450µm)	Modified Plasticity Index (%)
9	13.9 to 17.9	33 to 43	15 to 20	93 to 98	17.64 to 21.62

Sulphate and pH testing was undertaken on samples of the Devensian Glacial Till Deposits retrieved during the ground investigation. The results are summarised in Table 7.

Table 7: Summary of pH and Sulphate Testing – Glacial Till

Number of Tests	pH	Water Soluble SO4* (mg/l)	Water Soluble Chloride* (mg/l)	Water Soluble Nitrate as N* (mg/l)
7	7.9 to 8.7	31.3 to 137	2.5 to 6.5	<2.0

*2:1 Leachate Equivalent

Plate 5: SPT N60 versus Level (mOD) – Devensian Glacial Till Deposits

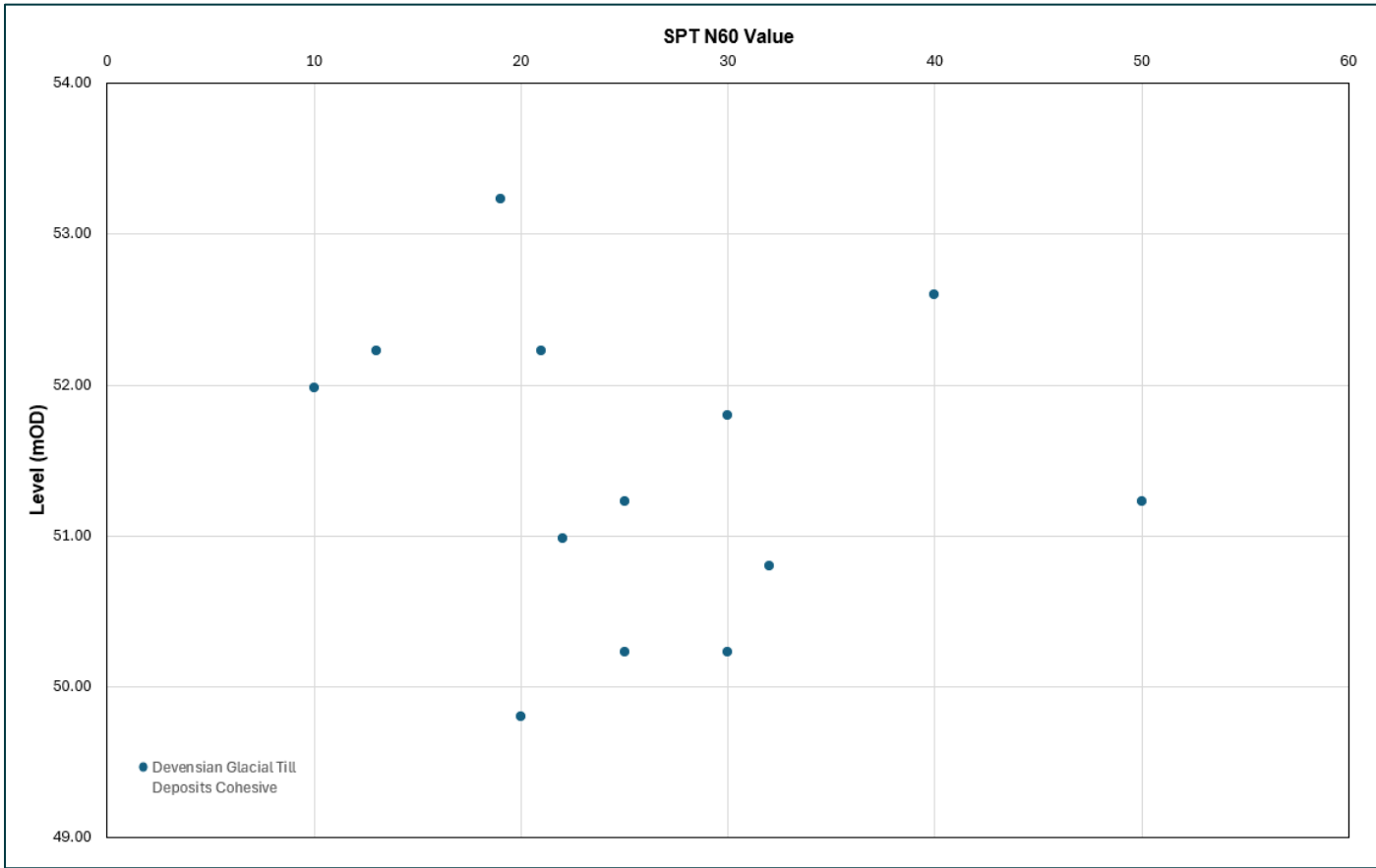
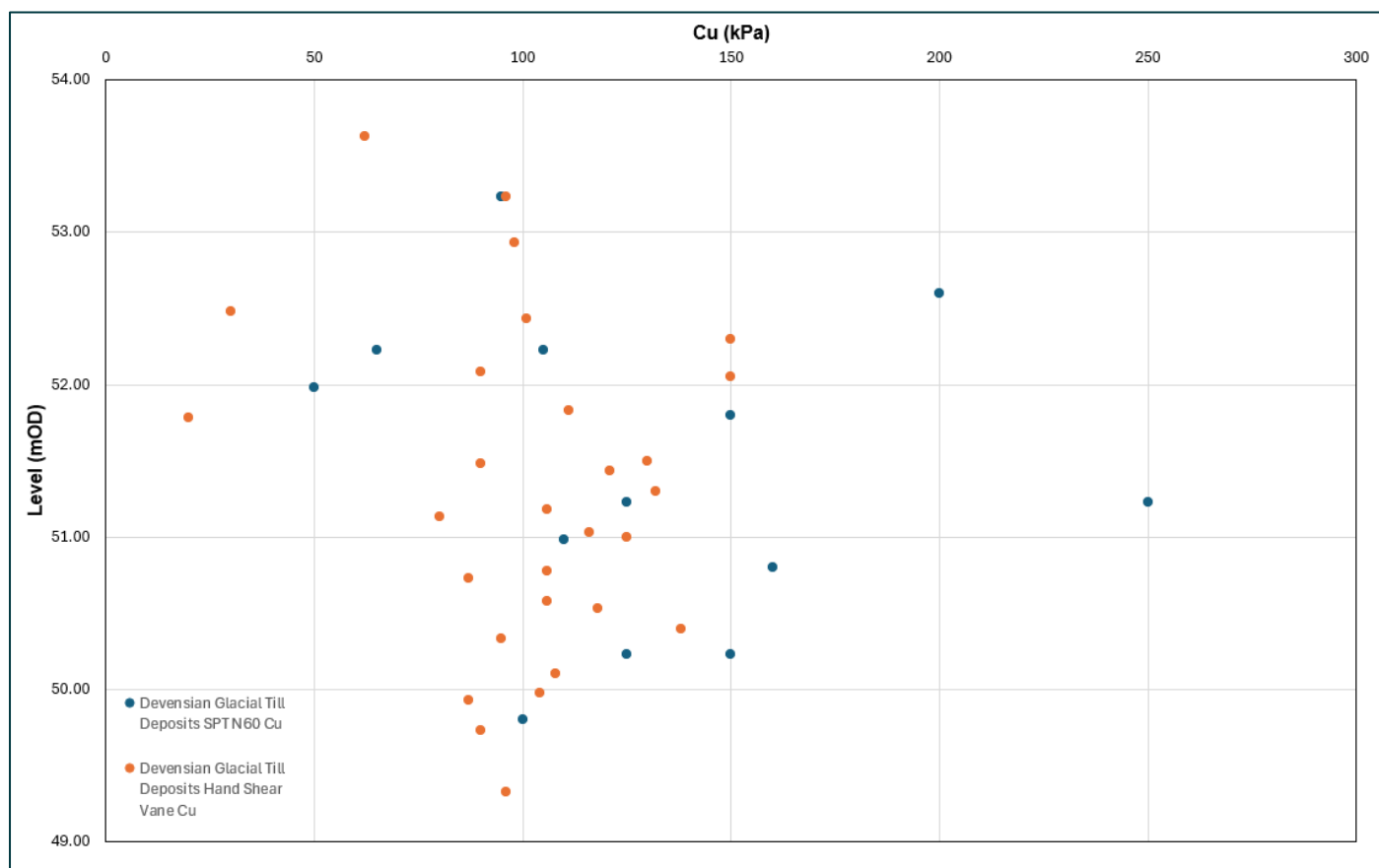


Plate 6: Undrained Shear Strength versus Level (mOD) – Devensian Glacial Till Deposits



5.5. Obstructions

A summary of the obstructions encountered during the site investigation is provided in Table 8.

Table 8: Summary of Obstructions encountered during Site Investigation

Location	Top Depth of Obstruction (mbgl)	Top Level of Obstruction (mOD)	Thickness of Obstruction (m)	Details of Obstruction Encountered
WS103A	0.60	53.32	Not Proven	Concrete obstruction encountered.
WS103B	0.60	53.32	Not Proven	Concrete obstruction encountered.
WS106	0.40	53.31	Not Proven	Concrete obstruction encountered.
WS106A	0.40	53.31	Not Proven	Concrete obstruction encountered.
WS107	0.40	53.15	Not Proven	Concrete obstruction encountered.
WS107A	0.40	53.15	Not Proven	Concrete obstruction encountered.
WS107B	0.40	53.15	Not Proven	Concrete obstruction encountered.
WS108	1.8	51.96	Not Proven	Concrete obstruction encountered.
WS108A	1.7	52.06	Not Proven	Concrete obstruction encountered.

5.6. Visual and Olfactory Potential Contamination

Olfactory signs of potential hydrocarbon contamination were noted within borehole WS101 within the Devensian Glacial Till Deposits between 1.4mbgl and 1.6mbgl, recorded as a dark staining, although no hydrocarbon odour was noted. The presence of foreign materials such as bricks, tarmacadam, concrete, plastic, glass, ash and ceramic were noted within the Made Ground across the site.

It is noted that the previous Curtins investigation² and GEA investigation³ recorded evidence of foreign materials within the Made Ground including brick, ash and metal. The GEA investigation³ also recorded brick rubble, ash, clinker, slag, concrete boulders, timbers and metal fragments along with a “coal tar” odour in the southeast of the site.

The additional ground investigation carried out by Stockley⁵ encountered oil contamination during piling works around the southwest portion of the existing college building; it is understood that this contamination and surrounding impacted soils were left in-situ as it was considered to present a low risk to the identified receptors.

5.7. Groundwater

Groundwater was not encountered during the site investigation with the exception of a possible groundwater strike in borehole WS102 within the Devensian Glacial Till Deposits at 4.40mbgl (50.58mOD). Two groundwater monitoring rounds were undertaken in March 2025 following completion of the site investigation and the results are summarised in Table 9.

Table 9: Summary of Groundwater Monitoring

Location	Stratum	Date	Groundwater Depth (mbgl)	Groundwater Level (mOD)
WS101	Glacial Till	05/03/2025	4.78	50.45
		20/03/2025	4.64	50.59
WS104	Made Ground	05/03/2025	1.87	52.36
WS105	Made Ground	05/03/2025	0.65	53.15
		20/03/2025	0.94	52.86

The groundwater results indicate the presence of perched water within the Made Ground and Devensian Glacial Till Deposits. There is considered to be the potential for further shallow perched water across the site given the variable nature of the Made Ground material and Devensian Glacial Till Deposits.

5.8. Ground Gas

Two rounds of ground gas monitoring have been carried out in March 2025. Both monitoring rounds were carried out in atmospheric pressures ranging between 1003 to 1013mbar in falling pressure systems. A summary of the worst-case ground gas monitoring results is provided in Table 10. The worst-case scenario includes maximum steady flow, maximum steady carbon dioxide and maximum (peak) methane recorded at each borehole during the monitoring round.

Table 10: 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)
WS101	Made Ground	0.0	0.2	0.0	0.0
	Glacial Till	0.0*	3.2	0.0	0.0
WS104	Made Ground	0.0	0.8	0.0	0.0
WS105	Made Ground	0.0	0.4	0.0	0.0
	Glacial Till	0.0**	0.5	0.0	0.0

*Peak flows observed of 87.1 l/hr and 150.0 l/hr **Peak flow of 4.5 l/hr observed

6. Contamination Assessment

6.1. Introduction

The risks to the identified potential receptors associated with the proposed development works have been assessed with respect to the identified contamination at the locations investigated. The potential receptors have been identified with reference to the Part 2A Contaminated Land Guidance and associated DEFRA guidance¹⁹ 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](#). It is noted that the following contamination assessments and subsequent recommendations only consider the areas where redevelopment is proposed i.e. the new car parks and additional structures where the site investigation has been carried out.

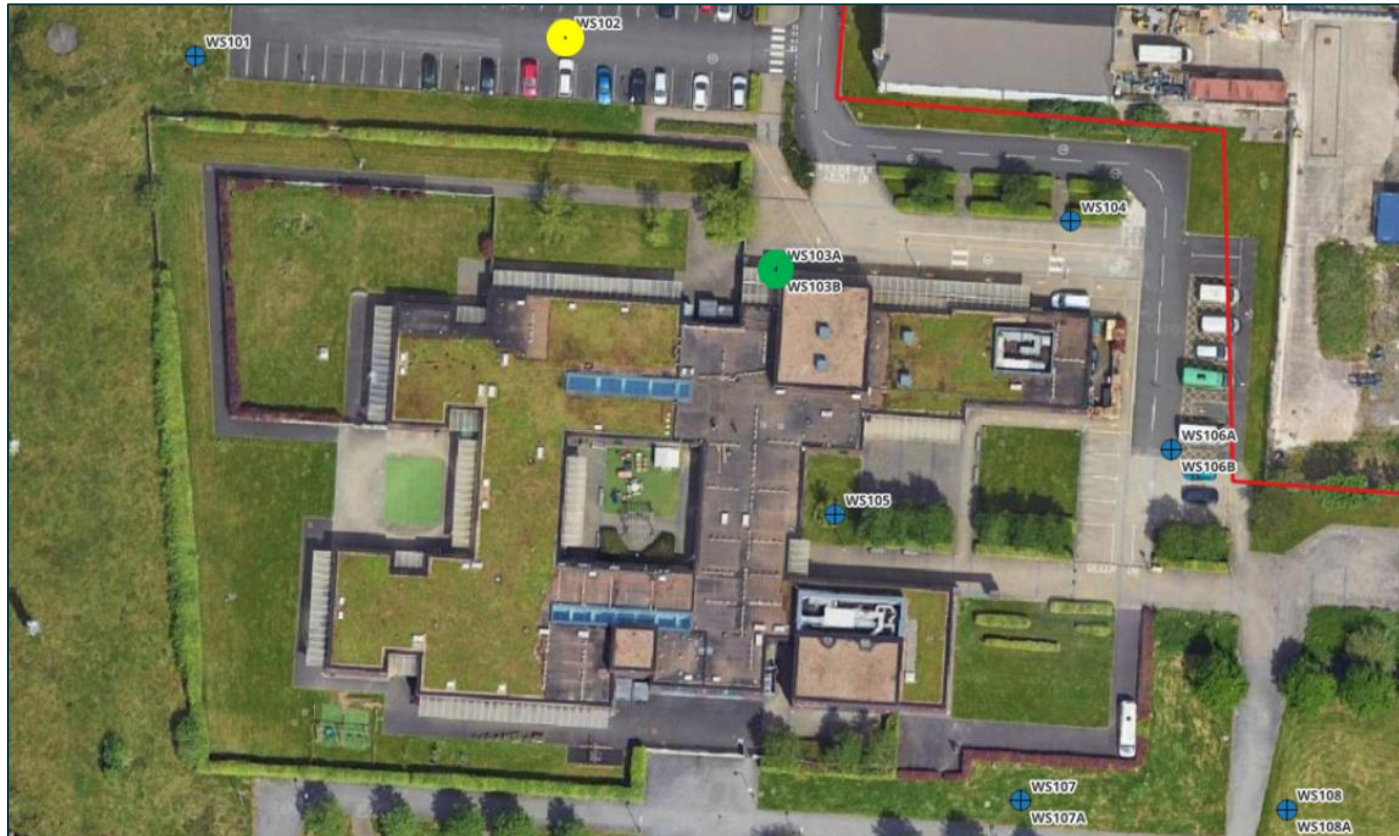
6.2. Risks to Human Health from Soil Contaminants

A total of 12 soil samples were submitted for chemical analysis, 1 sample from the topsoil, 8 samples from the Made Ground and 3 samples from the Devensian Glacial Till Deposits. The results were 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.

The assessment results for the Made Ground are summarised in Table A in [Appendix F](#), the Devensian Glacial Till Deposits in Table B in [Appendix F](#) and the topsoil in Table C 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.

Assessment of the Made Ground results indicate that the contaminant concentrations are generally below their respective assessment thresholds with the exception of arsenic, beryllium and PAHs (benzo(a)pyrene, benzo(b) fluoranthene and dibenzo(a,h)anthracene). Statistical assessment indicates that the elevated concentrations of arsenic and beryllium (borehole WS102 at 0.90mbgl and 2.1mbgl), and PAHs benzo(a)pyrene, benzo(b) fluoranthene and dibenzo(a,h)anthracene (borehole WS103A at 0.40mbgl) are localised and not widespread across the site as removal of these "hotspots" from the dataset reduce the US₉₅ concentrations to below the respective GAC. In addition to the total soils analysis, 9 Made Ground samples were screened for the presence of asbestos; asbestos was not detected in the soil samples analysed. The Made Ground soil contaminant exceedances are illustrated in Plate 7.

Plate 7: Summary of Made Ground Soil Contaminant Exceedances from Supplementary Site Investigation



Notes: Green = PAHs exceed GAC; Yellow = Concentrations of Arsenic and Beryllium exceed GA..

The results of the assessment of the Topsoil and Devensian Glacial Till Deposits indicate that the contaminant

¹⁹ DEFRA (2012) Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance.

concentrations recorded are below their respective 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 at boreholes WS102 and WS103A due to the elevated concentrations of heavy metals and PAHs; however, it is understood that hardstanding and/or buildings are proposed across these areas and as such, the risk from the underlying soils will be mitigated as the pathway between source and receptor will be broken. Should the development proposals change and the identified hotspot locations are within areas of soft landscaping, a clean capping layer will be required 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.

6.3. Risks to Human Health from Dissolved Contaminants

One groundwater sample from the perched water within the Devensian Glacial Till Deposits (secondary undifferentiated aquifer) has been analysed as part of the site investigation. 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 D (Perched Water) 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 665²⁰ using the maximum flow rate and maximum carbon dioxide/methane concentration for each individual well during the preliminary monitoring rounds completed at the site. The results of the assessment are summarised in Table 11.

Table 11: Summary of Ground Gas Risk Assessment

Location	Stratum	Maximum Steady Flow Rate (l/hr)	Maximum Steady CO ₂ (% vol. in air)	Maximum CH ₄ (% vol. in air)	Maximum GSV	Characteristic Situation
WS101	Made Ground	0.0	0.2	0.0	<0.0002	CS1
WS101	Devensian Glacial Till Deposits	0.0	3.2	0.0	<0.0032	CS1
WS104	Made Ground	0.0	0.8	0.0	<0.0008	CS1
WS105	Made Ground	0.0	0.4	0.0	<0.0004	CS1
WS105	Devensian Glacial Till Deposits	0.0	0.5	0.0	<0.0005	CS1

Notes: Where flow rate has been recorded as 0.0l/hr, a rate of <0.01 has been used in the GSV calculation (monitoring equipment limit of detection).

For completeness, the monitoring wells installed within both the Made Ground and Devensian Glacial Till Deposits were monitored for ground gas and the concentrations of methane and carbon dioxide were recorded to be below 1% and 5%, respectively in both strata and the calculated GSVs correlate to CS1.

It is noted that initial peak flow rates of 87.1l/hr and 150l/hr were recorded within borehole WS101 during the two monitoring rounds, which reduced to <0.1l/hr after approximately 30 seconds. Similarly, an initial peak flow of 4.5l/hr was recorded in borehole WS105, which reduced to <0.1l/hr after approximately 15 seconds. The initial peak flow rates are considered to be a result of the artificial closed monitoring system that the borehole monitoring well creates. Artificial flow rates can be caused by a pressure difference between the external air and inside the borehole installation, where pressure inside the closed borehole installation system equilibrates with atmospheric pressure at a slower rate and/or where a rise in groundwater level within the borehole installation increases the pressure within the closed system²¹. It is also noted that the monitoring well of borehole WS105 was flooded on each monitoring occasion i.e. the groundwater level was above the top of the response zone of the monitoring well. Where monitoring wells are flooded, the limited space in the monitoring well can result in small gas volumes causing artificially high concentrations. Results in flooded wells should therefore be treated with caution and consideration should be given to the omission of the data from the ground gas results.

Review of the Total Organic Carbon (TOC) content of the Devensian Glacial Till Deposits generally indicates TOC contents between 0.6% and 1.0%. With reference to ground gas risk assessment guidance for Made Ground outlined in RB17, the natural superficial deposits are considered to have a low potential for ground gas generation.

Based on the above ground gas assessment and in consideration of the conceptual site model, the results of the monitoring undertaken in the proposed development areas are considered to be representative of CS1.

²⁰ CIRIA (2007) Assessing risks posed by hazardous ground gases to buildings. CIRIA Report C665, London.

²¹ CL:AIRE (2012) A Pragmatic Approach to Ground Gas Risk Assessment. RB17. November 2012.

6.5. Risks to Controlled Waters

The potential risks to the nearest significant surface water body (Corn Brook, a river approximately 130m south of the site) and the underlying aquifers (Devensian Glacial Till Deposits, designated as a Secondary undifferentiated aquifer and the underlying Etruria Formation and Pennine Upper Coal Measures Formation, designated as a Secondary A aquifer) have been assessed based on chemical groundwater analysis, and are discussed in the following sections.

6.5.1. Assessment of Analysis of Groundwater Samples

One water sample from the perched water within the Devensian Glacial Till Deposits from borehole WS101 was scheduled for groundwater analysis and the potential risks to the nearest significant surface water body assessed against the Environmental Quality Standards (EQS) for freshwater. It is noted that the volume of groundwater able to be recovered from borehole WS101 was limited due to the poor recharge of the perched water, and as a result a full suite of chemical analysis for the water sample could not be completed. In consideration of the conceptual site model, the laboratory was asked to prioritise analysis of organic contaminants (TPHs and PAHs).

The results of the perched water assessment indicate that the concentrations are predominantly below their respective EQS assessment criteria with the reported concentrations below the laboratory limits of detection with the exception of naphthalene, where a concentration of 0.27µg/l was recorded. The recorded concentration of naphthalene is noted to be below the EQS annual average of 2µg/l and is therefore not considered to present a risk to controlled waters.

It is noted that as the perched water is not anticipated to be used for drinking water, the results have not been assessed against the Drinking Water Values (DWVs).

6.5.2. Controlled Waters Assessment

The results of the perched water EQS assessment indicate that the contaminant concentrations are below their respective assessment thresholds, suggesting that the risk of downwards migration of contaminants from the perched water in the Made Ground to the underlying perched water within the natural Devensian Glacial Till Deposits is low.

The risks to controlled waters from the Made Ground and perched water are generally considered to be low on the basis of the following:

- The nearest watercourse, the Corn Brook, is approximately 130m south of the site.
- The discontinuous nature of the perched water, cohesive nature of the Made Ground and presence of cohesive Devensian Glacial Till Deposits beneath the site will mitigate lateral and vertical contaminant migration to the underlying Secondary A aquifers of the underlying Etruria Formation and Pennine Upper Coal Measures Formation.
- The proposed hardstanding and buildings across the majority of the site will limit infiltration and therefore reduce the potential for contaminant migration.
- The perched water is not anticipated to be used for drinking water purposes.

The risks to controlled waters from foundation activities i.e. piling are considered to be low assuming appropriate piling techniques are adopted.

6.6. Risks to Plants and Vegetation

The risk to vegetation and plants from phytotoxic contaminants is summarised in Table E in [Appendix F](#). The results indicate that the concentrations of phytotoxic contaminants within the topsoil and Devensian Glacial Till Deposits generally present a very low risk to proposed plants and vegetation. However, the results indicate that concentrations of phytotoxic contaminants within the Made Ground present a risk to plant and vegetation growth with exceedances of copper being identified in boreholes WS104 (at 1.4mbgl) and WS102 (at 0.9mbgl and 2.1mbgl). Additionally, a single exceedance of zinc was identified within WS104 (at 1.4mbgl) and a single exceedance of nickel within WS102 (at 0.9mbgl). 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.

On this basis, the importation of suitable soils may be required in areas of soft landscaping which can be installed as part of a capping system to mitigate potential risks to human health (should the identified hotspots be located in an area of soft landscaping).

6.7. Risks to Buried Water Supply Pipes

An assessment of the risks to buried water supply pipes is summarised in Table F 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 F, the initial total soils analysis indicate that standard polyethylene (PE) pipework would potentially be suitable for use as the elevated concentrations of TPHs are not located within the likely depth range of buried water supply pipes. It is recommended that the requirements for new buried water supply pipes are confirmed with the local water supply company once the details of the locations and levels of new water supply pipes are confirmed. Depending on the locations proposed, this may require reference to the results of previous site investigations undertaken at the site.

6.8. Preliminary Waste Characterisation

A preliminary waste characterisation assessment in line with WM3 technical guidance has been carried out on the 12 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 material tested would be characterised as non-hazardous material and therefore considered to be acceptable to an inert waste facility (subject to WAC testing) or a non-hazardous waste facility.

A total of 3 WAC tests were carried out as part of the supplementary site investigation; 3 single stage full suites:

- **WS101 at 0.30mbgl** – material is indicated to be acceptable for disposal at an inert waste facility.
- **WS104 at 1.40mbgl** – material is indicated to not be acceptable for disposal at an inert waste facility due to elevated fluoride, material would be acceptable to a stable non-reactive hazardous waste facility.
- **WS108 at 0.40mbgl** – material is indicated to be acceptable for disposal at an inert waste facility.

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 7.7.

6.9. Revised Qualitative Risk Assessment

A revised risk assessment has been carried out based on the findings of site investigation and updated conceptual site model, and the potential contaminant linkages that may exist at the site in accordance with the LCRM²². The revised risk assessment is outlined in Table 12. It is noted that the following revised qualitative risk assessment only considers the areas where redevelopment is proposed i.e. the new car parks and additional structures where the site investigation has been carried out.

²² Environment Agency (2020). Land Contamination Risk Management (LCRM).

Table 12: 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 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	Unlikely	Low	Variable thicknesses of Made Ground are present from previous phases of development. Initial ground gas monitoring rounds undertaken recorded low ground gas concentrations and steady flow rates within the Made Ground and superficial deposits. Initial high peak flow rates recorded within two monitoring locations within the superficial deposits; however, steady flow rates of <0.1l/hr recorded after approximately 30 seconds on each occasion. Monitoring results considered to be representative of CS1.
Organic/ inorganic contaminants within underlying soils and perched groundwater within the Made Ground associated with historical on-site land uses including gas engine and industrial works.	Direct/indirect ingestion of soil, perched water and dust, inhalation of particle vapours and asbestos fibres and dermal contact	Construction workers	Medium	Low likelihood	Moderate/low	Elevated concentrations of heavy metals and PAHs recorded during site investigation at two hotspot locations. <u>Anticipated that risk could be mitigated by appropriate site practices including the use of appropriate PPE.</u>
		Future site users	Medium	Low likelihood	Moderate/low	Elevated concentrations of heavy metals and PAHs recorded during site investigation at two hotspot locations. Proposed hardstanding and buildings will act as a barrier between receptor and contamination within underlying soils. Should the development change and soft landscaping be proposed at these hotspot locations, placement of capping layers in areas of soft landscaping will be required to mitigate potential risks to future site users.
		Off-site residents	Medium	Unlikely	Low	Proposed hardstanding and buildings will act as a barrier between receptor and contamination within underlying soils. <u>Anticipated that appropriate practices can be adopted to prevent dust generation during construction e.g., dampening down and covering stockpiles etc.</u>
	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 are not considered to be required at this stage. <u>It is recommended that the requirements for new buried water supply pipes are confirmed with the local water supply company once the details of the locations and levels of new water supply pipes are confirmed.</u>
	Root uptake	Plants and vegetation	Minor	Likely	Low	Elevated concentrations of copper, nickel and zinc have been recorded within Made Ground, and it is considered unlikely that the Made Ground at site will provide a suitable growth medium. <u>Importation of a suitable growth medium is recommended for areas of proposed soft landscaping.</u>

Potential Source/Medium	Potential Exposure Route	Potential Receptor	Severity	Probability	Risk Rating	Comments
	Lateral and vertical migration	Shallow Secondary Undifferentiated aquifer (Devensian Glacial Till Deposits)	Medium	Unlikely	Low	Elevated concentrations of PAHs and heavy metals at boreholes WS101, WS102, WS103A and WS104 within the Made Ground. However, these elevated contaminant concentrations are not reflected in testing undertaken within the Devensian Glacial Till Deposits, indicating limited mobilisation and leaching of the contaminants within the Made Ground / perched water into the shallow secondary undifferentiated aquifer. In addition, a continuous groundwater table was not observed within the superficial deposits encountered at the site. The cohesive nature of the Devensian Glacial Till Deposits is considered to limit lateral and vertical migration of potential contaminants. Where proposed, buildings and hardstanding will also limit infiltration and leaching potential. Nearest surface water body is Corn Brook, 130m south of the site.
		Secondary A aquifer (Etruria Formation and Pennine Upper Coal Measures Formation)	Medium	Unlikely	Low	
		Local surface water bodies (Corn Brook)	Medium	Unlikely	Low	
Organic / inorganic contaminants within shallow groundwater aquifers (Devensian Glacial Till Deposits)	Direct contact and ingestion of contaminated groundwater	Future site users	Medium	Unlikely	Low	A pervasive shallow aquifer within the superficial deposits was not encountered during the site investigations. Low contaminant concentrations recorded in the one water sample analysed. Should localised shallow groundwater be encountered by construction workers, use of appropriate PPE will mitigate risks to construction workers. Future site users and off-site residents are unlikely to come into contact with groundwater due to proposed 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	Concentrations of volatile contaminants within the groundwater analysed are below assessment criteria. A pervasive shallow aquifer within the superficial deposits was not encountered during the site investigations.
	Lateral migration	Local surface water bodies (Corn Brook)	Medium	Unlikely	Low	A pervasive shallow aquifer within the superficial deposits was not encountered during the site investigations. Low contaminant concentrations recorded in the one water sample analysed. In addition, the cohesive Devensian Glacial Till Deposits and will limit migration of groundwater.
	Vertical migration pathways created during construction activities	Secondary A aquifer (Etruria Formation and Pennine Upper Coal Measures Formation)	Medium	Unlikely	Low	
	Direct contact with underground services	Buildings and structures	Medium	Unlikely	Low	A pervasive shallow aquifer within the superficial deposits was not encountered during the site investigations. Buried concrete to be designed as appropriate for ground conditions.

7. Geoenvironmental Recommendations

7.1. Introduction

Geoenvironmental recommendations for the proposed redevelopment of the site are outlined in the following sections based on the information obtained during the site investigation and revised qualitative risk assessment. It is recommended that a remediation strategy and verification plan are produced to outline the remediation requirements for the site in consideration of the recommendations outlined in the following sections and how they will be verified. Following completion of the remediation works by the Contractor, a verification report should be produced to confirm that the remediation works have been completed in accordance with the remediation strategy. It is recommended that the reports are submitted to the Local Authority to support the Planning Applications made in relation to the site.

It is noted that the following recommendations only consider the areas where redevelopment is proposed i.e. the new car parks and additional structures where the site investigation has been carried out.

7.2. Watching Brief and Discovery Strategy

It is recommended that a watching brief is carried out by the Contractor during the construction works. Should areas of unexpected contamination, including asbestos, be encountered or suspected, a qualified geoenvironmental engineer should be informed, and the risk associated with the contamination assessed.

An appropriate remediation strategy should be devised and implemented for the unexpected contamination where necessary, and the regulators should be informed of additional areas of contamination identified. The regulators should be provided with the risk assessment and proposed remediation methodology for agreement before undertaking the remedial works. The methodology should include appropriate verification works to be completed.

7.3. Borehole Decommissioning

It is recommended that the existing monitoring wells are decommissioned prior to commencement of significant groundworks in accordance with EA good practice guidance²³.

7.4. Ground Gas Protection Measures

Based on the results of the ground gas monitoring undertaken as part of the site investigation, the development areas are considered to be representative of CS1 and no ground gas protection measures are considered to be required.

7.5. Radon Protection Measures

Requirements with respect to radon measures are set out in Building Regulations Approved Document C. Probability bandings (based on the proportion of properties in a given area that exceed the Action Level; currently 200 Bq.m³) 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.

Information the Public Health England UK radon map²⁴ which indicates that the site lies in an area where less than 1% of homes are estimated to be above the action level. As such, radon protection measures are not considered to be required on the site. It is noted however that if new basements are proposed which shall be occupied or part occupied, current guidance requires monitoring for radon, irrespective of the initial risk assessment. This should be considered in terms of the lower ground floor levels and whether they constitute basements.

7.6. Growth Medium / Capping Layers

Importation of a growth medium is likely to be required for proposed areas of soft landscaping. The material imported to form the growth medium should be clean imported soil from a known and reputable source and meet the chemical criteria for human health with respect to the residential (without home grown produce consumption) end use of the site. Imported topsoil should also meet the requirements of BS 3882²⁵ and subsoil the requirements for BS 8601²⁶. 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.

It is noted that should the development proposals change and the identified contamination hotspots within the Made Ground be located within areas of soft landscaping and not below hardstanding or buildings, a soil capping layer will be required to mitigate the risks to human health. To comply with BRE 465²⁷, the capping layers for the areas of soft landscaping will need to comprise a minimum of 450mm of imported soil, with a minimum of 150mm topsoil (including

²³ Environment Agency (2012) Good practice for decommissioning redundant boreholes and wells.

²⁴ Public Health England UK radon map, www.ukradon.org/information/ukmaps

²⁵ British Standards (2015) Specification for Topsoil and Requirements for Use. BS3882:2015

²⁶ British Standards Institute (2013) Specification for Subsoil and Requirements for Use.

²⁷ BRE (2004) Cover systems for land regeneration - thickness design of cover systems for contaminated land. BRE 465

50mm turf/sod) with a geotextile membrane at the base.

7.7. Material Management

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. Top priority should be given to preventing waste in the first place, for example, during the 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, disposal.

Based on the results Civic Earth assessments, it is considered that the majority of 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:AIRE²⁸ protocol. The CL:AIRE protocol would 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. Should gross contamination in the Made Ground 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 protocol²⁹, 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.

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

It is noted that in May/June 2012, HMRC issued Briefs 15/12 and 18/12 clarifying how construction spoil and excess soils will be assessed for landfill tax purposes, and detailed accurate descriptions of waste are required for all wastes to support the landfill tax assessment. Uncontaminated naturally occurring soils will remain inert by default and eligible for the lower rate of landfill tax and similarly, ‘reworked soils’ and demolition ‘stone’ comprising only materials listed in the Schedule of the Landfill Tax (Qualifying Material) Order 2011 (SI 2011/1017) would also be eligible for the lower rate of landfill tax. Made Ground containing soil and foreign objects such as timber, plastic, rubber, metal, paper, plasterboard, asbestos, etc., regardless of the results of chemical analysis for waste classification purposes, will be eligible for the standard (higher) rate of landfill tax. Therefore, to maximise eligibility for lower rate landfill tax on waste construction spoil/ reworked ground, careful waste segregation and controls are recommended necessary.

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 and non-hazardous waste should be pre-treated prior to disposal and pre-treatment can be undertaken either at the site of origin or may be carried out at a licensed off-site facility and can include selective segregation of soils conducted on site.

7.8. Mitigation of Risks to Controlled Waters during Construction Works

It is recommended that measures are undertaken to mitigate the potential impact to controlled waters during construction works where contaminants in the underlying soils may be mobilised to a greater extent than naturally occurs. The construction works should be undertaken in line with CIRIA 741³⁰.

The risks to controlled waters from foundation activities i.e. piling are considered to be low assuming appropriate piling techniques are adopted.

Excavated soil should be appropriately stored with preventative measures against surface water infiltration/leaching or nuisance odours to protect the environment and human health during temporary storage on site. This could take the form of a lined and covered storage bund using an appropriate material (e.g. polyethylene), positioned away from sensitive locations. Handling and storage protocols for potentially contaminated soils should be documented by the Contractor. 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.

7.9. Buried Water Supply Pipes

Based on the initial assessment performed in Section 6.7, it is anticipated that barrier pipes will not be required for new buried water supply pipes in the areas investigated. However, it is recommended that the requirements for new buried

²⁸ CL: AIRE (2011). The Definition of Waste: Development Industry Code of Practice. Version 2

²⁹ 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.

³⁰ CIRIA (2015) Environmental Good Practice on Site Guide. 4th Edition. CIRIA C741.

water supply pipes are confirmed with the local water supply company once the details of the locations and levels of new water supply pipes are confirmed, which may require reference to the results of previous investigations undertaken at the site.

7.10. Health, Safety and Environmental Controls

It is recommended that precautions are taken to minimise exposure of workers and the general public to potentially harmful substances, including asbestos, during earthworks. The risks to contractors should 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. All site works should be undertaken in accordance with the guidelines prepared by the Health and Safety Executive and all work should also be carried out in accordance with the Contractor's Construction Health and Safety Plan.

Excavations should be planned and inspected regularly by a competent person and no operatives should be permitted to enter un-shored or otherwise protected excavations identified as unstable by a competent person, however shallow they may be. The stockpiled material and excavations should be dampened during all earthworks excavation and earth moving activities and vehicles should be washed before leaving site, with washings contained on site and suitably disposed.

7.10.1. Asbestos

Asbestos was not detected as part of the investigation. However, there is the potential that asbestos may be present in the Made Ground based upon the historical development of the site. Site operatives should be briefed on the potential for asbestos to be encountered during earthworks.

Where encountered, asbestos containing materials (ACMs) and asbestos impacted soils will be managed, handled and removed / disposed of in accordance with current regulations and guidance^{31,32,33}. ACMs, if encountered, will be segregated by hand picking by a suitably qualified person utilising the appropriate PPE / respiratory protective equipment (RPE) and implementing necessary precautionary measures to minimise exposure to construction workers and general public during earthworks. The Contractor will be responsible for determining whether the works are notifiable or licensable, and for implementing the appropriate procedures.

All site operatives undertaking groundworks will be advised for the potential for ACMs including fibres to be present and will be trained in basic visual recognition of asbestos. Soils being handled should be dampened, taking care that damping is carried out at the appropriate time and with appropriate amounts of water to suppress dust, but not saturate the soils. Soil movement should be minimised and double handling avoided.

Vehicles used in moving contaminated soils will be washed and a wheel wash installed and used before vehicles leave the working area to avoid carrying potential fugitive dust into the surrounding environment. The vehicle washing will be returned to stockpiled material and not be allowed to enter public drains where drying out has the potential to release dusts.

³¹ HSE (2013) Managing and Working with Asbestos. Control of Asbestos Regulations 2012. 2nd Edition. L143.

³² HSE (2006) Asbestos: The Licensed Contractors' Guide. 1st Edition. HSG 247.

³³ HSE (2012) Asbestos: The Survey Guide. 2nd Edition. HSG 264.

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 Civic Earth site investigation and the proposed development scheme. It is noted that the following recommendations only consider the areas where redevelopment is proposed i.e. the new car parks and additional structures where the site investigation has been carried out.

8.2. Geotechnical Design Parameters

Geotechnical design parameters are outlined in Table 13. The parameters provided are moderately conservative, serviceability limit state and considered appropriate for shallow foundation, retaining walls (gravity/embedded), earthworks (settlement/consolidation) and infrastructure (roads/aprons) design.

Table 13: Geotechnical Design Parameters

Stratum	Bulk Unit Weight γ_b (kN/m ³)	Undrained Shear Strength c_u (kPa) [c']	Friction Angle ϕ (°)	Young's Modulus, E_u (MPa) [E']
Made Ground (Granular)	18	-	28 ^a	[10]
Made Ground (Cohesive)	17	30 [0]	26 ^b	18 ^c [8.1] ^d
Devensian Glacial Till Deposits (Cohesive)	20	100 [0]	25 ^b	60 ^c [27] ^d

Notes:

- Peck, R.B., Hanson, W.E., and Thornburn, T.H., Foundation Engineering, 2nd Edition, John Wiley, New York, 1967, p.310
- BS 8002:2015 Code of Practice for Earth Retaining Structures, British Standards Institution
- Based on $600c_u$ – Bawnes G.E. (2016) Soil Mechanics Principles and Practice.
- Based on $270c_u$ – Bawnes G.E. (2016) Soil Mechanics Principles and Practice.

8.3. Foundation Design

Based on the assumed ground floor finished floor levels for the college building extensions, formation levels for the extensions to the north and west of the college are likely to be within the Made Ground and/or top of the Devensian Glacial Till Deposits (noting that a concrete obstruction was encountered in boreholes WS103A and WS103B at 0.60mbgl). Given the variability of the shallow ground conditions, it is recommended that, subject to design loads, foundations are founded within the Devensian Glacial Till 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 the Made Ground.

Based on the in-situ testing undertaken within the Devensian Glacial Till Deposits, an allowable bearing capacity of 175kPa could be adopted based a formation level of +52.5mOD and a minimum embedment of 300mm into the top of the stratum. If shallow foundations are to be utilised, the formation level within the top of the Devensian Glacial Till Deposits should be inspected by a suitably qualified engineer to confirm there are no soft spots present at formation level. Shallow foundations should be designed in consideration of NHBC Chapter 4.2, Building Near Trees.

Alternatively a piled foundation solution could be adopted. It is considered that piles would extend into the upper layers of the bedrock and would require further investigation to inform design.

8.4. Floor Slabs and Pavement Design

Based on the likely formation levels, it is assumed that roads and pavements will be founded onto Made Ground. It is recommended that pavements and roadways founded on the Made Ground 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 600³⁴. 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. In areas where land raise is proposed, the build-up of capping/blinding layers beneath pavements/slabs will be dependent on the fill used in the land raise.

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. Where floor slabs are founded onto Devensian Glacial Till Deposits, suspended slabs

³⁴ Highways England (2016) Manual of Contract Documents for Highway Works, Series 600 (Earthworks), MCHW Series 600

may be required given the low to moderate volume change potential of the deposits. In addition, the potential for differential settlement where floor slabs span multiple strata will need to be considered.

8.5. 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 with the exception of below ground concrete obstructions identified during the site investigation as discussed in Section 5.5. Excavations 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 7.7 and a site-specific earthworks specification. Depending on formation levels, voids 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 97³⁵. Dewatering will likely be required when excavation works are in close proximity to perched groundwater level.

8.6. Buried Concrete Design

Design Sulphate (DS) and Aggressive Chemical Environmental for Concrete (ACEC) classes for the Made Ground and Devensian Glacial Till Deposits are summarised in Table 14 based on the results of the chemical sulphate and pH testing³⁶.

Table 14: Summary of DS and ACEC Classes

Stratum	WSS DS Class	WSS ACEC Class
Made Ground	DS-1	AC-1
Devensian Glacial Till Deposits	DS-1	AC-1

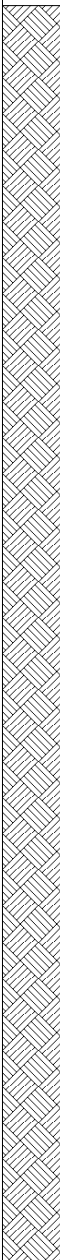
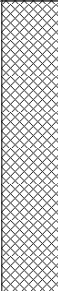
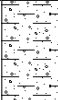
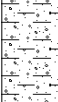
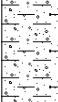
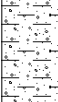
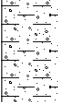
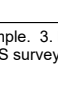
³⁵ CIRIA (1992). Trenching Practice (Second Edition). Construction Industry Research and Information Association Report 97.

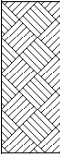
³⁶ BRE (2005) Concrete in Aggressive Ground. BRE Special Digest 1:2005

Appendix A

Exploratory Hole Records

CIVIC EARTH		Project Title: Bridge College, Openshaw				Client: The Together Trust, Bridge College							
		Project Number: 51121/01		Logged By: AP Checked By: KP		Method and Plant Used		Groundwater					
Location ID: WS101		Location Type: Window Sampler				0.00 1.20	1.20 5.45	IP WS	Hand Dug Terrier Rig				
		Coords: 387242.50E/397424.30N		Level: 55.23mOD									
Status: FINAL		Scale: 1:30		Final Depth: 5.45 m									
		Date Start: 17/02/2025		Date End: 17/02/2025									
Sheet 1 of 1													
Inst/ Backfill	Depth (m)	Samples & Tests			Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling			
		Sample Depth (m)	Type/Ref	Tests/Results						WS Run	Dia (mm)	Recovery (%)	
		0.30	ES 1	PID 0.30m 0.00 ppm									
		0.80	ES 2	PID 0.80m 0.00 ppm									
		1.00		SPT(S) 1.20m N=8 (2,2/2,2,2,2)									
				HSV 1.60m (p)= 62 kPa									
		1.90	ES 3	PID 1.90m 0.00 ppm						1.20 2.00	101	100	
		2.00 - 2.45	D 1	SPT(S) 2.00m N=19 (3,3/3,5,5,6) HSV 2.00m (p)= 96 kPa									
				HSV 2.30m (p)= 98 kPa						2.00 3.00	97	100	
				HSV 2.80m (p)= 101 kPa									
		3.00 - 3.45	D 2	SPT(S) 3.00m N=21 (4,5/5,4,6,6)						3.00 4.00	76	100	
				HSV 3.40m (p)= 111 kPa									
				HSV 3.80m (p)= 121 kPa						4.00 5.00	76	100	
		4.00 - 4.45	D 3	SPT(S) 4.00m N=25 (5,6/5,5,7,8) HSV 4.20m (p)= 116 kPa									
				HSV 4.70m (p)= 118 kPa									
		4.78	EW 1										
5.00 - 5.45	D 4	SPT(S) 5.00m N=25 (5,5/6,6,6,7)											

CIVIC EARTH		Project Title: Bridge College, Openshaw				Client: The Together Trust, Bridge College							
		Project Number: 51121/01		Logged By: JF Checked By: KP		Method and Plant Used			Groundwater				
Location ID: WS102		Location Type: Window Sampler				0.00 0.20	0.20 5.00	IP WS	Hand Tools Terrier Rig	Strike (m) 4.40	Time (min) -	Rose To -	
		Coords: 387288.41E/397426.61N		Level: 54.98mOD									
Status: FINAL		Scale: 1:30		Final Depth: 5.00 m									
		Date Start: 18/02/2025		Date End: 18/02/2025									
Sheet 1 of 1													
Inst/ Backfill	Depth (m)	Samples & Tests			Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling			
		Sample Depth (m)	Type/Ref	Tests/Results						WS Run	Dia (mm)	Recovery (%)	
						54.78	0.20		Tarmacadam over concrete. [MADE GROUND]				
		0.50	ES 1	PID 0.50m 0.00 ppm					Light brown to beige sandy gravel. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of brick, concrete and limestone. [MADE GROUND] from 0.40 to 0.50mbgl - Black mottling and ash noted.	0.20 1.20	101	100	
	1.0	0.90	ES 2	PID 0.90m 0.00 ppm SPT(S) 1.20m N=22 (4,4/6,5,5,6)					Firm dark grey to black mottled orange slightly cobbley gravelly sandy clay. Sand is fine to coarse. Gravel is angular to subangular fine to coarse of brick, concrete and coal. Cobbles are subangular fine of brick. [MADE GROUND]				
						53.08	1.90		Soft light brown to light grey mottled black gravelly sandy clay. Sand is fine to coarse. Gravel is angular to subangular fine of brick concrete and granite. [MADE GROUND]	1.20 2.00	101	100	
	2.0	2.10	ES 3	SPT(S) 2.00m N=7 (0,1/2,1,2,2) PID 2.10m 0.00 ppm HSV 2.50m (p)= 30 kPa					Firm to very stiff light brown to grey mottled black slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to medium of sandstone siltstone coal and granite. Sand is coarse [DEVENSIAN GLACIAL TILL DEPOSITS] from 2.30 to 3.20mbgl - Black mottling noted.				
						52.68	2.30			2.00 3.00	97	100	
		3.00 - 3.45	D 1	HSV 2.90m (p)= 90 kPa SPT(S) 3.00m N=10 (2,2/2,2,3,3) HSV 3.20m (p)= 20 kPa									
	3.0												
		3.50	ES 4	HSV 3.50m (p)= 90 kPa PID 3.50m 0.00 ppm HSV 3.80m (p)= 106 kPa						3.00 4.00	97	100	
													
	4.0	3.90	D 2	SPT(S) 4.00m N=22 (4,4/6,5,5,6) HSV 4.20m (p)= 106 kPa									
													
		4.50	ES 5	HSV 4.40m (p)= 106 kPa PID 4.50m 0.00 ppm						4.00 5.00	76	100	
		4.70	D 3										
						49.98	5.00						
EOH at 5.00m - Achieved target depth													

CIVICEARTH		Project Title: Bridge College, Openshaw				Client: The Together Trust, Bridge College								
		Project Number: 51121/01		Logged By: JF Checked By: KP		Method and Plant Used			Groundwater					
						From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To		
Location ID: WS103A		Location Type: Window Sampler				0.00	0.60	IP	Hand Dug					
Status: FINAL		Coords: 387314.59E/397397.88N		Level: 53.92mOD										
		Scale: 1:30		Final Depth: 0.60 m										
		Date Start: 18/02/2025		Date End: 18/02/2025										
Sheet 1 of 1														
Inst/ Backfill	Depth (m)	Samples & Tests			Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling				
		Sample Depth (m)	Type/Ref	Tests/Results						WS Run	Dia (mm)	Recovery (%)		
	0.40	ES 1	PID 0.40m 0.00 ppm			53.66	0.26		Cobbles over light brown to beige slightly gravelly sand. Sand is fine to coarse. Gravel is subangular fine of igneous lithologies and quartz.					
									[MADE GROUND]					
						53.32	0.60		Dark brown to black slightly silty gravelly sand. Sand is fine to coarse of ash. Gravel is angular to subangular fine to coarse of brick concrete and coal.					
									[MADE GROUND]					
									EOH at 0.60m - Terminated due to obstruction					
	1.0													
	2.0													
	3.0													
	4.0													
	5.0													
	6.0													
Notes:									Hole Diameter		Casing		Hammer Information	
1. No groundwater encountered. 2. ES = Environmental Sample. 3. Borehole backfilled with arisings and reinstated with retained paving cobbles. 4. Borehole coordinates and ground level from GPS survey. 5. Hole terminated on concrete obstruction. No other service cleared positions available.									Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
													%	
									Install Response Zones					
									Ref	From (m)	To (m)			

CIVIC EARTH		Project Title: Bridge College, Openshaw				Client: The Together Trust, Bridge College								
		Project Number: 51121/01		Logged By: AP Checked By: KP		Method and Plant Used				Groundwater				
Location ID: WS104		Location Type: Window Sampler				0.00 1.20	1.20 5.45	IP WS	Hand Dug Terrier Rig					
Status: FINAL		Coords: 387351.09E/397403.83N		Level: 54.23mOD										
Scale: 1:30		Final Depth: 5.45 m												
Sheet 1 of 1		Date Start: 17/02/2025		Date End: 17/02/2025										
Inst/ Backfill	Depth (m)	Samples & Tests			Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling				
		Sample Depth (m)	Type/Ref	Tests/Results						WS Run	Dia (mm)	Recovery (%)		
		0.20	ES 1	PID 0.20m 0.00 ppm		53.93	0.30		Soft to firm brown slightly gravelly clay. Gravel is subrounded fine of mudstone, concrete and brick. Occasional rootlets noted. [MADE GROUND]					
									Reddish brown mottled grey slightly sandy very clayey gravel. Gravel is angular fine to coarse of brick, concrete, tile and glass. Sand is fine to coarse. Rare cobbles of brick and concrete noted. [MADE GROUND]					
	1.0			SPT(S) 1.20m N=10 (4,4/3,2,3,2)		53.03	1.20		Firm dark grey mottled red gravelly clay. Gravel is angular to subangular fine to medium of brick, tile, concrete and coal. Occasional fragments of plastic noted. [MADE GROUND]					
	1.40		ES 2	PID 1.40m 0.00 ppm						1.20 2.00	101	100		
	2.0			SPT(S) 2.00m N=13 (2,3/2,3,4,4)		52.13	2.10		Firm dark grey mottled red gravelly clay. Gravel is angular to subangular fine to medium of brick, tile, concrete and coal. Occasional fragments of plastic noted. [MADE GROUND]					
	2.20		D 1			51.83	2.40		Stiff brown slightly gravelly CLAY. Gravel is rounded to subrounded fine of coal, mudstone and sandstone. [DEVENSIAN GLACIAL TILL DEPOSITS]					
									No recovery.	2.00 3.00	97	40		
	3.0			SPT(S) 3.00m N=56 (7,10/11,11,15,19) HSV 3.10m (p)= 80 kPa		51.23	3.00		Stiff brown slightly gravelly slightly silty CLAY. Gravel is subrounded fine to medium of sandstone and mudstone. Rare coal noted. [DEVENSIAN GLACIAL TILL DEPOSITS]					
				HSV 3.50m (p)= 87 kPa						3.00 4.00	76	100		
	4.0			HSV 3.90m (p)= 95 kPa SPT(S) 4.00m N=30 (5,6/5,7,8,10)										
				HSV 4.30m (p)= 87 kPa										
				HSV 4.50m (p)= 90 kPa										
	4.90		D 2	HSV 4.90m (p)= 96 kPa SPT(S) 5.00m 56 (15,24/56 for 150mm)		48.78	5.45		EOH at 5.45m - Achieved target depth					
	6.0													
Notes:									Hole Diameter		Casing		Hammer Information	
1. No groundwater encountered. 2. ES = Environmental Sample; D = Disturbed Sample. 3. Install Details: 0.00-1.00m plain 50mm pipe with bentonite seal; 1.00-2.00m slotted 50mm pipe with gravel filter. Bentonite below 2.0m. Gas taps, bungs and flush cover installed. 4. Borehole coordinates and ground level from GPS survey.									Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
									2.00	101			60%	BBL07
									3.00	97			Install Response Zones	
									5.00	76			Ref	From (m)
													Pipe1	To (m)
													1.00	2.00

Project Title: Bridge College, Openshaw				Client: The Together Trust, Bridge College					
Project Number: 51121/01	Logged By: JF Checked By: KP		Method and Plant Used				Groundwater		
			From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
	Location Type: Window Sampler		0.00 1.20	1.20 4.00	IP WS	Hand Dug Terrier Rig			
	Coords: 387321.83E/397367.55N		Level: 53.80mOD						
	Scale: 1:30		Final Depth: 4.00 m						
Date Start: 17/02/2025		Date End: 17/02/2025							

CIVIC EARTH		Project Title: Bridge College, Openshaw				Client: The Together Trust, Bridge College								
		Project Number: 51121/01		Logged By: JF Checked By: KP		Method and Plant Used		Groundwater						
Location ID: WS106		Location Type: Window Sampler				From (m) 0.00	To (m) 0.40	Type IP	Plant Used Hand Tools	Strike (m)	Time (min)	Rose To		
		Coords: 387363.53E/397375.60N		Level: 53.71mOD										
Status: FINAL		Scale: 1:30		Final Depth: 0.40 m										
		Date Start: 18/02/2025		Date End: 18/02/2025										
Sheet 1 of 1														
Inst/ Backfill	Depth (m)	Samples & Tests			Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling				
		Sample Depth (m)	Type/Ref	Tests/Results						WS Run	Dia (mm)	Recovery (%)		
						53.31	0.40		Tarmacadam over concrete. [MADE GROUND]					
									EOH at 0.40m - Terminated due to obstruction					
	1.0													
	2.0													
	3.0													
	4.0													
	5.0													
	6.0													
Notes:									Hole Diameter		Casing		Hammer Information	
1. No groundwater encountered. 2. Borehole backfilled with arisings and reinstated with concrete at surface. 3. Borehole coordinates and ground level from GPS survey. 4. At 0.4m concrete corer refused on hardstanding. Drillers description dolomite. No other service cleared positions available. Hole terminated.									Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
													%	
									Install Response Zones					
									Ref	From (m)	To (m)			

CIVICEARTH		Project Title: Bridge College, Openshaw				Client: The Together Trust, Bridge College								
		Project Number: 51121/01		Logged By: JF Checked By: KP		Method and Plant Used		Groundwater						
Location ID: WS106A		Location Type: Window Sampler				From (m) 0.00	To (m) 0.40	Type IP	Plant Used Hand Tools	Strike (m)	Time (min)	Rose To		
		Coords: 387363.53E/397375.60N		Level: 53.71mOD										
Status: FINAL		Scale: 1:30		Final Depth: 0.40 m										
		Date Start: 18/02/2025		Date End: 18/02/2025										
Sheet 1 of 1														
Inst/ Backfill	Depth (m)	Samples & Tests			Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling				
		Sample Depth (m)	Type/Ref	Tests/Results						WS Run	Dia (mm)	Recovery (%)		
						53.31	0.40		Tarmacadam over concrete. [MADE GROUND]					
									EOH at 0.40m - Terminated due to obstruction					
	1.0													
	2.0													
	3.0													
	4.0													
	5.0													
	6.0													
Notes:									Hole Diameter		Casing		Hammer Information	
1. No groundwater encountered. 2. Borehole backfilled with arisings and reinstated with concrete at surface. 3. Borehole coordinates and ground level from GPS survey. 4. At 0.4m concrete corer refused on hardstanding. Drillers description dolomite. No other service cleared positions available. Hole terminated.									Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
													%	
									Install Response Zones					
									Ref	From (m)	To (m)			

CIVICEARTH		Project Title: Bridge College, Openshaw				Client: The Together Trust, Bridge College								
		Project Number: 51121/01		Logged By: AP Checked By: KP		Method and Plant Used		Groundwater						
Location ID: WS107		Location Type: Window Sampler				From (m) 0.00	To (m) 0.40	Type IP	Plant Used Hand Dug	Strike (m)	Time (min)	Rose To		
		Coords: 387344.88E/397332.14N		Level: 53.55mOD										
Status: FINAL		Scale: 1:30		Final Depth: 0.40 m										
		Date Start: 17/02/2025		Date End: 17/02/2025										
Sheet 1 of 1														
Inst/ Backfill	Depth (m)	Samples & Tests			Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling				
		Sample Depth (m)	Type/Ref	Tests/Results						WS Run	Dia (mm)	Recovery (%)		
		0.20	ES 1	PID 0.20m 0.00 ppm		53.15	0.40		Soft to firm dark brown organic rich slightly sandy slightly gravelly CLAY. Gravel is subrounded fine to medium of mixed lithologies including quartz, sandstone and mudstone. Sand is fine to coarse. Frequent rootlets noted. [TOPSOIL]					
									EOH at 0.40m - Terminated due to obstruction					
	1.0													
	2.0													
	3.0													
	4.0													
	5.0													
	6.0													
Notes:									Hole Diameter		Casing		Hammer Information	
1. No groundwater encountered. 2. ES = Environmental Sample. 3. Borehole backfilled with arisings and reinstated with retained turf. 4. Borehole coordinates and ground level from GPS survey. 5. At 0.4m, Hand pit refused on concrete slab. No other service cleared positions available. Hole terminated.									Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
													%	
									Install Response Zones					
									Ref	From (m)	To (m)			

CIVICEARTH		Project Title: Bridge College, Openshaw				Client: The Together Trust, Bridge College								
		Project Number: 51121/01		Logged By: AP Checked By: KP		Method and Plant Used		Groundwater						
Location ID: WS107B		Location Type: Window Sampler				From (m) 0.00	To (m) 0.40	Type IP	Plant Used Hand Dug	Strike (m)	Time (min)	Rose To		
		Coords: 387344.88E/397332.14N		Level: 53.55mOD										
Status: FINAL		Scale: 1:30		Final Depth: 0.40 m										
		Date Start: 17/02/2025		Date End: 17/02/2025										
Sheet 1 of 1														
Inst/ Backfill	Depth (m)	Samples & Tests			Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling				
		Sample Depth (m)	Type/Ref	Tests/Results						WS Run	Dia (mm)	Recovery (%)		
						53.15	0.40		Soft to firm dark brown organic rich slightly sandy slightly gravelly CLAY. Gravel is subrounded fine to medium of mixed lithologies including quartz, sandstone and mudstone. Sand is fine to coarse. Frequent rootlets noted. [TOPSOIL] EOH at 0.40m - Terminated due to obstruction					
	1.0													
	2.0													
	3.0													
	4.0													
	5.0													
	6.0													
Notes:									Hole Diameter		Casing		Hammer Information	
1. No groundwater encountered. 2. ES = Environmental Sample. 3. Borehole backfilled with arisings and reinstated with retained turf. 4. Borehole coordinates and ground level from GPS survey. 5. At 0.4m, Hand pit refused on concrete slab. No other service cleared positions available. Hole terminated.									Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
													%	
									Install Response Zones					
									Ref	From (m)	To (m)			

Project Title: Bridge College, Openshaw				Client: The Together Trust, Bridge College						
Project Number: 51121/01		Logged By: JF Checked By: KP		Method and Plant Used				Groundwater		
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
Location Type: Window Sampler				0.00 1.20	1.20 1.80	IP WS	Hand Dug Terrier Rig			
Coords: 387377.84E/397331.05N		Level: 53.76mOD								
Scale: 1:30		Final Depth: 1.80 m								
Date Start: 17/02/2025		Date End: 17/02/2025								

Project Title: Bridge College, Openshaw				Client: The Together Trust, Bridge College						
Project Number: 51121/01		Logged By: JF Checked By: KP		Method and Plant Used				Groundwater		
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
Location Type: Window Sampler				0.00 1.20	1.20 1.70	IP WS	Hand Dug Terrier Rig			
Coords: 387377.84E/397331.05N		Level: 53.76mOD								
Scale: 1:30		Final Depth: 1.70 m								
Date Start: 17/02/2025		Date End: 17/02/2025								

Appendix B

Exploratory Hole Location Plan



KEY

- SI Locations
- Site Boundary

P02	04/04/2025	
P01	29/01/2025	
Rev	Date	Comments

CIVIC
EARTH

Civic Earth
77 Dale Street
Manchester
M1 2HG
T: 01612286757

Project	Bridge College, Openshaw		
Client	The Together Trust, Bridge College		
Drawing title	Exploratory Hole Location Plan		
Scale(s)	1:1,000	Job no.	51121
Drawn	JF	04/04/2025	Dwg No.
Checked			51121-CE-XX-XX-D-G-0001
Approved			Rev. P02

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Appendix C

Ground Gas and Groundwater Monitoring Records

Ground Gas Monitoring Record

Project Name:	Bridge College	Client:	Together Trust
Project Reference:	51121/01	Engineer:	JF/AP
Date of Visit:	05 March 2025	Time of Visit:	09:52

Atm. Pressure:	1003 to 1009	Local Pressure System*:	Falling
Air Temperature:	12	Gas Monitor Model:	GFM435

State of Ground: Dry ☒ Y Damp ☐ Wet ☐ Saturated ☐

Wind Strength: Calm ☐ Light ☒ Y Moderate ☐ Strong ☐

Cloud Cover: Clear ☒ Y Slight ☐ Cloudy ☐ Overcast ☐

Precipitation Level: None ☒ Y Slight ☐ Moderate ☐ Heavy ☐

Borehole Reference (Time Monitored)	Atm. Pressure	Time (secs)	Flow (l/hr)	Diff. Pressure (mb)	O ₂ (%v/v)	CO ₂ (%v/v)	CH ₄ (%v/v)	PID (ppm)	Depth to Water (mbgl)	Depth to Base (mbgl)
WS105 (50mm) (09:52)	1009	0	0.1	0.0	15.7	0.1	0.0	0.0	DRY	2.67
		15	0.0	0.0	13.6	0.1	0.0	0.0		
		30	0.0	0.0	12.1	0.1	0.0	0.0		
		45	0.0	0.0	11.2	0.1	0.0	0.0		
		60	0.0	0.0	10.4	0.1	0.0	0.0		
		90	0.0	0.0	10.3	0.1	0.0	0.0		
		120	0.0	0.0	10.6	0.1	0.0	0.0		
		150	0.0	0.0	10.9	0.1	0.0	0.0		
		180	0.0	0.0	11.2	0.1	0.0	0.0		
		240	0.0	0.0	11.8	0.1	0.0	0.0		
		300	0.0	0.0	12.2	0.1	0.0	0.0		
WS105 (38mm) (10:20)	1003	0	0.0	0.0	16.9	0.1	0.0	0.0	0.65	0.92
		15	0.0	0.0	17.0	0.1	0.0	0.0		
		30	0.0	0.0	17.1	0.2	0.0	0.0		
		45	0.0	0.0	17.2	0.3	0.0	0.0		
		60	0.0	0.0	17.1	0.3	0.0	0.0		
		90	0.0	0.0	17.1	0.3	0.0	0.0		
		120	0.0	0.0	17.0	0.4	0.0	0.0		
		150	0.0	0.0	17.0	0.4	0.0	0.0		
		180	0.0	0.0	16.9	0.4	0.0	0.0		
		240	0.0	0.0	16.8	0.4	0.0	0.0		
		300	0.0	0.0	16.8	0.4	0.0	0.0		
WS104 (50mm) (10:55)	1007	0	0.0	0.0	17.6	0.1	0.0	0.0	1.87	1.92
		15	0.0	0.0	17.6	0.4	0.0	0.0		
		30	0.0	0.0	17.6	0.4	0.0	0.0		
		45	0.0	0.0	17.6	0.5	0.0	0.0		
		60	0.0	0.0	17.6	0.5	0.0	0.0		
		90	0.0	0.0	17.5	0.5	0.0	0.0		
		120	0.0	0.0	17.4	0.6	0.0	0.0		
		150	0.0	0.0	17.4	0.6	0.0	0.0		
		180	0.0	0.0	17.3	0.6	0.0	0.0		
		240	0.0	0.0	17.2	0.6	0.0	0.0		
		300	0.0	0.0	17.2	0.7	0.0	0.0		
WS101 (50mm) (11:40)	1006	0	87.1	700+	17.2	0.4	0.0	0.0	4.78	4.87
		15	11.0	300+	16.9	2.6	0.0	0.0		
		30	0.0	0.0	16.6	2.6	0.0	0.0		
		45	0.0	0.0	16.3	2.6	0.0	0.0		
		60	0.0	0.0	16.1	2.7	0.0	0.0		
		90	0.0	0.0	15.9	2.7	0.0	0.0		
		120	0.0	0.0	15.8	2.7	0.0	0.0		
		150	0.0	0.0	15.8	2.7	0.0	0.0		
		180	0.0	0.0	15.7	2.7	0.0	0.0		
		240	0.0	0.0	15.7	2.7	0.0	0.0		
		300	0.0	0.0	15.7	2.7	0.0	0.0		

Notes:

*With reference to the Weather Underground rolling weather archive station.

*Atm. = Atmospheric

Ground Gas Monitoring Record

Project Name:	Bridge College	Client:	Together Trust
Project Reference:	51121/01	Engineer:	JF/AP
Date of Visit:	05 March 2025	Time of Visit:	09:52

Atm. Pressure:	1003 to 1009	Local Pressure System*:	Falling
Air Temperature:	12	Gas Monitor Model:	GFM435

State of Ground:

Dry

Y

Damp

Wet

Saturated

Wind Strength:

Calm

Light

Y

Moderate

Strong

Cloud Cover:

Clear

Y

Slight

Cloudy

Overcast

Precipitation Level:

None

Y

Slight

Moderate

Heavy

Borehole Reference (Time Monitored)	Atm. Pressure	Time (secs)	Flow (l/hr)	Diff. Pressure (mb)	O ₂ (%v/v)	CO ₂ (%v/v)	CH ₄ (%v/v)	PID (ppm)	Depth to Water (mbgl)	Depth to Base (mbgl)
WS101 (38mm) (12.25)	1005	0	0.0	0.0	17.2	0.2	0.0	0.0	DRY	1.02
		15	0.0	0.0	17.8	0.1	0.0	0.0		
		30	0.0	0.0	17.9	0.1	0.0	0.0		
		45	0.0	0.0	17.9	0.1	0.0	0.0		
		60	0.0	0.0	17.9	0.2	0.0	0.0		
		90	0.0	0.0	18.0	0.2	0.0	0.0		
		120	0.0	0.0	18.0	0.2	0.0	0.0		
		150	0.0	0.0	18.0	0.1	0.0	0.0		
		180	0.0	0.0	18.0	0.1	0.0	0.0		
		240	0.0	0.0	18.0	0.1	0.0	0.0		
		300	0.0	0.0	18.0	0.1	0.0	0.0		

Notes:

*With reference to the Weather Underground rolling weather archive station.

*Atm. = Atmospheric

Groundwater Monitoring Record

Project Name:	Bridge College	Client:	Together Trust
Project Reference:	51121/01	Engineer:	JF/AP
Date of Visit:	05 March 2025	Time of Visit:	09:52

State of Ground: Dry ☒ Y Damp ☐ Wet ☐ Saturated ☐
 Wind Strength: Calm ☐ Light ☒ Y Moderate ☐ Strong ☐
 Cloud Cover: Clear ☒ Y Slight ☐ Cloudy ☐ Overcast ☐
 Precipitation Level: None ☒ Y Slight ☐ Moderate ☐ Heavy ☐

Borehole Reference	WS105 (50mm)	WS105 (38mm)	WS104	WS101 (50mm)	WS101 (38mm)			
Target Stratum	GT	MGR	MGR	GT	MGR			
Ground Level (mOD)	53.80	53.80	54.23	55.23	55.23			
Groundwater Depth (mbgl)	DRY	0.65	1.87	4.78	DRY			
Groundwater Level (mOD)	#VALUE!	53.15	52.36	50.45	#VALUE!	0.00	0.00	0.00
Base of Well (mbgl)	2.67	0.92	1.92	4.87	1.02			
Diameter of Well (m)	0.05	0.038	0.05	0.05	0.038			
Condition of Well	Good	Good	Good	Good	Good			
Top of Response Zone (mbgl)	1.50	0.50	1.00	3.00	0.50			
Base of Response Zone (mbgl)	2.80	1.00	2.00	5.00	1.00			
Top of Response Zone (mOD)	52.30	53.30	53.23	52.23	54.73	0.00	0.00	0.00
Base of Response Zone (mOD)	51.00	52.80	52.23	50.23	54.23	0.00	0.00	0.00
Hydrocarbon Sheen Observed?	N/A	N/A	N/A	No	N/A			
Thickness of Free Product (m)	N/A	N/A	N/A	N/A	N/A			

Groundwater Sampling Details								
Purge Method	N/A	N/A	N/A	None*	N/A			
Purged Volume	N/A	N/A	N/A	N/A	N/A			
Recharge (Good / Poor)	N/A	N/A	N/A	Poor	N/A			
Sampling Method	N/A	N/A	N/A	Bailer	N/A			
Volume of Water Sampled (ltrs)	N/A	N/A	N/A	0.21**	N/A			
Volume of Free Product Sampled (ltrs)	N/A	N/A	N/A	0	N/A			
Colour / Odours Noted	N/A	N/A	N/A	Brown/None	N/A			
In-situ pH	N/A	N/A	N/A	6.9	N/A			
In-situ Temperature (°C)	N/A	N/A	N/A	13.5	N/A			
In-situ Dissolved Oxygen (%)	N/A	N/A	N/A	11.1	N/A			
In-situ Electrical Conductivity (µS/cm)	N/A	N/A	N/A	2340	N/A			
In-situ Total Dissolved Solids (ppt)	N/A	N/A	N/A	1.19	N/A			

Notes:

*Not enough water within the well to be able to bail the well.

**Only enough sample available for a 60ml vial and half of a 300ml bottle (210ml total). Sample number EW1.

Ground Gas Monitoring Record

Project Name:	Bridge College, Openshaw	Client:	The Together Trust, Bridge College
Project Reference:	51121	Engineer:	KIA
Date of Visit:	20 March 2025	Time of Visit:	9:30 to 12:30

Atm. Pressure:	1022 to 1021mbar	Local Pressure System*:	Falling
Air Temperature:	12 - 17° C	Gas Monitor Model:	GFM 436 and Honeywell MiniRAE Lite

State of Ground:	Dry ☒	Damp ☐	Wet ☐	Saturated ☐
Wind Strength:	Calm ☐	Light ☒	Moderate ☐	Strong ☐
Cloud Cover:	Clear ☒	Slight ☐	Cloudy ☐	Overcast ☐
Precipitation Level:	None ☒	Slight ☐	Moderate ☐	Heavy ☐

Borehole Reference (Time Monitored)	Atm. Pressure	Time (secs)	Flow (l/hr)	Diff. Pressure (mb)	O ₂ (%v/v)	CO ₂ (%v/v)	CH ₄ (%v/v)	PID (ppm)	Depth to Water (mbgl)	Depth to Base (mbgl)
WS101 (10:35)	1013	0	150.0	-	16.4	0.2	0.0	0.0	4.64	4.92
		15	26.0	-	16.5	3.0	0.0	0.0		
		30	7.3	2.0	16.3	3.1	0.0	0.0		
		45	0.0	0.0	16.3	3.1	0.0	0.0		
		60	0.0	0.0	16.3	3.1	0.0	0.0		
		90	0.0	0.0	16.0	3.2	0.0	0.0		
		120	0.0	0.0	16.0	3.2	0.0	0.0		
		150	0.0	0.0	16.0	3.2	0.0	0.0		
		180	0.0	0.0	16.0	3.2	0.0	0.0		
		240	0.0	0.0	16.0	3.2	0.0	0.0		
		300	0.0	0.0	16.0	3.2	0.0	0.0		
WS101 (10:40)	1013	0	0.0	0.0	0.0	0.0	0.0	0.0	Dry	1.06
		15	0.0	0.0	17.2	0.3	0.0	0.0		
		30	0.0	0.0	18.3	0.1	0.0	0.0		
		45	-0.1	0.0	18.9	0.1	0.0	0.0		
		60	0.0	0.0	19.1	0.1	0.0	0.0		
		90	0.0	0.0	19.2	0.1	0.0	0.0		
		120	0.0	0.0	19.2	0.0	0.0	0.0		
		150	0.0	0.0	19.3	0.0	0.0	0.0		
		180	0.0	0.0	19.3	0.0	0.0	0.0		
		240	0.0	0.0	19.3	0.0	0.0	0.0		
		300	0.0	0.0	19.3	0.0	0.0	0.0		
WS104 (11:21)	1012	0	0.0	0.0	18.8	0.1	0.0	0.0	Damp	1.95
		15	0.0	0.0	19.0	0.7	0.0	0.0		
		30	0.0	0.0	18.9	0.7	0.0	0.0		
		45	0.0	0.0	18.7	0.7	0.0	0.0		
		60	0.0	0.0	18.6	0.7	0.0	0.0		
		90	0.0	0.0	18.6	0.8	0.0	0.0		
		120	0.0	0.0	18.5	0.8	0.0	0.0		
		150	0.0	0.0	18.5	0.8	0.0	0.0		
		180	0.0	0.0	18.4	0.8	0.0	0.0		
		240	0.0	0.0	18.4	0.8	0.0	0.0		
		300	0.0	0.0	18.3	0.8	0.0	0.0		
WS105 (11:36)	1012	0	0.0	0.0	18.5	0.8	0.0	0.0	0.94	0.95
		15	0.0	0.0	18.8	0.3	0.0	0.0		
		30	0.0	0.0	19.2	0.1	0.0	0.0		
		45	0.0	0.0	19.4	0.1	0.0	0.0		
		60	0.0	0.0	19.4	0.1	0.0	0.0		
		90	0.0	0.0	19.4	0.0	0.0	0.0		
		120	0.0	0.0	19.3	0.0	0.0	0.0		
		150	0.0	0.0	19.3	0.1	0.0	0.0		
		180	0.0	0.0	19.3	0.1	0.0	0.0		
		240	0.0	0.0	19.2	0.1	0.0	0.0		
		300	0.0	0.0	19.2	0.2	0.0	0.0		

Notes:

*With reference to the Weather Underground rolling weather archive station.

*Atm. = Atmospheric

Ground Gas Monitoring Record

Project Name:	Bridge College, Openshaw	Client:	The Together Trust, Bridge College
Project Reference:	51121	Engineer:	KIA
Date of Visit:	20 March 2025	Time of Visit:	9:30 to 12:30

Atm. Pressure:	1022 to 1021mbar	Local Pressure System*:	Falling
Air Temperature:	12 - 17°C	Gas Monitor Model:	GFM 436 and Honeywell MiniRAE Lite

State of Ground:

Dry

x

Damp

Wet

Saturated

Wind Strength:

Calm

Light

x

Moderate

Strong

Cloud Cover:

Clear

x

Slight

Cloudy

Overcast

Precipitation Level:

None

x

Slight

Moderate

Heavy

Borehole Reference (Time Monitored)	Atm. Pressure	Time (secs)	Flow (l/hr)	Diff. Pressure (mb)	O ₂ (%v/v)	CO ₂ (%v/v)	CH ₄ (%v/v)	PID (ppm)	Depth to Water (mbgl)	Depth to Base (mbgl)
WS104 (12:02)	1011	0	4.5	-	15.7	0.1	0.0	0.0	Dry	2.66
		15	0.0	0.0	12.4	0.4	0.0	0.0		
		30	0.0	2.0	8.6	0.5	0.0	0.0		
		45	0.0	0.0	5.9	0.5	0.0	0.0		
		60	0.0	0.0	5.1	0.5	0.0	0.0		
		90	0.0	0.0	4.6	0.5	0.0	0.0		
		120	0.0	0.0	4.5	0.5	0.0	0.0		
		150	0.0	0.0	4.4	0.5	0.0	0.0		
		180	0.0	0.0	4.4	0.5	0.0	0.0		
		240	0.0	0.0	4.8	0.5	0.0	0.0		
		300	0.0	0.0	5.6	0.4	0.0	0.0		

Notes:

*With reference to the Weather Underground rolling weather archive station.

*Atm. = Atmospheric

Appendix D

Chemical Laboratory Analysis Results

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

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

e: alex.petts@civicearth.com
Joseph.Foster@civicearth.com

t: 01923 225404
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e: reception@i2analytical.com

Analytical Report Number : 25-008581

Project / Site name:	Bridge College, Openshaw	Samples received on:	19/02/2025
Your job number:	51121 01	Samples instructed on/ Analysis started on:	21/02/2025
Your order number:	PO-0217	Analysis completed by:	03/03/2025
Report Issue Number:	1	Report issued on:	03/03/2025
Samples Analysed:	12 soil samples		

Signed: 
Eric Bomfim Crociquia
Customer Service Administrator
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.	air	- once the analysis is complete

Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

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

Analytical Report Number: 25-008581
Project / Site name: Bridge College, Openshaw
Your Order No: PO-0217

Lab Sample Number	460290	460291	460292	460293	460294
Sample Reference	WS101	WS101	WS101	WS102	WS102
Sample Number	1	2	3	2	3
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.30	0.80	1.90	0.90	2.10
Date Sampled	17/02/2025	17/02/2025	17/02/2025	18/02/2025	18/02/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	14.2	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	11	20	15	19	27
Total mass of sample received	kg	0.1	NONE	0.6	0.7	0.7	0.6	0.6

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	MJN	MJN	-	MJN	MJN
Analysis completed	N/A	N/A	N/A	26/02/2025	26/02/2025	-	26/02/2025	26/02/2025

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.4	8.2	8.5	8	8.6
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	430	810	660	2000	1300
Organic Matter (automated)	%	0.1	MCERTS	1.5	2.9	1	7.9	5.9

Total Phenols

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

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.06	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.39	0.16	< 0.05	0.12	0.21
Anthracene	mg/kg	0.05	MCERTS	0.09	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.7	0.15	< 0.05	0.21	0.26
Pyrene	mg/kg	0.05	MCERTS	0.69	0.15	< 0.05	0.21	0.25
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.35	0.07	< 0.05	0.13	0.13
Chrysene	mg/kg	0.05	MCERTS	0.39	0.09	< 0.05	0.12	0.15
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.41	< 0.05	< 0.05	0.18	0.18
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.22	< 0.05	< 0.05	0.06	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.4	< 0.05	< 0.05	0.12	0.12
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.19	< 0.05	< 0.05	0.08	0.08
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.22	< 0.05	< 0.05	0.1	0.09
Coronene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Total WAC-17 PAHs	mg/kg	0.85	NONE	4.05	< 0.85	< 0.85	1.39	1.46
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Analytical Report Number: 25-008581
Project / Site name: Bridge College, Openshaw
Your Order No: PO-0217

Lab Sample Number	460290	460291	460292	460293	460294
Sample Reference	WS101	WS101	WS101	WS102	WS102
Sample Number	1	2	3	2	3
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.30	0.80	1.90	0.90	2.10
Date Sampled	17/02/2025	17/02/2025	17/02/2025	18/02/2025	18/02/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Heavy Metals / Metalloids

Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	2	2.6	2.6	9.1	2.4
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.9	12	8.6	51	11
Barium (aqua regia extractable)	mg/kg	1	MCERTS	130	110	440	530	250
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.72	1.4	1.3	7.9	3
Boron (water soluble)	mg/kg	0.2	MCERTS	0.8	1.7	0.7	0.9	1.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.2	< 0.2	0.3	< 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	18	21	30	26	24
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	18	22	30	26	24
Copper (aqua regia extractable)	mg/kg	1	MCERTS	31	47	25	240	180
Lead (aqua regia extractable)	mg/kg	1	MCERTS	22	120	12	65	25
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	21	24	36	83	35
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	1.1	1.9	2.9	12
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	21	35	32	100	31
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	60	52	58	61	43

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_ID_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 _{HS_ID_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 _{HS_ID_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_ID_AL}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_ID_AL}	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_ID_AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_ID_AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	12
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_ID_AL}	mg/kg	10	NONE	< 10	< 10	< 10	< 10	12

TPHCWG - Aromatic >EC5 - EC7 _{HS_ID_AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_ID_AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_ID_AR}	mg/kg	0.02	MCERTS	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_ID_AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_ID_AR}	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_ID_AR}	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_ID_AR}	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_ID_AR}	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

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Lab Sample Number	460290	460291	460292	460293	460294
Sample Reference	WS101	WS101	WS101	WS102	WS102
Sample Number	1	2	3	2	3
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.30	0.80	1.90	0.90	2.10
Date Sampled	17/02/2025	17/02/2025	17/02/2025	18/02/2025	18/02/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

VOCs

Chloromethane	µg/kg	5	MCERTS	-	-	-	-	-
Chloroethane	µg/kg	5	MCERTS	-	-	-	-	-
Bromomethane	µg/kg	5	MCERTS	-	-	-	-	-
Vinyl Chloride	µg/kg	5	NONE	-	-	-	-	-
Trichlorofluoromethane	µg/kg	5	MCERTS	-	-	-	-	-
1,1-Dichloroethene	µg/kg	5	MCERTS	-	-	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	MCERTS	-	-	-	-	-
Trans 1,2-dichloroethylene	µg/kg	5	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5	MCERTS	-	-	-	-	-
2,2-Dichloropropane	µg/kg	5	NONE	-	-	-	-	-
Chloroform	µg/kg	5	MCERTS	-	-	-	-	-
1,1,1-Trichloroethane	µg/kg	5	MCERTS	-	-	-	-	-
1,2-Dichloroethane	µg/kg	7	MCERTS	-	-	-	-	-
1,1-Dichloropropene	µg/kg	5	MCERTS	-	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	5	MCERTS	-	-	-	-	-
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbontetrachloride	µg/kg	5	MCERTS	-	-	-	-	-
1,2-Dichloropropane	µg/kg	6	MCERTS	-	-	-	-	-
Trichloroethene	µg/kg	10	MCERTS	-	-	-	-	-
Dibromomethane	µg/kg	5	MCERTS	-	-	-	-	-
Bromodichloromethane	µg/kg	5	MCERTS	-	-	-	-	-
Cis-1,3-dichloropropene	µg/kg	5	MCERTS	-	-	-	-	-
Trans-1,3-dichloropropene	µg/kg	10	MCERTS	-	-	-	-	-
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	µg/kg	6	MCERTS	-	-	-	-	-
1,3-Dichloropropane	µg/kg	5	MCERTS	-	-	-	-	-
Dibromochloromethane	µg/kg	5	MCERTS	-	-	-	-	-
Tetrachloroethene	µg/kg	5	MCERTS	-	-	-	-	-
1,2-Dibromoethane	µg/kg	5	MCERTS	-	-	-	-	-
Chlorobenzene	µg/kg	5	MCERTS	-	-	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	5	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
Styrene	µg/kg	5	MCERTS	-	-	-	-	-
Bromoform	µg/kg	5	MCERTS	-	-	-	-	-
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	MCERTS	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	5	NONE	-	-	-	-	-
Bromobenzene	µg/kg	5	MCERTS	-	-	-	-	-
n-Propylbenzene	µg/kg	5	MCERTS	-	-	-	-	-
2-Chlorotoluene	µg/kg	5	MCERTS	-	-	-	-	-
4-Chlorotoluene	µg/kg	5	MCERTS	-	-	-	-	-
1,3,5-Trimethylbenzene	µg/kg	5	MCERTS	-	-	-	-	-
tert-Butylbenzene	µg/kg	5	MCERTS	-	-	-	-	-
1,2,4-Trimethylbenzene	µg/kg	5	MCERTS	-	-	-	-	-
sec-Butylbenzene	µg/kg	5	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	µg/kg	5	MCERTS	-	-	-	-	-
p-Isopropyltoluene	µg/kg	5	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	µg/kg	5	MCERTS	-	-	-	-	-

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Lab Sample Number				460290	460291	460292	460293	460294
Sample Reference				WS101	WS101	WS101	WS102	WS102
Sample Number				1	2	3	2	3
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.30	0.80	1.90	0.90	2.10
Date Sampled				17/02/2025	17/02/2025	17/02/2025	18/02/2025	18/02/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
1,2-Dichlorobenzene	µg/kg	5	MCERTS	-	-	-	-	-
Butylbenzene	µg/kg	5	MCERTS	-	-	-	-	-
1,2-Dibromo-3-chloropropane	µg/kg	8	MCERTS	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/kg	5	MCERTS	-	-	-	-	-
Hexachlorobutadiene	µg/kg	5	MCERTS	-	-	-	-	-
1,2,3-Trichlorobenzene	µg/kg	5	MCERTS	-	-	-	-	-

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Lab Sample Number	460290	460291	460292	460293	460294
Sample Reference	WS101	WS101	WS101	WS102	WS102
Sample Number	1	2	3	2	3
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.30	0.80	1.90	0.90	2.10
Date Sampled	17/02/2025	17/02/2025	17/02/2025	18/02/2025	18/02/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

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	NONE	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	ISO 17025	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	NONE	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
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	-	-	-	-	-
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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 118	mg/kg	0.001	NONE	-	-	-	-	-
PCB Congener 123	mg/kg	0.001	NONE	-	-	-	-	-

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Lab Sample Number				460290	460291	460292	460293	460294
Sample Reference				WS101	WS101	WS101	WS102	WS102
Sample Number				1	2	3	2	3
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.30	0.80	1.90	0.90	2.10
Date Sampled				17/02/2025	17/02/2025	17/02/2025	18/02/2025	18/02/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
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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Lab Sample Number	460295	460296	460297	460298	460299
Sample Reference	WS102	WS103A	WS104	WS105	WS105
Sample Number	4	1	2	2	3
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	3.50	0.40	1.40	0.40	1.40
Date Sampled	18/02/2025	18/02/2025	17/02/2025	17/02/2025	17/02/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	45.9	< 0.1	14.3	< 0.1
Moisture Content	%	0.01	NONE	16	5.9	17	15	14
Total mass of sample received	kg	0.1	NONE	0.7	0.6	0.5	0.6	0.5

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	-	MJN	MJN	MJN	-
Analysis completed	N/A	N/A	N/A	-	26/02/2025	26/02/2025	26/02/2025	-

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.9	11.1	8.3	9.8	8.4
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	390	1300	800	1600	560
Organic Matter (automated)	%	0.1	MCERTS	1.7	2.9	2.9	1.3	1.4

Total Phenols

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

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	0.19	0.12	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.1	0.08	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.51	0.17	0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	0.45	0.12	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.16	3.6	1.4	0.37	0.11
Anthracene	mg/kg	0.05	MCERTS	< 0.05	1.2	0.28	0.09	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.12	6.8	2.3	0.54	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.13	8.8	2.4	0.52	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.07	3.7	1.2	0.29	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.08	3.8	1.3	0.29	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	4.1	1.5	0.33	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	1.3	0.47	0.14	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	3.4	1.3	0.29	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	1.9	0.59	0.15	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.39	0.17	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	2.1	0.72	0.18	< 0.05
Coronene	mg/kg	0.05	NONE	< 0.05	< 0.05	0.2	< 0.05	< 0.05

Total PAH

Total WAC-17 PAHs	mg/kg	0.85	NONE	< 0.85	42.3	14.2	3.25	< 0.85
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Lab Sample Number	460295	460296	460297	460298	460299
Sample Reference	WS102	WS103A	WS104	WS105	WS105
Sample Number	4	1	2	2	3
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	3.50	0.40	1.40	0.40	1.40
Date Sampled	18/02/2025	18/02/2025	17/02/2025	17/02/2025	17/02/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Heavy Metals / Metalloids

Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	2.3	1.5	7.1	1.8	2.2
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.4	4.6	26	7.2	7.9
Barium (aqua regia extractable)	mg/kg	1	MCERTS	130	150	180	160	150
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.1	0.38	1.6	0.62	1.2
Boron (water soluble)	mg/kg	0.2	MCERTS	1.1	1.3	1.2	0.8	1.1
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.5	< 0.2	0.3	< 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	28	21	27	16	30
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	28	21	28	16	30
Copper (aqua regia extractable)	mg/kg	1	MCERTS	25	19	420	31	25
Lead (aqua regia extractable)	mg/kg	1	MCERTS	11	26	200	33	11
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	31	16	37	15	34
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	28	32	50	21	30
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	61	50	330	72	63

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS,1D,AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 _{HS,1D,AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 _{HS,1D,AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 _{EH,CU,1D,AL}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 _{EH,CU,1D,AL}	mg/kg	2	MCERTS	< 2.0	13	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 _{EH,CU,1D,AL}	mg/kg	8	MCERTS	< 8.0	38	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 _{EH,CU,1D,AL}	mg/kg	8	MCERTS	< 8.0	270	< 8.0	31	< 8.0
TPHCWG - Aliphatic >EC5 - EC35 _{EH,CU+HS,1D,AL}	mg/kg	10	NONE	< 10	320	< 10	31	< 10

TPHCWG - Aromatic >EC5 - EC7 _{HS,1D,AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS,1D,AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS,1D,AR}	mg/kg	0.02	MCERTS	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 _{EH,CU,1D,AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH,CU,1D,AR}	mg/kg	2	MCERTS	< 2.0	18	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 _{EH,CU,1D,AR}	mg/kg	10	MCERTS	< 10	72	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 _{EH,CU,1D,AR}	mg/kg	10	MCERTS	< 10	500	< 10	18	< 10
TPHCWG - Aromatic >EC5 - EC35 _{EH,CU+HS,1D,AR}	mg/kg	10	NONE	< 10	590	< 10	18	< 10

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Lab Sample Number	460295	460296	460297	460298	460299
Sample Reference	WS102	WS103A	WS104	WS105	WS105
Sample Number	4	1	2	2	3
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	3.50	0.40	1.40	0.40	1.40
Date Sampled	18/02/2025	18/02/2025	17/02/2025	17/02/2025	17/02/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

VOCs

Chloromethane	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Chloroethane	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Bromomethane	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Vinyl Chloride	µg/kg	5	NONE	-	< 5.0	-	< 5.0	-
Trichlorofluoromethane	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
1,1-Dichloroethane	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Trans 1,2-dichloroethylene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
2,2-Dichloropropane	µg/kg	5	NONE	-	< 5.0	-	< 5.0	-
Chloroform	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
1,1,1-Trichloroethane	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
1,2-Dichloroethane	µg/kg	7	MCERTS	-	< 7.0	-	< 7.0	-
1,1-Dichloropropene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Cis-1,2-dichloroethene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbontetrachloride	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
1,2-Dichloropropane	µg/kg	6	MCERTS	-	< 6.0	-	< 6.0	-
Trichloroethene	µg/kg	10	MCERTS	-	< 10	-	< 10	-
Dibromomethane	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Bromodichloromethane	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Cis-1,3-dichloropropene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Trans-1,3-dichloropropene	µg/kg	10	MCERTS	-	< 10	-	< 10	-
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	µg/kg	6	MCERTS	-	< 6.0	-	< 6.0	-
1,3-Dichloropropane	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Dibromochloromethane	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Tetrachloroethene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
1,2-Dibromoethane	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Chlorobenzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
1,1,1,2-Tetrachloroethane	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
Styrene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Bromoform	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
1,1,2,2-Tetrachloroethane	µg/kg	5	NONE	-	< 5.0	-	< 5.0	-
Bromobenzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
n-Propylbenzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
2-Chlorotoluene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
4-Chlorotoluene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
1,3,5-Trimethylbenzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
tert-Butylbenzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
1,2,4-Trimethylbenzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
sec-Butylbenzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
1,3-Dichlorobenzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
p-Isopropyltoluene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
1,4-Dichlorobenzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-

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Lab Sample Number				460295	460296	460297	460298	460299
Sample Reference				WS102	WS103A	WS104	WS105	WS105
Sample Number				4	1	2	2	3
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				3.50	0.40	1.40	0.40	1.40
Date Sampled				18/02/2025	18/02/2025	17/02/2025	17/02/2025	17/02/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
1,2-Dichlorobenzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Butylbenzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
1,2-Dibromo-3-chloropropane	µg/kg	8	MCERTS	-	< 8.0	-	< 8.0	-
1,2,4-Trichlorobenzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Hexachlorobutadiene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
1,2,3-Trichlorobenzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-

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Lab Sample Number	460295	460296	460297	460298	460299
Sample Reference	WS102	WS103A	WS104	WS105	WS105
Sample Number	4	1	2	2	3
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	3.50	0.40	1.40	0.40	1.40
Date Sampled	18/02/2025	18/02/2025	17/02/2025	17/02/2025	17/02/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

SVOCs

Aniline	mg/kg	0.1	NONE	-	0.7	-	< 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	NONE	-	< 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	-	0.2	-	< 0.1	-
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	-

PCBs by GC-MS

PCB Congener 118	mg/kg	0.001	MCERTS	-	< 0.001	-	< 0.001	-
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PCBs

PCB Congener 077	mg/kg	0.001	NONE	-	< 0.001	-	< 0.001	-
PCB Congener 081	mg/kg	0.001	NONE	-	< 0.001	-	< 0.001	-
PCB Congener 105	mg/kg	0.001	NONE	-	< 0.001	-	< 0.001	-
PCB Congener 114	mg/kg	0.001	NONE	-	< 0.001	-	< 0.001	-
PCB Congener 118	mg/kg	0.001	NONE	-	< 0.001	-	< 0.001	-
PCB Congener 123	mg/kg	0.001	NONE	-	< 0.001	-	< 0.001	-

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Lab Sample Number				460295	460296	460297	460298	460299
Sample Reference				WS102	WS103A	WS104	WS105	WS105
Sample Number				4	1	2	2	3
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				3.50	0.40	1.40	0.40	1.40
Date Sampled				18/02/2025	18/02/2025	17/02/2025	17/02/2025	17/02/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection	Test Accreditation Status		
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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Lab Sample Number	460300	460301
Sample Reference	WS107	WS108
Sample Number	1	1
Water Matrix	N/A	N/A
Depth (m)	0.20	0.40
Date Sampled	17/02/2025	17/02/2025
Time Taken	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection
		Test Accreditation Status

Stone Content	%	0.1	NONE	< 0.1	31.2
Moisture Content	%	0.01	NONE	32	14
Total mass of sample received	kg	0.1	NONE	0.7	0.6

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	MJN	MJN
Analysis completed	N/A	N/A	N/A	26/02/2025	26/02/2025

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7	10.3
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0
Total Sulphate as SO ₄	mg/kg	50	MCERTS	970	2200
Organic Matter (automated)	%	0.1	MCERTS	13	2

Total Phenols

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

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.72	0.38
Anthracene	mg/kg	0.05	MCERTS	0.22	0.07
Fluoranthene	mg/kg	0.05	MCERTS	1.4	0.72
Pyrene	mg/kg	0.05	MCERTS	1.3	0.74
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.78	0.33
Chrysene	mg/kg	0.05	MCERTS	0.82	0.37
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.2	0.38
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.41	0.17
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1	0.32
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.47	0.14
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.07	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.54	0.17
Coronene	mg/kg	0.05	NONE	0.2	< 0.05

Total PAH

Total WAC-17 PAHs	mg/kg	0.85	NONE	9.21	3.8
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Lab Sample Number	460300	460301
Sample Reference	WS107	WS108
Sample Number	1	1
Water Matrix	N/A	N/A
Depth (m)	0.20	0.40
Date Sampled	17/02/2025	17/02/2025
Time Taken	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection
		Test Accreditation Status

Heavy Metals / Metalloids

Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	1.5	2.3
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	4.1	8.2
Barium (aqua regia extractable)	mg/kg	1	MCERTS	78	130
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.33	0.74
Boron (water soluble)	mg/kg	0.2	MCERTS	1.9	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	9.6	23
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	10	23
Copper (aqua regia extractable)	mg/kg	1	MCERTS	26	30
Lead (aqua regia extractable)	mg/kg	1	MCERTS	45	43
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	8.1	21
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	12	22
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	88	62

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_ID_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 _{HS_ID_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 _{HS_ID_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_ID_AL}	mg/kg	1	MCERTS	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_ID_AL}	mg/kg	2	MCERTS	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_ID_AL}	mg/kg	8	MCERTS	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_ID_AL}	mg/kg	8	MCERTS	< 8.0	9.8
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_ID_AL}	mg/kg	10	NONE	< 10	< 10

TPHCWG - Aromatic >EC5 - EC7 _{HS_ID_AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_ID_AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_ID_AR}	mg/kg	0.02	MCERTS	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_ID_AR}	mg/kg	1	MCERTS	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_ID_AR}	mg/kg	2	MCERTS	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_ID_AR}	mg/kg	10	MCERTS	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_ID_AR}	mg/kg	10	MCERTS	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_ID_AR}	mg/kg	10	NONE	< 10	< 10

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Lab Sample Number	460300	460301
Sample Reference	WS107	WS108
Sample Number	1	1
Water Matrix	N/A	N/A
Depth (m)	0.20	0.40
Date Sampled	17/02/2025	17/02/2025
Time Taken	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection
		Test Accreditation Status

VOCs

Chloromethane	µg/kg	5	MCERTS	-	< 5.0
Chloroethane	µg/kg	5	MCERTS	-	< 5.0
Bromomethane	µg/kg	5	MCERTS	-	< 5.0
Vinyl Chloride	µg/kg	5	NONE	-	< 5.0
Trichlorofluoromethane	µg/kg	5	MCERTS	-	< 5.0
1,1-Dichloroethene	µg/kg	5	MCERTS	-	< 5.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	MCERTS	-	< 5.0
Trans 1,2-dichloroethylene	µg/kg	5	MCERTS	-	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5	MCERTS	-	< 5.0
2,2-Dichloropropane	µg/kg	5	NONE	-	< 5.0
Chloroform	µg/kg	5	MCERTS	-	< 5.0
1,1,1-Trichloroethane	µg/kg	5	MCERTS	-	< 5.0
1,2-Dichloroethane	µg/kg	7	MCERTS	-	< 7.0
1,1-Dichloropropene	µg/kg	5	MCERTS	-	< 5.0
Cis-1,2-dichloroethene	µg/kg	5	MCERTS	-	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0
Carbontetrachloride	µg/kg	5	MCERTS	-	< 5.0
1,2-Dichloropropane	µg/kg	6	MCERTS	-	< 6.0
Trichloroethene	µg/kg	10	MCERTS	-	< 10
Dibromomethane	µg/kg	5	MCERTS	-	< 5.0
Bromodichloromethane	µg/kg	5	MCERTS	-	< 5.0
Cis-1,3-dichloropropene	µg/kg	5	MCERTS	-	< 5.0
Trans-1,3-dichloropropene	µg/kg	10	MCERTS	-	< 10
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0
1,1,2-Trichloroethane	µg/kg	6	MCERTS	-	< 6.0
1,3-Dichloropropane	µg/kg	5	MCERTS	-	< 5.0
Dibromochloromethane	µg/kg	5	MCERTS	-	< 5.0
Tetrachloroethene	µg/kg	5	MCERTS	-	< 5.0
1,2-Dibromoethane	µg/kg	5	MCERTS	-	< 5.0
Chlorobenzene	µg/kg	5	MCERTS	-	< 5.0
1,1,1,2-Tetrachloroethane	µg/kg	5	MCERTS	-	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0
Styrene	µg/kg	5	MCERTS	-	< 5.0
Bromoform	µg/kg	5	MCERTS	-	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	MCERTS	-	< 5.0
1,1,2,2-Tetrachloroethane	µg/kg	5	NONE	-	< 5.0
Bromobenzene	µg/kg	5	MCERTS	-	< 5.0
n-Propylbenzene	µg/kg	5	MCERTS	-	< 5.0
2-Chlorotoluene	µg/kg	5	MCERTS	-	< 5.0
4-Chlorotoluene	µg/kg	5	MCERTS	-	< 5.0
1,3,5-Trimethylbenzene	µg/kg	5	MCERTS	-	< 5.0
tert-Butylbenzene	µg/kg	5	MCERTS	-	< 5.0
1,2,4-Trimethylbenzene	µg/kg	5	MCERTS	-	< 5.0
sec-Butylbenzene	µg/kg	5	MCERTS	-	< 5.0
1,3-Dichlorobenzene	µg/kg	5	MCERTS	-	< 5.0
p-Isopropyltoluene	µg/kg	5	MCERTS	-	< 5.0
1,4-Dichlorobenzene	µg/kg	5	MCERTS	-	< 5.0

Analytical Report Number: 25-008581
 Project / Site name: Bridge College, Openshaw
 Your Order No: PO-0217

Lab Sample Number				460300	460301
Sample Reference				WS107	WS108
Sample Number				1	1
Water Matrix				N/A	N/A
Depth (m)				0.20	0.40
Date Sampled				17/02/2025	17/02/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		
1,2-Dichlorobenzene	µg/kg	5	MCERTS	-	< 5.0
Butylbenzene	µg/kg	5	MCERTS	-	< 5.0
1,2-Dibromo-3-chloropropane	µg/kg	8	MCERTS	-	< 8.0
1,2,4-Trichlorobenzene	µg/kg	5	MCERTS	-	< 5.0
Hexachlorobutadiene	µg/kg	5	MCERTS	-	< 5.0
1,2,3-Trichlorobenzene	µg/kg	5	MCERTS	-	< 5.0

Analytical Report Number: 25-008581
Project / Site name: Bridge College, Openshaw
Your Order No: PO-0217

Lab Sample Number				460300	460301
Sample Reference				WS107	WS108
Sample Number				1	1
Water Matrix				N/A	N/A
Depth (m)				0.20	0.40
Date Sampled				17/02/2025	17/02/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

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	NONE	-	< 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
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
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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 118	mg/kg	0.001	NONE	-	< 0.001
PCB Congener 123	mg/kg	0.001	NONE	-	< 0.001

Analytical Report Number: 25-008581
 Project / Site name: Bridge College, Openshaw
 Your Order No: PO-0217

Lab Sample Number				460300	460301
Sample Reference				WS107	WS108
Sample Number				1	1
Water Matrix				N/A	N/A
Depth (m)				0.20	0.40
Date Sampled				17/02/2025	17/02/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		
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

Analytical Report Number : 25-008581

Project / Site name: Bridge College, Openshaw

* 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 *
460290	WS101	1	0.3	Brown loam and clay with gravel and brick
460291	WS101	2	0.8	Brown clay and sand with gravel
460292	WS101	3	1.9	Brown clay
460293	WS102	2	0.9	Brown clay and sand with gravel
460294	WS102	3	2.1	Brown clay and sand
460295	WS102	4	3.5	Brown clay
460296	WS103A	1	0.4	Brown loam and sand with gravel
460297	WS104	2	1.4	Brown clay and sand with gravel
460298	WS105	2	0.4	Brown clay and loam with gravel and vegetation
460299	WS105	3	1.4	Brown clay
460300	WS107	1	0.2	Brown loam and clay with gravel and vegetation
460301	WS108	1	0.4	Brown clay and loam with vegetation and stones

Analytical Report Number : 25-008581

Project / Site name: Bridge College, Openshaw

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
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-PL	D/W	MCERTS
Chromium III in soil	In-house method by calculation from total Cr and Cr VI	In-house method by calculation	L080-PL/L130B	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-PL	W	MCERTS
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS

Analytical Report Number : 25-008581

Project / Site name: Bridge College, Openshaw

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS

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 30°C.

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

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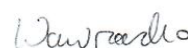
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Analytical Report Number : 25-010557

Project / Site name:	Bridge College, Openshaw	Samples received on:	19/02/2025
Your job number:	51121 01	Samples instructed on/ Analysis started on:	04/03/2025
Your order number:	PO-0217	Analysis completed by:	10/03/2025
Report Issue Number:	1	Report issued on:	11/03/2025
Samples Analysed:	3 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
air	- once the analysis is complete

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

Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

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

Analytical Report Number: 25-010557
Project / Site name: Bridge College, Openshaw
Your Order No: PO-0217

Lab Sample Number				470605	470606	470607
Sample Reference				WS101	WS104	WS108
Sample Number				1	2	1
Water Matrix				N/A	N/A	N/A
Depth (m)				0.30	1.40	0.40
Date Sampled				17/02/2025	17/02/2025	17/02/2025
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)						
	Units	Test Limit of detection	Test Accreditation Status			

Stone Content	%	0.1	NONE	14.2	< 0.1	31.2
Moisture Content	%	0.01	NONE	11	17	14
Total mass of sample received	kg	0.1	NONE	0.6	0.6	0.6

General Inorganics

pH (L005B)	pH Units	N/A	MCERTS	8	8.2	8.1
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1	2.3	1.1
Loss on Ignition @ 450°C	%	0.2	MCERTS	3	6.1	2.9
Acid Neutralisation Capacity	mmol/kg	-9999	NONE	6.8	15	15

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.08	0.08	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.11	0.07	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.09	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.84	0.66	0.28
Anthracene	mg/kg	0.05	MCERTS	0.27	0.13	0.06
Fluoranthene	mg/kg	0.05	MCERTS	1.9	0.9	0.49
Pyrene	mg/kg	0.05	MCERTS	1.7	0.92	0.49
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.76	0.46	0.24
Chrysene	mg/kg	0.05	MCERTS	0.95	0.63	0.33
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.88	0.54	0.31
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.37	0.25	0.11
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.72	0.47	0.25
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.31	0.21	0.11
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.07	0.06	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.35	0.24	0.14
Coronene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05

Total PAH

Total WAC-17 PAHs	mg/kg	0.85	NONE	9.37	5.63	2.81
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Petroleum Hydrocarbons

Mineral Oil (EC10 - EC40) EH_CU_1D_AL	mg/kg	10	NONE	110	< 10	18
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VOCs

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0

Total BTEX	µg/kg	10	MCERTS	< 10	< 10	< 10
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Analytical Report Number: 25-010557
 Project / Site name: Bridge College, Openshaw
 Your Order No: PO-0217

Lab Sample Number				470605	470606	470607
Sample Reference				WS101	WS104	WS108
Sample Number				1	2	1
Water Matrix				N/A	N/A	N/A
Depth (m)				0.30	1.40	0.40
Date Sampled				17/02/2025	17/02/2025	17/02/2025
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection	Test Accreditation Status

PCBs by GC-MS

PCB Congener 28	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001
PCB Congener 52	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001
PCB Congener 101	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001
PCB Congener 118	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001
PCB Congener 138	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001
PCB Congener 153	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001
PCB Congener 180	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001
Total PCBs	mg/kg	0.007	MCERTS	< 0.007	< 0.007	< 0.007

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

i2 Analytical

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Waste Acceptance Criteria Analytical Results

Waste Acceptance Criteria Analytical Results							
Report No:	25-010557						
					Client: CIVICEARTH		
Location	Bridge College, Openshaw						
Lab Reference (Sample Number)	470605				Landfill Waste Acceptance Criteria		
Sampling Date	17/02/2025				Limits		
Sample ID	WS101 1				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Depth (m)	0.30						
Solid Waste Analysis							
TOC (%)**	1.0				3%	5%	6%
Loss on Ignition (%) **	3.0				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH, ID, CU, AL	110				500	--	--
Total PAH (WAC-17) (mg/kg)	9.37				100	--	--
pH (units)**	8.0				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	6.8				--	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		
	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.00302			0.0302	0.5	2	25
Barium *	0.0243			0.243	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	0.0021			0.021	0.5	10	70
Copper *	0.0043			0.043	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.000635			0.00635	0.5	10	30
Nickel *	0.0019			0.019	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 *	0.0053			0.053	4	50	200
Chloride *	1.2			12	800	15000	25000
Fluoride*	0.64			6.4	10	150	500
Sulphate *	4.9			49	1000	20000	50000
TDS*	52			520	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	6.84			68.4	500	800	1000
Leach Test Information							
Stone Content (%)	14.2						
Sample Mass (kg)	0.6						
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)			
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation				** – MCERTS accredited			

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3. This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Where colour coding is used on this report, this is for guidance purposes only. This does not constitute a statement of conformity of pass or fail.
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

Waste Acceptance Criteria Analytical Results							
Report No:	25-010557						
					Client: CIVICEARTH		
Location	Bridge College, Openshaw						
Lab Reference (Sample Number)	470606				Landfill Waste Acceptance Criteria		
					Limits		
Sampling Date	17/02/2025				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS104 2						
Depth (m)	1.40						
Solid Waste Analysis							
TOC (%)**	2.3				3%	5%	6%
Loss on Ignition (%) **	6.1				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH, ID, CU, AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	5.63				100	--	--
pH (units)**	8.2				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	15				--	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		
	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.00628			0.0628	0.5	2	25
Barium *	0.0194			0.194	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	0.0020			0.020	0.5	10	70
Copper *	0.015			0.15	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.00854			0.0854	0.5	10	30
Nickel *	0.00062			0.0062	0.4	10	40
Lead *	0.0081			0.081	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 *	0.0089			0.089	4	50	200
Chloride *	1.7			17	800	15000	25000
Fluoride*	1.3			13	10	150	500
Sulphate *	7.1			71	1000	20000	50000
TDS*	62			620	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	6.62			66.1	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	0.6						
Dry Matter (%)	83						
Moisture (%)	17						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.				* = UKAS accredited (liquid eluate analysis only)			
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation				** - MCERTS accredited			

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3. This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Where colour coding is used on this report, this is for guidance purposes only. This does not constitute a statement of conformity of pass or fail.
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

Waste Acceptance Criteria Analytical Results							
Report No:	25-010557						
					Client: CIVICEARTH		
Location	Bridge College, Openshaw						
Lab Reference (Sample Number)	470607				Landfill Waste Acceptance Criteria		
Sampling Date	17/02/2025				Limits		
Sample ID	WS108 1				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Depth (m)	0.40						
Solid Waste Analysis							
TOC (%)**	1.1				3%	5%	6%
Loss on Ignition (%) **	2.9				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH, ID, CU, AL	18				500	--	--
Total PAH (WAC-17) (mg/kg)	2.81				100	--	--
pH (units)**	8.1				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	15				--	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		
	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.00346			0.0346	0.5	2	25
Barium *	0.0268			0.268	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	0.0025			0.025	0.5	10	70
Copper *	0.0049			0.049	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.000937			0.00937	0.5	10	30
Nickel *	0.0011			0.011	0.4	10	40
Lead *	0.0046			0.046	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	0.0052			0.052	0.1	0.5	7
Zinc *	0.0058			0.058	4	50	200
Chloride *	1.4			14	800	15000	25000
Fluoride*	0.59			5.9	10	150	500
Sulphate *	3.0			30	1000	20000	50000
TDS*	53			530	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	8.00			80.0	500	800	1000
Leach Test Information							
Stone Content (%)	31.2						
Sample Mass (kg)	0.6						
Dry Matter (%)	86						
Moisture (%)	14						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.					* = UKAS accredited (liquid eluate analysis only)		
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation					** - MCERTS accredited		

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3. This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Where colour coding is used on this report, this is for guidance purposes only. This does not constitute a statement of conformity of pass or fail.
Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.

Analytical Report Number : 25-010557

Project / Site name: Bridge College, Openshaw

* 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 *
470605	WS101	1	0.3	Brown loam and clay with gravel and brick
470606	WS104	2	1.4	Brown clay and sand with gravel
470607	WS108	1	0.4	Brown clay and loam with vegetation and stones

Analytical Report Number : 25-010557

Project / Site name: Bridge College, Openshaw

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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 1:1 ratio 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 on 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-PL	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
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-PL	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-PL	W	ISO 17025

Analytical Report Number : 25-010557

Project / Site name: Bridge College, Openshaw

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser	In-house based on MEWAM Method ISBN 0117516260	L082B	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.

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 : 25-010557

Project / Site name: Bridge College, Openshaw

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
WS101	1	S	470605	c	BTEX and/or Volatile organic compounds in soil	L073B	c
WS101	1	S	470605	c	Speciated PAHs and/or Semi-volatile organic compounds in soil	L064B	c
WS101	1	S	470605	c	Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	L076B/L088-PL	c
WS101	1	S	470605	c	pH at 20°C in soil	L005B	c
WS104	2	S	470606	c	BTEX and/or Volatile organic compounds in soil	L073B	c
WS104	2	S	470606	c	Speciated PAHs and/or Semi-volatile organic compounds in soil	L064B	c
WS104	2	S	470606	c	Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	L076B/L088-PL	c
WS104	2	S	470606	c	pH at 20°C in soil	L005B	c
WS108	1	S	470607	c	BTEX and/or Volatile organic compounds in soil	L073B	c
WS108	1	S	470607	c	Speciated PAHs and/or Semi-volatile organic compounds in soil	L064B	c
WS108	1	S	470607	c	Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	L076B/L088-PL	c
WS108	1	S	470607	c	pH at 20°C in soil	L005B	c

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Analytical Report Number : 25-011340

Project / Site name:	Bridge College, Openshaw	Samples received on:	06/03/2025
Your job number:	51121/01	Samples instructed on/ Analysis started on:	07/03/2025
Your order number:	PO-0217	Analysis completed by:	12/03/2025
Report Issue Number:	1	Report issued on:	12/03/2025
Samples Analysed:	1 water sample		


Signed:
Eric Bomfim Crociquia
Customer Service Administrator
For & on behalf of i2 Analytical Ltd.

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

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

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

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting
air - once the analysis is complete

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

Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

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

Analytical Report Number: 25-011340
Project / Site name: Bridge College, Openshaw

Your Order No: PO-0217

Lab Sample Number				474292
Sample Reference				WS101
Sample Number				1EW
Water Matrix				Other water
Depth (m)				4.78
Date Sampled				05/03/2025
Time Taken				None Supplied
Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status	

Speciated PAHs

Naphthalene	µg/l	0.01	NONE	0.27
Acenaphthylene	µg/l	0.01	NONE	< 0.01
Acenaphthene	µg/l	0.01	NONE	< 0.01
Fluorene	µg/l	0.01	NONE	< 0.01
Phenanthrene	µg/l	0.01	NONE	< 0.01
Anthracene	µg/l	0.01	NONE	< 0.01
Fluoranthene	µg/l	0.01	NONE	< 0.01
Pyrene	µg/l	0.01	NONE	< 0.01
Benzo(a)anthracene	µg/l	0.01	NONE	< 0.01
Chrysene	µg/l	0.01	NONE	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	NONE	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	NONE	< 0.01
Benzo(a)pyrene	µg/l	0.01	NONE	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.16	NONE	0.27
-------------------	------	------	------	------

Petroleum Hydrocarbons

TPH - Aliphatic >EC5 - EC6 _{HS_ID_AL}	µg/l	1	NONE	< 1.0
TPH - Aliphatic >EC6 - EC8 _{HS_ID_AL}	µg/l	1	NONE	< 1.0
TPH - Aliphatic >EC8 - EC10 _{HS_ID_AL}	µg/l	1	NONE	< 1.0
TPH - Aliphatic >EC10 - EC12 _{EH_ID_AL_MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC12 - EC16 _{EH_ID_AL_MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC16 - EC21 _{EH_ID_AL_MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC21 - EC35 _{EH_ID_AL_MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC5 - EC35 _{HS+EH_ID_AL_MS}	µg/l	10	NONE	< 10

TPH - Aromatic >EC5 - EC7 _{HS_ID_AR}	µg/l	1	NONE	< 1.0
TPH - Aromatic >EC7 - EC8 _{HS_ID_AR}	µg/l	1	NONE	< 1.0
TPH - Aromatic >EC8 - EC10 _{HS_ID_AR}	µg/l	1	NONE	< 1.0
TPH - Aromatic >EC10 - EC12 _{EH_ID_AR_MS}	µg/l	10	NONE	< 10
TPH - Aromatic >EC12 - EC16 _{EH_ID_AR_MS}	µg/l	10	NONE	< 10
TPH - Aromatic >EC16 - EC21 _{EH_ID_AR_MS}	µg/l	10	NONE	< 10
TPH - Aromatic >EC21 - EC35 _{EH_ID_AR_MS}	µg/l	10	NONE	< 10
TPH - Aromatic >EC5 - EC35 _{HS+EH_ID_AR_MS}	µg/l	10	NONE	< 10

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	NONE	< 3.0
Benzene	µg/l	1	NONE	< 1.0
Toluene	µg/l	1	NONE	< 1.0
Ethylbenzene	µg/l	1	NONE	< 1.0
p & m-xylene	µg/l	1	NONE	< 1.0
o-xylene	µg/l	1	NONE	< 1.0

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

Analytical Report Number : 25-011340

Project / Site name: Bridge College, Openshaw

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total Petroleum Hydrocarbons with carbon banding in water by GC-MS	Determination of total petroleum hydrocarbons in water by GC-MS 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	NONE
Total Petroleum Hydrocarbons in water by HS-GC-MS	Determination of total petroleum hydrocarbons in water by headspace GC-MS. Accredited matrices: SW, PW, GW	In-house method	L088-PL	W	NONE
Speciated PAHs and/or Semi-volatile organic compounds in water	Determination of semi-volatile organic compounds (including PAHs) in water by extraction in dichloromethane followed by GC-MS. Accredited matrices (PAHs): SW, PW, GW	In-house method based on USEPA 8270	L102B	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 30°C.

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 - underscore 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 individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution

Appendix E

Geotechnical Laboratory Analysis Results

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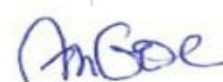
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Analytical Report Number : 25-011033

Project / Site name:	Bridge College, Openshaw	Samples received on:	06/03/2025
Your job number:	51121 01	Samples instructed on/ Analysis started on:	06/03/2025
Your order number:	PO 0217	Analysis completed by:	12/03/2025
Report Issue Number:	1	Report issued on:	12/03/2025
Samples Analysed:	8 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
air	- once the analysis is complete

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Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

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



Analytical Report Number: 25-011033

Project / Site name: Bridge College, Openshaw

Your Order No: PO 0217

Lab Sample Number				472692	472693	472694	472695	472696
Sample Reference				WS101	WS102	WS102	WS102	WS104
Sample Number				1D	1D	2D	3D	2D
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				2.00-2.45	3.00-3.45	3.90	4.70	4.90
Date Sampled				17/02/2025	18/02/2025	18/02/2025	18/02/2025	17/02/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	11	11	12	13	12
Total mass of sample received	kg	0.1	NONE	0.5	0.6	0.5	0.5	0.5

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.4	8.5	8.6	7.9	8.7
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	230	63	73	180	220
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	117	31.3	36.7	89.6	108
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	2.5	5.9	4.4	6.5	2.9
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	18	14	22	24	16
Magnesium (water soluble)	mg/kg	5	NONE	36	27	45	48	32

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

Analytical Report Number: 25-011033
 Project / Site name: Bridge College, Openshaw
 Your Order No: PO 0217

Lab Sample Number				472697	472698	472699
Sample Reference				WS105	WS105	WS108A
Sample Number				1D	2D	1D
Water Matrix				N/A	N/A	N/A
Depth (m)				1.90	3.50	1.55
Date Sampled				17/02/2025	17/02/2025	18/02/2025
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status			

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	14	12	18
Total mass of sample received	kg	0.1	NONE	0.6	0.5	0.5

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.3	8.3	9.4
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	260	270	130
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	132	137	62.5
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	5.4	5.1	9
Water Soluble Nitrate (2:1) as N	mg/kg	2	NONE	< 2.0	2.1	< 2.0
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	< 2.0	< 2.0	< 2.0

Heavy Metals / Metalloids

Magnesium (leachate equivalent)	mg/l	2.5	NONE	16	15	2.8
Magnesium (water soluble)	mg/kg	5	NONE	32	31	5.7

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



Analytical Report Number : 25-011033

Project / Site name: Bridge College, Openshaw

* 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 *
472692	WS101	1D	2.00-2.45	Brown clay and sand
472693	WS102	1D	3.00-3.45	Brown clay and sand
472694	WS102	2D	3.9	Brown clay with gravel
472695	WS102	3D	4.7	Brown clay
472696	WS104	2D	4.9	Brown clay and sand with gravel and vegetation
472697	WS105	1D	1.9	Brown clay and sand
472698	WS105	2D	3.5	Brown clay and sand
472699	WS108A	1D	1.55	Brown clay and sand with gravel

Analytical Report Number : 25-011033

Project / Site name: Bridge College, Openshaw

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	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 Wastewater & Polish Standard Method PN-82/C-04579.08, 2:1 extraction	L078-PL	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-PL	D	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

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



Sample Deviation Report



Analytical Report Number : 25-011033

Project / Site name: Bridge College, Openshaw

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
WS101	1D	S	472692	c	pH in soil (automated)	L099-PL	c
WS102	1D	S	472693	c	pH in soil (automated)	L099-PL	c
WS102	2D	S	472694	c	pH in soil (automated)	L099-PL	c
WS102	3D	S	472695	c	pH in soil (automated)	L099-PL	c
WS104	2D	S	472696	c	pH in soil (automated)	L099-PL	c
WS105	1D	S	472697	c	pH in soil (automated)	L099-PL	c
WS105	2D	S	472698	c	pH in soil (automated)	L099-PL	c
WS108A	1D	S	472699	c	pH in soil (automated)	L099-PL	c

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Civic Earth Limited
Carvers Warehouse
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Manchester
M1 2HG

10 March 2025

Report No : GEO/42010/01

Page 1 of 1

For the attention of Mr J Foster

Our ref **GEO / 42010**
Your ref **51121/01**
Order ref **PO-0218**

Date samples received 21/02/2025
Date written instructions received 21/02/2025
Date testing commenced 22/02/2025
Date of sample disposal 07/04/2025

Project **BRIDGE COLLEGE, OPENSHAW**

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

LABORATORY TEST REPORT

Item No	Test Quantity	Description
1	~	Liquid & Plastic Limits Summary
~	10	Water Content
~	10	Liquid & Plastic Limits

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

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

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

Yours faithfully
on behalf of **GEOLABS Limited**



S Burke
Senior Technician

SUMMARY OF LIQUID AND PLASTIC LIMIT TESTS

Location	Depth m	Sample Ref	Sample Type	Description	Water Content BS EN ISO 17892-1 : 2014 +A1:2022 %	Liquid Limit %	Plastic Limit %	Plasticity Index %	Percentage Passing 425µm %	Atterberg Classification	Test Type	Sample Condition
WS101	3.00-3.45	D2	D	Brown mottled orangish brown sandy gravelly silty CLAY. Sand is fine. Gravel is fine.	14.8	39	19	20	93	CI	2	3
WS101	4.00-4.45	D3	D	Dark brown slightly gravelly sandy silty CLAY. Sand is fine. Gravel is fine.	16.6	39	18	21	98	CI	2	1
WS101	5.00-5.45	D4	D	Dark brown slightly gravelly sandy silty CLAY. Sand is fine. Gravel is fine to medium.	17.7	39	18	21	98	CI	2	1
WS102	3.90	D2	D	Dark brown gravelly sandy silty CLAY. Sand is fine. Gravel is fine to medium.	16.1	43	20	23	94	CI	2	3
WS102	4.70	D3	D	Dark brown slightly gravelly sandy silty CLAY. Sand is fine. Gravel is fine to medium.	14.6	40	18	22	98	CI	2	1
WS104	2.20	D1	D	Dark brown slightly gravelly sandy silty CLAY. Sand is fine. Gravel is fine to medium.	16.8	40	18	22	98	CI	2	1
WS104	4.90	D2	D	Dark brown slightly gravelly sandy silty CLAY. Sand is fine. Gravel is fine to medium.	13.9	33	15	18	98	CL	2	1
WS105	1.90	D1	D	Brown mottled greyish brown slightly gravelly sandy silty CLAY. Sand is fine. Gravel is fine to medium.	17.9	42	20	22	98	CI	2	1
WS105	3.50	D2	D	Dark brown mottled grey gravelly sandy CLAY. Sand is fine. Gravel is fine to medium.	15.0	39	17	22	93	CI	2	3
WS108A	1.55	D1	D	Brown mottled black gravelly sandy CLAY. Sand is fine.	24.6	42	22	20	86	CI	2	3

Test Type: 2 - 4 point 80g / 30° fall cone method.

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

Checked and Approved by:

*S Burke*S Burke - Senior Technician
10/03/2025

Project Number:

GEO / 42010

Project Name:

BRIDGE COLLEGE, OPENSHAW
51121/01

GEOLABS®



		Client		Civic Earth Limited			TEST RESTRICTION			
		Project No.		42010		Date		27/02/2025		
		Project Name		BRIDGE COLLEGE, OPENSHAW						
The following tests have been scheduled on the above project and <u>CANNOT</u> be performed for the reason stated. If alternative instructions or samples are available for the restricted tests, please supply details.										
Laboratory ID	Location	Sample Ref.	Depth (m)		Type	Test(s) Scheduled			Reason for Restriction	Description
649677	WS101	D1	2.00	2.45	D	PI and NMC			Not enough material to carry all tets. Sample is 340g.	Stiff dark brown mottled grey slightly gravelly slightly sandy silty CLAY. Gravel is fine.
						or				
						Chemi				
649676	WS101	D3	4.00	4.45	D	PI and NMC			Not enough material to carry all tets. Sample is 320g.	Stiff dark greyish brown slightly sandy silty CLAY. Sand is fine.
						or				
						Chemi				
649679	WS102	D1	3.00	3.45	D	PI and NMC			Not enough material to carry all tets. Sample is 220g.	Stiff greyish brown mottled dark grey slightly sandy CLAY with rare fine gravel.
						or				
						Chemi				
649683	WS104	D1	2.20		D	PI and NMC			Not enough material to carry all tets. Sample is 380g.	Stiff dark brownish grey slightly sandy silty CLAY.
						or				
						Chemi				
Comments / remarks		Test restriction raised by 								

Appendix F

Contamination Assessment

Civic Earth Contamination Assessments

Civic Earth's rationale for the adoption of generic assessment criteria (GAC) in order to evaluate the risks posed to potential receptors from identified contamination at the site is outlined in the following sections. The potential receptors have been identified with reference to the Part 2A Contaminated Land Guidance and associated DEFRA guidance¹. The potential receptors identified include human health, controlled waters, ecology and buildings/ structures if there is the potential for them to be adversely affected by exposure to contamination. The results of the contamination assessments for the site are set out in this appendix.

1.1 Risks to Human Health from Long Term Chronic Risks

The laboratory chemical analysis results have been compared against the Land Quality Management (LQM) / CIEH (Chartered Institute of Environmental Health) Suitable for Use Levels (S4ULs). The S4ULs have been generated based on a sandy loam soil type² and the Soil Organic Matter (SOM) content stated in the assessment tables (1%, 2.5% or 6% SOM). S4ULs for metals are presented for 6% SOM using suitably cautious inputs as S4ULs are not sensitive to SOM.

Where recorded contaminant concentrations for arsenic, cadmium, chromium VI, benzene and benzo(a)pyrene exceed the S4ULs, the results have subsequently been compared to the applicable Category 4 Screening Level (C4SL) published by DEFRA³ to further assess risks. The C4SL for lead has been adopted as a screening level as no S4UL has been derived for lead.

Concentrations of cyanide above the laboratory reporting limit are assessed against a Soil Screening Value (SSV) developed by Atkins. Atkins have based this assessment criteria on acute exposure to a 0-6 year old child.

The Solubility Saturation Limit (SSL) and Vapour Saturation Limit (VSL) criteria are presented in the assessment tables and indicate the theoretical value at which non-aqueous phase liquid (NAPL) is expected to be present. If evidence of free product is observed during the site investigation, the SSL/VSL values are considered as part of the assessment. If no evidence of free product is noted during the site investigation, the SSL/VSL values are not considered within the assessment.

Where appropriate and the dataset is of an appropriate size, assessment of the selected GAC has been carried out against the 95th percentile of the sample mean, designated the US₉₅ value, which is considered to represent a reasonable worst case scenario. Where datasets are normally distributed, the one sample t-test has been used to calculate the US₉₅ value. In the case of non-parametric datasets, the Chebychev Theorem has been applied.

It is noted that the British Geological Society (BGS) has published background concentration levels for a number of organic and inorganic contaminants. In the event that the selected GAC is found to be exceeded, the risk may still be considered to be low and unlikely to meet the definition of contaminated land under Part 2A and potentially acceptable for use from a development perspective, if contaminant concentrations are below local background levels, assuming no other contributing factors.

A positive identification of asbestos fibres in a soil sample by the laboratory is considered sufficient to warrant additional assessment of risks.

1.2 Risks to Human Health from Dissolved Contaminants

Concentrations of organic contaminants detected above the laboratory reporting limit in shallow groundwater or perched waters have been assessed against groundwater vapour GAC (GAC_{gwvap}) developed by the Society of Brownfield Remediation Risk Assessment (SoBRA). The assessment criteria are generic and based on a reasonable worst case scenario assuming a sand soil type, SOM of 1% and groundwater depth of 0.65mbgl.

It is noted that the GACs are designed to be protective of dissolved phase contaminants and do not take account of the vapour risk from NAPL. Where there is evidence of mobile or residual NAPL, the vapour risks from NAPL will be

¹ DEFRA (2012) Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance.

² Environment Agency (2009) Updated Technical Background to CLEA Model. Science Report SC050021/SR3.

³ CL:AIRE (2014) Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination. SP1010.

considered separately.

1.3 Risks to Human Health from Ground Gases

Recorded flow rates and concentrations of carbon dioxide and methane are converted to Gas Screening Values (GSVs) in accordance with CIRIA C665⁴. Potential risks associated with ground gases are evaluated in accordance with CIRIA C665, BS 8485⁵ and NHBC⁶.

1.4 Risks to Controlled Waters

The laboratory chemical analysis results from eluted liquids (leachate analysis) and dissolved phase (groundwater analysis) have been compared against Environmental Quality Standards (EQS) and/or Drinking Water Values (DWVs) as an initial screen of water quality.

1.5 Risks to Plants and Vegetation

The risks to future plant growth i.e. phytotoxicity have been assessed for boron, copper, nickel and zinc where soil chemical analysis results have been compared against the limits for phytotoxic effect outlined in BS 3882⁷.

1.6 Risks to Buried Water Supply Pipes

An assessment of new buried water supply pipe requirements has been undertaken in general accordance with the UK Water Industry Research (UKWIR) guidance and assessment criteria.

⁴ CIRIA (2007) Assessing risks posed by hazardous ground gases to buildings. C665.

⁵ British Standard Institution (2015+A1:2019) Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings. BS 8485.

⁶ NHBC (2023) Hazardous ground gas – an essential guide for housebuilders. NF94.

⁷ British Standard Institution (2015) Specification for Topsoil. BS 3882.

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

Land Use Category:		Residential without Home Grown Produce						SOM:	1.0%
Stratum:		Made Ground						No. Samples	8
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	-	4.6	51	1	-	Yes	42.3	21.8
Beryllium	1.7	-	0.38	7.9	2	-	Yes	6.2	1.6
Boron	11,000	-	0.6	1.7	0	-	-	-	-
Cadmium	85	-	<0.2	0.5	0	-	-	-	-
Chromium (III)	910	-	16	27	0	-	-	-	-
Chromium (VI)	6	-	<1.8	<1.8	0	-	-	-	-
Copper	7,100	-	19	420	0	-	-	-	-
Lead	310	-	22	200	0	-	-	-	-
Mercury	56	-	<0.3	<0.3	0	-	-	-	-
Nickel	180	-	15	83	0	-	-	-	-
Selenium	430	-	<1	12	0	-	-	-	-
Vanadium	1,200	-	21	100	0	-	-	-	-
Zinc	40,000	-	43	330	0	-	-	-	-
Benzene	0.38	-	<0.01	<0.01	0	-	-	-	-
Toluene	880	[869]	<0.01	<0.01	0	-	-	-	-
Ethyl benzene	83	-	<0.01	<0.01	0	-	-	-	-
o-Xylene	88	-	<0.01	<0.01	0	-	-	-	-
m- & p-Xylene	79	-	<0.01	<0.01	0	-	-	-	-
Total Phenols	750	-	<1	<1	0	-	-	-	-
Total Cyanide	34	-	<1	<1	0	-	-	-	-
Aliphatic EC5-6	42	-	<0.01	<0.01	0	-	-	-	-
Aliphatic EC >6-8	100	-	<0.01	<0.01	0	-	-	-	-
Aliphatic EC >8-10	27	-	<0.01	<0.01	0	-	-	-	-
Aliphatic EC >10-12	130	[48]	<1	<1	0	-	-	-	-
Aliphatic EC >12-16	1,100	24	<2	13	0	-	-	-	-
Aliphatic EC >16-35	65,000	8.48	<8	308	0	-	-	-	-
Aromatic EC5-7	370	-	<0.01	<0.01	0	-	-	-	-
Aromatic EC >7-8	860	-	<0.01	<0.01	0	-	-	-	-
Aromatic EC >8-10	47	-	<0.02	<0.02	0	-	-	-	-
Aromatic EC >10-12	250	-	<1	<1	0	-	-	-	-
Aromatic EC >12-16	1,800	-	<2	18	0	-	-	-	-
Aromatic EC >16-21	1,900	-	<10	72	0	-	-	-	-
Aromatic EC >21-35	1,900	-	<10	500	0	-	-	-	-
Acenaphthene	3,000	57	<0.05	0.51	0	-	-	-	-
Acenaphthylene	2,900	86.1	<0.05	0.1	0	-	-	-	-
Anthracene	31,000	[1.17]	<0.05	1.2	0	-	-	-	-
Benzo(a)anthracene	11	-	0.07	3.7	0	-	-	-	-
Benzo(a)pyrene	3.2	-	<0.05	3.4	1	-	Yes	2.66	1.03
Benzo(b)fluoranthene	3.9	-	<0.05	4.1	1	-	Yes	3.19	1.17
Benzo(g,h,i)perylene	360	-	<0.05	2.1	0	-	-	-	-
Benzo(k)fluoranthene	110	-	<0.05	1.3	0	-	-	-	-
Chrysene	30	-	0.09	3.8	0	-	-	-	-
Dibenzo(a,h)anthracene	0.31	-	<0.05	0.39	1	-	Yes	0.31	0.10
Fluoranthene	1,500	-	0.15	6.8	0	-	-	-	-
Fluorene	2,800	30.9	<0.05	0.45	0	-	-	-	-
Indeno(1,2,3,cd)pyrene	45	-	<0.05	1.9	0	-	-	-	-
Naphthalene	2.3	-	<0.05	0.19	0	-	-	-	-
Phenanthrene	1,300	36	0.12	3.6	0	-	-	-	-
Pyrene	3,700	-	0.15	8.8	0	-	-	-	-
Asbestos in Soils	Number of Samples with Positive Asbestos ID				0	-	-	-	-

- Notes:**
- A. Copyright Land Quality Management Limited, reproduced with permission. Publication Number S4UL3892. All rights reserved.
- 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 C₆H₅OH.
- 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:		Devensian Glacial Till Deposits						No. Samples	3
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	-	7.4	8.6	0	-	-	-	-
Beryllium	1.7	-	1.1	1.3	0	-	-	-	-
Boron	11,000	-	0.7	1.1	0	-	-	-	-
Cadmium	85	-	<0.2	0.3	0	-	-	-	-
Chromium (III)	910	-	28	30	0	-	-	-	-
Chromium (VI)	6	-	<1.8	<1.8	0	-	-	-	-
Copper	7,100	-	25	25	0	-	-	-	-
Lead	310	-	11	12	0	-	-	-	-
Mercury	56	-	<0.3	<0.3	0	-	-	-	-
Nickel	180	-	31	36	0	-	-	-	-
Selenium	430	-	<1	1.9	0	-	-	-	-
Vanadium	1,200	-	28	32	0	-	-	-	-
Zinc	40,000	-	58	63	0	-	-	-	-
Benzene	0.38	-	<0.01	<0.01	0	-	-	-	-
Toluene	880	[869]	<0.01	<0.01	0	-	-	-	-
Ethyl benzene	83	-	<0.01	<0.01	0	-	-	-	-
o-Xylene	88	-	<0.01	<0.01	0	-	-	-	-
m- & p-Xylene	79	-	<0.01	<0.01	0	-	-	-	-
Total Phenols	750	-	<1	<1	0	-	-	-	-
Total Cyanide	34	-	<1	<1	0	-	-	-	-
Aliphatic EC5-6	42	-	<0.01	<0.01	0	-	-	-	-
Aliphatic EC >6-8	100	-	<0.01	<0.01	0	-	-	-	-
Aliphatic EC >8-10	27	-	<0.01	<0.01	0	-	-	-	-
Aliphatic EC >10-12	130	[48]	<1	<1	0	-	-	-	-
Aliphatic EC >12-16	1,100	24	<2	<2	0	-	-	-	-
Aliphatic EC >16-35	65,000	8.48	<16	<16	0	-	-	-	-
Aromatic EC5-7	370	-	<0.01	<0.01	0	-	-	-	-
Aromatic EC >7-8	860	-	<0.01	<0.01	0	-	-	-	-
Aromatic EC >8-10	47	-	-0.02	-0.02	0	-	-	-	-
Aromatic EC >10-12	250	-	<1	<1	0	-	-	-	-
Aromatic EC >12-16	1,800	-	<2	<2	0	-	-	-	-
Aromatic EC >16-21	1,900	-	<10	<10	0	-	-	-	-
Aromatic EC >21-35	1,900	-	<10	<10	0	-	-	-	-
Acenaphthene	3,000	57	<0.05	<0.05	0	-	-	-	-
Acenaphthylene	2,900	86.1	<0.05	<0.05	0	-	-	-	-
Anthracene	31,000	[1.17]	<0.05	<0.05	0	-	-	-	-
Benzo(a)anthracene	11	-	<0.05	0.07	0	-	-	-	-
Benzo(a)pyrene	3.2	-	<0.05	<0.05	0	-	-	-	-
Benzo(b)fluoranthene	3.9	-	<0.05	<0.05	0	-	-	-	-
Benzo(g,h,i)perylene	360	-	<0.05	<0.05	0	-	-	-	-
Benzo(k)fluoranthene	110	-	<0.05	<0.05	0	-	-	-	-
Chrysene	30	-	<0.05	0.08	0	-	-	-	-
Dibenzo(a,h)anthracene	0.31	-	<0.05	<0.05	0	-	-	-	-
Fluoranthene	1,500	-	<0.05	0.12	0	-	-	-	-
Fluorene	2,800	30.9	<0.05	<0.05	0	-	-	-	-
Indeno(1,2,3,cd)pyrene	45	-	<0.05	<0.05	0	-	-	-	-
Naphthalene	2.3	-	<0.05	<0.05	0	-	-	-	-
Phenanthrene	1,300	36	<0.05	0.16	0	-	-	-	-
Pyrene	3,700	-	<0.05	0.13	0	-	-	-	-
Asbestos in Soils	Number of Samples with Positive Asbestos ID				-	-	-	-	-

- Notes:**
- A. Copyright Land Quality Management Limited, reproduced with permission. Publication Number S4UL3892. All rights reserved.
- 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 C₆H₅OH.
- 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 D: Human Health Data Assessment - Potential Groundwater Vapour Risk to Human Health from Groundwater

Land Use Category:	Residential		No. Samples	1
Water Body / Stratum:	Perched Water/Glacial Till			
Determinand	GAC _{gwvap} (µg/l)	Minimum Recorded (µg/l)	No. Samples exceeding GAC _{gwvap}	Outliers Identified?
Benzene	210	<1.0	0	-
Toluene	230,000	<1.0	0	-
Ethylbenzene	10,000	<1.0	0	-
Total xylene	9,500	<1.0	0	-
Methyl tertiary butyl ether (MTBE)	83,000	<3.0	0	-
TPH aromatic EC5 to EC7	210,000	<1.0	0	-
TPH aromatic >EC7 to EC8	220,000	<1.0	0	-
TPH aromatic >EC8 to EC10	1,900	<1.0	0	-
TPH aromatic >EC10 to EC12	6,800	<10	0	-
TPH aromatic >EC12 to EC16	39,000	<10	0	-
TPH aliphatic EC5 to EC6	1,900	<1.0	0	-
TPH aliphatic >EC6 to EC8	1,500	<1.0	0	-
TPH aliphatic >EC8 to EC10	57	<1.0	0	-
TPH aliphatic >EC10 to EC12	37	<10	0	-
Acenaphthene	170,000	<0.01	0	-
Acenaphthylene	220,000	<0.01	0	-
Fluorene	210,000	<0.01	0	-
Naphthalene	220	0.27	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, acenaphthylene 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: Soil Data Assessment - Potential Risks to Plants and Vegetation

Stratum:	Made Ground					No. Samples	8
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	0.6	1.7	0	-	-	-
Copper	135	19	420	3	No	357.00	-
Nickel	75	15	83	1	Yes	66.90	36.40
Zinc	200	43	330	1	Yes	239.70	69.00

Stratum:	Glacial Till					No. Samples	3
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	0.7	1.1	0	No	-	-
Copper	135	25	25	0	No	-	-
Nickel	75	31	36	0	No	-	-
Zinc	200	58	63	0	No	-	-

Stratum:	Topsoil					No. Samples	1
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	1.9	1.9	0	No	-	-
Copper	135	26	26	0	No	-	-
Nickel	75	8.1	8.1	0	No	-	-
Zinc	200	88	88	0	No	-	-

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 F: 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	0.01	MCERTS (for some)	-	<0.01	N/A
Total BTEX & MTBE		0.1	Pass	0.01	MCERTS	<0.01	<0.01	N/A
Total SVOCs (excluding PAHs and those substances marked with *)		2	Pass	0.3	MCERTS (for some)	-	0.7	N/A
EC5-EC10 aliphatic and aromatic hydrocarbons		2	Pass	0.02	MCERTS	<0.02	<0.02	N/A
EC10-EC16 aliphatic and aromatic hydrocarbons		10	Pass	2	MCERTS	<2	18	WS103A, 0.4mbgl, 13 and 18 mg/kg
EC16-EC40 aliphatic and aromatic hydrocarbons		500	Pass	10	MCERTS	<10	500	N/A
Phenols* (from SVOC analysis)		2	Pass	0.2	UKAS 4041	-	<0.2	N/A
Cresols and chlorinated phenols* (from SVOC analysis)		2	Pass	0.3	MCERTS (for some)	-	<0.3	N/A
Ethers*	Only where identified	0.5	Pass	0.3	MCERTS	-	<0.3	N/A
Nitrobenzene*		0.5	Pass	0.3	MCERTS	-	<0.3	N/A
Ketones*		0.5	Pass	-	-	-	-	-
Aldehydes*		0.5	Pass	-	-	-	-	-
Amines		Fail	Pass	-	-	-	-	-
Corrosive	Conductivity, Redox & pH	Pass	See Note 1	N/A	MCERTS	8.20	pH 8.0 to 8.2	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.

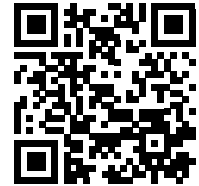
Appendix G

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:

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



6SCZB-B4UPK-G49KF

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

i This Waste Classification Report contains user defined substances. See [Appendix A](#) for details.

Report is invalid if pages are removed.

Job name

25-008581_HWOL

Description/Comments

i2 Analytical Report 25-008581

Project

51121/01

Site

Bridge College

Classified by

Name: **Kirsty Poore**
Date: **04 Mar 2025 12:55 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
Hazardous Waste Classification

Date
05 Oct 2023

Next 3 year Refresher due by Oct 2026

Purpose of classification

2 - Material Characterisation

Address of the waste

Openshaw, Manchester

Post Code M11 2GR

SIC for the process giving rise to the waste

41201 Construction of commercial buildings

Description of industry/producer giving rise to the waste

Extension of educational facilities. Site was a former Rolls Royce engine factory which was subsequently demolished and a capping layer placed prior to construction of the college.

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

Waste created during the excavation of soils during site investigation.

Description of the waste

Made Ground and natural Glacial Till

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS101-1-17022025-0.30	0.3	Non Hazardous		3
2	WS101-2-17022025-0.80	0.8	Non Hazardous		6
3	WS101-3-17022025-1.90	1.9	Non Hazardous		9
4	WS102-2-18022025-0.90	0.9	Non Hazardous		12
5	WS102-3-18022025-2.10	2.1	Non Hazardous		15
6	WS102-4-18022025-3.50	3.5	Non Hazardous		18
7	WS103A-1-18022025-0.40	0.4	Non Hazardous		21
8	WS104-2-17022025-1.40	1.4	Non Hazardous		27
9	WS105-2-17022025-0.40	0.4	Non Hazardous		30
10	WS105-3-17022025-1.40	1.4	Non Hazardous		36
11	WS107-1-17022025-0.20	0.2	Non Hazardous		39
12	WS108-1-17022025-0.40	0.4	Non Hazardous		42

Related documents

#	Name	Description
1	25-008581_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: 04 Mar 2025 12:55 GMT

Appendices

	Page
Appendix A: Classifier defined and non GB MCL determinands	48
Appendix B: Rationale for selection of metal species	52
Appendix C: Version	53

Classification of sample: WS101-1-17022025-0.30

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

Sample details

Sample name:	LoW Code:
WS101-1-17022025-0.30	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.3 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
11%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 11% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	pH				8.4 pH		8.4	pH	8.4 pH		
2	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								
3	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
	006-007-00-5										
4	monohydric phenols				<1 mg/kg		<1	mg/kg	<0.0001 %		<LOD
			P1186								
5	antimony { antimony trioxide }				2 mg/kg	1.197	2.131	mg/kg	0.000213 %	✓	
	051-005-00-X	215-175-0	1309-64-4								
6	arsenic { arsenic pentoxide }				6.9 mg/kg	1.534	9.42	mg/kg	0.000942 %	✓	
	033-004-00-6	215-116-9	1303-28-2								
7	barium { barium diboron tetraoxide }				130 mg/kg	1.623	187.836	mg/kg	0.0188 %	✓	
	056-005-00-3	237-222-4	13701-59-2								
8	beryllium { beryllium oxide }				0.72 mg/kg	2.775	1.778	mg/kg	0.000178 %	✓	
	004-003-00-8	215-133-1	1304-56-9								
9	boron { diboron trioxide }				0.8 mg/kg	3.22	2.293	mg/kg	0.000229 %	✓	
	005-008-00-8	215-125-8	1303-86-2								
10	cadmium { cadmium oxide }				0.2 mg/kg	1.142	0.203	mg/kg	0.0000203 %	✓	
	048-002-00-0	215-146-2	1306-19-0								
11	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086	mg/kg	<0.000409 %		<LOD
	024-017-00-8										
12	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				18 mg/kg	1.462	26.308	mg/kg	0.00263 %		
		215-160-9	1308-38-9								

#		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									
13		copper { dicopper oxide ; copper (I) oxide }			1	31	mg/kg	1.126	31.063	mg/kg	0.00311 %	✓	
		029-002-00-X	215-270-7	1317-39-1									
14		lead {  lead compounds with the exception of those specified elsewhere in this Annex (worst case) }				22	mg/kg		19.58	mg/kg	0.00196 %	✓	
		082-001-00-6											
15		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									
16		nickel { nickel sulfate }			21	mg/kg	2.637	49.28	mg/kg	0.00493 %	✓		
		028-009-00-5	232-104-9	7786-81-4									
17		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									
18		vanadium { divanadium pentaoxide ; vanadium pentoxide }			21	mg/kg	1.785	33.365	mg/kg	0.00334 %	✓		
		023-001-00-8	215-239-8	1314-62-1									
19		zinc { zinc sulphate }			60	mg/kg	2.469	131.86	mg/kg	0.0132 %	✓		
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
20		TPH (C6 to C40) petroleum group			<20	mg/kg		<20	mg/kg	<0.002 %		<LOD	
				TPH									
21		benzene			<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD	
		601-020-00-8	200-753-7	71-43-2									
22		toluene			<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD	
		601-021-00-3	203-625-9	108-88-3									
23		ethylbenzene			<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD	
		601-023-00-4	202-849-4	100-41-4									
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			0.39	mg/kg		0.347	mg/kg	0.0000347 %	✓		
			201-581-5	85-01-8									
30		anthracene			0.09	mg/kg		0.0801	mg/kg	0.00000801 %	✓		
			204-371-1	120-12-7									
31		fluoranthene			0.7	mg/kg		0.623	mg/kg	0.0000623 %	✓		
			205-912-4	206-44-0									
32		pyrene			0.69	mg/kg		0.614	mg/kg	0.0000614 %	✓		
			204-927-3	129-00-0									
33		benzo[a]anthracene			0.35	mg/kg		0.312	mg/kg	0.0000311 %	✓		
		601-033-00-9	200-280-6	56-55-3									
34		chrysene			0.39	mg/kg		0.347	mg/kg	0.0000347 %	✓		
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene			0.41	mg/kg		0.365	mg/kg	0.0000365 %	✓		
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene			0.22	mg/kg		0.196	mg/kg	0.0000196 %	✓		
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene			0.4	mg/kg		0.356	mg/kg	0.0000356 %	✓		
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene			0.19	mg/kg		0.169	mg/kg	0.0000169 %	✓		
			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			0.22	mg/kg		0.196	mg/kg	0.0000196 %	✓		
			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	205-881-7	191-07-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
42	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]		<0.013 mg/kg		<0.013 mg/kg	<0.0000013 %		<LOD
Total:								0.0529 %		

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

Classification of sample: WS101-2-17022025-0.80

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

Sample details

Sample name:	LoW Code:
WS101-2-17022025-0.80	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.8 m	
Moisture content:	
20%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 20% Wet Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1		pH				8.2 pH		8.2 pH	8.2 pH		
				PH							
2		asbestos 650-013-00-6				< %		< %	<		ND
			-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5							
3		cyanides {  salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
		006-007-00-5									
4		monohydric phenols				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
				P1186							
5		antimony { antimony trioxide }				2.6 mg/kg	1.197	2.49 mg/kg	0.000249 %	✓	
		051-005-00-X	215-175-0	1309-64-4							
6		arsenic { arsenic pentoxide }				12 mg/kg	1.534	14.725 mg/kg	0.00147 %	✓	
		033-004-00-6	215-116-9	1303-28-2							
7		barium { barium diboron tetraoxide }				110 mg/kg	1.623	142.866 mg/kg	0.0143 %	✓	
		056-005-00-3	237-222-4	13701-59-2							
8		beryllium { beryllium oxide }				1.4 mg/kg	2.775	3.108 mg/kg	0.000311 %	✓	
		004-003-00-8	215-133-1	1304-56-9							
9		boron { diboron trioxide }				1.7 mg/kg	3.22	4.379 mg/kg	0.000438 %	✓	
		005-008-00-8	215-125-8	1303-86-2							
10		cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
		048-002-00-0	215-146-2	1306-19-0							
11		chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
		024-017-00-8									
12		chromium in chromium(III) compounds {  chromium(III) oxide (worst case) }				21 mg/kg	1.462	30.693 mg/kg	0.00307 %		
			215-160-9	1308-38-9							

#		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								
13	 copper { dicopper oxide ; copper (I) oxide }				1	47 mg/kg	1.126	42.333 mg/kg	0.00423 %			
	029-002-00-X	215-270-7	1317-39-1									
14	 lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }				1	120 mg/kg		96 mg/kg	0.0096 %			
	082-001-00-6											
15	 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									
16	 nickel { nickel sulfate }					24 mg/kg	2.637	50.624 mg/kg	0.00506 %			
	028-009-00-5	232-104-9	7786-81-4									
17	 selenium { nickel selenate }					1.1 mg/kg	2.554	2.247 mg/kg	0.000225 %			
	028-031-00-5	239-125-2	15060-62-5									
18	 vanadium { divanadium pentaoxide ; vanadium pentoxide }					35 mg/kg	1.785	49.985 mg/kg	0.005 %			
	023-001-00-8	215-239-8	1314-62-1									
19	 zinc { zinc sulphate }					52 mg/kg	2.469	102.723 mg/kg	0.0103 %			
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
20	 TPH (C6 to C40) petroleum group					<20 mg/kg		<20 mg/kg	<0.002 %		<LOD	
			TPH									
21	benzene					<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
	601-020-00-8	200-753-7	71-43-2									
22	toluene					<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
	601-021-00-3	203-625-9	108-88-3									
23	 ethylbenzene					<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
	601-023-00-4	202-849-4	100-41-4									
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					0.16 mg/kg		0.128 mg/kg	0.0000128 %			
		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					0.15 mg/kg		0.12 mg/kg	0.000012 %			
		205-912-4	206-44-0									
32	 pyrene					0.15 mg/kg		0.12 mg/kg	0.000012 %			
		204-927-3	129-00-0									
33	benzo[a]anthracene					0.07 mg/kg		0.056 mg/kg	0.0000056 %			
	601-033-00-9	200-280-6	56-55-3									
34	chrysene					0.09 mg/kg		0.072 mg/kg	0.0000072 %			
	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	205-881-7	191-07-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
42	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]		<0.013 mg/kg		<0.013 mg/kg	<0.0000013 %		<LOD
Total:								0.0571 %		

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

Classification of sample: WS101-3-17022025-1.90

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

Sample details

Sample name:	LoW Code:
WS101-3-17022025-1.90	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
1.9 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
15%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 15% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH				8.5 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 }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	monohydric phenols				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
			P1186							
4	antimony { antimony trioxide }				2.6 mg/kg	1.197	2.646 mg/kg	0.000265 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
5	arsenic { arsenic pentoxide }				8.6 mg/kg	1.534	11.213 mg/kg	0.00112 %	✓	
	033-004-00-6	215-116-9	1303-28-2							
6	barium { barium diboron tetraoxide }				440 mg/kg	1.623	607.179 mg/kg	0.0607 %	✓	
	056-005-00-3	237-222-4	13701-59-2							
7	beryllium { beryllium oxide }				1.3 mg/kg	2.775	3.067 mg/kg	0.000307 %	✓	
	004-003-00-8	215-133-1	1304-56-9							
8	boron { diboron trioxide }				0.7 mg/kg	3.22	1.916 mg/kg	0.000192 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
9	cadmium { cadmium oxide }				0.3 mg/kg	1.142	0.291 mg/kg	0.0000291 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
10	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
	024-017-00-8									
11	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				30 mg/kg	1.462	43.847 mg/kg	0.00438 %		
		215-160-9	1308-38-9							
12	copper { dicopper oxide; copper (I) oxide }				25 mg/kg	1.126	23.925 mg/kg	0.00239 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	12 mg/kg		10.2 mg/kg	0.00102 %	✓	
	082-001-00-6									

#	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								
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 }				36 mg/kg	2.637	80.683 mg/kg	0.00807 %		✓	
	028-009-00-5	232-104-9	7786-81-4								
16	selenium { nickel selenate }				1.9 mg/kg	2.554	4.124 mg/kg	0.000412 %		✓	
	028-031-00-5	239-125-2	15060-62-5								
17	vanadium { divanadium pentaoxide; vanadium pentoxide }				32 mg/kg	1.785	48.557 mg/kg	0.00486 %		✓	
	023-001-00-8	215-239-8	1314-62-1								
18	zinc { zinc sulphate }				58 mg/kg	2.469	121.736 mg/kg	0.0122 %		✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
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	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								
24	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
25	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-917-1	208-96-8								
26	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-469-6	83-32-9								
27	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-695-5	86-73-7								
28	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-581-5	85-01-8								
29	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-371-1	120-12-7								
30	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-912-4	206-44-0								
31	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-927-3	129-00-0								
32	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-033-00-9	200-280-6	56-55-3								
33	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
34	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-034-00-4	205-911-9	205-99-2								
35	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-036-00-5	205-916-6	207-08-9								
36	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								
37	indeno[123-cd]pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-893-2	193-39-5								
38	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								
39	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-883-8	191-24-2								
40	coronene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-881-7	191-07-1								
41	o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.013 mg/kg		<0.013 mg/kg	<0.0000013 %			<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [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							
		203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]							
Total:								0.0988 %		

Key

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

Classification of sample: WS102-2-18022025-0.90

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

Sample details

Sample name:	LoW Code:
WS102-2-18022025-0.90	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.9 m	
Moisture content:	
19%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 19% Wet Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1		pH				8 pH		8 pH	8pH		
				PH							
2		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							
3		cyanides {  salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
		006-007-00-5									
4		monohydric phenols				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
				P1186							
5		antimony { antimony trioxide }				9.1 mg/kg	1.197	8.824 mg/kg	0.000882 %	✓	
		051-005-00-X	215-175-0	1309-64-4							
6		arsenic { arsenic pentoxide }				51 mg/kg	1.534	63.364 mg/kg	0.00634 %	✓	
		033-004-00-6	215-116-9	1303-28-2							
7		barium { barium diboron tetraoxide }				530 mg/kg	1.623	696.957 mg/kg	0.0697 %	✓	
		056-005-00-3	237-222-4	13701-59-2							
8		beryllium { beryllium oxide }				7.9 mg/kg	2.775	17.759 mg/kg	0.00178 %	✓	
		004-003-00-8	215-133-1	1304-56-9							
9		boron { diboron trioxide }				0.9 mg/kg	3.22	2.347 mg/kg	0.000235 %	✓	
		005-008-00-8	215-125-8	1303-86-2							
10		cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
		048-002-00-0	215-146-2	1306-19-0							
11		chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
		024-017-00-8									
12		chromium in chromium(III) compounds {  chromium(III) oxide (worst case) }				26 mg/kg	1.462	38 mg/kg	0.0038 %		
			215-160-9	1308-38-9							

#		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								
13	 copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	1	240 mg/kg	1.126	218.873 mg/kg	0.0219 %	✓		
14	 lead {  lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6				65 mg/kg		52.65 mg/kg	0.00527 %	✓		
15	 mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	1	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD	
16	 nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		83 mg/kg	2.637	177.264 mg/kg	0.0177 %	✓		
17	 selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5	1	2.9 mg/kg	2.554	5.999 mg/kg	0.0006 %	✓		
18	 vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		100 mg/kg	1.785	144.6 mg/kg	0.0145 %	✓		
19	 zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	1	61 mg/kg	2.469	122.008 mg/kg	0.0122 %	✓		
20	 TPH (C6 to C40) petroleum group			TPH		<20 mg/kg		<20 mg/kg	<0.002 %		<LOD	
21	benzene	601-020-00-8	200-753-7	71-43-2	1	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
22	toluene	601-021-00-3	203-625-9	108-88-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
23	 ethylbenzene	601-023-00-4	202-849-4	100-41-4	1	<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	1	0.06 mg/kg		0.0486 mg/kg	0.00000486 %	✓		
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	<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	1	0.12 mg/kg		0.0972 mg/kg	0.00000972 %	✓		
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	1	0.21 mg/kg		0.17 mg/kg	0.000017 %	✓		
32	 pyrene		204-927-3	129-00-0		0.21 mg/kg		0.17 mg/kg	0.000017 %	✓		
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	1	0.13 mg/kg		0.105 mg/kg	0.0000105 %	✓		
34	chrysene	601-048-00-0	205-923-4	218-01-9		0.12 mg/kg		0.0972 mg/kg	0.00000972 %	✓		
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	1	0.18 mg/kg		0.146 mg/kg	0.0000146 %	✓		
36	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.06 mg/kg		0.0486 mg/kg	0.00000486 %	✓		
37	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	1	0.12 mg/kg		0.0972 mg/kg	0.00000972 %	✓		
38	 indeno[123-cd]pyrene		205-893-2	193-39-5		0.08 mg/kg		0.0648 mg/kg	0.00000648 %	✓		
39	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	1	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD	
40	 benzo[ghi]perylene		205-883-8	191-24-2		0.1 mg/kg		0.081 mg/kg	0.0000081 %	✓		

#	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	205-881-7	191-07-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
42	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]		<0.013 mg/kg		<0.013 mg/kg	<0.0000013 %		<LOD
Total:								0.158 %		

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

Classification of sample: WS102-3-18022025-2.10

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

Sample details

Sample name:	LoW Code:
WS102-3-18022025-2.10	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
2.1 m	
Moisture content:	
27%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 27% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	pH				8.6 pH		8.6	pH	8.6 pH		
2	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								
3	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
	006-007-00-5										
4	monohydric phenols				<1 mg/kg		<1	mg/kg	<0.0001 %		<LOD
			P1186								
5	antimony { antimony trioxide }				2.4 mg/kg	1.197	2.097	mg/kg	0.00021 %	✓	
	051-005-00-X	215-175-0	1309-64-4								
6	arsenic { arsenic pentoxide }				11 mg/kg	1.534	12.317	mg/kg	0.00123 %	✓	
	033-004-00-6	215-116-9	1303-28-2								
7	barium { barium diboron tetraoxide }				250 mg/kg	1.623	296.284	mg/kg	0.0296 %	✓	
	056-005-00-3	237-222-4	13701-59-2								
8	beryllium { beryllium oxide }				3 mg/kg	2.775	6.078	mg/kg	0.000608 %	✓	
	004-003-00-8	215-133-1	1304-56-9								
9	boron { diboron trioxide }				1.7 mg/kg	3.22	3.996	mg/kg	0.0004 %	✓	
	005-008-00-8	215-125-8	1303-86-2								
10	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228	mg/kg	<0.0000228 %		<LOD
	048-002-00-0	215-146-2	1306-19-0								
11	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086	mg/kg	<0.000409 %		<LOD
	024-017-00-8										
12	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				24 mg/kg	1.462	35.077	mg/kg	0.00351 %		
		215-160-9	1308-38-9								

#		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								
13	 copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	1	180 mg/kg	1.126	147.942 mg/kg	0.0148 %	✓		
14	 lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6				25 mg/kg		18.25 mg/kg	0.00183 %	✓		
15	 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	
16	 nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		35 mg/kg	2.637	67.367 mg/kg	0.00674 %	✓		
17	 selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5	1	12 mg/kg	2.554	22.372 mg/kg	0.00224 %	✓		
18	 vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		31 mg/kg	1.785	40.399 mg/kg	0.00404 %	✓		
19	 zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		43 mg/kg	2.469	77.511 mg/kg	0.00775 %	✓		
20	 TPH (C6 to C40) petroleum group			TPH		12 mg/kg		8.76 mg/kg	0.000876 %	✓		
21	benzene	601-020-00-8	200-753-7	71-43-2	1	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
22	toluene	601-021-00-3	203-625-9	108-88-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
23	 ethylbenzene	601-023-00-4	202-849-4	100-41-4		<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	1	<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	1	0.21 mg/kg		0.153 mg/kg	0.0000153 %	✓		
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		0.26 mg/kg		0.19 mg/kg	0.000019 %	✓		
32	 pyrene		204-927-3	129-00-0		0.25 mg/kg		0.183 mg/kg	0.0000183 %	✓		
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	1	0.13 mg/kg		0.0949 mg/kg	0.00000949 %	✓		
34	chrysene	601-048-00-0	205-923-4	218-01-9		0.15 mg/kg		0.109 mg/kg	0.0000109 %	✓		
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.18 mg/kg		0.131 mg/kg	0.0000131 %	✓		
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	1	0.12 mg/kg		0.0876 mg/kg	0.00000876 %	✓		
38	 indeno[123-cd]pyrene		205-893-2	193-39-5		0.08 mg/kg		0.0584 mg/kg	0.00000584 %	✓		
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		0.09 mg/kg		0.0657 mg/kg	0.00000657 %	✓		

#	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	205-881-7	191-07-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
42	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]		<0.013 mg/kg		<0.013 mg/kg	<0.0000013 %		<LOD
Total:								0.0748 %		

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 for cumulative determinand results below the threshold of: 860 mg/kg (0.086%) because: No liquid phase noted during site investigation.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00087%)

Classification of sample: WS102-4-18022025-3.50

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

Sample details

Sample name:	LoW Code:
WS102-4-18022025-3.50	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
3.5 m	
Moisture content:	
16%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	● pH		PH		8.9 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 }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	● monohydric phenols		P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
4	● antimony { antimony trioxide }				2.3 mg/kg	1.197	2.313 mg/kg	0.000231 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
5	● arsenic { arsenic pentoxide }				7.4 mg/kg	1.534	9.535 mg/kg	0.000953 %	✓	
	033-004-00-6	215-116-9	1303-28-2							
6	● barium { barium diboron tetraoxide }				130 mg/kg	1.623	177.283 mg/kg	0.0177 %	✓	
	056-005-00-3	237-222-4	13701-59-2							
7	● beryllium { beryllium oxide }				1.1 mg/kg	2.775	2.564 mg/kg	0.000256 %	✓	
	004-003-00-8	215-133-1	1304-56-9							
8	● boron { diboron trioxide }				1.1 mg/kg	3.22	2.975 mg/kg	0.000298 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
9	● cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
10	● chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
	024-017-00-8									
11	● chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				28 mg/kg	1.462	40.924 mg/kg	0.00409 %		
		215-160-9	1308-38-9							
12	● copper { dicopper oxide; copper (I) oxide }				25 mg/kg	1.126	23.644 mg/kg	0.00236 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
13	● lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	11 mg/kg		9.24 mg/kg	0.000924 %	✓	
	082-001-00-6									

#	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								
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 }				31 mg/kg	2.637	68.659 mg/kg	0.00687 %		✓	
	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 }				28 mg/kg	1.785	41.988 mg/kg	0.0042 %		✓	
	023-001-00-8	215-239-8	1314-62-1								
18	zinc { zinc sulphate }				61 mg/kg	2.469	126.527 mg/kg	0.0127 %		✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
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	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								
24	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
25	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-917-1	208-96-8								
26	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-469-6	83-32-9								
27	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-695-5	86-73-7								
28	phenanthrene				0.16 mg/kg		0.134 mg/kg	0.0000134 %		✓	
		201-581-5	85-01-8								
29	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-371-1	120-12-7								
30	fluoranthene				0.12 mg/kg		0.101 mg/kg	0.0000101 %		✓	
		205-912-4	206-44-0								
31	pyrene				0.13 mg/kg		0.109 mg/kg	0.0000109 %		✓	
		204-927-3	129-00-0								
32	benzo[a]anthracene				0.07 mg/kg		0.0588 mg/kg	0.00000588 %		✓	
	601-033-00-9	200-280-6	56-55-3								
33	chrysene				0.08 mg/kg		0.0672 mg/kg	0.00000672 %		✓	
	601-048-00-0	205-923-4	218-01-9								
34	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-034-00-4	205-911-9	205-99-2								
35	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-036-00-5	205-916-6	207-08-9								
36	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								
37	indeno[123-cd]pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-893-2	193-39-5								
38	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								
39	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-883-8	191-24-2								
40	coronene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-881-7	191-07-1								
41	o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.013 mg/kg		<0.013 mg/kg	<0.0000013 %			<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [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							
		203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]							
Total:								0.0537 %		

Key

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

Classification of sample: WS103A-1-18022025-0.40

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

Sample details

Sample name:	LoW Code:
WS103A-1-18022025-0.40	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.4 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
5.9%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 5.9% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	pH				11.1 pH		11.1	pH	11.1 pH		
2	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								
3	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
	006-007-00-5										
4	monohydric phenols				<1 mg/kg		<1	mg/kg	<0.0001 %		<LOD
			P1186								
5	antimony { antimony trioxide }				1.5 mg/kg	1.197	1.69	mg/kg	0.000169 %	✓	
	051-005-00-X	215-175-0	1309-64-4								
6	arsenic { arsenic pentoxide }				4.6 mg/kg	1.534	6.64	mg/kg	0.000664 %	✓	
	033-004-00-6	215-116-9	1303-28-2								
7	barium { barium diboron tetraoxide }				150 mg/kg	1.623	229.153	mg/kg	0.0229 %	✓	
	056-005-00-3	237-222-4	13701-59-2								
8	beryllium { beryllium oxide }				0.38 mg/kg	2.775	0.992	mg/kg	0.0000992 %	✓	
	004-003-00-8	215-133-1	1304-56-9								
9	boron { diboron trioxide }				1.3 mg/kg	3.22	3.939	mg/kg	0.000394 %	✓	
	005-008-00-8	215-125-8	1303-86-2								
10	cadmium { cadmium oxide }				0.5 mg/kg	1.142	0.537	mg/kg	0.0000537 %	✓	
	048-002-00-0	215-146-2	1306-19-0								
11	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086	mg/kg	<0.000409 %		<LOD
	024-017-00-8										
12	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				21 mg/kg	1.462	30.693	mg/kg	0.00307 %		
		215-160-9	1308-38-9								

#		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									
13	 copper { dicopper oxide ; copper (I) oxide }				1	19	mg/kg	1.126	20.13	mg/kg	0.00201 %	✓	
	029-002-00-X	215-270-7	1317-39-1										
14	 lead {  lead compounds with the exception of those specified elsewhere in this Annex (worst case) }					26	mg/kg		24.466	mg/kg	0.00245 %	✓	
	082-001-00-6												
15	 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										
16	 nickel { nickel sulfate }				16	mg/kg	2.637	39.698	mg/kg	0.00397 %	✓		
	028-009-00-5	232-104-9	7786-81-4										
17	 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										
18	 vanadium { divanadium pentaoxide ; vanadium pentoxide }				32	mg/kg	1.785	53.755	mg/kg	0.00538 %	✓		
	023-001-00-8	215-239-8	1314-62-1										
19	 zinc { zinc sulphate }				50	mg/kg	2.469	116.18	mg/kg	0.0116 %	✓		
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]										
20	 TPH (C6 to C40) petroleum group				910	mg/kg		856.31	mg/kg	0.0856 %	✓		
			TPH										
21	benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD	
	601-020-00-8	200-753-7	71-43-2										
22	toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD	
	601-021-00-3	203-625-9	108-88-3										
23	 ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD	
	601-023-00-4	202-849-4	100-41-4										
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				0.19	mg/kg		0.179	mg/kg	0.0000179 %	✓		
	601-052-00-2	202-049-5	91-20-3										
26	 acenaphthylene				0.1	mg/kg		0.0941	mg/kg	0.00000941 %	✓		
		205-917-1	208-96-8										
27	 acenaphthene				0.51	mg/kg		0.48	mg/kg	0.000048 %	✓		
		201-469-6	83-32-9										
28	 fluorene				0.45	mg/kg		0.423	mg/kg	0.0000423 %	✓		
		201-695-5	86-73-7										
29	 phenanthrene				3.6	mg/kg		3.388	mg/kg	0.000339 %	✓		
		201-581-5	85-01-8										
30	 anthracene				1.2	mg/kg		1.129	mg/kg	0.000113 %	✓		
		204-371-1	120-12-7										
31	 fluoranthene				6.8	mg/kg		6.399	mg/kg	0.00064 %	✓		
		205-912-4	206-44-0										
32	 pyrene				8.8	mg/kg		8.281	mg/kg	0.000828 %	✓		
		204-927-3	129-00-0										
33	benzo[a]anthracene				3.7	mg/kg		3.482	mg/kg	0.000348 %	✓		
	601-033-00-9	200-280-6	56-55-3										
34	chrysene				3.8	mg/kg		3.576	mg/kg	0.000358 %	✓		
	601-048-00-0	205-923-4	218-01-9										
35	benzo[b]fluoranthene				4.1	mg/kg		3.858	mg/kg	0.000386 %	✓		
	601-034-00-4	205-911-9	205-99-2										
36	benzo[k]fluoranthene				1.3	mg/kg		1.223	mg/kg	0.000122 %	✓		
	601-036-00-5	205-916-6	207-08-9										
37	benzo[a]pyrene; benzo[def]chrysene				3.4	mg/kg		3.199	mg/kg	0.00032 %	✓		
	601-032-00-3	200-028-5	50-32-8										
38	 indeno[123-cd]pyrene				1.9	mg/kg		1.788	mg/kg	0.000179 %	✓		
		205-893-2	193-39-5										
39	dibenz[a,h]anthracene				0.39	mg/kg		0.367	mg/kg	0.0000367 %	✓		
	601-041-00-2	200-181-8	53-70-3										
40	 benzo[ghi]perylene				2.1	mg/kg		1.976	mg/kg	0.000198 %	✓		
		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	205-881-7	191-07-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
42	aniline	612-008-00-7	200-539-3	62-53-3	0.7 mg/kg		0.659 mg/kg	0.0000659 %	✓	
43	anthraquinone	606-151-00-4	201-549-0	84-65-1	0.3 mg/kg		0.282 mg/kg	0.0000282 %	✓	
44	azobenzene	611-001-00-6	203-102-5	103-33-3	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
45	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
46	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
47	bis(2-chloroethoxy)methane		203-920-2	111-91-1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
48	2,2'-oxybis[2-chloropropane]		254-554-5	39638-32-9	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
49	4-bromophenylphenylether		202-952-4	101-55-3	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
50	carbazole		201-696-0	86-74-8	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
51	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
52	2-chloronaphthalene		202-079-9	91-58-7	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
53	dibenzofuran		205-071-3	132-64-9	0.2 mg/kg		0.188 mg/kg	0.0000188 %	✓	
54	2,4-dichlorophenol	604-011-00-7	204-429-6	120-83-2	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
55	diethyl phthalate		201-550-6	84-66-2	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
56	dibutyl phthalate; DBP	607-318-00-4	201-557-4	84-74-2	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
57	dimethyl phthalate		205-011-6	131-11-3	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
58	3,4-xyleneol; [1] 2,5-xyleneol; [2] 2,4-xyleneol; [3] 2,3-xyleneol; [4] 2,6-xyleneol; [5] xyleneol; [6] 2,4(or 2,5)-xyleneol [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
59	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
60	hexachlorobenzene	602-065-00-6	204-273-9	118-74-1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
61	hexachloroethane		200-666-4	67-72-1	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
62	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
63	2-methyl naphthalene		202-078-3	91-57-6	0.2 mg/kg		0.188 mg/kg	0.0000188 %	✓	
64	nitrobenzene	609-003-00-7	202-716-0	98-95-3	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
65	2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]	604-008-00-0	202-433-2 [1] 203-402-6 [2]	95-57-8 [1] 106-48-9 [2]	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
		203-582-6 [3] 246-691-4 [4]	108-43-0 [3] 25167-80-0 [4]							
66	2-nitrophenol	201-857-5	88-75-5		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
67	4-chloroaniline	203-401-0	106-47-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
68	4-chlorophenylphenylether	230-281-7	7005-72-3		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
69	phenol	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
70	o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]	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
71	2,4,5-trichlorophenol	202-467-8	95-95-4		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
72	2,4,6-trichlorophenol	201-795-9	88-06-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
73	2,6-dinitrotoluene	210-106-0	606-20-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
74	bromodichloromethane	200-856-7	75-27-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
75	bromobenzene	203-623-8	108-86-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
76	bromomethane; methylbromide	200-813-2	74-83-9		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
77	1,2,4-trichlorobenzene	204-428-0	120-82-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
78	mesitylene; 1,3,5-trimethylbenzene	203-604-4	108-67-8		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
79	n-butylbenzene	203-209-7	104-51-8		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
80	1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
81	chlorobenzene	203-628-5	108-90-7		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
82	chloroethane	200-830-5	75-00-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
83	chloromethane; methyl chloride	200-817-4	74-87-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
84	1,2-dibromoethane	203-444-5	106-93-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
85	dibromochloromethane	204-704-0	124-48-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
86	1,2-dibromo-3-chloropropane	202-479-3	96-12-8		<0.008 mg/kg		<0.008 mg/kg	<0.0000008 %		<LOD
87	dibromomethane	200-824-2	74-95-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
88	1,1-dichloroethane	200-863-5	75-34-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
89	1,1-dichloroethylene; vinylidene chloride	200-864-0	75-35-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
90	1,2-dichloroethane; ethylene dichloride	203-458-1	107-06-2		<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
91	2,2-dichloropropane	209-832-0	594-20-7		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
92	1,1-dichloropropene	209-253-3	563-58-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<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							
93	1,3-dichloropropane	205-531-3	142-28-9		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
94	1,1,2-trichlorotrifluoroethane	200-936-1	76-13-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
95	hexachlorobutadiene	201-765-5	87-68-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
96	cumene	601-024-00-X	202-704-5	98-82-8	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
97	1-isopropyl-4-methylbenzene; p-cymene	601-094-00-1	202-796-7	99-87-6	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
98	1,3-dichlorobenzene	602-067-00-7	208-792-1	541-73-1	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
99	Propylbenzene	203-132-9	103-65-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
100	1,2-dichlorobenzene; o-dichlorobenzene	602-034-00-7	202-425-9	95-50-1	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
101	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
102	1,2-dichloropropane; propylene dichloride	602-020-00-0	201-152-2	78-87-5	<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
103	sec-butylbenzene	205-227-0	135-98-8		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
104	styrene	601-026-00-0	202-851-5	100-42-5	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
105	tert-butylbenzene	202-632-4	98-06-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
106	bromoform; tribromomethane	602-007-00-X	200-854-6	75-25-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
107	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
108	1,2,3-trichlorobenzene	201-757-1	87-61-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
109	trichloroethylene; trichloroethene	602-027-00-9	201-167-4	79-01-6	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
110	trichlorofluoromethane	200-892-3	75-69-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
111	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
112	chloroform; trichloromethane	602-006-00-4	200-663-8	67-66-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
113	trans-1,3-dichloropropene	431-460-4	10061-02-6		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
114	tetrachloroethylene	602-028-00-4	204-825-9	127-18-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
115	carbon tetrachloride; tetrachloromethane	602-008-00-5	200-262-8	56-23-5	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
116	1,1,1,2-tetrachloroethane	211-135-1	630-20-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
117	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
118	vinyl chloride; chloroethylene	602-023-00-7	200-831-0	75-01-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
119	1,1,2-trichloroethane	602-014-00-8	201-166-9	79-00-5	<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
120	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]	<0.013 mg/kg		<0.013 mg/kg	<0.0000013 %		<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									
121		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]	108-39-4 [1]										
		202-423-8 [2]	95-48-7 [2]										
		203-398-6 [3]	106-44-5 [3]										
		215-293-2 [4]	1319-77-3 [4]										
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]	540-59-0 [1]										
		205-859-7 [2]	156-59-2 [2]										
		205-860-2 [3]	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]	95-49-8 [1]										
		203-580-5 [2]	108-41-8 [2]										
		203-397-0 [3]	106-43-4 [3]										
		246-698-2 [4]	25168-05-2 [4]										
Total:											0.144 %		

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 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 for cumulative determinand results below the threshold of: 860 mg/kg (0.086%) because: No liquid phase noted during site investigation.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0856%)

Classification of sample: WS104-2-17022025-1.40

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

Sample details

Sample name:	LoW Code:
WS104-2-17022025-1.40	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
1.4 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
17%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	pH				8.3 pH		8.3	pH	8.3 pH		
2	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								
3	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
	006-007-00-5										
4	monohydric phenols				<1 mg/kg		<1	mg/kg	<0.0001 %		<LOD
			P1186								
5	antimony { antimony trioxide }				7.1 mg/kg	1.197	7.055	mg/kg	0.000705 %	✓	
	051-005-00-X	215-175-0	1309-64-4								
6	arsenic { arsenic pentoxide }				26 mg/kg	1.534	33.101	mg/kg	0.00331 %	✓	
	033-004-00-6	215-116-9	1303-28-2								
7	barium { barium diboron tetraoxide }				180 mg/kg	1.623	242.547	mg/kg	0.0243 %	✓	
	056-005-00-3	237-222-4	13701-59-2								
8	beryllium { beryllium oxide }				1.6 mg/kg	2.775	3.686	mg/kg	0.000369 %	✓	
	004-003-00-8	215-133-1	1304-56-9								
9	boron { diboron trioxide }				1.2 mg/kg	3.22	3.207	mg/kg	0.000321 %	✓	
	005-008-00-8	215-125-8	1303-86-2								
10	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228	mg/kg	<0.0000228 %		<LOD
	048-002-00-0	215-146-2	1306-19-0								
11	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086	mg/kg	<0.000409 %		<LOD
	024-017-00-8										
12	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				27 mg/kg	1.462	39.462	mg/kg	0.00395 %		
		215-160-9	1308-38-9								

#	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							
13	copper { dicopper oxide; copper (I) oxide }			1	420 mg/kg	1.126	392.485 mg/kg	0.0392 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
14	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }				200 mg/kg		166 mg/kg	0.0166 %	✓	
	082-001-00-6									
15	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							
16	nickel { nickel sulfate }				37 mg/kg	2.637	80.973 mg/kg	0.0081 %	✓	
	028-009-00-5	232-104-9	7786-81-4							
17	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							
18	vanadium { divanadium pentaoxide; vanadium pentoxide }				50 mg/kg	1.785	74.085 mg/kg	0.00741 %	✓	
	023-001-00-8	215-239-8	1314-62-1							
19	zinc { zinc sulphate }				330 mg/kg	2.469	676.34 mg/kg	0.0676 %	✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]							
20	TPH (C6 to C40) petroleum group		TPH		<20 mg/kg		<20 mg/kg	<0.002 %		<LOD
21	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
22	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
23	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
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				0.08 mg/kg		0.0664 mg/kg	0.00000664 %	✓	
		205-917-1	208-96-8							
27	acenaphthene				0.17 mg/kg		0.141 mg/kg	0.0000141 %	✓	
		201-469-6	83-32-9							
28	fluorene				0.12 mg/kg		0.0996 mg/kg	0.00000996 %	✓	
		201-695-5	86-73-7							
29	phenanthrene				1.4 mg/kg		1.162 mg/kg	0.000116 %	✓	
		201-581-5	85-01-8							
30	anthracene				0.28 mg/kg		0.232 mg/kg	0.0000232 %	✓	
		204-371-1	120-12-7							
31	fluoranthene				2.3 mg/kg		1.909 mg/kg	0.000191 %	✓	
		205-912-4	206-44-0							
32	pyrene				2.4 mg/kg		1.992 mg/kg	0.000199 %	✓	
		204-927-3	129-00-0							
33	benzo[a]anthracene				1.2 mg/kg		0.996 mg/kg	0.0000996 %	✓	
	601-033-00-9	200-280-6	56-55-3							
34	chrysene				1.3 mg/kg		1.079 mg/kg	0.000108 %	✓	
	601-048-00-0	205-923-4	218-01-9							
35	benzo[b]fluoranthene				1.5 mg/kg		1.245 mg/kg	0.000125 %	✓	
	601-034-00-4	205-911-9	205-99-2							
36	benzo[k]fluoranthene				0.47 mg/kg		0.39 mg/kg	0.000039 %	✓	
	601-036-00-5	205-916-6	207-08-9							
37	benzo[a]pyrene; benzo[def]chrysene				1.3 mg/kg		1.079 mg/kg	0.000108 %	✓	
	601-032-00-3	200-028-5	50-32-8							
38	indeno[123-cd]pyrene				0.59 mg/kg		0.49 mg/kg	0.000049 %	✓	
		205-893-2	193-39-5							
39	dibenz[a,h]anthracene				0.17 mg/kg		0.141 mg/kg	0.0000141 %	✓	
	601-041-00-2	200-181-8	53-70-3							
40	benzo[ghi]perylene				0.72 mg/kg		0.598 mg/kg	0.0000598 %	✓	
		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	205-881-7	191-07-1		0.2 mg/kg		0.166 mg/kg	0.0000166 %	✓	
42	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]		<0.013 mg/kg		<0.013 mg/kg	<0.0000013 %		<LOD
Total:								0.176 %		

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

Classification of sample: WS105-2-17022025-0.40

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

Sample details

Sample name:	LoW Code:
WS105-2-17022025-0.40	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.4 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
15%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 15% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		9.8 pH		9.8 pH	9.8 pH		
2	asbestos		12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		< %		< %	<		ND
3	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
4	monohydric phenols		P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
5	antimony { antimony trioxide }				1.8 mg/kg	1.197	1.832 mg/kg	0.000183 %	✓	
6	arsenic { arsenic pentoxide }				7.2 mg/kg	1.534	9.387 mg/kg	0.000939 %	✓	
7	barium { barium diboron tetraoxide }				160 mg/kg	1.623	220.792 mg/kg	0.0221 %	✓	
8	beryllium { beryllium oxide }				0.62 mg/kg	2.775	1.463 mg/kg	0.000146 %	✓	
9	boron { diboron trioxide }				0.8 mg/kg	3.22	2.19 mg/kg	0.000219 %	✓	
10	cadmium { cadmium oxide }				0.3 mg/kg	1.142	0.291 mg/kg	0.0000291 %	✓	
11	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
12	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				16 mg/kg	1.462	23.385 mg/kg	0.00234 %		

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
13	copper { dicopper oxide; copper (I) oxide }				31 mg/kg	1.126	29.667 mg/kg	0.00297 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
14	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	33 mg/kg		28.05 mg/kg	0.00281 %	✓	
	082-001-00-6									
15	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							
16	nickel { nickel sulfate }				15 mg/kg	2.637	33.618 mg/kg	0.00336 %	✓	
	028-009-00-5	232-104-9	7786-81-4							
17	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							
18	vanadium { divanadium pentaoxide; vanadium pentoxide }				21 mg/kg	1.785	31.866 mg/kg	0.00319 %	✓	
	023-001-00-8	215-239-8	1314-62-1							
19	zinc { zinc sulphate }				72 mg/kg	2.469	151.121 mg/kg	0.0151 %	✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]							
20	TPH (C6 to C40) petroleum group		TPH		49 mg/kg		41.65 mg/kg	0.00416 %	✓	
21	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
22	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
23	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
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		0.0425 mg/kg	0.00000425 %	✓	
		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				0.37 mg/kg		0.315 mg/kg	0.0000314 %	✓	
		201-581-5	85-01-8							
30	anthracene				0.09 mg/kg		0.0765 mg/kg	0.00000765 %	✓	
		204-371-1	120-12-7							
31	fluoranthene				0.54 mg/kg		0.459 mg/kg	0.0000459 %	✓	
		205-912-4	206-44-0							
32	pyrene				0.52 mg/kg		0.442 mg/kg	0.0000442 %	✓	
		204-927-3	129-00-0							
33	benzo[a]anthracene				0.29 mg/kg		0.247 mg/kg	0.0000246 %	✓	
	601-033-00-9	200-280-6	56-55-3							
34	chrysene				0.29 mg/kg		0.247 mg/kg	0.0000246 %	✓	
	601-048-00-0	205-923-4	218-01-9							
35	benzo[b]fluoranthene				0.33 mg/kg		0.281 mg/kg	0.0000281 %	✓	
	601-034-00-4	205-911-9	205-99-2							
36	benzo[k]fluoranthene				0.14 mg/kg		0.119 mg/kg	0.0000119 %	✓	
	601-036-00-5	205-916-6	207-08-9							
37	benzo[a]pyrene; benzo[def]chrysene				0.29 mg/kg		0.247 mg/kg	0.0000246 %	✓	
	601-032-00-3	200-028-5	50-32-8							
38	indeno[123-cd]pyrene				0.15 mg/kg		0.128 mg/kg	0.0000128 %	✓	
		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				0.18 mg/kg		0.153 mg/kg	0.0000153 %	✓	
		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	205-881-7	191-07-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
42	aniline	612-008-00-7	200-539-3	62-53-3	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
43	anthraquinone	606-151-00-4	201-549-0	84-65-1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
44	azobenzene	611-001-00-6	203-102-5	103-33-3	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
45	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
46	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
47	bis(2-chloroethoxy)methane		203-920-2	111-91-1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
48	2,2'-oxybis[2-chloropropane]		254-554-5	39638-32-9	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
49	4-bromophenylphenylether		202-952-4	101-55-3	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
50	carbazole		201-696-0	86-74-8	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
51	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
52	2-chloronaphthalene		202-079-9	91-58-7	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
53	dibenzofuran		205-071-3	132-64-9	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
54	2,4-dichlorophenol	604-011-00-7	204-429-6	120-83-2	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
55	diethyl phthalate		201-550-6	84-66-2	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
56	dibutyl phthalate; DBP	607-318-00-4	201-557-4	84-74-2	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
57	dimethyl phthalate		205-011-6	131-11-3	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
58	3,4-xyleneol; [1] 2,5-xyleneol; [2] 2,4-xyleneol; [3] 2,3-xyleneol; [4] 2,6-xyleneol; [5] xyleneol; [6] 2,4(or 2,5)-xyleneol [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
59	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
60	hexachlorobenzene	602-065-00-6	204-273-9	118-74-1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
61	hexachloroethane		200-666-4	67-72-1	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
62	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
63	2-methyl naphthalene		202-078-3	91-57-6	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
64	nitrobenzene	609-003-00-7	202-716-0	98-95-3	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
65	2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]	604-008-00-0	202-433-2 [1] 203-402-6 [2]	95-57-8 [1] 106-48-9 [2]	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
		203-582-6 [3] 246-691-4 [4]	108-43-0 [3] 25167-80-0 [4]							
66	2-nitrophenol	201-857-5	88-75-5		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
67	4-chloroaniline	203-401-0	106-47-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
68	4-chlorophenylphenylether	230-281-7	7005-72-3		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
69	phenol	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
70	o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]	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
71	2,4,5-trichlorophenol	202-467-8	95-95-4		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
72	2,4,6-trichlorophenol	201-795-9	88-06-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
73	2,6-dinitrotoluene	210-106-0	606-20-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
74	bromodichloromethane	200-856-7	75-27-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
75	bromobenzene	203-623-8	108-86-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
76	bromomethane; methylbromide	200-813-2	74-83-9		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
77	1,2,4-trichlorobenzene	204-428-0	120-82-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
78	mesitylene; 1,3,5-trimethylbenzene	203-604-4	108-67-8		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
79	n-butylbenzene	203-209-7	104-51-8		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
80	1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
81	chlorobenzene	203-628-5	108-90-7		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
82	chloroethane	200-830-5	75-00-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
83	chloromethane; methyl chloride	200-817-4	74-87-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
84	1,2-dibromoethane	203-444-5	106-93-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
85	dibromochloromethane	204-704-0	124-48-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
86	1,2-dibromo-3-chloropropane	202-479-3	96-12-8		<0.008 mg/kg		<0.008 mg/kg	<0.0000008 %		<LOD
87	dibromomethane	200-824-2	74-95-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
88	1,1-dichloroethane	200-863-5	75-34-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
89	1,1-dichloroethylene; vinylidene chloride	200-864-0	75-35-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
90	1,2-dichloroethane; ethylene dichloride	203-458-1	107-06-2		<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
91	2,2-dichloropropane	209-832-0	594-20-7		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
92	1,1-dichloropropene	209-253-3	563-58-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<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							
93	1,3-dichloropropane	205-531-3	142-28-9		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
94	1,1,2-trichlorotrifluoroethane	200-936-1	76-13-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
95	hexachlorobutadiene	201-765-5	87-68-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
96	cumene	601-024-00-X	202-704-5	98-82-8	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
97	1-isopropyl-4-methylbenzene; p-cymene	601-094-00-1	202-796-7	99-87-6	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
98	1,3-dichlorobenzene	602-067-00-7	208-792-1	541-73-1	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
99	Propylbenzene	203-132-9	103-65-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
100	1,2-dichlorobenzene; o-dichlorobenzene	602-034-00-7	202-425-9	95-50-1	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
101	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
102	1,2-dichloropropane; propylene dichloride	602-020-00-0	201-152-2	78-87-5	<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
103	sec-butylbenzene	205-227-0	135-98-8		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
104	styrene	601-026-00-0	202-851-5	100-42-5	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
105	tert-butylbenzene	202-632-4	98-06-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
106	bromoform; tribromomethane	602-007-00-X	200-854-6	75-25-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
107	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
108	1,2,3-trichlorobenzene	201-757-1	87-61-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
109	trichloroethylene; trichloroethene	602-027-00-9	201-167-4	79-01-6	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
110	trichlorofluoromethane	200-892-3	75-69-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
111	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
112	chloroform; trichloromethane	602-006-00-4	200-663-8	67-66-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
113	trans-1,3-dichloropropene	431-460-4	10061-02-6		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
114	tetrachloroethylene	602-028-00-4	204-825-9	127-18-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
115	carbon tetrachloride; tetrachloromethane	602-008-00-5	200-262-8	56-23-5	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
116	1,1,1,2-tetrachloroethane	211-135-1	630-20-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
117	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
118	vinyl chloride; chloroethylene	602-023-00-7	200-831-0	75-01-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
119	1,1,2-trichloroethane	602-014-00-8	201-166-9	79-00-5	<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
120	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]	<0.013 mg/kg		<0.013 mg/kg	<0.0000013 %		<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										
121	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]	108-39-4 [1]											
		202-423-8 [2]	95-48-7 [2]											
		203-398-6 [3]	106-44-5 [3]											
		215-293-2 [4]	1319-77-3 [4]											
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]	540-59-0 [1]											
		205-859-7 [2]	156-59-2 [2]											
		205-860-2 [3]	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]	95-49-8 [1]											
		203-580-5 [2]	108-41-8 [2]											
		203-397-0 [3]	106-43-4 [3]											
		246-698-2 [4]	25168-05-2 [4]											
Total:									0.0595 %					

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 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 for cumulative determinand results below the threshold of: 860 mg/kg (0.086%) because: No liquid phase noted during site investigation.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00416%)

Classification of sample: WS105-3-17022025-1.40

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

Sample details

Sample name:	LoW Code:
WS105-3-17022025-1.40	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
1.4 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
14%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1	pH			PH		8.4 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 }					<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5										
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		2.2 mg/kg	1.197	2.265 mg/kg	0.000226 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		7.9 mg/kg	1.534	10.421 mg/kg	0.00104 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		150 mg/kg	1.623	209.428 mg/kg	0.0209 %	✓	
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		1.1 mg/kg	3.22	3.046 mg/kg	0.000305 %	✓	
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		30 mg/kg	1.462	43.847 mg/kg	0.00438 %		
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		25 mg/kg	1.126	24.207 mg/kg	0.00242 %	✓	
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 }				34 mg/kg	2.637	77.097 mg/kg	0.00771 %		✓	
	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 sulphate }				63 mg/kg	2.469	133.786 mg/kg	0.0134 %		✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
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	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								
24	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
25	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-917-1	208-96-8								
26	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-469-6	83-32-9								
27	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-695-5	86-73-7								
28	phenanthrene				0.11 mg/kg		0.0946 mg/kg	0.00000946 %		✓	
		201-581-5	85-01-8								
29	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-371-1	120-12-7								
30	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-912-4	206-44-0								
31	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-927-3	129-00-0								
32	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-033-00-9	200-280-6	56-55-3								
33	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
34	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-034-00-4	205-911-9	205-99-2								
35	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-036-00-5	205-916-6	207-08-9								
36	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								
37	indeno[123-cd]pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-893-2	193-39-5								
38	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								
39	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-883-8	191-24-2								
40	coronene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-881-7	191-07-1								
41	o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.013 mg/kg		<0.013 mg/kg	<0.0000013 %			<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [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							
		203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]							
Total:								0.0594 %		

Key

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

Classification of sample: WS107-1-17022025-0.20

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

Sample details

Sample name:	LoW Code:
WS107-1-17022025-0.20	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.2 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
32%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 32% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	pH				7 pH		7	pH	7pH		
2	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								
3	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
	006-007-00-5										
4	monohydric phenols				<1 mg/kg		<1	mg/kg	<0.0001 %		<LOD
			P1186								
5	antimony { antimony trioxide }				1.5 mg/kg	1.197	1.221	mg/kg	0.000122 %	✓	
	051-005-00-X	215-175-0	1309-64-4								
6	arsenic { arsenic pentoxide }				4.1 mg/kg	1.534	4.276	mg/kg	0.000428 %	✓	
	033-004-00-6	215-116-9	1303-28-2								
7	barium { barium diboron tetraoxide }				78 mg/kg	1.623	86.109	mg/kg	0.00861 %	✓	
	056-005-00-3	237-222-4	13701-59-2								
8	beryllium { beryllium oxide }				0.33 mg/kg	2.775	0.623	mg/kg	0.0000623 %	✓	
	004-003-00-8	215-133-1	1304-56-9								
9	boron { diboron trioxide }				1.9 mg/kg	3.22	4.16	mg/kg	0.000416 %	✓	
	005-008-00-8	215-125-8	1303-86-2								
10	cadmium { cadmium oxide }				0.3 mg/kg	1.142	0.233	mg/kg	0.0000233 %	✓	
	048-002-00-0	215-146-2	1306-19-0								
11	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086	mg/kg	<0.000409 %		<LOD
	024-017-00-8										
12	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				9.6 mg/kg	1.462	14.031	mg/kg	0.0014 %		
		215-160-9	1308-38-9								

#		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								
13	 copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	1	26 mg/kg	1.126	19.906 mg/kg	0.00199 %	✓		
14	 lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6				45 mg/kg		30.6 mg/kg	0.00306 %	✓		
15	 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	
16	 nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		8.1 mg/kg	2.637	14.523 mg/kg	0.00145 %	✓		
17	 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	
18	 vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1	1	12 mg/kg	1.785	14.567 mg/kg	0.00146 %	✓		
19	 zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		88 mg/kg	2.469	147.763 mg/kg	0.0148 %	✓		
20	 TPH (C6 to C40) petroleum group			TPH		<20 mg/kg		<20 mg/kg	<0.002 %		<LOD	
21	benzene	601-020-00-8	200-753-7	71-43-2		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
22	toluene	601-021-00-3	203-625-9	108-88-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
23	 ethylbenzene	601-023-00-4	202-849-4	100-41-4	<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	0.72 mg/kg		0.49 mg/kg	0.000049 %	✓			
30	 anthracene		204-371-1	120-12-7	0.22 mg/kg		0.15 mg/kg	0.000015 %	✓			
31	 fluoranthene		205-912-4	206-44-0	1.4 mg/kg		0.952 mg/kg	0.0000952 %	✓			
32	 pyrene		204-927-3	129-00-0	1.3 mg/kg		0.884 mg/kg	0.0000884 %	✓			
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	0.78 mg/kg		0.53 mg/kg	0.000053 %	✓			
34	chrysene	601-048-00-0	205-923-4	218-01-9	0.82 mg/kg		0.558 mg/kg	0.0000558 %	✓			
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	1.2 mg/kg		0.816 mg/kg	0.0000816 %	✓			
36	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.41 mg/kg		0.279 mg/kg	0.0000279 %	✓			
37	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	1 mg/kg		0.68 mg/kg	0.000068 %	✓			
38	 indeno[123-cd]pyrene		205-893-2	193-39-5	0.47 mg/kg		0.32 mg/kg	0.000032 %	✓			
39	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.07 mg/kg		0.0476 mg/kg	0.00000476 %	✓			
40	 benzo[ghi]perylene		205-883-8	191-24-2	0.54 mg/kg		0.367 mg/kg	0.0000367 %	✓			

#	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	205-881-7	191-07-1		0.2 mg/kg		0.136 mg/kg	0.0000136 %	✓	
42	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]		<0.013 mg/kg		<0.013 mg/kg	<0.0000013 %		<LOD
Total:								0.0374 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated 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

Classification of sample: WS108-1-17022025-0.40

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

Sample details

Sample name:	LoW Code:
WS108-1-17022025-0.40	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.4 m	
Moisture content:	
14%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		10.3 pH		10.3 pH	10.3 pH		
2	asbestos		12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		< %		< %	<		ND
3	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
4	monohydric phenols		P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
5	antimony { antimony trioxide }				2.3 mg/kg	1.197	2.368 mg/kg	0.000237 %	✓	
6	arsenic { arsenic pentoxide }				8.2 mg/kg	1.534	10.817 mg/kg	0.00108 %	✓	
7	barium { barium diboron tetraoxide }				130 mg/kg	1.623	181.504 mg/kg	0.0182 %	✓	
8	beryllium { beryllium oxide }				0.74 mg/kg	2.775	1.766 mg/kg	0.000177 %	✓	
9	boron { diboron trioxide }				0.6 mg/kg	3.22	1.661 mg/kg	0.000166 %	✓	
10	cadmium { cadmium oxide }				0.2 mg/kg	1.142	0.196 mg/kg	0.0000196 %	✓	
11	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
12	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				23 mg/kg	1.462	33.616 mg/kg	0.00336 %		

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
13	 copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	1	30 mg/kg	1.126	29.048 mg/kg	0.0029 %	✓	
14	 lead {  lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6				43 mg/kg		36.98 mg/kg	0.0037 %	✓	
15	 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
16	 nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		21 mg/kg	2.637	47.619 mg/kg	0.00476 %	✓	
17	 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
18	 vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		22 mg/kg	1.785	33.776 mg/kg	0.00338 %	✓	
19	 zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		62 mg/kg	2.469	131.663 mg/kg	0.0132 %	✓	
20	 TPH (C6 to C40) petroleum group			TPH		<20 mg/kg		<20 mg/kg	<0.002 %		<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
23	 ethylbenzene	601-023-00-4	202-849-4	100-41-4		<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		0.38 mg/kg		0.327 mg/kg	0.0000327 %	✓	
30	 anthracene		204-371-1	120-12-7		0.07 mg/kg		0.0602 mg/kg	0.00000602 %	✓	
31	 fluoranthene		205-912-4	206-44-0		0.72 mg/kg		0.619 mg/kg	0.0000619 %	✓	
32	 pyrene		204-927-3	129-00-0		0.74 mg/kg		0.636 mg/kg	0.0000636 %	✓	
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.33 mg/kg		0.284 mg/kg	0.0000284 %	✓	
34	chrysene	601-048-00-0	205-923-4	218-01-9		0.37 mg/kg		0.318 mg/kg	0.0000318 %	✓	
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.38 mg/kg		0.327 mg/kg	0.0000327 %	✓	
36	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.17 mg/kg		0.146 mg/kg	0.0000146 %	✓	
37	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.32 mg/kg		0.275 mg/kg	0.0000275 %	✓	
38	 indeno[123-cd]pyrene		205-893-2	193-39-5		0.14 mg/kg		0.12 mg/kg	0.000012 %	✓	
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		0.17 mg/kg		0.146 mg/kg	0.0000146 %	✓	

#	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	205-881-7	191-07-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
42	aniline	612-008-00-7	200-539-3	62-53-3	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
43	anthraquinone	606-151-00-4	201-549-0	84-65-1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
44	azobenzene	611-001-00-6	203-102-5	103-33-3	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
45	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
46	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
47	bis(2-chloroethoxy)methane		203-920-2	111-91-1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
48	2,2'-oxybis[2-chloropropane]		254-554-5	39638-32-9	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
49	4-bromophenylphenylether		202-952-4	101-55-3	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
50	carbazole		201-696-0	86-74-8	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
51	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
52	2-chloronaphthalene		202-079-9	91-58-7	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
53	dibenzofuran		205-071-3	132-64-9	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
54	2,4-dichlorophenol	604-011-00-7	204-429-6	120-83-2	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
55	diethyl phthalate		201-550-6	84-66-2	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
56	dibutyl phthalate; DBP	607-318-00-4	201-557-4	84-74-2	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
57	dimethyl phthalate		205-011-6	131-11-3	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
58	3,4-xyleneol; [1] 2,5-xyleneol; [2] 2,4-xyleneol; [3] 2,3-xyleneol; [4] 2,6-xyleneol; [5] xyleneol; [6] 2,4(or 2,5)-xyleneol [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
59	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
60	hexachlorobenzene	602-065-00-6	204-273-9	118-74-1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
61	hexachloroethane		200-666-4	67-72-1	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
62	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
63	2-methyl naphthalene		202-078-3	91-57-6	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
64	nitrobenzene	609-003-00-7	202-716-0	98-95-3	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
65	2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]	604-008-00-0	202-433-2 [1] 203-402-6 [2]	95-57-8 [1] 106-48-9 [2]	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
		203-582-6 [3] 246-691-4 [4]	108-43-0 [3] 25167-80-0 [4]							
66	2-nitrophenol	201-857-5	88-75-5		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
67	4-chloroaniline	203-401-0	106-47-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
68	4-chlorophenylphenylether	230-281-7	7005-72-3		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
69	phenol	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
70	o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]	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
71	2,4,5-trichlorophenol	202-467-8	95-95-4		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
72	2,4,6-trichlorophenol	201-795-9	88-06-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
73	2,6-dinitrotoluene	210-106-0	606-20-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
74	bromodichloromethane	200-856-7	75-27-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
75	bromobenzene	203-623-8	108-86-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
76	bromomethane; methylbromide	200-813-2	74-83-9		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
77	1,2,4-trichlorobenzene	204-428-0	120-82-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
78	mesitylene; 1,3,5-trimethylbenzene	203-604-4	108-67-8		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
79	n-butylbenzene	203-209-7	104-51-8		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
80	1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
81	chlorobenzene	203-628-5	108-90-7		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
82	chloroethane	200-830-5	75-00-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
83	chloromethane; methyl chloride	200-817-4	74-87-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
84	1,2-dibromoethane	203-444-5	106-93-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
85	dibromochloromethane	204-704-0	124-48-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
86	1,2-dibromo-3-chloropropane	202-479-3	96-12-8		<0.008 mg/kg		<0.008 mg/kg	<0.0000008 %		<LOD
87	dibromomethane	200-824-2	74-95-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
88	1,1-dichloroethane	200-863-5	75-34-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
89	1,1-dichloroethylene; vinylidene chloride	200-864-0	75-35-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
90	1,2-dichloroethane; ethylene dichloride	203-458-1	107-06-2		<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
91	2,2-dichloropropane	209-832-0	594-20-7		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
92	1,1-dichloropropene	209-253-3	563-58-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<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							
93	1,3-dichloropropane	205-531-3	142-28-9		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
94	1,1,2-trichlorotrifluoroethane	200-936-1	76-13-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
95	hexachlorobutadiene	201-765-5	87-68-3		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
96	cumene	601-024-00-X	202-704-5	98-82-8	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
97	1-isopropyl-4-methylbenzene; p-cymene	601-094-00-1	202-796-7	99-87-6	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
98	1,3-dichlorobenzene	602-067-00-7	208-792-1	541-73-1	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
99	Propylbenzene	203-132-9	103-65-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
100	1,2-dichlorobenzene; o-dichlorobenzene	602-034-00-7	202-425-9	95-50-1	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
101	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
102	1,2-dichloropropane; propylene dichloride	602-020-00-0	201-152-2	78-87-5	<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
103	sec-butylbenzene	205-227-0	135-98-8		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
104	styrene	601-026-00-0	202-851-5	100-42-5	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
105	tert-butylbenzene	202-632-4	98-06-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
106	bromoform; tribromomethane	602-007-00-X	200-854-6	75-25-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
107	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
108	1,2,3-trichlorobenzene	201-757-1	87-61-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
109	trichloroethylene; trichloroethene	602-027-00-9	201-167-4	79-01-6	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
110	trichlorofluoromethane	200-892-3	75-69-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
111	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
112	chloroform; trichloromethane	602-006-00-4	200-663-8	67-66-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
113	trans-1,3-dichloropropene	431-460-4	10061-02-6		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
114	tetrachloroethylene	602-028-00-4	204-825-9	127-18-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
115	carbon tetrachloride; tetrachloromethane	602-008-00-5	200-262-8	56-23-5	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
116	1,1,1,2-tetrachloroethane	211-135-1	630-20-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
117	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
118	vinyl chloride; chloroethylene	602-023-00-7	200-831-0	75-01-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
119	1,1,2-trichloroethane	602-014-00-8	201-166-9	79-00-5	<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
120	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]	<0.013 mg/kg		<0.013 mg/kg	<0.0000013 %		<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									
121	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]	108-39-4 [1]										
		202-423-8 [2]	95-48-7 [2]										
		203-398-6 [3]	106-44-5 [3]										
		215-293-2 [4]	1319-77-3 [4]										
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]	540-59-0 [1]										
		205-859-7 [2]	156-59-2 [2]										
		205-860-2 [3]	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]	95-49-8 [1]										
		203-580-5 [2]	108-41-8 [2]										
		203-397-0 [3]	106-43-4 [3]										
		246-698-2 [4]	25168-05-2 [4]										
Total:									0.0552 %				

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 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

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

▪ **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

 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

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) / 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. Worst 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) / 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 sulphate}

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) / 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: 2025.60.6473.11801 (01 Mar 2025)

HazWasteOnline Database: 2025.60.6473.11801 (01 Mar 2025)

This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

CLP Regulation - Regulation 1272/2008/EC of 16 December 2008

1st ATP - Regulation 790/2009/EC of 10 August 2009

2nd ATP - Regulation 286/2011/EC of 10 March 2011

3rd ATP - Regulation 618/2012/EU of 10 July 2012

4th ATP - Regulation 487/2013/EU of 8 May 2013

Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013

5th ATP - Regulation 944/2013/EU of 2 October 2013

6th ATP - Regulation 605/2014/EU of 5 June 2014

WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014

Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014

7th ATP - Regulation 2015/1221/EU of 24 July 2015

8th ATP - Regulation (EU) 2016/918 of 19 May 2016

9th ATP - Regulation (EU) 2016/1179 of 19 July 2016

10th ATP - Regulation (EU) 2017/776 of 4 May 2017

HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017

13th ATP - Regulation (EU) 2018/1480 of 4 October 2018

14th ATP - Regulation (EU) 2020/217 of 4 October 2019

15th ATP - Regulation (EU) 2020/1182 of 19 May 2020

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit)

Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020

The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020

GB MCL List - version 1.1 of 09 June 2021

GB MCL List v2.0 - version 2.0 of 20th October 2023

GB MCL List v3.0 - version 3.0 of 11th January 2024

GB MCL List v4.0 - version 4.0 of 2nd March 2024

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

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 Practice¹.

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 guidance¹.

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 guidance¹. 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 worst 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.

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